

**Maritime and Underwater Cultural Heritage
in the Arab Region 9/2**

**UNDERWATER CULTURAL HERITAGE IN ALGERIA
THE VESTIGES OF THE FIRST WORLD WAR AS AN EXAMPLE**

Article 3

Ikram Harouni

Senior lecturer at the Faculty of Social Sciences/University of Algiers 2, Abou El Kacem Saadallah, Algeria.
ikramdivinci@gmail.com

ARTICLE INFO: Received 18-02-2024; revised 22-05-2024; accepted 28-05-2024.
Available Online 01-06-2024

RECOMMENDED CITATION

HAROUNI, I.: «Underwater Cultural Heritage in Algeria The Vestiges of the First World War as an Example»,
Journal of the General Union of Arab Archaeologists 9/2, 2024, 40-52. Doi: 10.21608/jguaa2.2024.271005.1176



UNDERWATER CULTURAL HERITAGE IN ALGERIA THE VESTIGES OF THE FIRST WORLD WAR AS AN EXAMPLE

ABSTRACT

[AR]

التراث الثقافي المغمور بالمياه في الجزائر: آثار الحرب العالمية الأولى نموذجاً

تتزين سواحل الجزائر ببقايا مخلفات الحرب العالمية الأولى، التي تعتبر وفقاً لاتفاقية اليونسكو تراثاً ثقافياً مغموراً يجب حمايته واستغلاله. ومع ذلك، فإن الجزائر تفتقر إلى قائمة بمواقعها الأثرية المغمورة خلال تلك الفترة، إضافة إلى قلة الدراسات والأبحاث في هذا المجال. وعليه، يهدف هذا البحث إلى معالجة هذه الفجوة من خلال توثيق وتحديد بعض مواقع السفن والغواصات الحربية الغارقة قبالة السواحل الجزائرية. وذلك بالاعتماد على السجلات والمحفوظات البحرية في الموقع الرسمي للبحرية الفرنسية في «بريست»، بالإضافة إلى الاستعانة ببعض المراجع التي تناولت الحروب البحرية العسكرية في البحر الأبيض المتوسط. كما يهدف هذا البحث إلى تقديم رؤية جديدة حول تاريخ الجزائر البحري خلال الحرب العالمية الأولى وإثراء فهمنا لأهمية موقع الجزائر الإستراتيجية. كما سيقتراح توصيات لحماية واستغلال التراث البحري المغمور في تعزيز التنمية السياحية في الجزائر.

[EN] The Algerian coasts are full of material remains of the First World War, considered according to the UNESCO convention as underwater cultural heritage to be protected and exploited. However, Algeria lacks an inventory of its submerged sites during this period, in addition to the lack of studies and research in this area. Therefore, this research aims to fill this gap by documenting and locating some sites of sunken military ships and submarines off the Algerian coast. It will be based on the archives and documents of the website of the French Navy of Brest, as well as certain references dealing with military naval wars in the Mediterranean. It also aims to shed light on the maritime history of Algeria during World War I and to enrich our understanding of the strategic importance of Algeria's geographical position. It will also propose recommendations for the protection and enhancement of this underwater heritage to promote the development of tourism in Algeria.

KEYWORDS: Algeria, world war I, protection of submerged heritage, sunken ship artifacts, tourism development, Underwater Cultural heritage.

I. INTRODUCTION

Underwater cultural heritage is considered one of the material treasures of the past and one of the most important sources for understanding ancient civilizations and human history.

UNESCO emphasizes that the importance of submerged cultural heritage lies in the fact that it is considered an integral part of the vocabulary of human cultural heritage, an extremely important element in shaping the history of certain peoples and nations, and a mirror reflecting historical or modern relations between peoples.

Since 2001, this heritage has come within the scope of the UNESCO Convention relating to the protection of underwater cultural heritage, which was approved and defined as: «all traces of human existence presenting a cultural character, historical or archaeological which, for at least 100 years, have been submerged, partially or totally, periodically or permanently, under the oceans as well as in lakes and rivers»¹.

The seas are full of remains from past wars, particularly from the First and Second World Wars. The seabed is home to the remains of many ships, planes and submarines that sunk during these events, as well as their equipment and weapons. Although decades have passed since their sinking, but many still retain their original shape underwater. These wrecks have submerged historical archives through which the details of the conflicts can be explored and studied.

The Algerian coastline, which extends from El Kala in the east to Marsa Ben Mahīdī in the west over a distance of 1,622 kilometers, contains numerous submerged archaeological sites dating from different historical periods, notably Phoenician, Roman and Ottoman. But also, several from the conflicts of the 20th century, mainly between 1914 and 1948². These coasts have been the scene of many military events, during which many ships and submarines have sunk, taking with them weapons, military equipment as well as various wrecks of war [FIGURE 1].



<https://www.naval-history.net/WW2CampaignsRNMed3.htm>. Accessed on (01/04/2024)

¹ United Nations Educational, Scientific and Cultural Organization, «the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage» 2001. <http://www.unesco.org/new/en/culture/themes/underwater-cultural-heritage/2001-convention/official-text/> Accessed on (10/11/2023).

² REPUBLIQUE ALGERIENNE 2015: 16.

Today, these wrecks could form a submerged museum along the Algerian coast. The study of these submerged marine remains is of capital importance for understanding the history of the region, by establishing links between the different events. This also contributes to the preservation of the cultural and historical heritage of the area and offers scientists and researchers the opportunity to discover new secrets buried under the sea.

However, maritime historical research in Algeria suffers from a lack of studies and research on sunken warships, particularly during the First World War. Until now, research efforts have focused on the historical and political aspects of these military conflicts, without adequately addressing the maritime aspects.

Algeria, like many other countries in the world, does not yet have a list of its underwater archaeological sites. Some sites may be known to some divers, but serious scientific exploration and research have been very rare³. Through this research, we will attempt to fill this gap by lifting the veil on the toll of the wrecks of warships sunk during the First World War and by locating the location of certain ships and submarines sunk, relying on official documents from the Brest naval archives⁴.

In addition to supporting some references dealing with the naval history of World War I, the results of this research will provide valuable information and new details on the history of the military navy off the coast of Algeria. This research will also enrich our knowledge of this decisive period and help us understand the importance of the Algerian coasts during World War I. The article will also propose recommendations for the protection of underwater heritage and explore ways to promote it from a tourism development perspective. This research aims to provide answers to the following questions: Which are World War I wrecks along the Algerian coast and how can we preserve these underwater sites and exploit them to promote the tourism sector in Algeria?

II. THE MEDITERRANEAN SEA, THEATER OF WORLD WAR I

The Mediterranean Sea was the scene of the most important events of the First World War due to its geostrategic location, located between three continents - Europe, Asia and Africa - the Mediterranean connects several seas and oceans via the Strait of Gibraltar and the Suez Canal. The Mediterranean Sea is a vast inland sea that covers a total area of approximately three million square kilometers and lies between latitudes 46° and longitudes 5.50° west and 36° east.

The Mediterranean Sea therefore communicates with the oceans through the Strait of Gibraltar and the Suez Canal, while the Bosphorus and Dardanelles straits, which control the movement of ships between the oceans, connect the Mediterranean to the enclosed Black Sea via the sea of Marmara. The length of the Mediterranean Sea is 3,800 km and its greatest width is 800 km between the Gulf of Genoa and Tunisia. Its total area is approximately 3 million km². This position makes it a region of great commercial

³ KHELLAF 2016: 05-15.

⁴ «La Première Guerre mondiale (1914-1918) Un conflit mondial et mécanique, chemins de mémoire», <https://www.cheminsdememoire.gouv.fr/fr/la-premiere-guerre-mondiale-1914-1918-0>, Accessed on (08/10/2023).

and military importance⁵. This central positioning made it the preferred area of confrontation for the Allied navies and the Central Powers. The British, French and Italian navies on the one hand, thus confronted the German, Austro-Hungarian and Ottoman navies on the other hand within this vast semi-enclosed sea⁶.

The historian «Yves Robin» emphasized that World War I represented a major turning point in the practice of naval warfare. This conflict witnessed the transition from the traditional navy of the 19th century to a more modern navy⁷.

In the early part of the war, control of the seas was achieved primarily through the use of modern naval battleships, known as «dreadnoughts». Submarines were initially used as coast guard vessels, particularly stationed in front of seaports. Britain quickly deployed its submarines to the North Sea to assist in the naval blockade of Germany. German U-boats also patrolled the English Channel and the North Sea searching for Entente warships, hoping to help rebalance the existing naval force⁸.

On February 4, 1915, Germany declared for the first time all-out submarine warfare to cut off Allied supplies from colonies and neutral countries. However, incidents occurred during this campaign, the most famous of which was the sinking of the liner *Lusitania*, during which around a hundred Americans perished. Faced with protests, Germany was forced to suspend its campaign on September 18, 1915. It restarted in 1917. In 1917, Germany initiated comprehensive and unrestricted submarine warfare, resulting in the sinking of hundreds of merchant ships belonging to the Allies, along with their valuable cargo⁹.

As it is well known, submarines played a major role during World War I, having evolved from a defensive tool for protecting ports and coasts to a powerful weapon of attack. Indeed, German submarines caused enormous losses of lives and merchant ships for the Allies. As a result, the United States of America entered the war on the side of the Allies¹⁰.

The battle against the submarines continued until the end of World War I, contributing to Germany's defeat due to its inability to cut the Allied maritime supply lines. The war ended with the Allies sinking more German U-boats and building more ships than were sunk.¹¹

World War I also saw the beginnings of military aviation, where aircraft were used in naval battles for reconnaissance and bombing purposes in a limited manner at first. As technology evolved during the war, aircraft missions diversified to include aerial warfare, with the emergence of fighters to intercept enemy aircraft. The use of

⁵ DEDEYAN 2023: «La Méditerranée, espace et enjeu d'affrontements». <https://www.charles-de-gaulle.org/blog/2023/05/08/la-mediterranee-espace-et-enjeu-daffrontements/> Accessed on (30/6/2023).

⁶ Ministère des armées 2024: 6

⁷ ROUBIN 2014: 7.

⁸ MENAPACE 2017: «Guerre sous-marine à outrance». BNF, <https://gallica.bnf.fr/blog/01022017/guerre-sous-marine-outrance?mode=desktop> Accessed on (01/03/2024).

⁹ HINZELIN 1916: 26.

¹⁰ CHACK 1970 :38.

¹¹ KARAU 2014: 1-3.

bombers for attacks on troops and military positions has also increased, as did the use of aircraft against submarines¹²

During the period of conflict, the coasts of western North Africa, including the coasts of Algeria, played a central role in hosting the most important naval battles, as its waters, witnessed the sinking of many ships, submarines and warplanes of different types. These remains still lie in the waters of the Algerian coast, testifying to the intensity of the bloody battles and wars that the region witnessed. They are now part of the historical heritage of this era and allow divers to discover certain details of these wars through them.

In the next few pages, we will present some of the most important naval events that took place on the Algerian coast, including the naval battles that resulted in the sinking of many ships and submarines.

III. THE ALGERIAN COASTS DURING THE FIRST WORLD WAR: SCENE OF VIOLENT NAVAL BATTLES

The Algerian coast enjoys an important strategic geographical location due to its proximity to the southern European coasts, which gave it great importance in naval operations during World War I. France exploited this position by establishing several naval bases along the Algerian coastline¹³.

These bases included facilities for the French submarine fleet, in addition to bases for warships like destroyers and cruisers. They were provided with all the necessary infrastructure and facilities, such as docks and warehouses. The main ports like Béjaïa, Algiers and Cherchell, were also mobilized for the deployment of troops and the transport of supplies, equipment and ammunition to the combat fronts.

At the end of 1915 and given the strategic importance of the city of Algiers for the defense of French North Africa, which was then the main military lock in the region and a nerve center for radio communications and intelligence, it was proposed to immediately provide Algiers with a significant fixed and mobile defense, including light cruisers, high-speed destroyers, torpedo boats and submarines. It was planned to add a gunpowder factory, and an arms, shells, and ammunition factory. The port of Algiers was to benefit from centralized defense and response against light ships and submarines in the western Mediterranean basin, concentrating all specialist equipment. Some types of defenses were also recommended in «Oran, Arzew, Ténès, Bougie, Philippeville and Bone», with the following objectives:

- Protect important coastal sites such as towns, ports, or radio stations.
- Impede the movement of German submarines and prevent them from operating on the surface in certain areas.
- Provide sea surveillance and intelligence for naval patrol forces.
- Protect coastal routes and create safe areas for ships and fishermen.

¹² KERISEL & KERISE 2001: 15–26.

¹³ PELLEGRINETTI 2021: 130-139.

France relied on these naval bases as a starting point for many of its naval operations during the war, (there were no such convoys in the area during WWI, only in WWII) The decision was also taken to create a naval aviation center near the power station of the port of Algiers on November 10, 1916. The Grégoire company was entrusted with carrying out the work and the initial center was expanded in April 1917.

From then on, the North African air patrols in the Mediterranean were based on Oran Center (and affiliated centers in Nemour and Mostaganem), Arzou Center (Cherchal Center), Algiers Center (Tennis Centers and Bejaia), Jijel Center, Bouna Center (Collo Center).

The subcenters were equipped with warehouses and stands for seaplanes to operate and their main tasks were: surveillance of maritime routes, escort of convoys, reconnaissance, search for mines and attack on submarines. However, the number of aircraft operating at each center was limited.

In 1917, the parliamentary session held on April 17 drew the attention of the Minister of the Navy to the interest of installing a cannon on the Algerian coast between Pointe Rouge and Cape Magrana. The objective was to block secluded places in the area from a German submarine which visited them regularly.

The establishment of a number of coastal defense positions prevented at least one ship from being sunk and repelled several German U-boat incursions. On June 24, 1918, the French Minister of the Navy published a program aimed at improving the coastal armament of the six ports of Corus and Algiers. He set as his first priority the immediate replacement of small-caliber guns with 155 mm and 120 mm guns, as well as the replacement of field gun bases with ship bases offering better guidance and rapid-fire capabilities¹⁴. During the war period 1914-1918, the Algerian coast witnessed several naval military operations and clashes took place in the region, the most significant of which are:

▪ **The Shelling of Bône and Philippeville in 1914**

This event of August 4, 1914, marks the start of the hostilities of the First World War on Algerian soil. The German cruisers *Goeben* and *Breslau*, refuelled in Messina the day before, set sail on the night of August 3 for the Algerian coast to carry out actions there, well before the official declaration of war¹⁵.

Very early in the morning of August 4, the watchman of the port of Bône saw the *Breslau* approaching at a slow speed and without lights. At 4:08 a.m., he opened fire on the city, causing the first French casualty of the conflict in the person of André Gaglione. Shortly after, it was the «*Goeben's*» turn to bombard Philippeville. Off the coast of Bône', the merchant ship «*Saint Thomas*» came under attack and was sunk with 11 German shells, which injured 4 sailors. Around a hundred projectiles fell on the station, houses, and other buildings, resulting in five additional injuries. These surprise attacks by German cruisers constitute the first deadly episode of the Great War on Algerian soil¹⁶.

¹⁴ SAFFROY 2015: 101-194a.

¹⁵ KOPP 1931: 20-22.

¹⁶ «Le bombardement de Bone et de Philippeville en 1914». <https://cdha.fr/les-bombardements-de-bone-et-philippeville-en-1914> . Accessed on (23/05/2023).

▪ **Algiers Clash on May 8, 1918**

On May 8, 1918, another naval clash took place off the coast of Algiers between the Entente forces and German submarines. An American auxiliary cruiser and a British destroyer conducting an anti-submarine patrol spotted the German submarine UB-70. Where she was chased and eventually sunk.

Initially, the outcome of the combat was uncertain, as surface ships were unsure if they had sunk their submerged opponent. However, they were later credited with sinking the submarine UB-70, the first success of such a submarine hunting operation off the coast of Algiers. This engagement on May 8, 1918, known as the «Battle of Algiers», illustrates the fighting by Allied naval forces in the Mediterranean to expel enemy submarines from their operational areas off the coast of North Africa.

**IV. MEMORY OF CONFLICTS AT THE HEART OF THE MEDITERRANEAN: THE
REMAINS OF THE SHIPWRECKS OF 14-18 OFFSHORE ALGERIA**

The Algerian coast holds enormous historical shipwrecks and archaeological sites associated with the First World War. Records indicate that approximately 200 ships were sunk due to German U-boat attacks during this period.

These submerged remains are silent testimonies to the conflict that the region has witnessed. It also highlights the importance of Algeria's strategic location and the extent of naval military activity at that time.

The National Archaeological Map listing the maritime heritage submerged during World War I suffers from a significant lack of referencing of submerged sites, which illustrates the urgent need for research work and a systematic inventory of wrecks dating from this period.

Through our research on certain official documents available from the naval archives in Brest, and relying on some documentation dealing with the naval military conflict in the Mediterranean during World War I¹⁷, we will attempt to present a list of warships and merchant ships that sunk off the Algerian coast during this historical period:

▪ **September 9, 1915: The Steamers *Aude* and *Mostaganem* were Sunk by the Submarine U-39 off the Coast of Oran**

On September 7, 1914, the German submarine U-39 crossed the Strait of Gibraltar. On the morning of the 9th, at 1:30 p.m., he was 85 nautical miles northeast of Oran, facing the French steamers *Aude* and *Mostaganem*. After firing a warning shot with its gun the submarine stopped the two ships and evacuated their crews to the lifeboats. Then, he sunk both ships¹⁸.

▪ **November 4, 1915: The Ship *Calvados* was Sunk off the Coast of Algiers**

On November 4, 1915, off the coast of Algiers, the troop transport *Calvados*, which left Marseille to reach Oran, was sunk by the U-38 of Lieutenant Max Valentiner. The Senegalese battalion was transporting lost bodies and property. This tragedy caused

¹⁷ SAFFROY 2015: 101-194b.

¹⁸ Entreprises-coloniales Française 2023.

strong emotion which led the Minister of the Navy to suspend all transport between France and Algeria.

▪ **November 5, 1915, the Steamer *Sidi Ferruche* Sunk off the Algerian Coast**

On November 5, the steamer '*Sidi Ferruch* was also sunk by gunfire from the German submarine U-38 (Max Valentiner), 42 miles from Algiers. There were no casualties, and the boats were recovered a short time later¹⁹.

▪ **August 31, 1915, the Steamer *Bacchus* Sunk off the town of Cherchell, on the West Coast of Algeria²⁰**

On August 31, 1915, the steamer *Bacchus* (3,583 tons) was sunk by cannon fire by a submarine, 67 miles north of Cherchell.

At the end of February 1916, the German submarine U-38, commanded by Lieutenant Valentiner, carried out a patrol off the coast of Algeria. Between February 27 and March 1, U-38 sunk three ships near Algeria, as part of its operations to attack 10 ships in that region. This was one of the manifestations of intense German military activity in the Mediterranean during January and February 1916.

▪ **April 3, 1916, Two British Cargo Ships Sunk off the Coast of Bône - Annaba - Eastern Algeria.**

In April and May 1916 attacks continued in the western Mediterranean basin, where the density of traffic represented prime bait for the enemy. U-34, after leaving Pola in the Adriatic, on March 27, the submarine sunk two English cargo ships off Bône on April 3.

▪ **April 5, 1916, the Ship SS *Chantala* Sunk off shore.**

On April 5, 1916, the ship *Chantala* sunk off the coast of Algiers in the evening by the U-34.

▪ **May 1916: Several Ships Sunk off the Coast of Oran.**

After the German submarine U-34 sunk the ship SS *Chantala* off the coast of Algiers and sunk two British cargo ships off the coast of Annaba-Bouna in eastern Algeria, the submarine headed to the west coast of Algeria, and sunk several other ships off the coast of Oran and Barcelona.

▪ **July 1916: 18 Steamboats Sunk along the Algerian-Tunisian Coast.**

From July 12, after ten days of cruising along the coasts of Algeria-Tunisia, -the Plane, the U-39 destroyed 18 steamers with its gun²¹.

¹⁹ B.N.F GALLICA: 2023.

²⁰ B.N.F GALLICA 2023.

²¹ B.N.F GALLICA A 2023.

- **November 16, 1917, the French Cargo Ship SS *Kabylie* Sunk off the Coast of Béjaïa - North-Eastern Algeria.**²²

On November 16, 1917, the French cargo ship SS *Kabylie* was sunk by the German submarine U-35 off the coast of Béjaïa. All 22 crew members perished in the sinking²³.

- **June 19, 1918, the UK Auxiliary Cruiser *Himalaya* Sunk off the Coast of Algiers.**

The auxiliary cruiser *Himalaya* was in turn torpedoed by U-38 and sunk off the coast of Algeria on June 19, 1918. This list represents only a few examples, and it is very likely that the wrecks of many other warships and merchant ships are scattered at the bottom of the Algerian Mediterranean. This highlights the necessity for further research to explore these wrecks.

V. UNDERWATER HERITAGE IN ALGERIA BETWEEN REALITY AND CHALLENGES

Algeria is considered one of the countries rich in its diverse cultural heritage, in addition to its richness in many underwater sites, which are included on the UNESCO World Heritage List. The first research to discover underwater heritage was carried out in Algeria in 2005, when it made it possible to discover the site of the sinking of the *Sphinx* (a ship belonging to the French Royal Navy, stranded at Cape Mativo, east of Algiers), also the site of the sinking of another ship - undated - and of a ship, a small one containing ten sharpening stones each weighing around 800 kg and probably intended for oil mills. Both sites are located in La Marsa, near Algiers.



[Http://worldatwar.net/chandelle/v3/v3n1/frcoin.html](http://worldatwar.net/chandelle/v3/v3n1/frcoin.html). Accessed on 01/04/2024

Convinced of the extreme importance of preserving this heritage, Algeria, like other countries, seeks to ensure the protection necessary for the preservation of its submerged marine cultural heritage, through several legal and institutional means. Algeria has promulgated Law N^o.04-98 relating to the protection of this heritage, in

²² B.N.F GALLICA A 2023.

²³ B.N.F GALLICA A 2023.

addition to ratifying the 2001 UNESCO Convention, which establishes international principles for its protection²⁴.

The protection of this heritage has also been supported by legislative measures. The Algerian Republic has announced that the command of the Algerian naval forces is the sole recipient of information relating to the discovery or intervention in underwater cultural heritage located in the exclusive economic zone, or on the continental shelf of another State Party.

Threats to underwater cultural heritage are relatively recent. The aquatic environment has ensured total protection of underwater cultural heritage against human or natural activities. However, with the development of underwater technology after the end of World War II, it became easy to access and exploit these antiquities illegally.

According to Aznar Gomez, the threats to underwater cultural heritage can be grouped into two main categories: «accidental» threats and «non-accidental» threats. The first group mainly includes potential impacts on fishing, public or private works, industrial activities, the laying of pipelines or geological research²⁵.

However, the most serious threats to underwater cultural heritage are those that can be described as «non-accidental» threats, which come from treasure hunting and organized looting of archaeological objects at the bottom of the sea. These harmful activities are practiced due to the enormous economic benefits they can generate. Unfortunately, such activities damaging to underwater cultural heritage are still encouraged in some places²⁶.

The submerged marine heritage of the Algerian coast faces similar threats, making the process of protecting this underwater heritage a major challenge. This is due to the significant technical, technological and financial requirements needed for preservation and protection work involving the detection of archaeological sites under the sea. Achieving, this protection also requires the availability of specialized human skills in this domain.

The promotion of this heritage faces numerous challenges, the most important of which are:

- The lack of funding for exploration operations, the lack of specialized expertise in the field of archaeological diving and the absence of laws and legislation regulating this field.
- Lack of awareness of the importance of this heritage and interest on the part of official organizations and society.
- Absence of a strategy for the protection and management of submerged marine heritage in Algeria.
- Limited scientific research: In this area it is limited, hindering our complete understanding of the history of the region and its impact on successive civilizations.

²⁴ Ministère chargé de l'environnement -PAP RAC/ PAM, 2015. Stratégie nationale de gestion intégrée des zones côtières en Algérie. (Appui PAM-MedPartnership. UNESCO 2015: 94.

²⁵ CAMARA & NEGRI 2016: 139-205.

²⁶ CAMARA & NEGRI 2016: 139-205.

- Gaps in maritime heritage legislation²⁷.

Submerged Marine Heritage in Algeria Faces Numerous Threats, Such as:

- **Illegal looting:** it is considered one of the most serious threats to this heritage, as some divers without licenses loot archaeological sites and sell antiquities on the black market.
- **Pollution:** Marine pollution poses a major threat to the safety of submerged marine heritage, as it can lead to erosion and damage to archaeological sites.
- **Climate change:** such as sea level rise, threatens certain archaeological sites.

To Protect this Heritage, the Algerian Government Must Work to:

- Creating a map that includes the documented submerged archaeological sites along the coast of Algeria.
- Adopt laws and legislation to protect shipwrecks from looting and theft.
- Increase funding, allocating more financial resources to carry out the necessary studies and surveys.
- Raise awareness among official organizations and society of the importance of submerged marine heritage.
- Encourage and support scientific research in this area.
- Train executives and experts specialized in the field of archaeological diving.
- Strengthen international cooperation in order to exchange experiences with leading countries in the field of exploitation of submerged marine heritage.

To Achieve the Exploitation of Underwater Cultural Heritage to Promote the Development of Tourism in Algeria, the State Must:

- Allocating Tourist Diving Areas near Submerged Monuments.
- Create marine museums.
- Organize boat/vessel tours to the submerged heritage sites.
- Produce documentaries and broadcasts on archaeological sites to contribute to their promotion.
- Use virtual reality technologies to reconstruct websites and present them to visitors.

In order to implement sustainable tourism development based on the exploitation of submerged heritage, the government must:

- Establish strict regulations to supervise tourist activities and preserve the sites (number of dives per day, minimum approach distance, authorized equipment, etc.).
- Raise awareness among tourism professionals and visitors of the fragility of the underwater environment and the need to protect it.
- Diversify the tourist offer around underwater heritage (museum visits, documentaries, virtual reality) to relieve congestion on the sites.
- Involve local populations in tourism projects so that they benefit economically and are guarantors of long-term protection.

²⁷ DAHIM 2023: 514-537.

- Promote gentle modes of travel on the water (kayak, sailboat, etc.) and limit the anchoring of large boats on the sites.
- Implement a tax on underwater tourism activities to finance the maintenance and restoration of sites.
- Regularly monitor the ecological state of sites and adapt the tourist offer if necessary to preserve biodiversity.
- Promote fishing and navigation that respects marine ecosystems near tourist sites.

VI. CONCLUSION

The submerged remains of World War I along the Algerian coast represent a considerable historical and scientific treasure. Documenting and identifying these sites can provide new information about Algeria's maritime history during World War I and contribute to promoting sustainable tourism as well as local economic development. However, it is important to note that Algeria does not currently have a documented list of its submerged archaeological sites dating from this period.

To achieve sustainable exploration, protection and use, cooperation, coordination and investment in research, development and infrastructure are necessary. The government and relevant institutions should commit to supporting future research and studies in this area while promoting international cooperation in the exchange of knowledge and experiences.

This is why we undertook this work, to highlight the scale of this submerged heritage by attempting to document and identify some of the warships and submarines submerged off the Algerian coast. This involves consulting naval files and archives on the official website of the French Navy in Brest, as well as utilizing relevant references that deal with naval warfare in the Mediterranean. Additionally, this research provides new information on Algeria's maritime history during World War I and enriches our understanding of the strategic importance of Algeria's geographic location.

BIBLIOGRAPHY

- B.N.F GALLICA. «vous conseille». <https://2u.pw/moXfMKME>. Accessed on (24/06/2023).
- BREST DIVISION NORD-OUEST DU CENTRE DU RESEAU TERRITORIAL DU SHD, Service Historique de la Défense les fonds d'archives de la 2e préfecture maritime, des directions, des bâtiments à la mer et de l'aéronautique navale. <https://www.servicehistorique.sga.defense.gouv.fr>. (Accessed on (24/07/2023)).
- CAMARA, A. & NEGRI, V.: *La protection du patrimoine archéologique: fondements sociaux et enjeux juridiques*, (l'Harmattan) 2016.
- «CAMPAIGN SUMMARIES OF WORLD WAR 2». <https://www.naval-history.net/WW2CampaignsRNMed3.htm>. Accessed on 01/04/2024.
- Centre de documents historique sur l'Algérie, Le bombardement de Bone et de Philippeville en 1914, <https://www.cdha.fr/les-bombardements-de-bone-et-philippeville-en-1914>. Accessed on (23/05/2023).
- CHACK, P. & ANTIER J.J.: *Histoire maritime de la Première Guerre Mondiale*, t. 2, Paris (France-Empire) 1970.
- «French Counter-Insurgency Aircraft, 1946-1965». <http://worldatwar.net/chandelle/v3/v3n1/frcoin.html> Accessed on 01/04/2024
- DAHIM, F.: «Protection of Underwater Cultural Heritage in Algerian Legislation», *Magazine Voice of Law* 8/1, 2023, 514-537.
- DEDEYAN, J.M.: «La Méditerranée, espace et enjeu d'affrontements», Fondation Charles de Gaulle, 2003, <https://www.charles-de-gaulle.org/blog/2023/05/08/la-mediterranee-espace-et-enjeu-daffrontements/>. Accessed on (08/05/2023).
- HINZELIN, É. (ed.): *Histoire illustrée de la guerre du droit. 1914*, vol.3, Paris (Quillet) 1916 .
- KERISEL, J. & KERISE, T.: «La guerre 1914-18 :Le constructeur aéronautique », *Bulletin de la Sabix* 28, 2001 15-26.
- KARAU, M.D.: «Submarines and Submarine Warfare (Version 1.1)», in *1914-1918-online International Encyclopedia of the First World War*, edited by DANIEL, P., GATRELL, P., JANZ, O., JONES, H., KEENE, J., KRAMER, A. & NASSON, B., Berlin (Freie Universität Berlin) 2014.
- KHELLAF, R.:« L'archéologie sous-marine en Algérie, état Actuel et perspectives d'avenir», *Revue Minbar al turath al athari* 5/1, 2016, 5-15.
- KOPP, G.: *À bord du Goeben 1914-1918*, Paris (Payot) 1931.
- MENAPACE, «Guerre sous-marine à outrance». BNF. <https://gallica.bnf.fr/blog/01022017/guerre-sous-marine-outrance?mode=desktop> Accessed on (01/03/2024).
- MINISTERE CHARGE DE L'ENVIRONNEMENT, *Stratégie nationale de gestion intégrée des zones côtières en Algérie*, (Appui PAM-MedPartnership, UNESCO) 2015, 94.
- MINISTERE DES ARMEES, «La Première Guerre mondiale (1914-1918) Un conflit mondial et mécanique, chemins de mémoire». <https://www.cheminsdememoire.gouv.fr/fr/la-premiere-guerre-mondiale-1914-1918-0> Accessed on (08/10/2023).
- PELLEGRINETTI, J.P.: « Histoire maritime de la Grande Guerre en Méditerranée. Jalons historiographiques d'une guerre presque oubliée en France», *Cahiers de la Méditerranée* 103, 2021, 130-139.
- REPUBLIQUE ALGERIENNE, *Stratégie-nationale-de-gestion-intégrée-des-zones-côtières*, publication du ministère des Ressources en Eau, 2015.
- ROUBIN, Y.: «Enjeux et objectifs de la stratégie maritime française durant la Grande Guerre: l'exemple du bassin méditerranéen orienta» Ma thèses/Université de Nice Sophia-Antipolis, 2014.
- SAFFROY, F.: *Le bouclier de neptune*, Rennes (Presses Universitaires de Rennes) 2015.
- UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION, «The 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage». <https://www.unesco.org/en/underwater-heritage/2001-convention> Accessed on (10/11/2023).