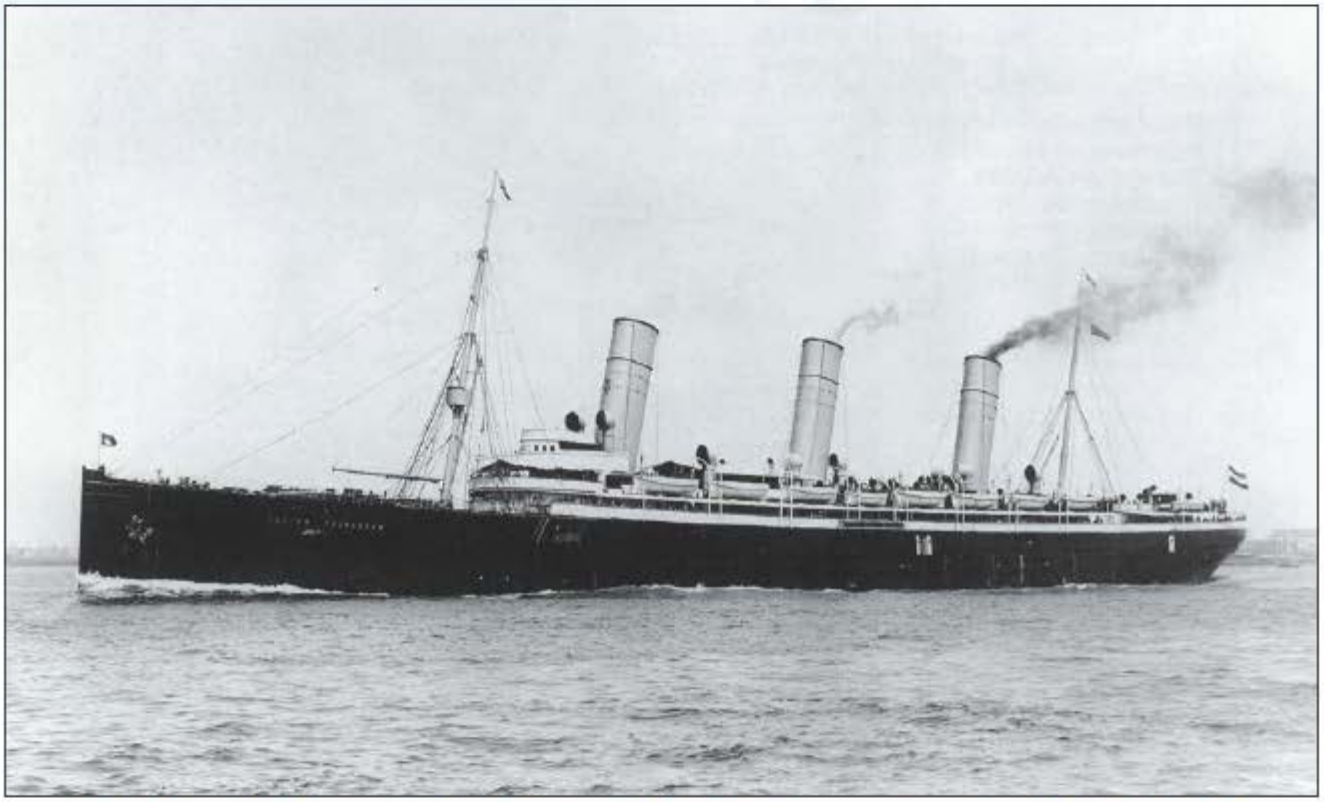
The SS *Burdigala*

By Dimitri Galon



The SS Burdigala, *first christened* Kaiser Friedrich *in Germany (Courtesy of Dimitri Galon)*

JUST as human history is dominated by powerful figures, so is the history of maritime shipping marked by large and powerful ships, some of which became central in the development and prosperity of shipping industry itself. The history of these vessels is intertwined not only with the companies that showcased them, but also with significant events that make up human history.

The French ocean liner SS *Burdigala*, or SS *Kaiser Friedrich* as she was first christened, claims a position in the history of North Atlantic steam navigation unlike any other ship associated with the development of shipping. Unlike other ships, SS *Burdigala* was well-known for her failures, rather than her successes.

This vessel was constructed for one of the most important shipping companies of Imperial Germany, the Norddeutscher Lloyd (NDL), with the intent to compete for the prize of speed and luxury in the most highly demanding shipping route of the time, the North Atlantic route. She failed to fulfill the expectations of her owner, who had contractually specified that the ship's minimum speed be 22 knots, a number that the vessel never achieved. This failure tainted her throughout her 17 years of



Engine order telegraph at the bridge

existence; she served for less than five years and was condemned to remain mothballed for the remainder of her time.

BORN THE GERMAN SCHNELLDAMPFER *KAISER FRIEDRICH* (1897 – 1912)

At the end of 1895, NDL, under the administration of manager Dr. Heinrich Wiegand, set up the ambitious goal of taking over the Europe to North America shipping route then dominated by the British. To accomplish this, the company needed ships capable not only of crossing the Atlantic faster than the ships of companies like HAPAG of Hamburg or the French Line, but also faster than the renowned ships of the British Cunard Line. For this purpose, Dr. Wiegand ordered ocean liners from two shipyards; the A.G. Vulcan shipyard of Stettin constructed the ocean liner *Kaiser Wilhelm der Grosse* while the Ferdinand Schichau of Danzig built the ocean liner *Kaiser Friedrich*. In accordance with NDL policy, vessels' names honored the Kaisers of the Hohenzollern family from which Kaiser Wilhelm II and his ancestors descended.

The contract between the F. Schichau shipyard and NDL stipulated that the test speed of the *Kaiser Friedrich* be 22.5 knots for a period of six hours and that the guaranteed speed be at least 21 knots, so that the total duration of a transatlantic voyage was exactly six days. Predicated on these requirements, she was designed with the following characteristics:

- Length: 183 m
- Width: 19.4 m
- Tonnage: 12,480 GRT
- Displacement: 20,100 tons

The two five-cylinder reciprocating engines of quadruple expansion drove two three-wing brass propellers 6.19 m in diameter. The engines were supposed to have a maximum indicative power of 28,000 hp and, in combination with the 15.5 bar pressure of the ten boilers of the ship, they could offer an important savings on coal according to the estimations of the F. Schichau engineers. Unlike the common construction practices of that period, F. Schichau placed the ship engines a little more forward, between the second and the third boilers. The ship had nine main boilers, each fitted with two coal-loading trap doors, plus a tenth auxiliary boiler. These were positioned in three watertight compartments, each with a funnel.

After construction concluded in May 1898, the vessel undertook her first voyage on May 12 from Danzig to Bremerhaven, the mother port of NDL. During that voyage, the engineers of NDL observed with great disappointment that *Kaiser Friedrich* was only able to reach 20 knots with huge effort and could not surpass that speed. On her arrival in Bremerhaven, NDL refused to accept delivery based on the explicit conditions of the contract and her poor performance. The F. Schichau shipyard promised it would improve her speed, and so NDL tentatively accepted



The poop deck of Kaiser Friedrich *(Courtesy of Dimitri Galon)*

Kaiser Friedrich into its fleet. Her first transatlantic voyage was to be from Bremerhaven to Southampton and then to New York.

On June 7, 1898, *Kaiser Friedrich* sailed under the command of NDL Captain Ludwig A. Störmer from Bremen to Southampton. On June 8, she began her first transatlantic voyage towards New York. The voyage started well, but quickly, bad weather and engineering problems decreased the speed of the ship. Later, the operation of the left engine halted for 20 hours and 26 minutes, and then the same happened with the right engine for 11 hours and 42 minutes. *The Marine Engineer* magazine stated that the cause of these problems was the "failure of the slide valves to work smoothly and to the breakage of studs on the air pump brackets, so that a proper vacuum could not be maintained." The result was disastrous, as the voyage of *Kaiser Friedrich* from Southampton to Sandy Hook, New York, lasted 7 days, 10 hours, and 15 minutes, finally ending on June 16.

On June 25, 1898, SS *Kaiser Friedrich* began her return voyage to Southampton without passengers; this lasted 9 days, 2 hours, and 30 minutes. Due to her low average speed of 15 knots and the mechanical problems that again plagued the voyage, NDL cancelled the next two scheduled voyages. The ship was sent to the F. Schichau shipyard in Danzig to be fixed, with the intent to reach the promised 22 knots. Over the coming months, SS *Kaiser Friedrich* fulfilled nine more voyages, of which the fastest was six days, 22 hours, and 30 minutes, placing the ship firmly in the class of 19 knots. On June 27, 1899, NDL returned *Kaiser Friedrich* to her construction company with the official reason that the ship did not fulfill the speed requirement of the contract.

In 1898, the shipping company Hamburg Amerikanische Packetfahrt Actien Gesellschaft (HAPAG) sold one of its oceangoing ships to the Spanish government. They then decided to charter *Kaiser Friedrich* from F. Schichau and added her to its express line from Hamburg to Southampton, Cherbourg, and New York. On October 2, 1899, *Kaiser Friedrich* departed from Southampton to New York for her first transatlantic voyage with HAPAG. Over the next few months, the ship completed nine transatlantic voyages. According to the press of that period, *Kaiser Friedrich* looked like she had finally found a home in the HAPAG fleet; her speed was comparable to that of other oceangoing vessels while offering a more luxurious and sophisticated accommodations than the others.

In July 1900, HAPAG received the newly constructed ocean liner, the SS *Deutschland*, and within only a few months, she conquered the speed trophy, the so-called "Blue Riband." This accomplishment signaled the entry of HAPAG into the superior class of transatlantic shipping and the end of chartering the *Kaiser Friedrich*. In October of 1900, *Kaiser Friedrich* began her last transatlantic voyage from New York. Upon her arrival in Hamburg, she was returned to F. Schichau, who laid her up in Hamburg where she stayed for almost 12 years.

AS FRENCH PAQUEBOT POSTAL À GRANDE VITESSE *BURDIGALA* (1912 – 1916)

The *Kaiser Friedrich* remained inactive in Hamburg until May 1, 1912, when she was bought for 4,000,000 French francs by the Compagnie de Navigation Sud-Atlantique, based in Bordeaux, France. The ship was renamed *Burdigala*, in accordance with Sud-Atlantique's policy to award ancient Latin names to its ships, such as *Lutetia* for Paris, *Gallia* for France and *Burdigala* for Bordeaux. According to shipping historian Arnold Kludas, *Burdigala* was renovated at the Blohm & Voss shipyard in Hamburg. In addition to modifying its food halls, changes were also made to the ship's main systems, including the boilers. Finally, the ship was painted white, and displayed the coat of arms of Sud-Atlantique on its funnels: a red rooster, the symbol of the ancient Gauls. Following the completion of the renovations, *Burdigala* sailed from Hamburg to Bordeaux, where she was enthusiastically welcomed as the biggest and fastest ship of the South Atlantic.

On October 5, 1912, the *Burdigala* undertook her first voyage to Buenos Aires, Argentina. The voyage was uneventful, but on her return the ship experienced engineering problems that led her to the shipyard for repairs immediately upon her arrival at Bordeaux. During her time of inactivity, Cie Sud-Atlantique replaced her with a chartered vessel. This fact, along with *Burdigala's* huge consumption of coal, made Sud-Atlantique re-examine the ship's value. They determined that she was ultimately not profitable and retired her on November 1, 1913, when Sud-Atlantique's new liner, the SS *Lutetia*, began her first voyage to South America. On November 29, *Burdigala* was condemned, and she stayed at the port of Bordeaux until the beginning of World War I and her requisitioning by the French government.

THE *BURDIGALA'S* REQUISITIONING BY THE FRENCH GOVERNMENT

The requisitioning of the *Burdigala* marks the beginning of the last chapter in the ship's existence. The French government used the *Burdigala* both as a troopship and supply carrier from the Mediterranean French city of Toulon to other theaters of war. In 1915 and 1916 and until her sinking, the *Burdigala* carried troops to the Dardanelles and to Thessaloniki in Greece, which served as the base of the Entente forces in the Balkans.

On November 13, 1916, *Burdigala* sailed empty from Thessaloniki to Toulon to load troops and supplies. Her captain was the reservist Lieutenant Francois Rolland and August Richard served as chief engineer. The next day at 10:45 a.m., almost two nautical miles southwest of the cape of Agios-Nikolaos in Kea Island, an explosion amidships on the starboard side caused the engine room to flood. At first, given that the ship had only a list of four degrees, her captain thought the vessel would not sink. Twenty minutes later, however, water began to pour into the vessel's second engine room. As a result, the list of the *Burdigala* increased, and her captain commanded the crew to abandon ship. A second explosion then ripped the ship in half, and fifteen minutes later, she sank to a depth of 76 m off the northwest coast of Kea. The ship had struck a mine laid by the



One of the aft cannons of the Burdigala

German submarine *U-73* (under commander Kapitänleutnant Gustav Siess) on October 28. Just one week later, on November 21, only two nautical miles from *Burdigala*, the British hospital ship HMHS *Britannic* was also sunk after striking a mine in the same minefield.

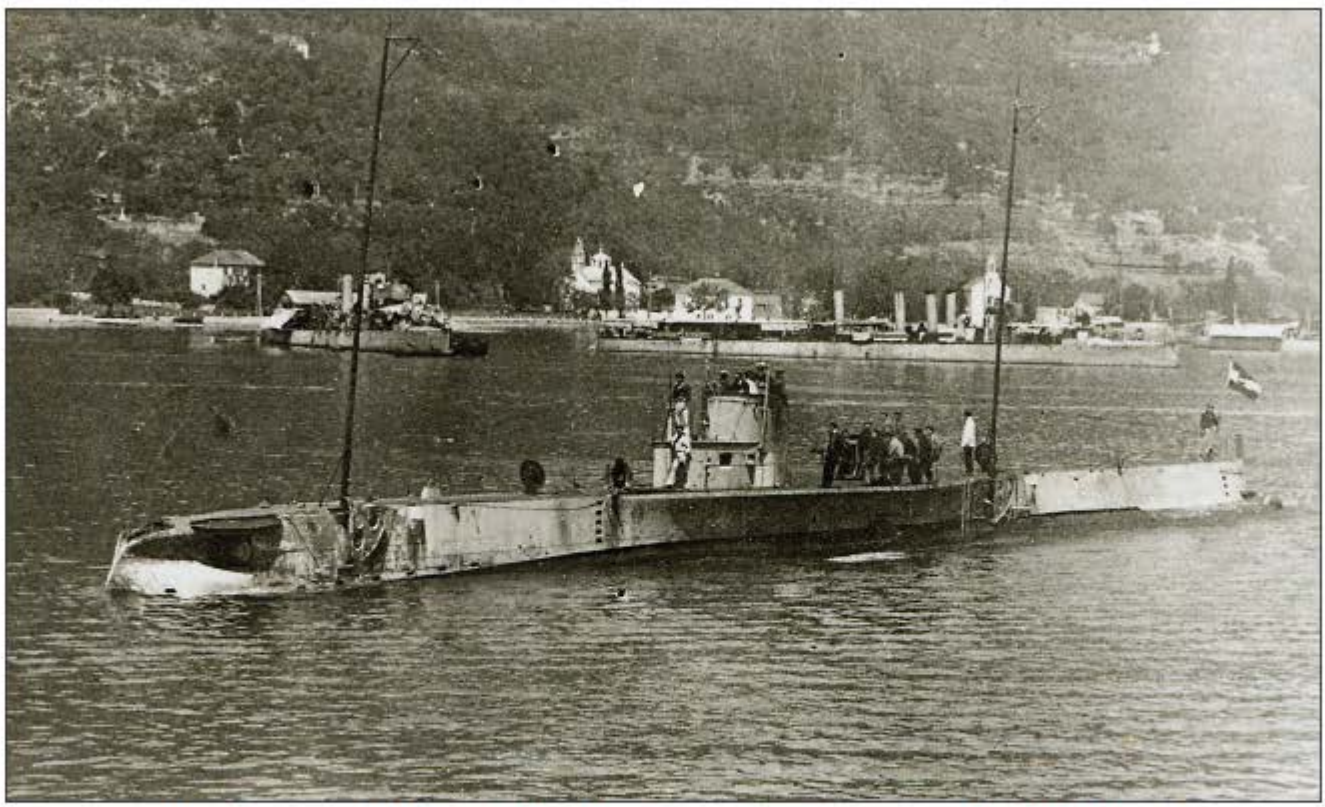
DISCOVERY AND EXPLORATION

In 2007, Assistant Professor George Papatheodorou of the Department of Geology at the University of Patras, Greece, led his team in the mapping of the bottom of a region north of Kea Island using sidescan sonar. During the survey, a large, unidentified shipwreck was spotted. The Kea Dive Project was thus organized to examine and document the wreck on September 21 to 30, 2008. During this mission, which was accompanied by a supervisor from the Greek Ephorate of Underwater Antiquities, the wreck was measured, examined, and finally identified to be the ocean liner *Burdigala*, formerly the *Kaiser Friedrich*. Since then, four more expeditions have been carried out to collect more information to answer questions and to highlight the wreck and its history.

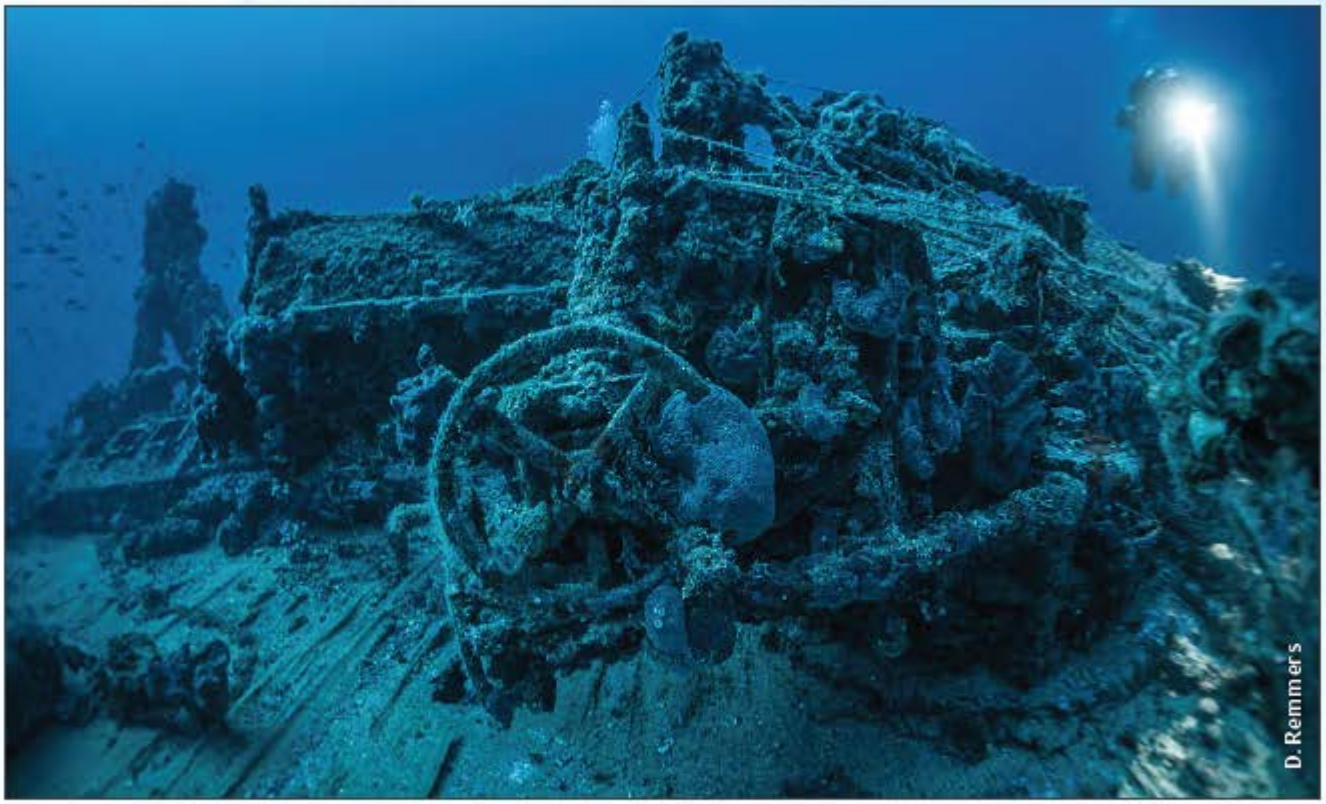
The *Burdigala* sits upright on her keel, cut in two sections, at a depth of 76 m with the bow and aft masts broken and fallen to the starboard side. The longitudinal axis of the vessel (stern to bow) points northeast. This could be due to a change of her heading after the impact with the mine and the captain's attempt to steer toward the nearby safe harbor of the bay of Agios-Nikolaos on the island of Kea. The two sections tilt to the right; the fore lists by about 10 degrees and the aft by approximately 25 degrees. The overall length of the wreck, including the hull gap, is approximately 200 m. The depth ranges from 76 to 50 m, where one finds the upper sections of the ship's superstructure. Along the fore deck, which is also part of the upper forecastle, thick anchor chains extend from their bow holes to the large twin winches, which still hold the two massive anchors in the raised position. On either side of the fore deck along the vertical axis, two large-caliber cannons face the sea. A distinguishing feature of the area is a small crane visible at about 8 m from the bow's peak. At the end of the bow deck there is a deepening which interrupts the smooth form of the main deck, structurally separating the bow section from the main superstructure. In this area at about 10 m long is the foremast, broken at its base but with the internal wiring intact. The ship's bell and the crow's nest are in position and in good condition.

The ship's main superstructure hosted luxury and first-class cabins. In this area, there are also two internal staircases leading to the upper deck (second row of the superstructure) and steerage. The upper deck area included the most luxurious cabins and passenger lounges, such as the music room, smokers' and reading lounges, of which some have collapsed. From the second row of the superstructure, most of the accommodation areas are also partially collapsed, except for the wheelhouse (bridge) and the saloon directly beneath it.

The port side navigation light is in good condition after a century underwater, and this greatly assisted during the identification process as the team compared the wreck with old photographs.



The German sub U-73 *in Cattaro-Montenegro 1916 (Courtesy of Dimitri Galon)*



The vessel's bow cannon

Near where the three funnels should be are the remains of large airways, arranged in groups of four. The hull breakage separating the wreck into two distinct pieces is almost amidships, right after the ninth lifeboat davit (counted from bow to stern). At the two vertical sides of the hull breakage, cabins with their various accessories for everyday use, such as sinks and bathtubs, as well as pieces of machinery like rollers and shafts, are visible.

The aft hull section consists of holds number three and four, the engine room, the rest of the superstructure, the aft deck area, the rudder room, and the quarterdeck. Over the engine room are six square openings in the roof, once occupied by skylights, which allow for easy diver penetration. After the third funnel opening, two staircases leading to the deck of the aft-peak region are the first things encountered, followed by the broken and fallen aft mast and the mouths of the hull. The aft deck is covered by the debris of the completely collapsed poop deck. Just aft of the poop deck are two cannons of the same caliber as those at the bow, also facing towards the sea. Behind the two large aft winch capstans at the end of the stern is a single hole at the middle of the upper part of the transom where the ship's name was inscribed in duplicate, now heavily coated by multiple layers of benthic marine growth. The entire area of the stern deck is scattered with cannon shells and ammunition boxes. Lying at a depth of 76 m, the two large three-bladed propellers are clearly visible at the underside of the ship. One blade is missing from the port side prop, while the starboard side prop is immersed in the sand and fully covered by the listing hull. A distinctive long, U-shaped structural hull ending at the stern is visible, as can be clearly seen in all the old photos of *Burdigala*.

LAST WORDS

The *Burdigala* may have failed to fulfill the primary goal of steaming at a speed of 22 knots, but she remained an important marker in shipping history precisely because of this failure. On one hand, the ship's history tells of the activities of the merchant shipping business of the day, including the know-how, the merchants, the profits, the social structures, and the politics tied to the rise of an industrialized economy. On the other hand, through her voyages and long lists of passenger names, the ship represents a chapter in the transatlantic immigration story of the North and South American continents. Her tragic end is directly connected to the social and political crisis of the beginning of the 20th century, expressed through the armed attack that led to the World War I. Furthermore, the *Burdigala's* common historical destiny with the hospital steam ship HMHS *Britannic* makes her one of the last witnesses to the end of the historical ocean liners lost in the eastern Mediterranean Sea during World War I.

For further information, please visit our Greek-English site at www.keadive.gr/.

In memory of Niko Galon (1923 - 2016)