



## Project Gallery

# The cobs in the archaeological context of the San José Galleon shipwreck

Daniela Vargas Ariza<sup>1,3</sup> , Antonio Jaramillo Arango<sup>1,3</sup> , Jesús Alberto Aldana Mendoza<sup>2</sup> , Carlos Del Cairo Hurtado<sup>1,3</sup>  & Juan David Sarmiento Rodríguez<sup>3</sup> 

<sup>1</sup> Escuela Naval de Cadetes Almirante Padilla, Cartagena, Colombia

<sup>2</sup> Dirección General Marítima, Bogotá, Colombia

<sup>3</sup> Instituto Colombiano de Antropología e Historia, Bogotá, Colombia

Author for correspondence: Daniela Vargas Ariza ✉ [daniela.vargas.ariza@gmail.com](mailto:daniela.vargas.ariza@gmail.com)

Since 2015, four non-invasive campaigns have surveyed the San José Galleon shipwreck in the Colombian Caribbean, providing valuable insights into the age and provenance of artefacts found on the seabed. Numismatic, archaeological and historical approaches have been employed to analyse a collection of gold coins recorded within this underwater context.

Keywords: South America, Spanish Empire, underwater archaeology, numismatics, maritime history, material culture

## Introduction

Coins are crucial artefacts for dating and understanding material culture, particularly in shipwreck contexts. These sites serve as invaluable repositories of historical information, especially when examining events related to the Tierra Firme Fleet, which connected Spain with the Viceroyalty of Peru between the sixteenth and early eighteenth centuries. Recent analysis of artefacts from the San José Galleon shipwreck highlights the merits of such underwater investigations. Among the key finds are hand-struck, irregularly shaped coins—known as cobs in English and macuquinas in Spanish—that served as the primary currency in the Americas for more than two centuries.

## Methods

The wreck is situated at a depth of 600m in the Colombian Caribbean Sea, a location that requires specialised underwater equipment for research. Since 2021, the Colombian Navy has been using a Lynx Saab Seaeye Remotely Operated Vehicle to survey the archaeological remains under conditions of low visibility and minimal light. In 2022, non-invasive fieldwork documented the spatial distribution of the remains, comparing these findings with previous audiovisual records to understand variations caused by site formation processes (ARC-DIMAR 2022). Techniques such as graphic recording, data processing and photogrammetry facilitated the creation of a three-dimensional reconstruction of the shipwreck,

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Received: 19 September 2024; Revised: 27 January 2025; Accepted: 14 March 2025

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resulting in planimetric and georeferenced surveys, including orthophotomosaics, a digital elevation model and archaeological plans (see [Figure 1](#)).

These digital models have also enabled the creation of highly accurate digital replicas of the archaeological context, providing researchers with a powerful tool for analysis. The reconstructions have facilitated the identification of patterns in the distribution of materials, such as artefacts, cargo and structural remains, as well as diagnostic features that help date individual elements, such as cobs. This, in turn, contributes to a deeper understanding of the ship's function and the events surrounding its sinking.

## Results

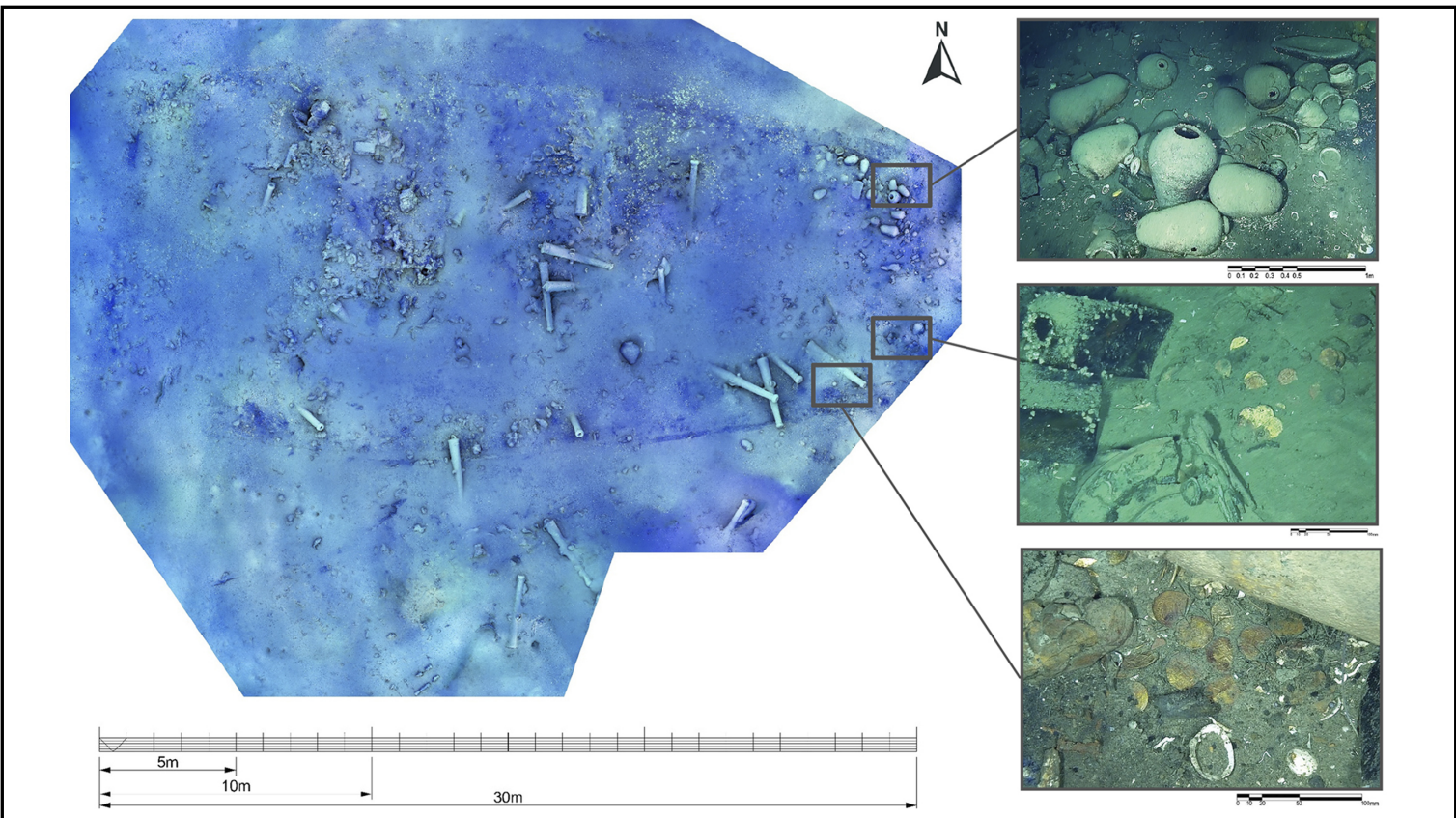
The exact number of coins visible on the seabed is difficult to determine due to the dynamic nature of the site, but the cobs identified via high-resolution *in situ* photography conducted by a remotely operated vehicle (ROV) (see [Figure 2](#)) have an average diameter of 32.5mm and probably weigh around 27g (based on contemporaneous coins; [Cuhad 2010: 1149](#)). Obverse faces present a variant of the Jerusalem Cross with the Quartered Shield of Castles and Lions (a symbol of Castile and Leon) within a dotted border ([Figure 3](#)). On the reverse, the central design is comprised by the Crowned Pillars of Hercules above the waves of the sea. The design of the waves serves as an identifying element for coins of the Lima Mint ([Deagan 2002: 254](#)).

Between the pillars in their upper section, several symbols can be observed: an 'L' referring to Lima, the location of the mint, the number '8' representing the denomination in escudos (the highest value at the time), and an 'H' which was the mark of Francisco de Hurtado, the Chief Assayer in 1707 ([Moreyra Paz Soldán 1980: 166](#)). One coin, visible at the bottom of [Figure 2](#), displays a small pellet next to the '8', which is a mark of distinction of the cobs of this assayer ([Craig 2000: 22](#)).

In the central part of the pillars, three letters 'P. V. A.' can be seen marking the motto expression 'Plus Ultra', or 'Further Beyond' in Latin. This motto was used on the coins as a reference to the expansion of the Spanish monarchy in the Atlantic. Finally, the year of minting is represented by three digits (707, meaning 1707), in the lower part of the pillars. The letters around the pillars cannot be clearly made out from the images, but on other coins from the same year and mint these bear a reference to King Philip V, the first Bourbon head of the Spanish monarchy ([INPC 2012: 12–17](#)). Most of the gold coins from this period come from shipwrecks ([Deagan 2002: 255](#)).

## Discussion

Unravelling the features of the cobs found in the archaeological context of the San Jose Galleon contributes to the determination of the age and provenance of the shipwreck. First, it establishes a temporal framework: the sinking must have occurred after 1707, the year the coins were minted. This, along with other evidence such as the presence of Chinese porcelain from the Kangxi period (AD 1662–1722) and inscriptions on the cannons dating to 1665, suggests that the ship sank in the early eighteenth century.



*Figure 1. Three areas of cob boards were identified on both the port (b & c) and starboard (a) sides of the stern section. They are scattered in groups surrounded by artefacts from the cargo, artillery and everyday life aboard the ship (photographs from ARC-DIMAR, 2022; figure by authors).*

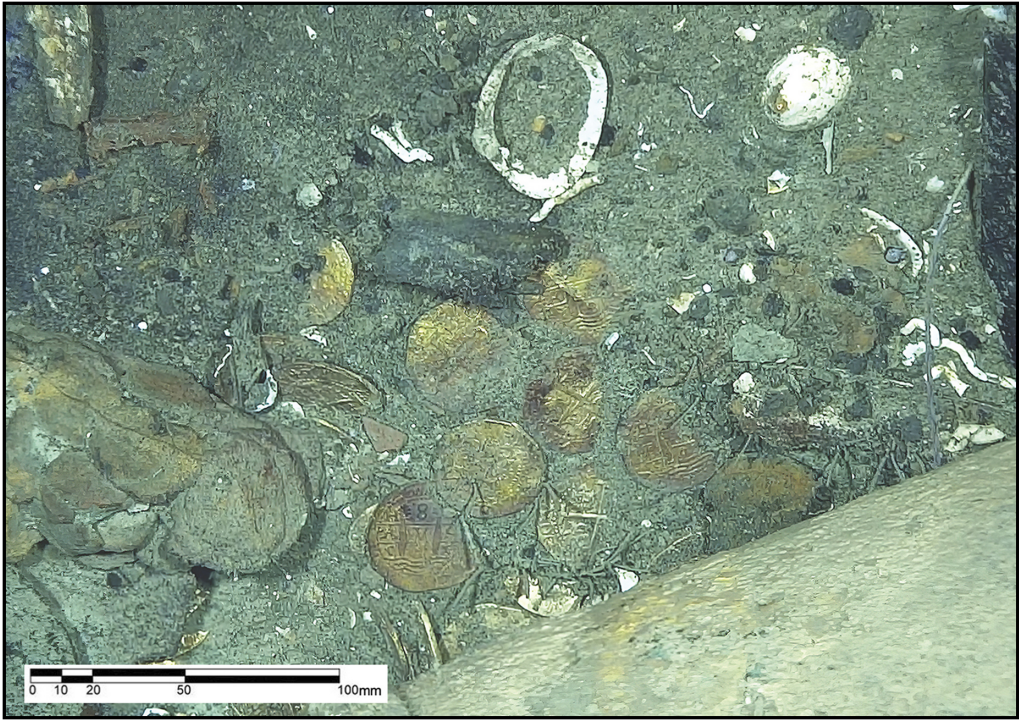


Figure 2. High-resolution in situ photograph of cob board area in the port section of the stern, showing the obverse and reverse faces of coin, as they were observed on the seabed (photographs from ARC-DIMAR, 2022; figure by authors).

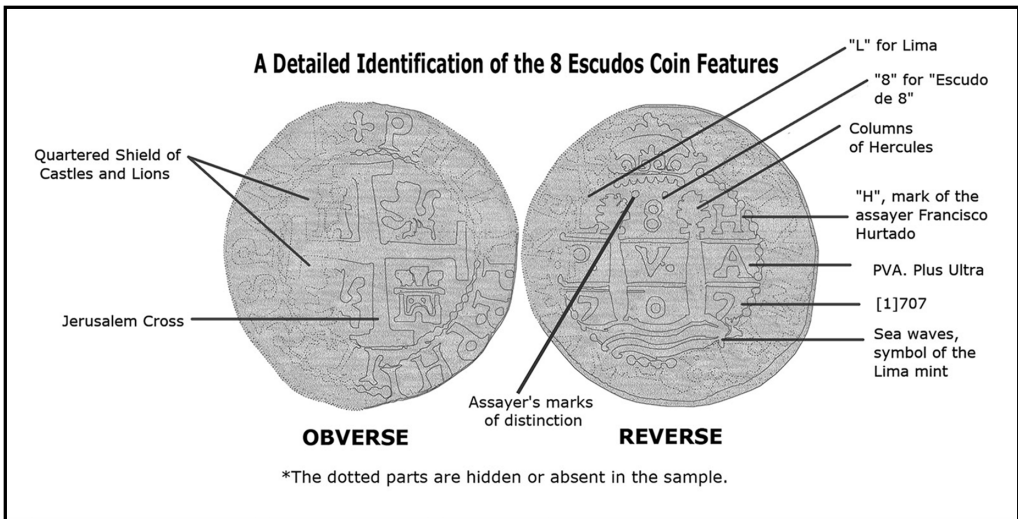


Figure 3. An 8-escudos cob of 1707, based on high-resolution in situ photographs from the 2022 archaeological campaign. As Craig (2000) notes, the well-preserved features may suggest that reverse dies were consistently used as the immobile matrix (figure by authors).

Moreover, the features of the cobs help us determine the route taken by the sunken vessel. In the Viceroyalty of Peru, several gold mines were registered, primarily in Puno and Huamanga (Contreras 2020: 128). It is likely that the material for minting the cobs was sourced from these mines and processed at the Lima Mint, which resumed operations in 1683 and began minting gold in 1696 (Deagan 2002: 256).

In 1706, Viceroy Marqués de Castlledosrius arrived in Peru with the aim of reactivating the Portobello fair and sending the taxes accumulated in the viceroyalty over the previous decade to the Iberian Peninsula (Phillips 2007: 123). The cobs were primarily used to transport large volumes of wealth from the Americas to Europe (Deagan 2002: 239), so these coin hoards probably formed part of the royal treasure dispatched from Peru by Castlledosrius. In late 1707, Peruvian merchants and officials travelled to Puerto Perico on the Pacific coast of Panama, where all goods and people were transported overland to Portobello on the Caribbean coast. There, they met the Tierra Firme Fleet, commanded by the San José Galleon, which held the exclusive monopoly on transporting royal treasures between South America and the Iberian Peninsula. After the Portobello fair, the San José departed for Cartagena, carrying goods and metals, including the 8-escudos cobs.

This body of evidence substantiates the identification of the wreck as the San José Galleon, a hypothesis that has been put forward since its initial discovery in 2015.

## Conclusions

This case study highlights the value of coins as key chronological markers in the identification of shipwrecks, particularly those from the Tierra Firme Fleet. The finding of cobs created in 1707 at the Lima Mint points to a vessel navigating the Tierra Firme route in the early eighteenth century. The San José Galleon is the only ship that matches these characteristics. This find presents a rare opportunity to explore an underwater archaeological site and deepen our understanding of colonial maritime trade and routes. However, it represents only the first step in a long-term project. The initial phase focuses on non-invasive surveys, with no plans for object recovery or excavation until the entire site is fully characterised. This careful and multidisciplinary approach ensures that the archaeological study will be thorough, providing valuable insights into eighteenth-century global contacts.

## Funding statement

This study is part of the project *Hacia el Corazón del Galeón San José*, funded by Ministerio de las Culturas, las Artes y los Saberes (Colombia), Ministerio de Defensa (Colombia), Armada Nacional de Colombia, the Dirección General Marítima and the Instituto Colombiano de Antropología e Historia.

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