

The ship's sinking had been dated to the beginning of the 17th century on the basis of signatures of the craftsmen from Nuremberg (today's Nürnberg, Germany), the main European centre for trade and manufacture of luxurious goods and scientific instruments.

These are diptych sundials made of ivory made by master Hans and Leonhart Miller and Hans Tucher. The dating was confirmed by numerous brass jettons used for calculating, with the name of the mint owner Hans Schultes II and a small brass model of a cannon with the engraved year 1601.

These products arrived by land via the Alpine passages to Venice, where the cargo was supplemented with products of Italian workshops and continued on merchant ships over the Adriatic to the Mediterranean market. However, this cargo did not arrive at its destination. Bearing in mind the very precious and the diverse cargo and the various coins on a relatively small vessel without serious artillery and equipment in accordance with the strict rules of the maritime trade of that time, it is very unlikely that this was a merchant ship, but the remains of a local pirate or Uskok's sailing ship that sunk with its prey.

Therefore, this is an unusual story of distant cities, scientific progress, production, trade, seafaring and clashes of the Uskoks in the Adriatic Sea, locked in time and space on a shipwreck at the Mijoka shallows.

In the exhibition project „Mijoka Shipwreck - Awakened Secret of Murter's Sea“, the complete preserved inventory of the findings from the shipwreck is presented together with the history of research, as finds from private collections and other museums (Biograd Town Museum) are also included.

Based on those objects, a wider image of the shipwreck and events that caused it, production and trade of the great European merchant centres and intensive Venetian trade, which connected these centres with the Mediterranean harbours, was obtained.

Due to the efforts of many divers and underwater archaeologists, conservators, restorers and curators of the Šibenik City Museum, the collection of objects from Mijoka saw the light of

day. The biggest credit is owed to the early deceased Mario Jurišić, PhD who has drawn attention to the multiple value of this site and initiated research, awakened the secret and gave new life to this shipwreck with great enthusiasm, persistence and scientific involvement.

The research was participated by:

Divers: Employees of the Department for Underwater Archaeology of the Croatian Conservation Institute: M. Jurišić †, I. Miholjek, Head of the Department, V. Zmaić Kralj, I. Mihajlović, J. Bezak, K. Zubčić and P. Dugonjić, and associate experts: M. Pešić (MCPA Zadar – Ex Center for Underwater Archaeology, CCI), D. Banković, K. Majer and T. Stipčević (Special Police, the Ministry of Internal Affairs), S. Gluščević (Archaeological Museum in Zadar), I. Paić, M. Macura, J. Macura, M. Lozić, R. Čakić, M. Brzac, D. Milošević, R. Mosković and L. Maljić, A. Plančić, members of the Kayak club „Neretva“ from Mostar: E. Humo, Z. Marić, G. Mitrić, D. Ugljen, Z. Vlaho, S. Dragić and A. Sarajlić; Research was conducted on the vessel „Teta Šara“, owned by M. Mudronja † and V. Tandarić, and the vessel „Pram“ owned by M. Lozić and J. Macura, and in the coastal work base belonging to F. Mudronja.

Movable finds were conserved and restored by the employees of MCPA Zadar – Ex Center for Underwater Archaeology in Zadar, CCI: M. Mustaček, M. Pešić, A. Jelić, A. Jozić, T. Perin and M. Čurković Madiraca

Documentation and drawings of the findings: V. Zmaić Kralj, Department for Underwater Archaeology, CCI, S. Čule, A. Ivanković and A. Skračić.

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Marina Lambaša (Muzej grada Šibenika)

TEKST / TEXT
Vesna Zmaić Kralj (Odjel za podvodnu arheologiju, HRZ)

FOTOGRAFIJE - VIDEO / PHOTOGRAPHS - VIDEOS
Marino Brzac, Smiljan Gluščević, Jerko Macura, Igor Miholjek, Robert Mosković, Jurica Škudar (HRZ)

GRAFIČKI DIZAJN / GRAPHIC DESIGN
Ante Filipović Grčić | 2FG studio

LEKTURA / PROOFREADING
Nataša Jurić Stanković

KOREKTURA / CORRECTIONS
Bruno Brakus i Matej Šabić (MGŠ)

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Marija Mlinar (Prijevodi Lexis)

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AUTORICE IZLOŽBE / AUTHORS OF EXHIBITION
Vesna Zmaić Kralj (Odjel za podvodnu arheologiju, HRZ),
Marina Lambaša (MGŠ)

SURADNICI NA IZLOŽBI / EXHIBITION COLLABORATORS
Bruno Brakus (MGŠ), Anita Jelić i Antonija Jozić (MCPA Zadar)

KOORDINATORICA IZLOŽBE / EXHIBITION CO-ORDINATOR
Monika Petrović

RESTAURATORSKO-KONZERVATORSKI RADOVI /
CONSERVATION AND RESTORATION
Mladen Mustaček, Mladen Pešić, Anita Jelić, Antonija Jozić,
Tanja Perin i Martina Čurković Madiraca (MCPA Zadar)

DOKUMENTACIJA I CRTANJE /
DOCUMENTATION AND DRAWINGS
Vesna Zmaić Kralj (Odjel za podvodnu arheologiju, HRZ),
Anita Ivanković i Ana Skračić

LIKOVNI POSTAV / EXHIBITION DESIGN
Ante Filipović Grčić, Marina Lambaša (MGŠ),
Vesna Zmaić Kralj (Odjel za podvodnu arheologiju, HRZ)

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BRODOLOM MIJOKA
PROBUĐENA TAJNA MURTERSKOG MORA

MIJOKA SHIPWRECK
THE AWAKENED SECRET OF MURTER'S SEA

Brodolom Mijoka - probuđena tajna Murterskog mora

Autori izložbe: Vesna Zmaić Kralj, mag. arheo., konzervator savjetnik arheolog (Odjel za podvodnu arheologiju, HRZ), kustosica Marina Lambaša, povjesničarka umjetnosti (Muzej grada Šibenika)

Prilozi: kustos Bruno Brakus, mag. hist. (Muzej grada Šibenika), i restauratorice Anite Jelić i Antonija Jozić (MCPA Zadar)

Naziv izložbe: Brodolom Mijoka - probuđena tajna Murterskog mora

Podvodno nalazište na pličini Mijoka kod otoka Murtera pripada grupi novovjekovnih brodoloma koji sve većim brojem ukazuju na živu pomorsku trgovinu na plovnom putu istočnim Jadranom od 16. do 18. stoljeća. Za nju je zaslužan položaj Venecije na sjeveru Jadrana, jedne do najvećih trgovačkih luka i pomorskih sila na Sredozemlju. Pomorski putevi držali su se obale, koristeći se povoljnim strujama, brojnim sidrištima i lukama za prenočište i opskrbu, kao i istaknutim točkama na kopnu pogodnima za orijentaciju, no plovidba je i dalje bila nesigurna. Brojni ostaci brodoloma uz podvodne grebene i pličine ukazuju na izrazito opasna mjesta tijekom oluja i nevremena, no česti uzroci nesreća bili su i napadi domaćih razbojnika na moru, poput uskoka, vještih pomoraca i srčanih boraca. Upravo su u labirintu zadarsko-šibenskih otoka tijekom 16. i 17. stoljeća bili najčešći napadi uskoka na mletačke i druge brodove. Brojne naznake idu u prilog tome da ostaci na pličini Mijoka ne pripadaju trgovačkom brodu s ubičajenim teretom, već manjem jedrenjaku poput uskočkih brzih i okretnih brodica na vesla i jedra, idealnih za iznenadne prepade na moru, koji je zacijelo s bogatim plijenom potonuo pri bijegu ili sukobu.

Nalazište je otkriveno 1972. godine kada preko njega prelazi koča i mrežom s dna podiže dio brodskog tereta. Većini izvađe-

nih predmeta izgubio se trag, no neki su od njih pronašli mjesto u privatnim zbirnama i danas nam svjedoče o bogatstvu tereta koji je brod prevezio. Otušivanje predmeta nastavilo se do prijave nalazišta arheolozima 2002. godine kada su u pijesku zatečeni samo manje željezno sidro, metalno posuđe i ostaci drvene ambalaže. Premda su gotovo svi površinski predmeti bili otušeni, već su prvi arheološki zahvati dali naslutiti da dublji slojevi pijeska kriju bogate ostatke tereta.

Zahvaljujući potpori Ministarstva kulture RH, od 2006. do 2012. godine provedena su arheološka istraživanja Odjela za podvodnu arheologiju Hrvatskog restauratorskog zavoda. Pet kampanja istraživanja iznjedrilo je dragocjen i raznovrstan materijal te dalo brojne informacije o materijalnoj kulturi i životnom stilu na prijelazu iz 16. na 17. stoljeće. Brod je bio nakrcan mahom luksuznom i dragocjenom robom, predmetima za svakodnevnu uporabu: priborima za jelo, britvama, svijećnjacima, ogledalima i naočalama; ukrasnom robom: prstenjem s poludragim kamenjem, koraljnim niskama, češljevima, opremom za vaganje novca i zlata te sofisticiranim instrumentima: džepnim sunčanim satovima od slonovače u pozlaćenim kućištima, tehničkim olovkama i mjedenim lokotima sa šifriranim mehanizmom. Već tijekom prvih istraživanja uočena je tipološka podudarnost nekih nalaza s predmetima pronađenima u brodolomu kod Gnalića, udaljenoga od Mijoke tek 10 NM sjeverno, poput mjedenih svijećnjaka, britava, praporaca, pribadača, staklenih perla, ogledala i leća za naočale.

Kuriozitet je bila i neobično velika količina raznovrsnog srebrnog i zlatnog novca, koji je u vrijeme potonuća broda već bio izvan optjecaja. Potonuće broda datirano je u početak 17. stoljeća na osnovi predmeta s obrtničkim oznakama grada Nuremberga (današnji Nürnberg, Njemačka), glavnoga europskog središta za trgovinu i proizvodnju luksuzne robe i znanstvenih instrumenata. Riječ je o preklopnim sunčanim satovima od bjelokosti majstora Hansa i Lenonharta Millera i Hansa Tuchera. Dataciju su potvrdili brojni mjedeni žetoni za računanje s imenom vlasnika kovnice Hansa Schultesa II. i mali mjedeni model topa s istaknutom 1601. godinom.

Ovi su proizvodi do Venecije dolazili kopnenim putevima preko alpskih prolaza, a potom bi teret nadopunjen proizvodima talijanskih radionica nastavio put na trgovačkim brodovima Ja-

dranom prema sredozemnom tržištu. Međutim, ovaj teret nije sretno stigao na svoje odredište. Imajući u vidu vrlo dragocjenu i raznorodnu robu te raznovrstan novac na relativno malom brodu bez ozbiljne artiljerije i opreme u skladu sa strogim pravilima pomorske trgovine toga doba, malo je vjerojatno da je riječ o trgovačkom brodu, već o ostacima lokalnog piratskog ili uskočkog jedrenjaka potonuloga s bogatim plijenom. Stoga pred sobom imamo nesvakidašnju priču o dalekim gradovima, znanstvenom napretku, proizvodnji, trgovini, pomorstvu i okršajima uskoka na Jadranu, zaključanu u vremenu i prostoru na brodolomu kod pličine Mijoka.

Projektom izložbe „Brodolom Mijoka – probuđena tajna Murterskog mora“ predstavljen je cjelokupan sačuvani inventar nalaza s potonuloga broda jer su obuhvaćeni i nalazi iz privatnih zbirka i drugih muzeja (Zavičajni muzej Biograd). Na osnovi njih dobili smo širu sliku o brodolomu i zbivanjima koja su ga prouzročila, proizvodnji i trgovini velikih europskih obrtničkih centara te intenzivnoj trgovini Venecije koja je povezivala ove centre sa sredozemnim lukama.

Zahvaljujući trudu mnogih ronioca i podvodnih arheologa, konzervatora, restauratora i kustosa Muzeja grada Šibenika, zbirka predmeta s Mijoke ugledala je svjetlo dana. Najveće zasluge pripadaju prerano preminulom dr. sc. Mariju Jurišiću koji je s velikim entuzijazmom, upornošću i znanstvenim angažmanom ukazao na višestruku vrijednost ovog nalazišta te pokrenuo istraživanja, probudio tajnu i udahnuo nov život ovom brodolomu.

U istraživanjima su sudjelovali ronioci: djelatnici Odjela za podvodnu arheologiju Hrvatskog restauratorskog zavoda M. Jurišić †, I. Miholjek, voditelj Odjela, V. Zmaić Kralj, I. Mihajlović, J. Bezak, K. Zubčić i P. Dugonjić te vanjski suradnici M. Pešić (MCPA Zadar – ex Centar za podvodnu arheologiju u Zadru, HRZ), D. Banković, K. Majer i T. Stipčević (Specijalna policija, MUP), S. Glušćević (Arheološki muzej Zadar), I. Paić, M. Macura, J. Ma-

cura, M. Lozić, R. Čakić, M. Brzac, D. Milošević, R. Mosković i L. Maljić, A. Plančić, članovi Kajakaškog kluba „Neretva“ iz Mostara E. Humo, Z. Marić, G. Mitrić, D. Ugljen, Z. Vlaho, S. Dragić i A. Sarajlić. Istraživanja su se odvijala na brodu „Teta Šara“ M. Mudronje † i V. Tandarića i na brodu „Pram“ M. Lozića i J. Macure te u kopnenoj radnoj bazi F. Mudronje.

Pokretnu građu konzervirali su i restaurirali djelatnici MCPA Zadar – ex Centar za podvodnu arheologiju u Zadru, HRZ: M. Mustaček, M. Pešić, A. Jelić, A. Jozić, T. Perin i M. Čurković Madiraca.

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Mijoka Shipwreck - the Awakened Secret of Murter's Sea

Authors of the exhibition: Vesna Zmaić Kralj, mag. arheo. Consultant conservator – archaeologist; Department for Underwater Archaeology (CCI), curator Marina Lambaša, art historian (Šibenik City Museum)

Contributions: curator Bruno Brakus mag. hist. (Šibenik City Museum) and conservators: Anita Jelić and Antonija Jozić (MCPA Zadar)

Exhibition title: Mijoka Shipwreck – Awakened Secret of Murter's Sea

The underwater site Mijoka, which lies at the eponymous shallow waters near the Island of Murter, belongs to the group of New Age shipwrecks. A growing number of such shipwrecks in the period from the 16th to 18th century indicate a vivid maritime trade along the eastern Adriatic waterway.

This is the result of the position of Venice on the northern Adriatic as one of the greatest merchant harbours and naval forces on the Mediterranean.

The waterways went along the coast, using favourable currents, numerous harbourages and ports for overnight stays and supplies, and visible points at the continent convenient for orientation, but nevertheless, sailing was still unsafe.

Numerous remains of shipwrecks along the underwater reefs and shallows are an indicator of very dangerous areas during storms and tempests, but raids of domestic robbers, like the Uskoks, skilled sailors and bold fighters, were also a common cause of accidents at sea.

During the 16th and 17th century, the most common were attacks of the Uskoks aimed at Venetian and other vessels in the labyrinth of Zadar's and Šibenik's islands.

Many indicators contribute to the conclusion that the remains at Mijoka shallows don't belong to a merchant vessel with regular cargo, but to a smaller sailing ship like Uskok's fast and agile boats with oars and sails ideal for sudden raids at sea, which must have sunk with its prey during an escape or a confrontation.

The site was discovered in 1972 when a trawler passed over it and lifted a part of cargo from the seabed. Most of the objects were lost but some of them ended up in private collections. Today, they witness the abundance of the cargo that the vessel was carrying.

The plundering of objects was carried on until the site was reported to archaeologists in 2002, when only a smaller iron anchor, metal cookware and remains of the wooden packaging were found in the sand. Although all objects from the surface were taken away, already the first archaeological research showed there were still valuable remains of the cargo in the deeper layers of sand.

Due to the support of the Ministry of Culture of the Republic of Croatia, archaeological research was conducted from 2006 to 2012 by the Department for Underwater Archaeology of Croatian Conservation Institute.

Five research campaigns yielded valuable and diverse material and provided a wealth of information on material culture and lifestyle at the end of the 16th and beginning of the 17th century.

The ship was loaded mostly with luxurious and precious goods, from objects for everyday use: tableware, razors, candlesticks, mirrors and glasses; decorative goods: rings with semi-precious stones, coral beads, combs, money and gold weighing equipment and sophisticated instruments: diptych sundials made of ivory in gilded cases, technical pens and brass padlocks with encrypted mechanism.

The first research resulted in a typological matching of some finds with objects found on the shipwreck near the Islet of Gnalić, 10 miles to the north from Mijoka, such as brass candlesticks, razors, sleigh bells, pins, glassware, mirrors and lenses for glasses. A curiosity was the unusually large amount of various silver and gold coins, which were already out of use at the time of the shipwreck.