UDK 902/904(05)

ISSN 0581-7501 (print)
ISSN 2232-8513 (online)
ISSN 2232-8521 (CD)

GLASNIK

ZEMALJSKOG MUZEJA BOSNE I HERCEGOVINE

HERALD OF THE NATIONAL MUSEUM OF BOSNIA AND HERZEGOVINA

ARHEOLOGIJA

ARCHAEOLOGY

GZM BiH n.s. A, 57 (2025.) str./pp 130, Sarajevo, 2025.

GLASNIK

Zemaljskog muzeja Bosne i Hercegovine

Herald of the National Museum of Bosnia and Herzegovina

Izdavač/Publisher
Zemaljski muzej Bosne i Hercegovine
National Museum of Bosnia and Herzegovina

Adresa uredništva/Address of the editor's office
Zmaja od Bosne 3, 71 000 Sarajevo
Bosna i Hercegovina/Bosnia and Herzegovina
Telefon/Phone +387 (0)33 262 710
e-mail: urednistvo.gzmbih.a@zemaljskimuzej.ba
http://www.zemaljskimuzej.ba

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Dobra knjiga d.o.o.

Tiraž/Issued
300 primjeraka/ 300 copies

Časopis je referiran u/The journal is included in
CEEOL – Central and Eastern European Online Library
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Službena skraćenica časopisa je GZM BiH, n. s. A
Official abbreviation of this journal's title is GZM BiH n. s. A

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NOVA SERIJA – NEW SERIES

SVESKA – VOLUME 57 – 2025.

GZM BiH (A)	n. s. 57	130 stranica	SARAJEVO	2025.

SADRŽAJ / CONTENTS

Izlaganje prahistorijskog čamca iz Donje Doline u otvorenom izložbenom prostoru

Display of the Prehistoric Boat from Donja Dolina in an Open Exhibition Space

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Stručni rad
Professional paper
UDK: 069.44:903.2:629.122 (497.6 Donja Dolina) " -5 "

Primljeno/Received: 3.3.2025.
Prihvaćeno/Accepted: 31.10.2025.

Prahistorijski čamac iz Donje Doline kod Bosanske Gradiške otkriven je 1904. godine. Tada konzerviran, stajao je izložen od 1914. do 2020. godine u vitrini na konstrukciji sačinjenoj od 13 metalnih nosača. Od 1992. godine ova izložba je bila zatvorena za javnost zbog ratnih dešavanja te se tek 2015/2016. godine stiču uslovi za planiranje nove stalne izložbe. Po početku radova na novoj stalnoj izložbi planiran je i projekt konzervacije i restauracije prahistorijskog čamca iz Donje Doline, koji je završen 2020. godine. Uporedo je rađeno na projektu izmještanja čamca. Njegova metalna konstrukcija je modifikovana, te je pomoću sajli postavljen na konstrukciju iznad svjetlarnika izložbenog prostora. Od 2021. godine, bez vitrine, čamac stoji slobodno u prostoru između dva sprata izložbe. U ovom radu napravljen je još jedan osvrt na taj projekt, na postavljanje najvećeg predmeta u stalnoj izložbi "Bosna i Hercegovina u prahistorijsko doba" i na njegovo održavanje koje se odvija sada već četvrtu godinu.
Ključne riječi: izlaganje, konzervacija, restauracija, prahistorija, čamac, Donja Dolina, stalna izložba

The prehistoric boat from Donja Dolina near Bosanska Gradiška was discovered in 1904. After being conserved at that time, it stood from 1914 to 2020 exhibited in a display case on a structure composed of 13 metal supports. From 1992, this exhibition was closed to the public due to wartime events, with the conditions for planning a new permanent exhibition having only been realized in 2015/2016. From the outset of preparations for the new permanent exhibition, a project for the conservation and restoration of the prehistoric boat from Donja Dolina was also planned, which was completed in 2020. Simultaneously, a relocation project was put into action; the metal supporting structure was modified and, with the help of cables, the boat was placed in a structure suspended below the skylight of the exhibition space. Since 2021, the boat has stood freely (i.e. without a display case) in the space between the two floors of the exhibition. This paper provides an additional perspective on the project, examining the installation of the largest object within the permanent exhibition "Bosnia and Herzegovina in Prehistoric Times" and the maintenance activities carried out in regard to this over the past four years.
Key words: exhibition, conservation, restoration, prehistory, boat, Donja Dolina, permanent exhibition.

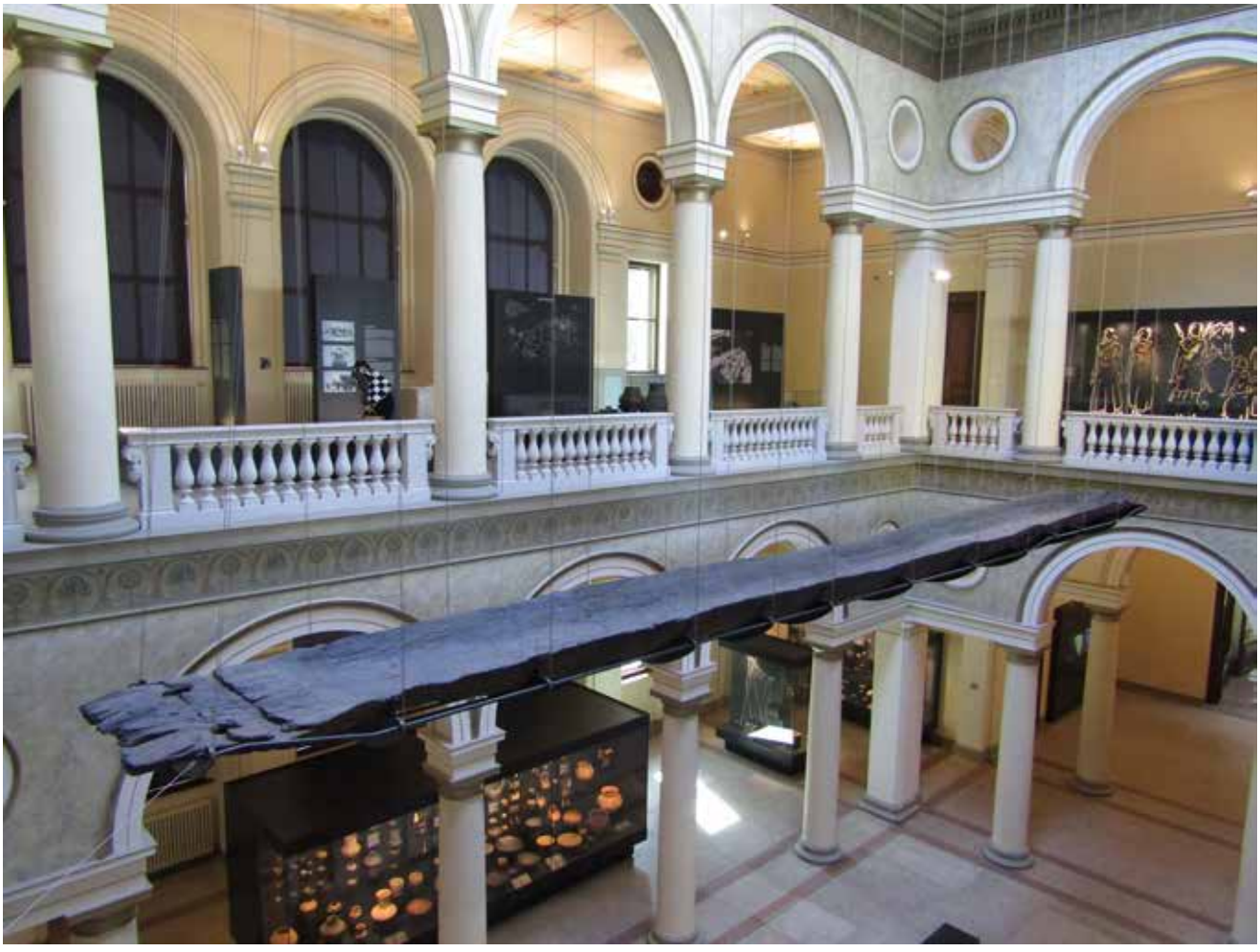
UVOD

Prahistorijski čamac iz Donje Doline izložen je u stalnoj izložbi Zemaljskog muzeja BiH od 2021. godine – kada su se stekli uslovi za ponovno otvaranje izložbe "Bosna i Hercegovina u prahistorijsko doba". Izložen je u međuprostoru između prizemlja i galerije izložbenog prostora na vrlo atraktivan način; pomoću čelične konstrukcije i sajli visi u vazduhu kao najveći i najteži predmet u izložbi (Sl. 1). Prijedlog za premještanje čamca dala je jedna od autorki izložbe, dr. sc. A. Pravidur. Izmještanjem čamca izložba je dobila određenu dinamiku, savremen izgled te horizontalnu povezanost. Također je omogućeno posmatranje predmeta sa svih strana; moguće je razgledati, koliko to konstrukcija dozvoljava, predmet s donje i gornje, te s bočnih strana. Na mjestu gdje je ranije stajala vitrina s čamcem otvorio se prostor za neometano cirkulisanje posjete te za druge namjene, povremene kulturne događaje i slično. Međutim, stanje čamca nije dozvoljavalo izmještanje bez prethodno obavljenih konzervatorskih radova.

INTRODUCTION

The prehistoric boat from Donja Dolina has been exhibited in the permanent exhibition of the National Museum of Bosnia and Herzegovina since 2021, when the conditions were created for the reopening of the exhibition "Bosnia and Herzegovina in Prehistoric Times." It is showcased in the opening created by the mezzanine gallery in a very attractive manner – suspended in the air using a steel structure and cables – and represents the largest and heaviest object in the exhibition (Fig. 1). The proposal for relocating the boat was given by one of the authors of the exhibition, Dr. Andrijana Pravidur. By relocating the boat, the exhibition gained a certain dynamic, a modern appearance, and horizontal connectivity. The relocation also enabled the observation of the object from all sides; the new supporting structure makes it possible to view the object from below and above, as well as from the sides. The space formerly occupied by the boat's display case has been opened up to enable the free circulation of visitors and to serve additional purposes, including the hosting of occasional cultural events and related activities.

However, the condition of the boat was such that it was impossible to relocate without preceding conservation.



Sl. 7. Fotografija čamca iz Donje Doline u stalnoj postavci Bosna i Hercegovina u prahistorijsko doba, Zemaljski muzej Bosne i Hercegovine (snimio:ZMBIH)

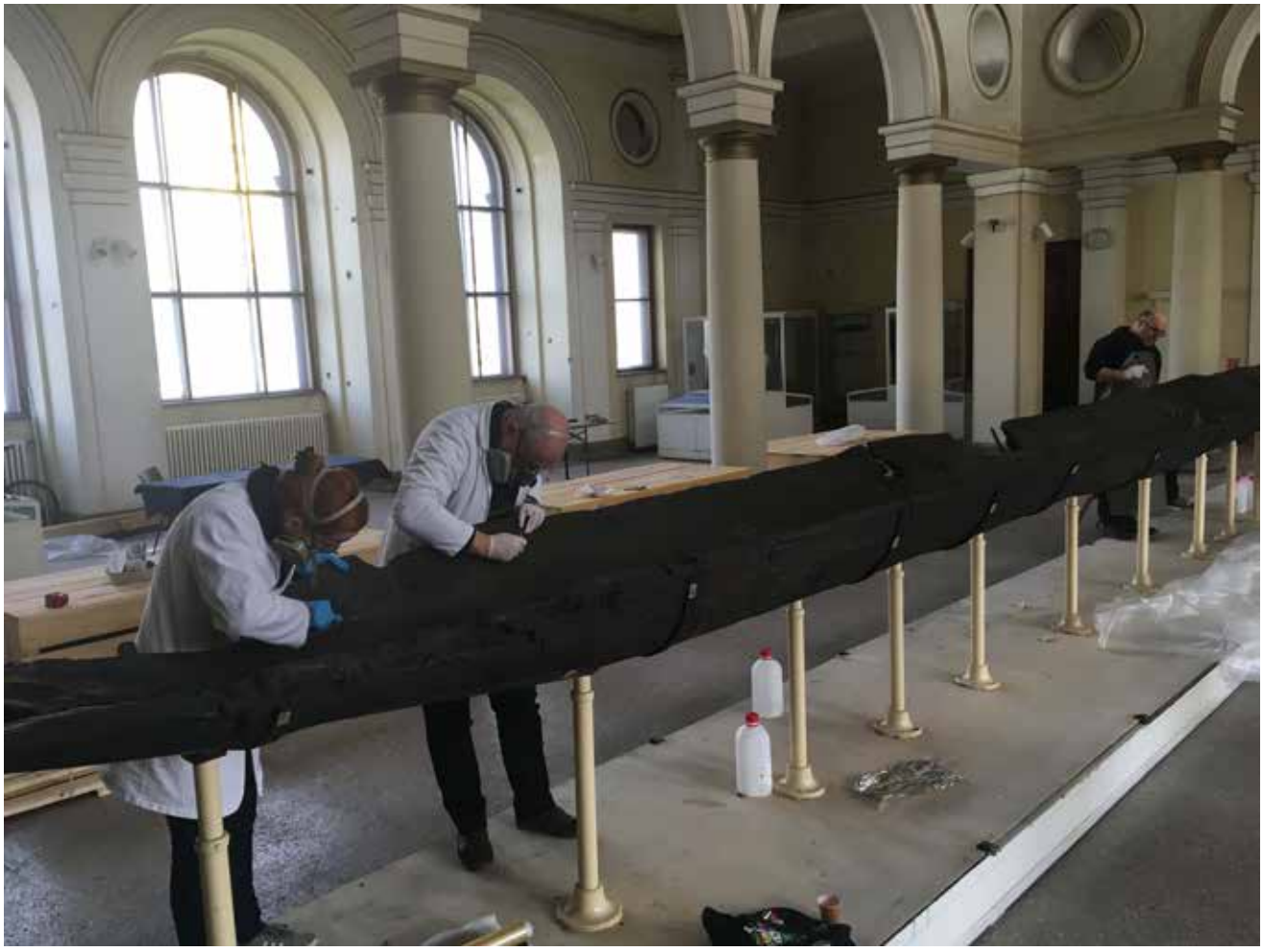
Fig. 7. The boat from Donja Dolina in the permanent exhibition ***Bosnia and Herzegovina in Prehistoric Times****, National Museum of Bosnia and Herzegovina (photo by ZMBiH)*

O ANALIZAMA, KONZERVACIJI I PROJEKTU IZMJEŠTANJA ČAMCA

Čamac je izdubljen u hrastovom stablu i njegova dužina iznosi 12,38 m. Širina mu je u prednjoj četvrtini 0,85 m a u zadnjoj 0,95 m. Prilikom procesa konzervacije i restauracije (Sl. 2), ovaj monoksil je spojen u cjelinu od ukupno 70 ulomaka i jednog velikog fragmenta. Čamac je u periodu od 1914. do 2020. godine bio postavljen na 13 metalnih poprečnih nosača koji prate njegov oblik (Sl. 4). Svaki nosač je stajao na postolju koje je bilo pričvršćeno za dno vitrine, smještene na sredini prizemlja izložbe.

ABOUT THE ANALYSIS, CONSERVATION, AND THE PROJECT FOR RELOCATING THE BOAT

The boat was hollowed out of an oak trunk, and has a total length of 12.38 m. Its width at the front quarter is 0.85 m and at the rear quarter 0.95 m. During the conservation and restoration process (Fig, 2), this monoxyl was reassembled from a total of 70 smaller fragments and one larger fragment. From 1914 to 2020, the boat was placed on 13 metal transverse supports that followed its contours (Fig. 4), with each support standing on a base fixed to the bottom of the display case, which was located in the middle of the ground floor of the exhibition.



Sl. 4. Fotografija konzervacije čamca iz Donje Doline, Zemaljski muzej Bosne i Hercegovine (snimio:ZMBIH)

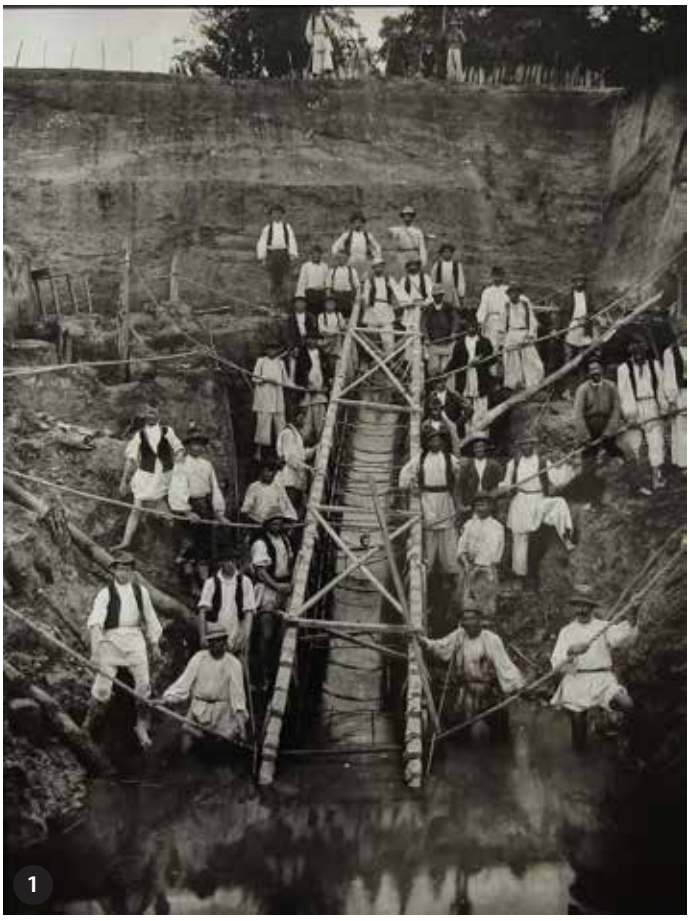
Fig. 4. Conservation of the boat from Donja Dolina, National Museum of Bosnia and Herzegovina (photo by ZMBiH)

Na unutrašnjoj površini čamca vidljive su valovite deformacije prouzrokovane tim metalnim nosačima koji su spriječili prirodna kretanja drveta. Osim nosačima, različitim fizikalnim i hemijskim djelovanjima iz atmosfere prouzrokovana su i druga oštećenja (manje pukotine, deformacije i slično). Dok je arheološko iskopavanje trajalo (Sl. 3), 1904–1905. godine, čamac je natapan karbolineumom kako se drvo u iznenadnom kontaktu sa zrakom ne bi raspalo.[1] To je očuvalo čamac u dobrom stanju, kao i vitrina iz

Wavy deformations are visible on the inner surface of the boat, caused by those metal supports, which inhibited the natural movement of the wood. In addition to these deformations, other damages (minor cracks, warps, etc.) were caused by various physical and chemical influences from the atmosphere. While archaeological excavations were still ongoing (Fig. 3), from 1904 to 1905, the boat was soaked with carbolineum so that the wood would not disintegrate through sudden contact with the atmosphere.[1] This ensured the boat's

1 Truhelka 1906, 104.

1 Truhelka 1906, 104.



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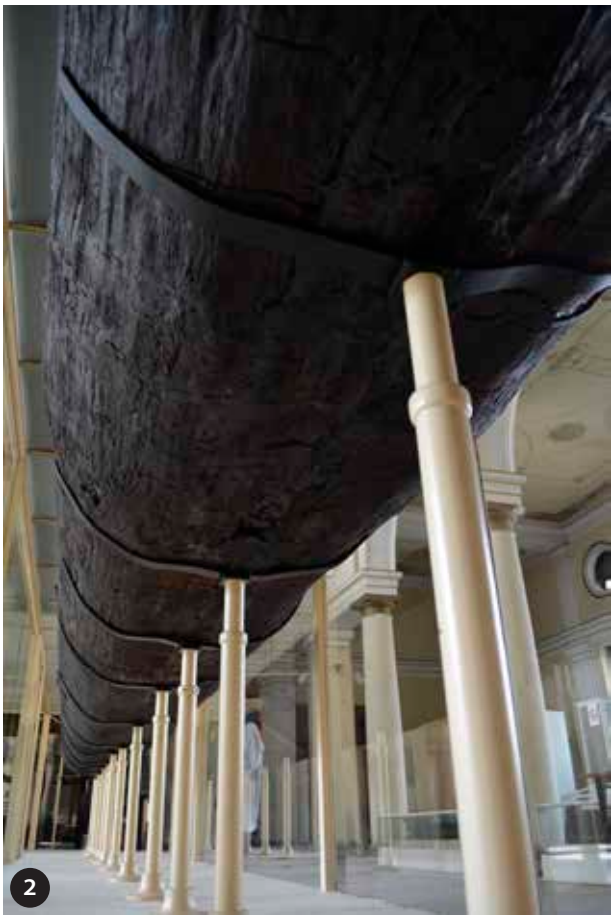

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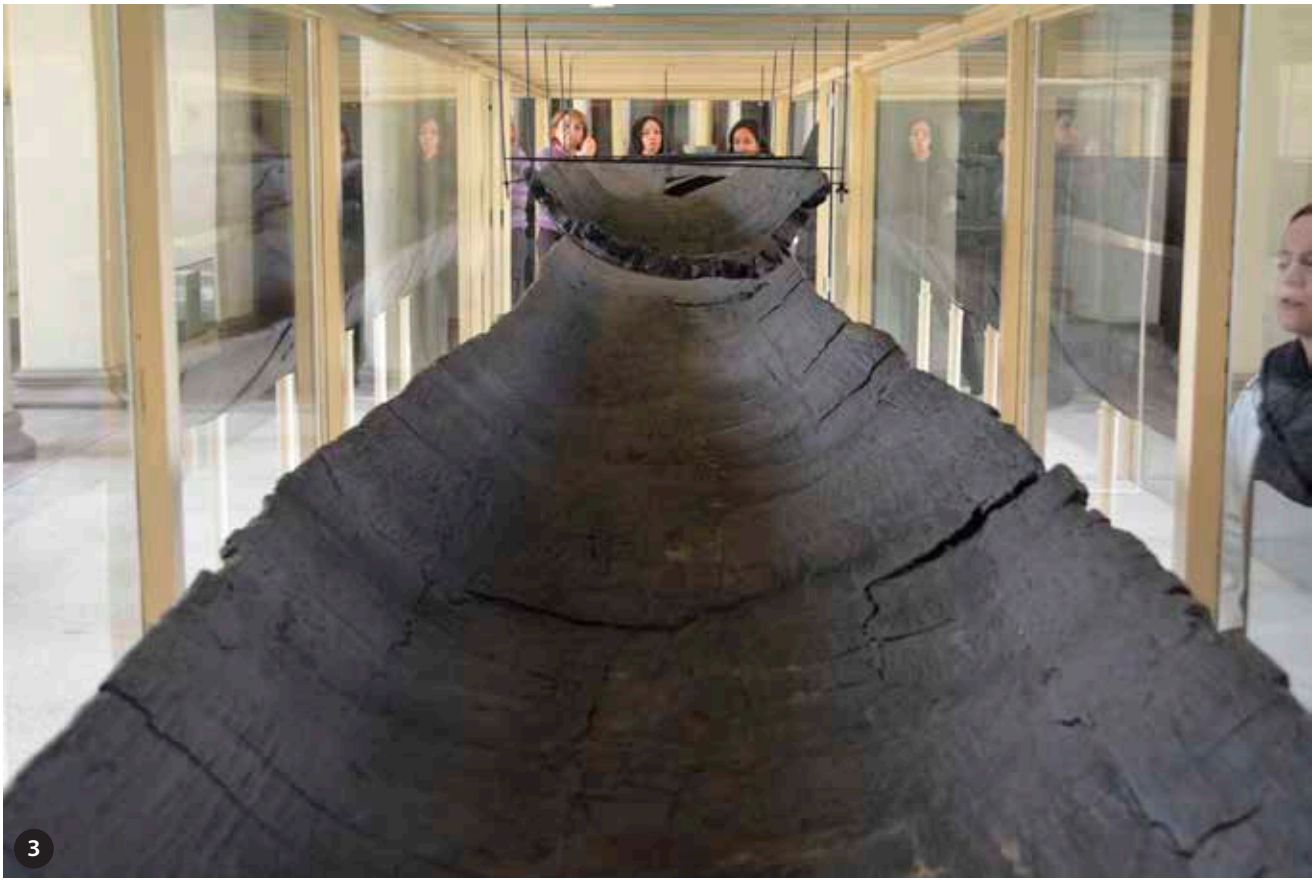


3

austrougarskog perioda, napravljena od metalnih ramova sa staklom, nešto drveta, s vunenim filcom na dnu vitrine i brtvama koje su i 100 godina nakon proizvodnje savršeno dihtovale (Sl. 5). Takve vitrine još i danas služe na Odsjeku za antiku i Odsjeku za srednji vijek.

Da bi bilo moguće izložiti čamac slobodno u otvorenom galerijskom prostoru, napravljene su različite analize materijala: analiza površinskog sloja mikroskopskim pregledom i infracrvenom spektroskopijom,[2] identifikacija uzorka drveta,[3] analiza materijala radiokarbonskom metodom,[4] fotogrametrijsko snimanje[5] i radiografsko ispitivanje.[6]

Analiza površinskog sloja mikroskopskim pregledom i infracrvenom spektroskopijom pokazuje složen sistem koji sadrži policikličke aromate na bazi antracena i naftalena i spojeve na bazi krezola. Analiza upućuje na to da se radi o sredstvu za zaštitu drvenih predmeta koji je poznat pod nazivom karbolineum (karboleum). Identifikacija uzorka drveta trebala je biti napravljena mikroskopom, međutim, nije bilo moguće izraditi histološke preparate (drvo se raspadalo pri rezanju). Na uzorku drveta je makroskopski uz pomoć lupe ustanovljeno da je drvo iz roda hrast (*Quercus sp*.), te su rezultati radiokarbonske metode pokazali da drvo datira iz perioda 5621–5492 pr. n. e. Fotogrametrijsko snimanje i radiografsko ispitivanje su omogućili prikaz cjelokupnog predmeta prije konzervacije sa svim njegovim ankerima, fragmentima i masticima koji nisu bili vidljivi prostim promatranjem predmeta.[7]

Nakon dobivenih rezultata analiza i nakon što je predmet pregledan, izvršen je konzervatorsko-restauratorski zahvat (čišćenje, konsolidacija, spajanje fragmenata te nanošenje zaštite na površinu predmeta). Također su razmotrene mogućnosti održavanja i zaštite predmeta koji će sada stajati bez vitrine. Izvršeni su svi potrebni istražno-analitički radovi prije konzervatorsko-restauratorskog tretmana, ispitani su i analizirani materijali koji su u tom postupku korišteni, izvršene su probe i jedan vid simulacije estetsko-likovnog rješenja po završetku svih radova. Svi upotrebljeni materijali u tom procesu kompatibilni su s autentičnom građom. Konzervacija i restauracija je napravljena u saradnji s Istituto Superiore per la Conservazione ed il

Sl. 1. Fotografija iskopavanja čamca, Zemaljski muzej Bosne i Hercegovine (snimio: F. Topič)

Fig. 1. Excavation of the boat, National Museum of Bosnia and Herzegovina (photo by F. Topič)

Sl. 2. Fotografija nosača čamca, Zemaljski muzej Bosne i Hercegovine (snimio:ZMBIH)

Fig. 2. The boat supports, National Museum of Bosnia and Herzegovina (photo by ZMBiH)

Sl. 3. Fotografija oštećenja i deformacija čamca u vitrini, Zemaljski muzej Bosne i Hercegovine (snimio:ZMBIH)

Fig. 3. Damage and deformation of the boat in the display case, National Museum of Bosnia and Herzegovina (photo by ZMBiH)

2 Analiza napravljena na Univerzitetu u Sarajevu – Prirodno-matematičkom fakultetu, na Odsjeku za hemiju, dr. sc. Emira Kahrović, red. prof.

3 Analiza napravljena na Univerzitetu u Sarajevu – Šumarskom fakultetu, prof. dr. Safet Gurda.

4 Analiza napravljena na Beta Analytic, radiocarbon dating, Miami, Florida.

5 Snimanje napravili Geodet, d. o. o., Snimanje objekata od kulturnog i historijskog značaja.

6 Ispitivanje proveo Energoinvest, Institut za materijale i kvalitet – IMQ, laboratorija za ispitivanje bez razaranja.

7 Vesković, Bajramović 2023, 107–108.

preservation in good condition, as did the Austro–Hungarian-era display case, constructed from metal frames with glass and partial wooden elements, featuring woollen felt at the base and seals that, even a century after their creation, remained perfectly intact (Fig. 5). Such display cases are still in use today within the Department of Classical Antiquity and the Department of the Middle Ages.

In order to make it possible to exhibit the boat freely in an open gallery space, various material analyses were carried out: analysis of the surface layer by microscopic examination and infrared spectroscopy,[2] identification of a sample taken from the wood,[3] analysis of the material using the radiocarbon method,[4] photogrammetric recording,[5] and radiographic examination.[6]

Microscopic examination and infrared spectroscopy of the surface layer revealed a complex system containing polycyclic aromatic compounds based on anthracene, naphthalene, and cresol derivatives. The analysis indicates that this was a protective agent for wooden objects known under the name carbolineum (carboleum). It was intended that the identification of the wood sample would be carried out using a microscope; however, it was not possible to prepare histological sections, due to the wood disintegrating during cutting. Therefore, the wood sample was macroscopically studied with the aid of a magnifying glass; this allowed it to be determined that the wood belongs to the genus oak (*Quercus* sp.), with the results of the radiocarbon method further showing that it dates from 5621–5492 BCE. Photogrammetric recording and radiographic examination enabled the presentation of the entire object prior to conservation, with all its anchors, fragments, and the mastics added by Austro-Hungarian preparators that were not visible through simple observation of the object.[7]

After the analyses had been performed and the object examined, a conservation-restoration intervention was carried out (cleaning, consolidation, joining of fragments, and application of protection to the surface of the object). The possibilities for maintenance and protection, with the artefact now standing outside a display case, were also considered. All necessary investigations and analytics were performed before the conservation-restoration treatment; the materials used in the procedure were also

2 Analysis performed at the University of Sarajevo, Faculty of Natural Sciences and Mathematics, Department of Chemistry, by Prof. Dr. Emira Kahrović.

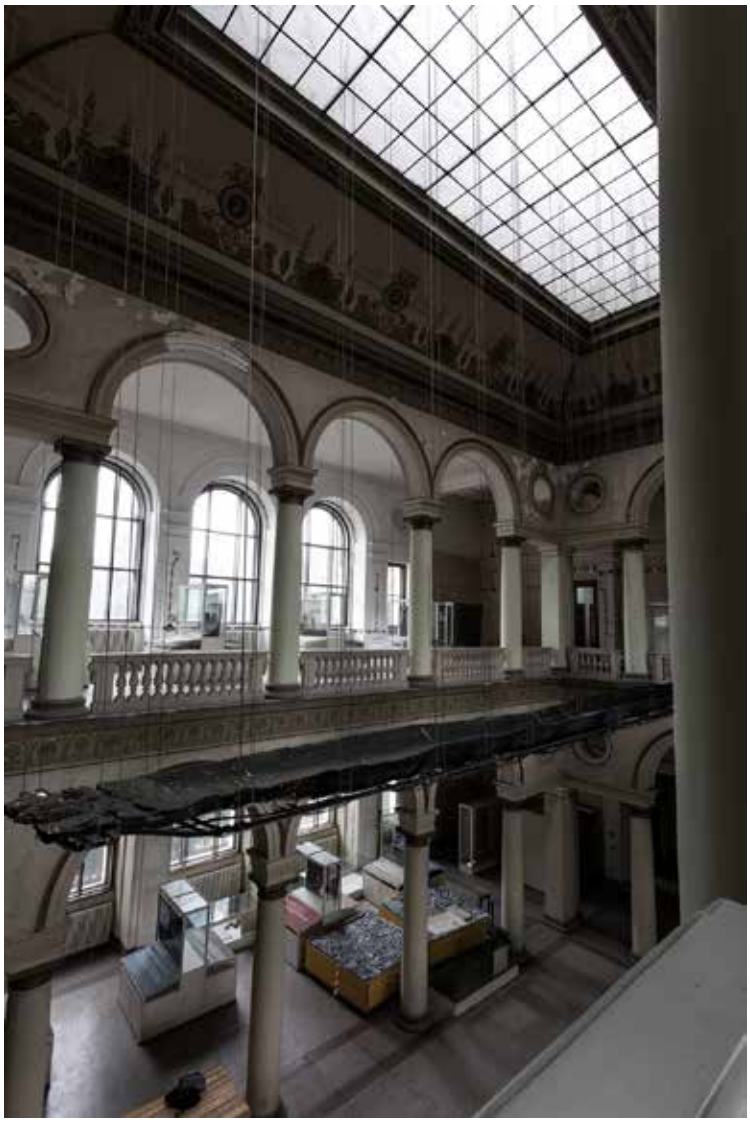
3 Analysis performed at the University of Sarajevo, Faculty of Forestry, by Prof. Dr. Safet Gurda.

4 Radiocarbon analysis performed by Beta Analytic, Miami, Florida.

5 Recording carried out by Geodet d.o.o., service for recording of objects of cultural and historical significance.

6 Examination carried out by ENERGOINVEST, Institute for Materials and Quality – IMQ, laboratory for non-destructive testing.

7 Vesković, Bajramović 2023, 107–108.



Sl. 5. Prikaz prijedloga izlaganja čamca iz Donje Doline, Zemaljski muzej Bosne i Hercegovine (izradio: IP INTERPROJEKT)

Fig. 5. Illustration of the proposed display of the boat from Donja Dolina, National Museum of Bosnia and Herzegovina (prepared by IP INTERPROJEKT)

Restauro (ISCR).[8] Izvršeno je uklanjanje karboleuma, kako se nepovoljna isparavanja ne bi širila, ali je projektom izložbenog prostora instaliran i sistem ventilacije. Na taj način je omogućeno sigurno izlaganje predmeta u izložbenoj prostoriji. Odabran je dvokomponentni araldit (Woodplaster 427 part A, part B epoksi smola za modelovanje, popravke drveta), kao lagan i stabilan mastik za šupljine u materijalu, dok su spojevi fragmenata ankerisani drvenim ankerima i spojeni polivinil-acetatnim ljepilom.[9]

examined and analysed to determine their compatibility with the authentic fabric. Following the completion of all works, tests were performed, along with a simulation of the final aesthetic and artistic design solution. The conservation and restoration was carried out in cooperation with the Istituto Superiore per la Conservazione ed il Restauro (ISCR), based in Rome, Italy.[8] To prevent the dispersion of harmful vapours, the carboleum was removed, and a ventilation system was installed as part of the exhibition space project. In this way, the safe exhibition of the object in the exhibition room was made possible. A two-component araldite (Woodplaster 427 part A, part B epoxy resin for modelling and wood repairs) was selected as

8 Godine 2017. kroz radionicu o konzervaciji arheološkog drveta napravljeni su testovi čišćenja čamca. Na radionici su učestvovali konzervatori Zemaljskog muzeja BiH: konzervator savjetnik mr. Esad Vesković, viši preparator Damir Lazzari, konzervator Lejla Bajramović MA, konzervator Emir Kapetanović i viši konzervator mr. Azra Bečević-Šarenkapa; radionicu su vodili: Antonella Di Giovani, konzervatorica specijalizirana za prezervaciju i konzervaciju historijskih i arheoloških artefakata, zatim Irene Cristofari, konzervatorica arheološke i historijske keramike, metala, stakla i organskih artefakata, te Roberto Saccuman, predavač na Visokom institutu za konzervaciju u Rimu i konzervator i restaurator za drvo, izuzetno bogatog iskustva. (Vesković, Bajramović 2023, 108).

9 Vesković, Bajramović 2023, 108–109.

8 In 2017, tests of cleaning the boat were carried out during a workshop on the conservation of archaeological wood. The workshop was attended by conservators of the National Museum of BiH: Esad Vesković MSc, senior conservator, Damir Lazzari, senior preparator, Lejla Bajramović MA, conservator, Emir Kapetanović, conservator, and Azra Bečević-Šarenkapa MSc senior conservator. The workshop was led by the following experts: Antonella Di Giovani, conservator specialised in the preservation and conservation of historical and archaeological artefacts; Irene Cristofari, conservator of archaeological and historical ceramics, metals, glass and organic artefacts; and Roberto Saccuman, lecturer at ISCR and conservator and restorer for wood, who has exceptionally rich experience in this field (Vesković, Bajramović 2023, 108).

Na temelju provedenih statičkih analiza, kao i analiza svih komponenti koje čine konstrukcijski sistem sa svim potrebnim atestima, urađeno je i kompletno projektno rješenje podizanja čamca. Projektno rješenje podizanja čamca iz Donje Doline uradila je firma IP INTERPROJEKT iz Mostara (Sl. 6). Kako je drvo bilo već deformisano prema obliku postojećih nosača, odlučeno je da se iskoriste s postojećih pozicija kao stalni nosilac predmeta i baza na koju su dodati ostali elementi noseće konstrukcije, te su na taj način izbjegnuta dodatna oštećenja na površini predmeta. Procijenjena masa čamca je oko 800 kg, a za potrebe statičke analize uzete su donja i gornja granica, 700 odnosno 1000 kg.[10] Tim iz IP INTERPROJEKT uzeo je u obzir da je čamac bio izložen više od 100 godina na poprečnim nosačima te su ih zadržali kao ključni kriterij u traženju i izboru novog rješenja izlaganja predmeta.[11]

PODIZANJE ČAMCA S PRVOBITNE NA NOVU POZICIJU

Podizanje čamca bio je proces u kojem je trebalo obezbijediti zaštitu čamca i njegovo ravnomjerno podizanje.[12] Projektnim rješenjem predviđena je i urađena čelična potkonstrukcija, koja je ojačana čeličnim poprečnim profilima, urađene su i drvene remenate te korito na koje se oslanjala metalna potkonstrukcija (Sl. 7). Prostor između ovih komponenti ispunjen je mekanim materijalom radi ravnomjernog nalijeganja čamca u toku podizanja. Bočno s jedne i druge strane čamca montirana je privremena skela koja je poslužila kao oslanjačka konstrukcija u toku podizanja čamca.[13] Podizanje je vršeno u koracima električnim dizalom s elektromotorom koji je montiran na pozicijama konstrukcije u potkrovnom dijelu prostorije za izlaganje. Metalni lanci dizalice montirani su na čeličnu potkostrukciju ispod čamca i na taj način je lagano vršeno podizanje. U prvom koraku čamac je ravnomjerno podignut na jedan metar visine, oslanjajući se na konstrukciju i poprečne profile. Bilo je to probno podizanje, a čamac je ostao na toj visini 24 sata. U drugom koraku čamac je nakon testiranja ravnomjerno i fazno podizan do predviđene pozicije. Nakon što je podignut u končan položaj, postavljene su sajle, koje su španovane do potrebne jačine zatezanja kako bi preuzele funkciju nosača. Na sajlama se nalaze osigurači i amortizeri za slučaj da dođe do vibracija i potresa. Nakon dotezanja sajli i mjerenja sile, urađena je planska demontaža privremene konstrukcije za podizanje. Svakodnevno je vršen monitoring eventualnih promjena, naročito zategnutosti sajli i drugih promjena koje se odnose na sam eksponat. Tokom ovog monitoringa nisu ustanovljene promjene na eksponatu, a sajle su funkcionalne u punom smislu.

10 Humo *et al.*, 2023,114.
11 Ibid.
12 Ibid., 116.
13 Ibid.

a light and stable mastic for cavities in the material, while the joints of the fragments were anchored with wooden anchors and joined with polyvinyl-acetate adhesive.[9]

Based on the conducted static analyses, as well as certified analysis of all components forming the structural system, a design solution for lifting the boat was developed. The project for lifting the boat from Donja Dolina was developed by IP INTERPROJEKT, a company based in Mostar (Fig. 6). Since the wood had already deformed to match the shape of the existing supports, it was decided that they would be retained in their current positions as the permanent support for the object and as the base for the addition of other structural elements, thereby avoiding further damage to the object's surface. The estimated mass of the boat is around 800 kg, and for static analysis lower and upper limits of 700 and 1000 kg, respectively, were taken.[10] Recognizing that the boat had been exhibited for more than a century on transverse supports, the IP INTERPROJEKT team retained this as a central criterion when designing and choosing a new display solution.[11]

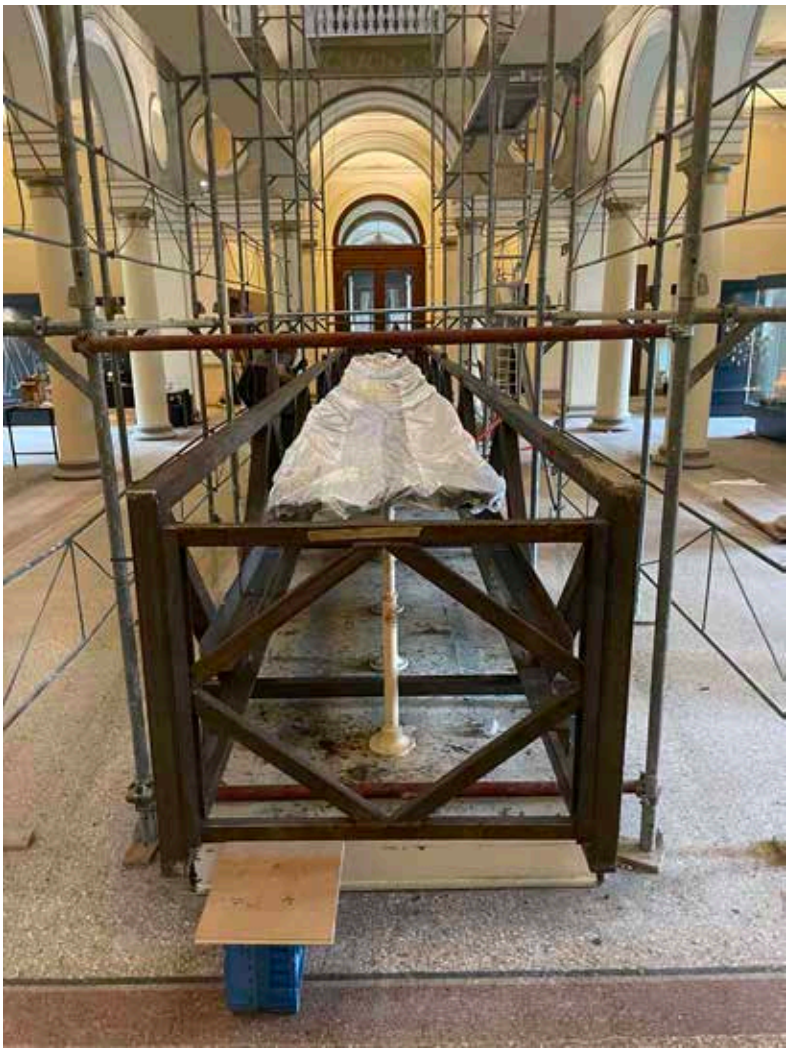
LIFTING OF THE BOAT FROM THE ORIGINAL TO THE NEW POSITION

In the process of lifting the boat, it was necessary to ensure the its protection and even lifting.[12] The project included the design and implementation of a metal steel substructure reinforced with steel cross-profiles. Wooden beams were also constructed, as well as a trough, on which the metal substructure rested (Fig. 7). The space between these components was filled with soft material to achieve an even seating of the boat during lifting. A temporary scaffold was mounted on both sides of the boat, which served as a support structure during its lifting.[13] The lifting itself was carried out in phases with the help of an electric hoist and motor, mounted at the structural positions in the attic part of the exhibition room. The metal chains of the hoist were mounted on the steel substructure beneath the boat, allowing for careful lifting. The first phase included the even lifting of the boat to a height of one metre, then resting it on the construction and steel cross-profiles. This was a 'trial' lift, with the boat remaining at that height for 24 hours. In the second phase, after testing, the boat was evenly and gradually lifted to the planned position. After it had been raised to its final position, cables were installed, which were tensioned to the required strength so as to take over the function of the supports. These cables are equipped with safety devices and shock absorbers to address vibrations and earthquakes. Once the cables were tightened and the force measured, the temporary lifting construction was dismantled according to plan. Daily monitoring was conducted, focusing in particular on cable tension and any changes to the exhibit. During this monitoring, no changes were noted, and the cables were determined to be fully functional.

9 Vesković, Bajramović 2023, 108–109.
10 Humo, Žuškić, Kulukčija, 2023, 114.
11 Ibid.
12 Ibid., 116.
13 Ibid.

Sl. 6. Fotografija podizanja čamca iz Donje Doline, Zemaljski muzej Bosne i Hercegovine (izradio: Neimari d.o.o.)

Fig. 6. Lifting of the boat from Donja Dolina, National Museum of Bosnia and Herzegovina (executed by Neimari d.o.o.)



ODRŽAVANJE EKSPONATA

U toku ove četiri godine bilo je nekoliko manjih potresa na teritoriji Sarajeva, a manje vibracije prouzrokovane javnim saobraćajem su konstantne, međutim, nije bilo bitnih promjena na materijalu. Kako je čamac izložen na otvorenom, podložan je nakupljanju prašine i drugih nečistoća iz zraka, zbog čega se obavlja elektromehaničko čišćenje s pokretne skele svakih tri do šest mjeseci. Također vizuelno se provjerava njegovo stanje, radi uočavanja eventualnih pojava promjena i oštećenja. Na galeriji izložbenog prostora postavljen je i mjerač kvalitete zraka koji daje vrijednosti temperature, relativne vlažnosti zraka i zagađenja zraka.

ZAKLJUČAK

Čamac iz Donje Doline je, uprkos činjenici da je drvo od kojeg je izrađen izgubilo sva svoja svojstva, uspješno sačuvan duže od stoljeća. Krt i izuzetno osjetljiv materijal, a kao cjelina kompaktan i vrlo stabilan, rezultat su upotrebe mastika dobre adhezivne moći, različitih ankera i prije svega znanja

MAINTENANCE OF THE EXHIBIT

During the four years that have passed since the relocation of the monoxyl, several minor earthquakes have affected the territory of Sarajevo, and minor vibrations caused by public traffic are constant; however, there have been no significant changes to the material. As the boat is showcased in the open, it is susceptible to the accumulation of dust and other impurities from the air, and electromechanical cleaning is carried out from a mobile scaffold every 3 to 6 months. Its condition is also visually inspected, in order to check for possible occurrences of change and/or damage. An air quality meter has also been installed in the gallery of the exhibition space, providing temperature, relative humidity and air pollution values.

CONCLUSION

The boat from Donja Dolina – in spite of the wood from which it was made having lost many of its properties – has been successfully preserved for more than a century. The wood from which the boat was made is a brittle and

tadašnjih preparatora i arheologa o prepariranju mokrog drveta. To je omogućilo da se danas čamac iz Donje Doline može sagledati bolje nego ikada, što ga čini jednim od najatraktivnije izloženih predmeta u Zemaljskom muzeju Bosne i Hercegovine.[14] Predmet i njegova prezentacija svakodnevno impresioniraju kako mlađe tako i zrelije posjetitelje našeg Muzeja.

extremely sensitive material, yet as a whole compact and very stable; the result of the use of mastics with good adhesive power, various anchors, and, above all, the knowledge of the preparators and archaeologists of that time regarding the treatment of waterlogged wood. This has made it possible for the boat from Donja Dolina to be presented today in an innovative and attractive manner, making it one of the highlight exhibits of the National Museum of Bosnia and Herzegovina.[14] The object and its presentation continue to impress younger and older visitors alike to our museum each and every day.

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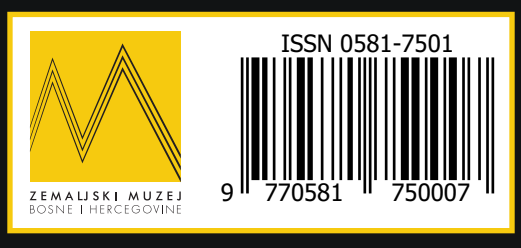
14 Vesković, Bajramović 2023, 112.

14 Vesković, Bajramović 2023, 112.


ZEMALJSKI MUZEJ
BOSNE I HERCEGOVINE
ISSN 0581-7501
9 770581 750007