



Vedran Dorušić – Irena Radić Rossi – Matko Čvrljak

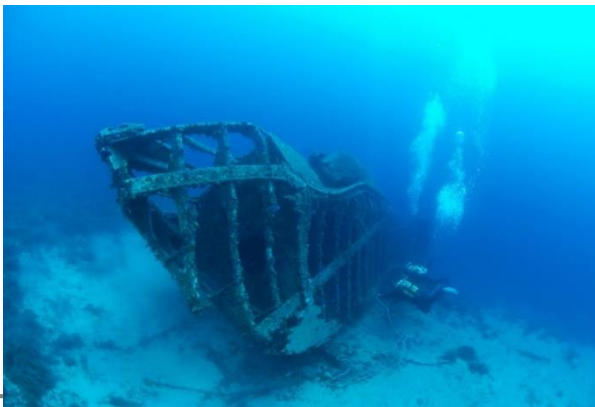
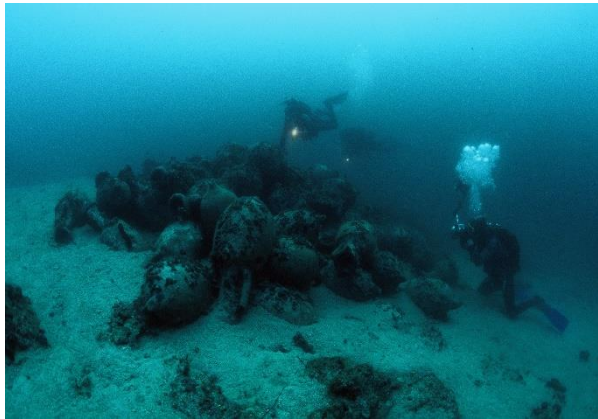
How to protect an outstanding shipwreck site?

Photos, videos, drawings & 3D models:

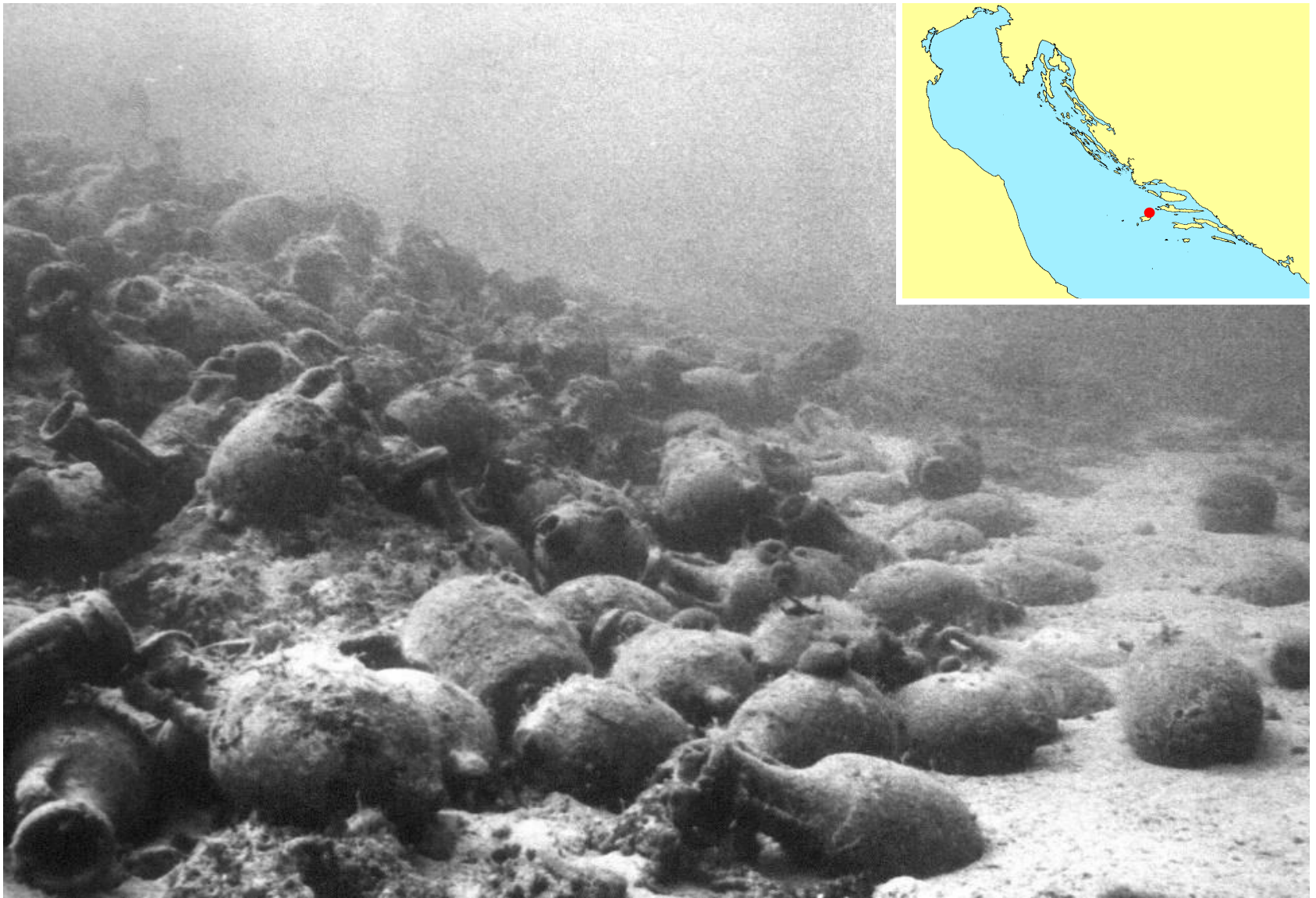
Marino Brzac, Matko Čvrljak, Danijel Frka, Sebastian Govorčin, Anre Hodalić, Tea Katunarić
Vinka Milišić, Bojan Pešl, Irena Radić Rossi, Grega Verč, Andrej Uvodić, Kotaro Yamafune



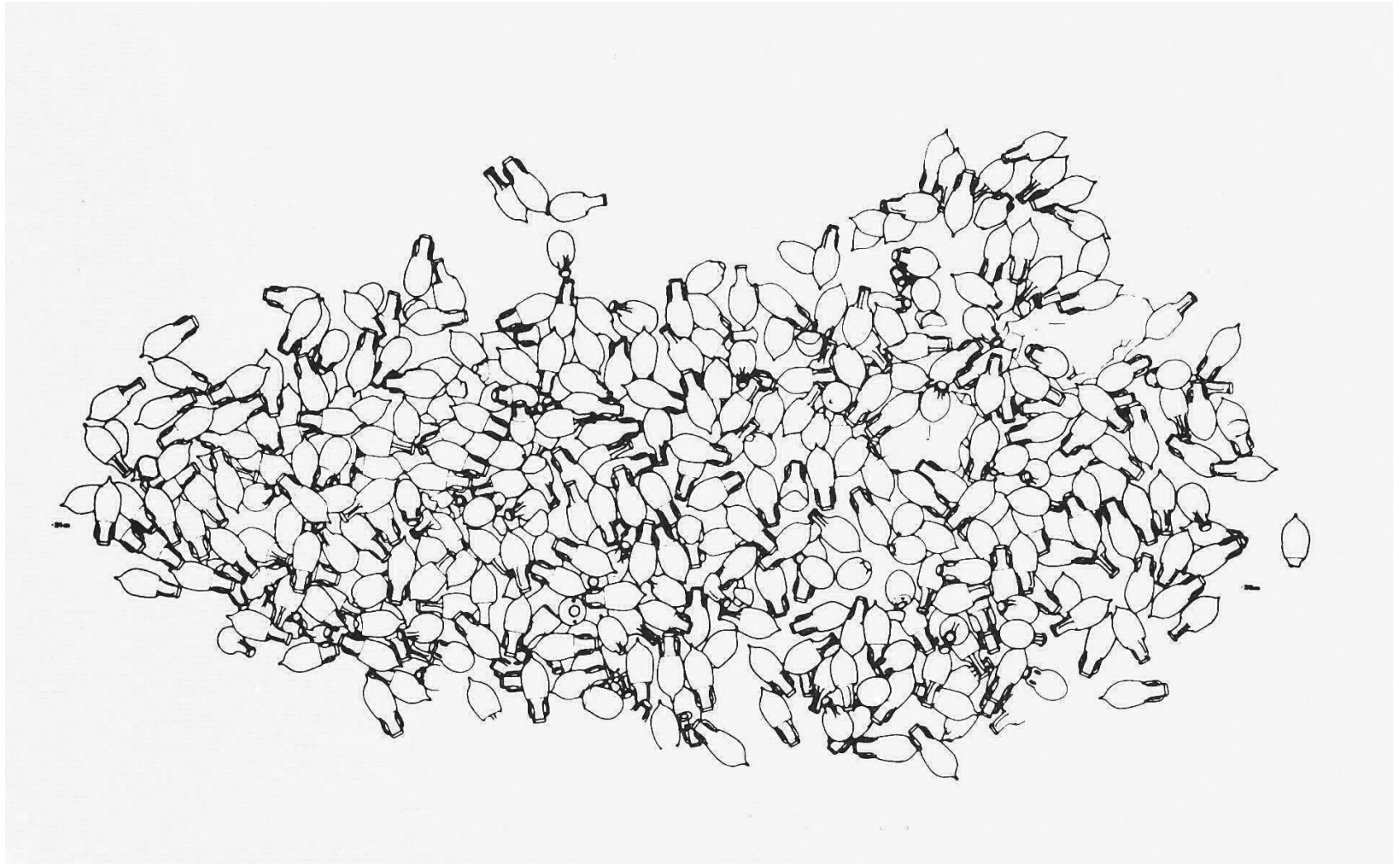
2018 30.09.-07.10.
**BREAKING
THE SURFACE**
BIOGRAD NA MORU, CROATIA
10th INTERNATIONAL INTERDISCIPLINARY FIELD WORKSHOP
OF MARINE ROBOTICS AND APPLICATIONS



Variety of underwater archaeological sites



Vela Svitnja bay, island of Vis, shipwreck, 1st c. BC, 1972 - 1973



Vela Svitnja bay, island of Vis, shipwreck, 1st c. BC, 1972 - 1973





Vela Svitnja bay, island of Vis, Archaeological collection /ssa, Vis



Bay of Duboka, island of Hvar, shipwreck, 3rd/4th c. AD





Islet of Host, island of Vis, shipwreck, 1st c. BC



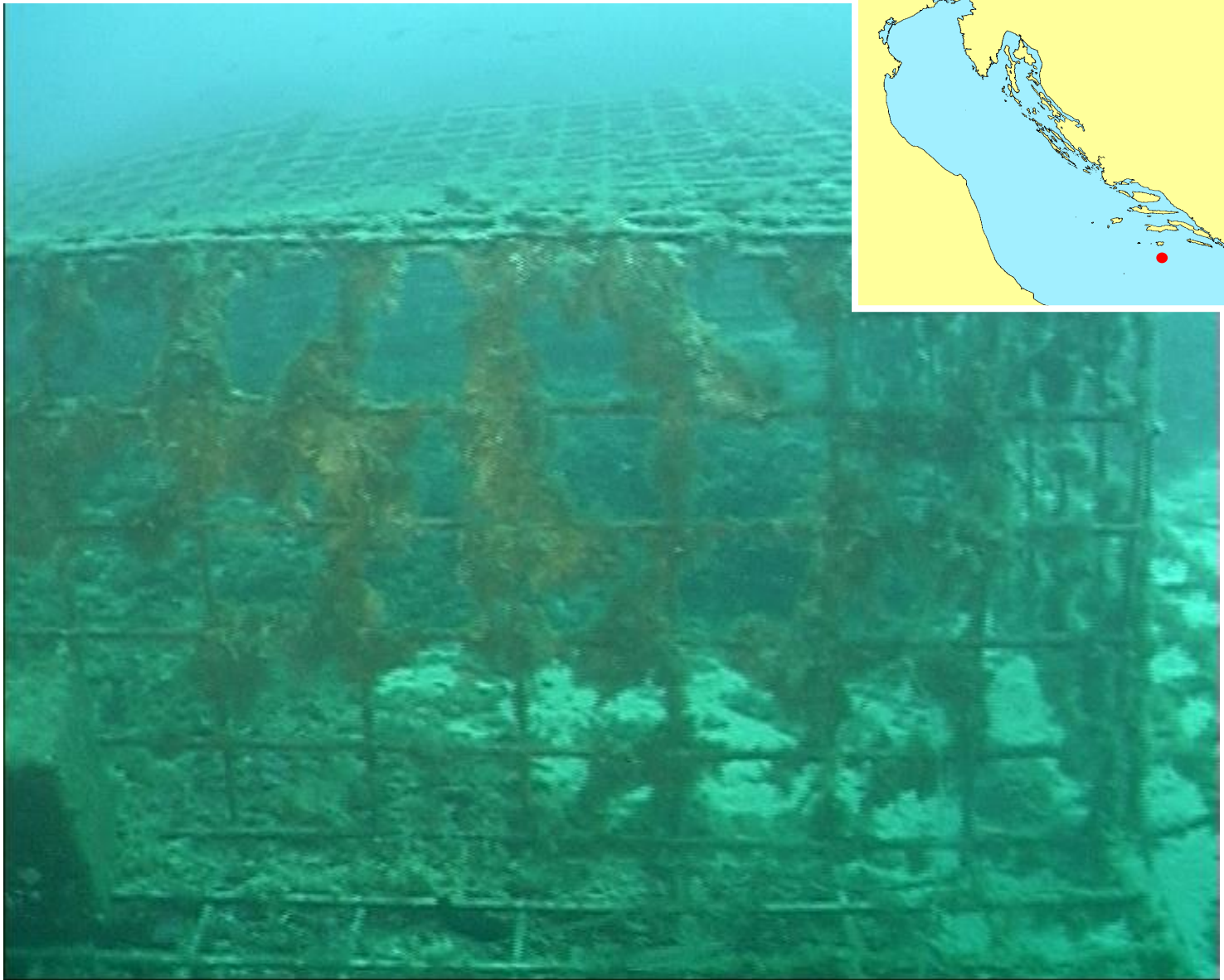


Islet of Host, island of Vis, shipwreck, 1st c. BC





Islet of Saplun, island of Lastovo, shipwreck, 2nd c. BC, 1987



Baške Stijene, island of Lastovo, shipwreck, 1st c. BC



Baške Stijene, island of Lastovo, shipwreck, 1st c. BC



Distribution map of the protective cages



Islet of Supetar, Cavtat, shipwreck, 3rd/4th c. AD



Islet of Supetar, Cavtat, shipwreck, 3rd/4th c. AD



Islet of Supetar, Cavtat, shipwreck, 3rd/4th c. AD





Vlaška Mala cove, island of Pag, shipwreck, 1st c. BC



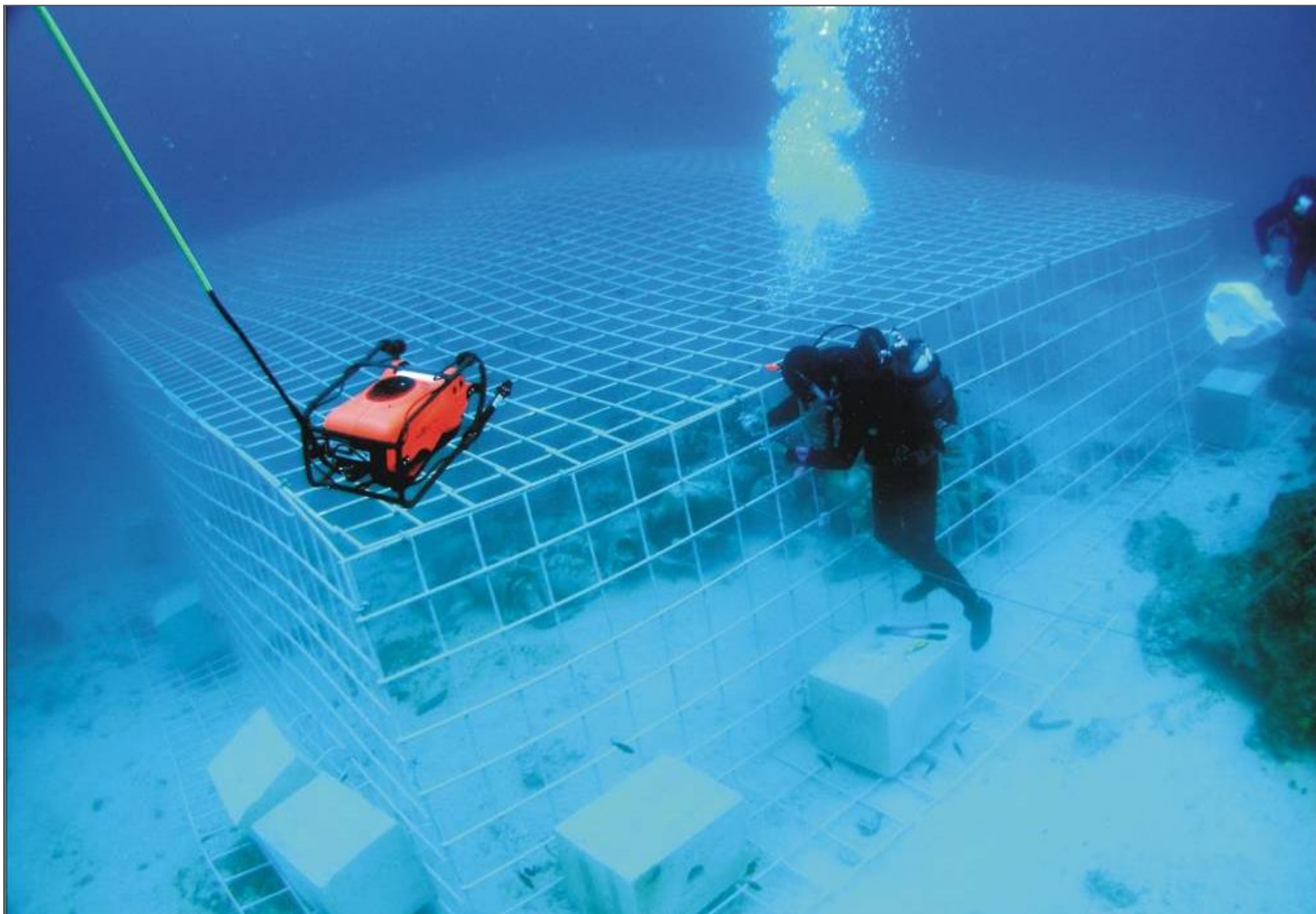
Vlaška Mala cove, island of Pag, shipwreck, 1st c. BC



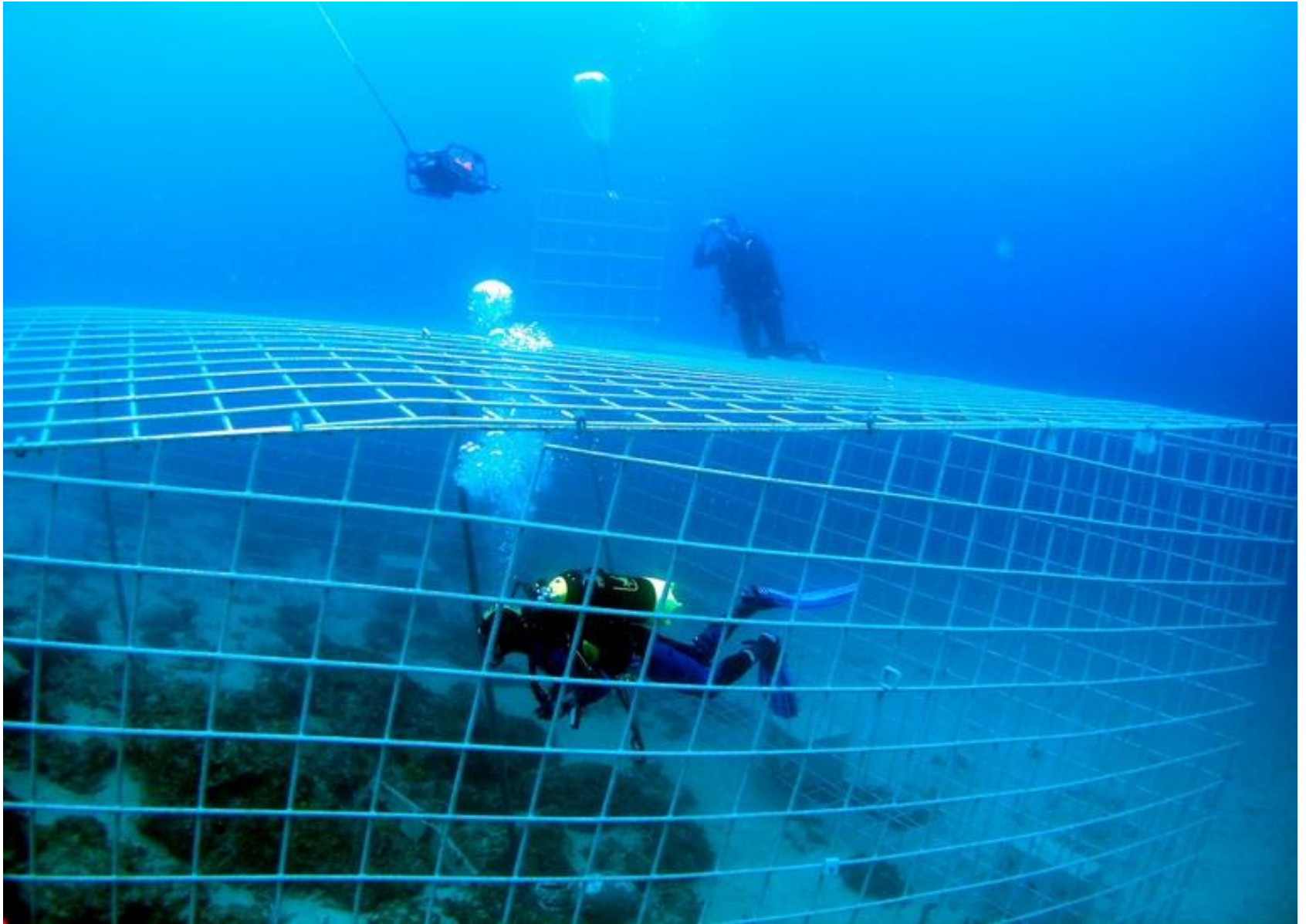
Hypotetical reconstruction of a Roman merchantman



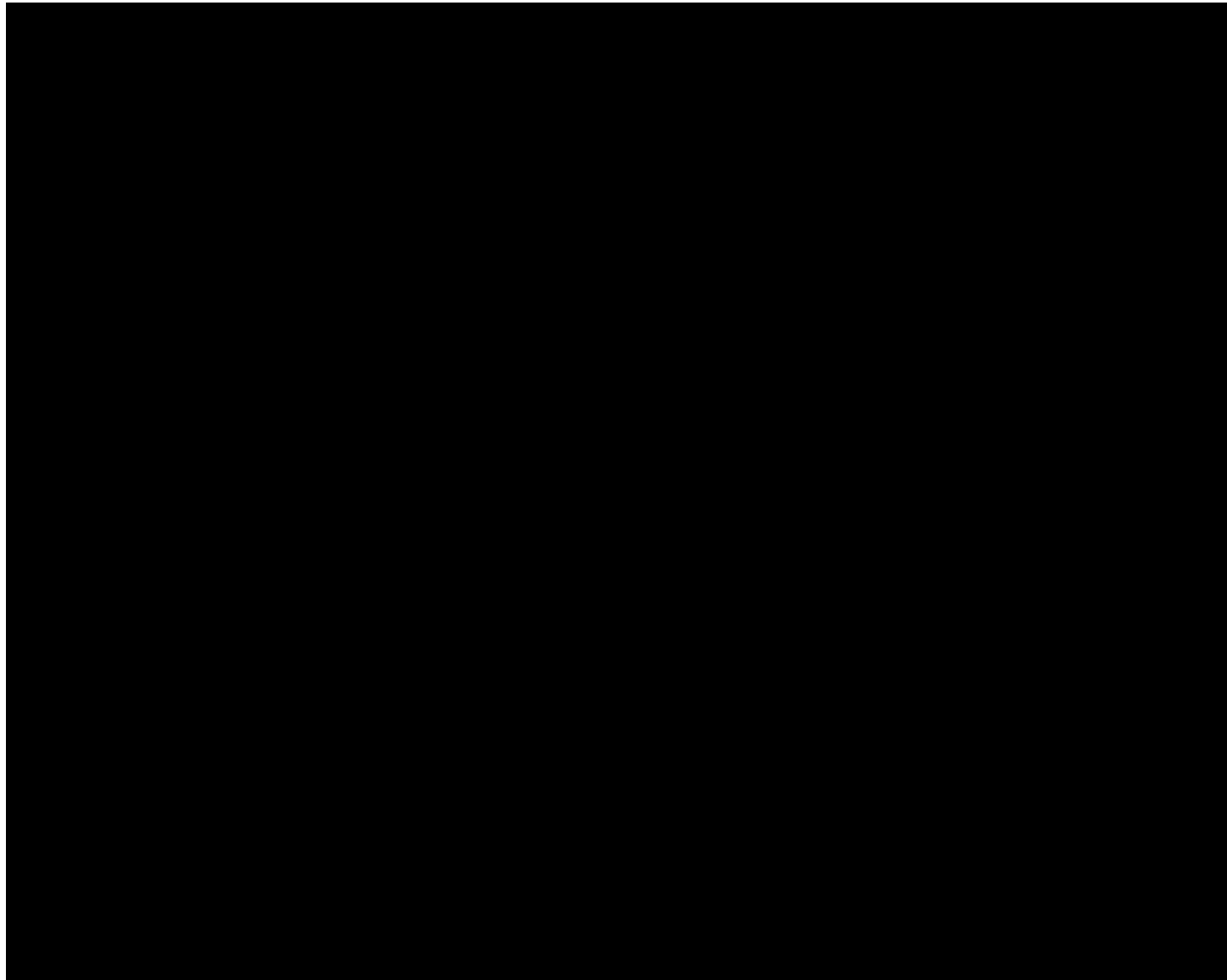
Hypotetical reconstruction of a wrecked Roman merchantman



Vlaška Mala cove, island of Pag, shipwreck, 1st c. BC



Vlaška Mala cove, island of Pag, shipwreck, 1st c. BC

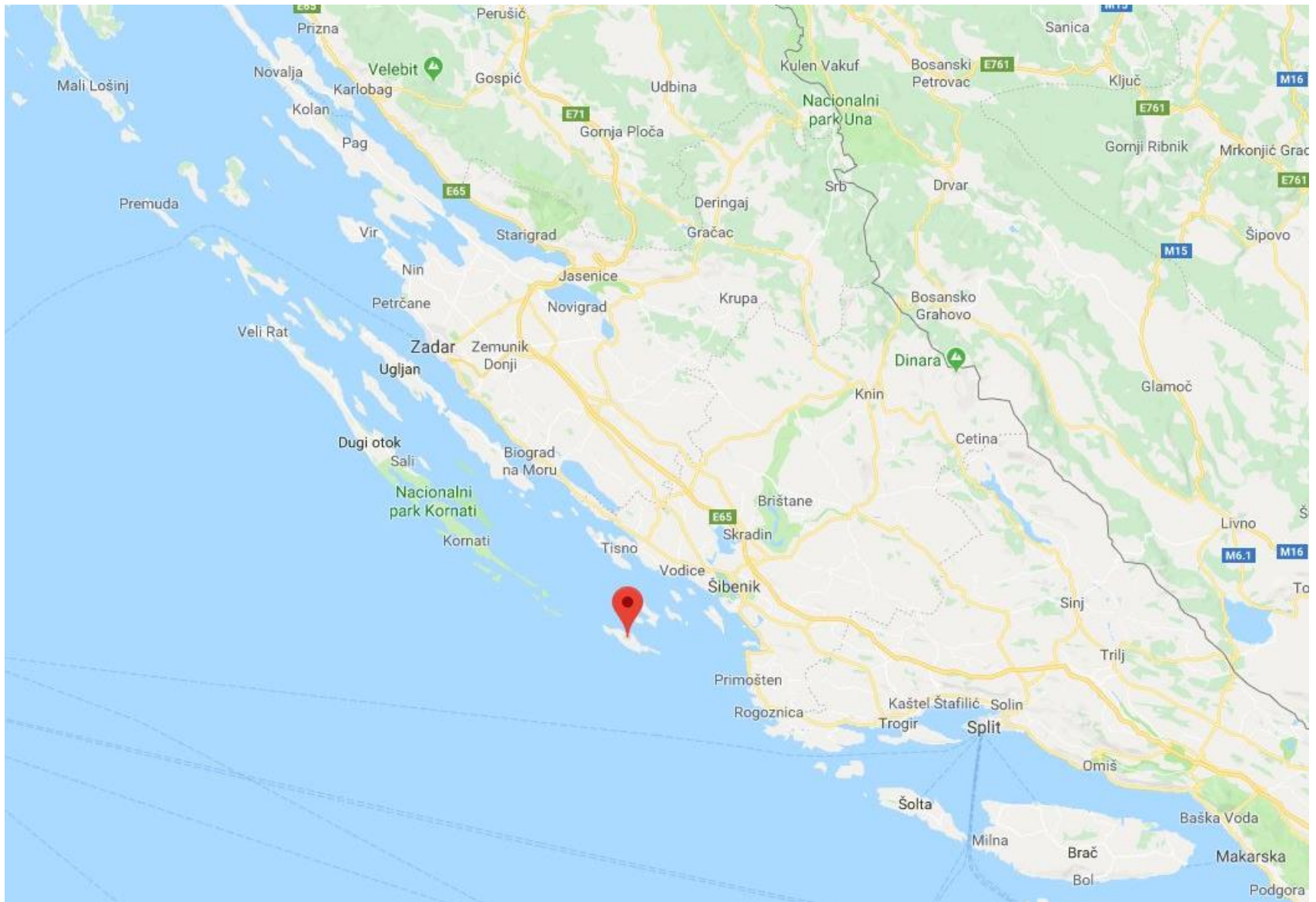


Cape Sorinj, island of Rab, shipwreck, 2nd/1st c. BC



New discoveries





Island of Žirje, shipwreck, 4th c. BC



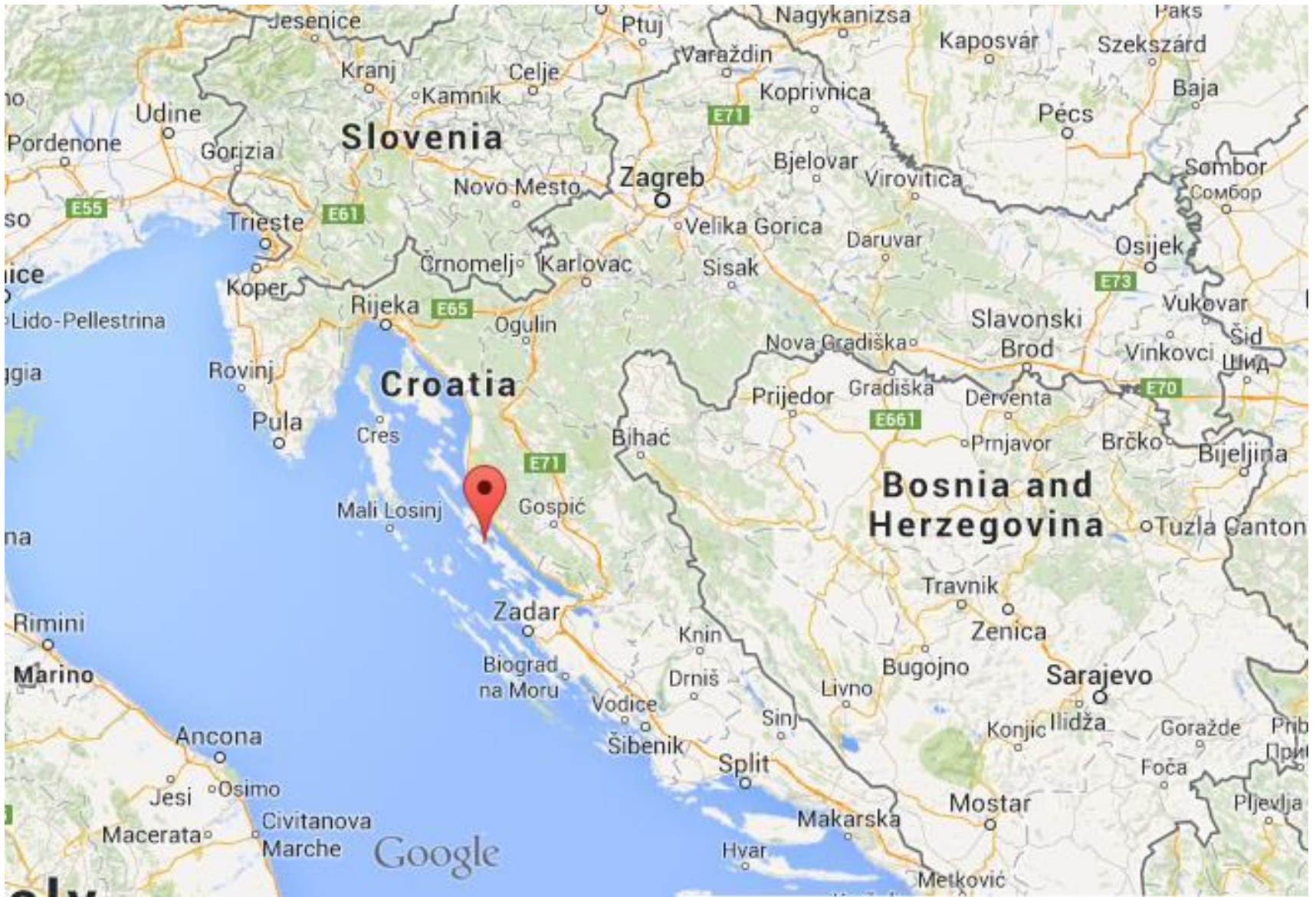
Island of Žirje, shipwreck, 4th c. BC



Island of Žirje, shipwreck, 4th c. BC



Island of Žirje, shipwreck, 4th c. BC



Cape Letavica, Island of Pag, shipwreck, 1st c. BC



Cape Letavica, Island of Pag, shipwreck, 1st c. BC



Cape Letavica, Island of Pag, shipwreck, 1st c. BC



Cape Letavica, Island of Pag, shipwreck, 1st c. BC



Cape Letavica, Island of Pag, shipwreck, 1st c. BC



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Cape Letavica, Island of Pag, shipwreck, 1st c. BC



Cape Letavica, Island of Pag, shipwreck, 1st c. BC

<https://youtu.be/g82ouZI3Cdl>

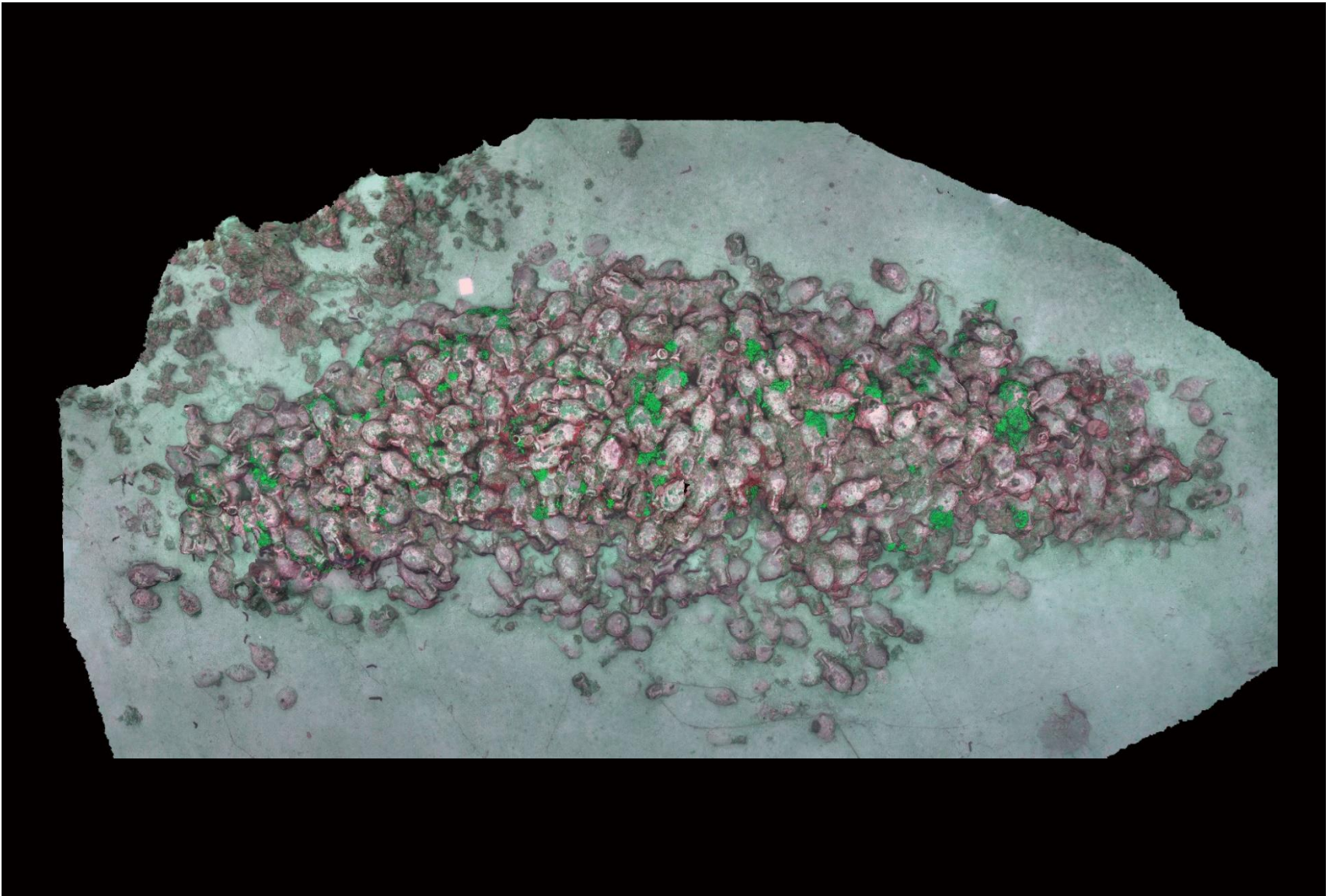


Cape Letavica, Island of Pag, shipwreck, 1st c. BC

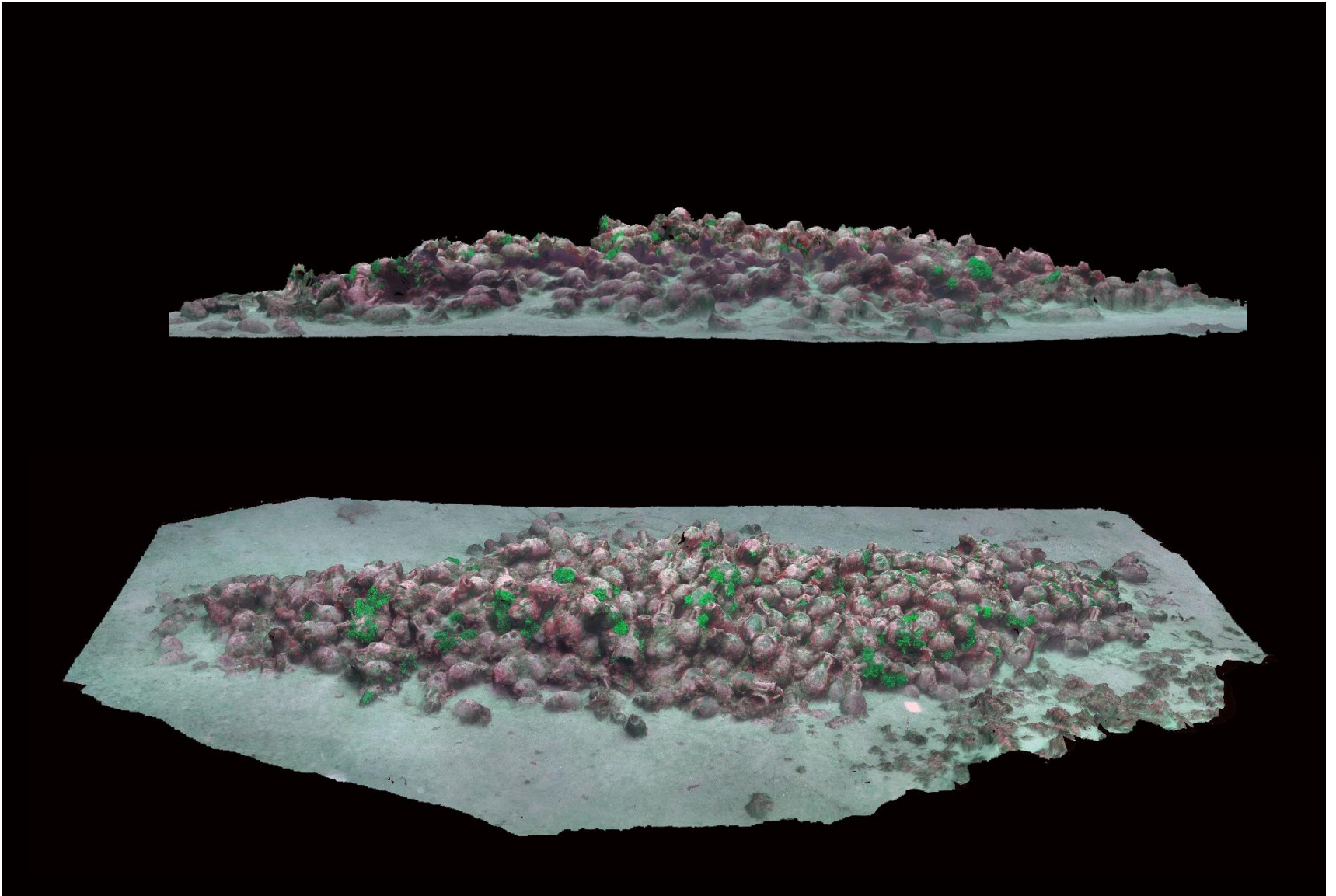


How to protect an outstanding shipwreck site?





Cape Letavica, Island of Pag, shipwreck, 1st c. BC



Cape Letavica, Island of Pag, shipwreck, 1st c. BC



Protection *in situ*?





Distribution map of the protective cages



Islet of Supetar, Cavtat, shipwreck, 3rd/4th c. AD



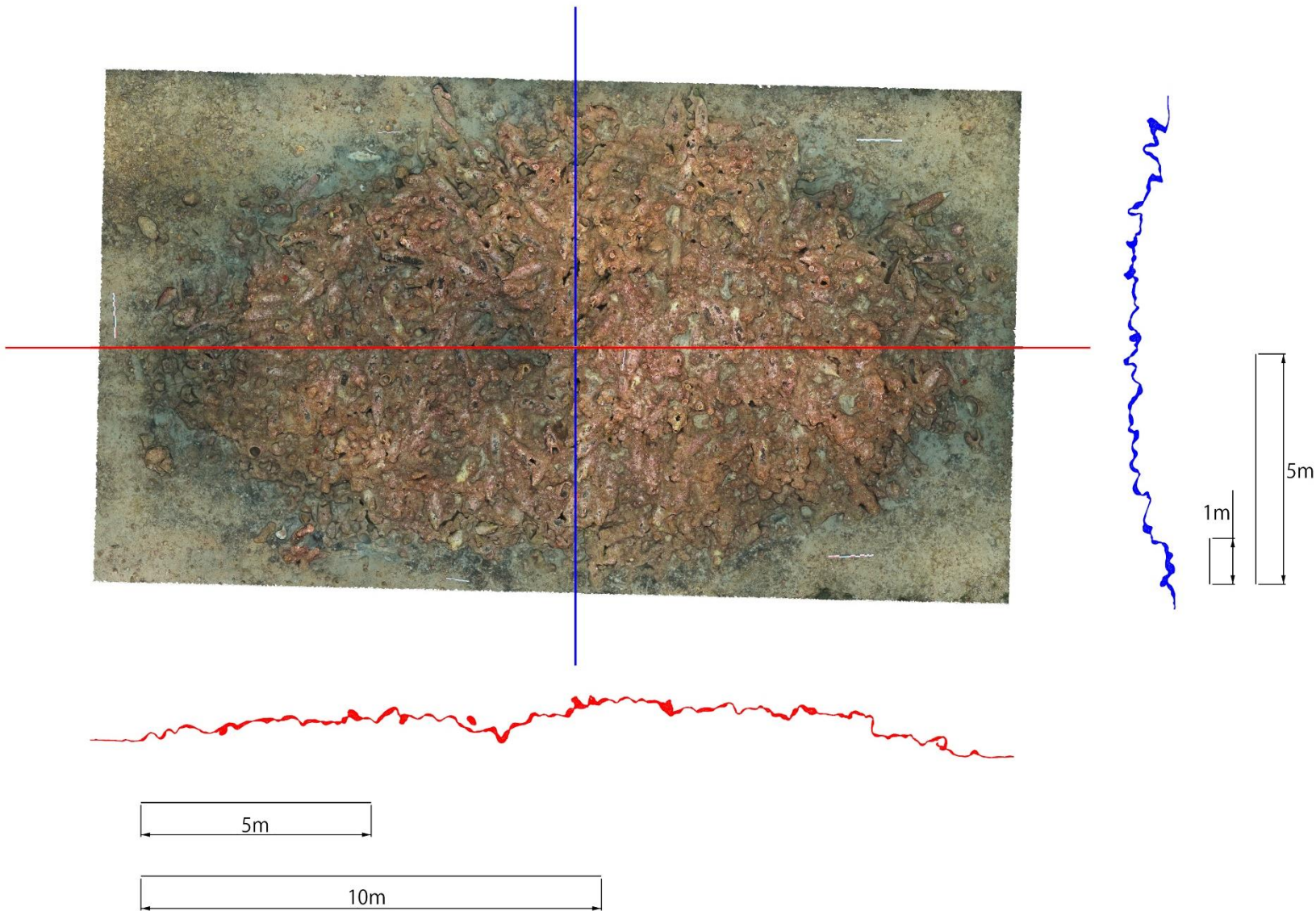
Islet of Supetar, Cavtat, shipwreck, 3rd/4th c. AD





Islet of Supetar, Cavtat, shipwreck 3rd/4th c. AD

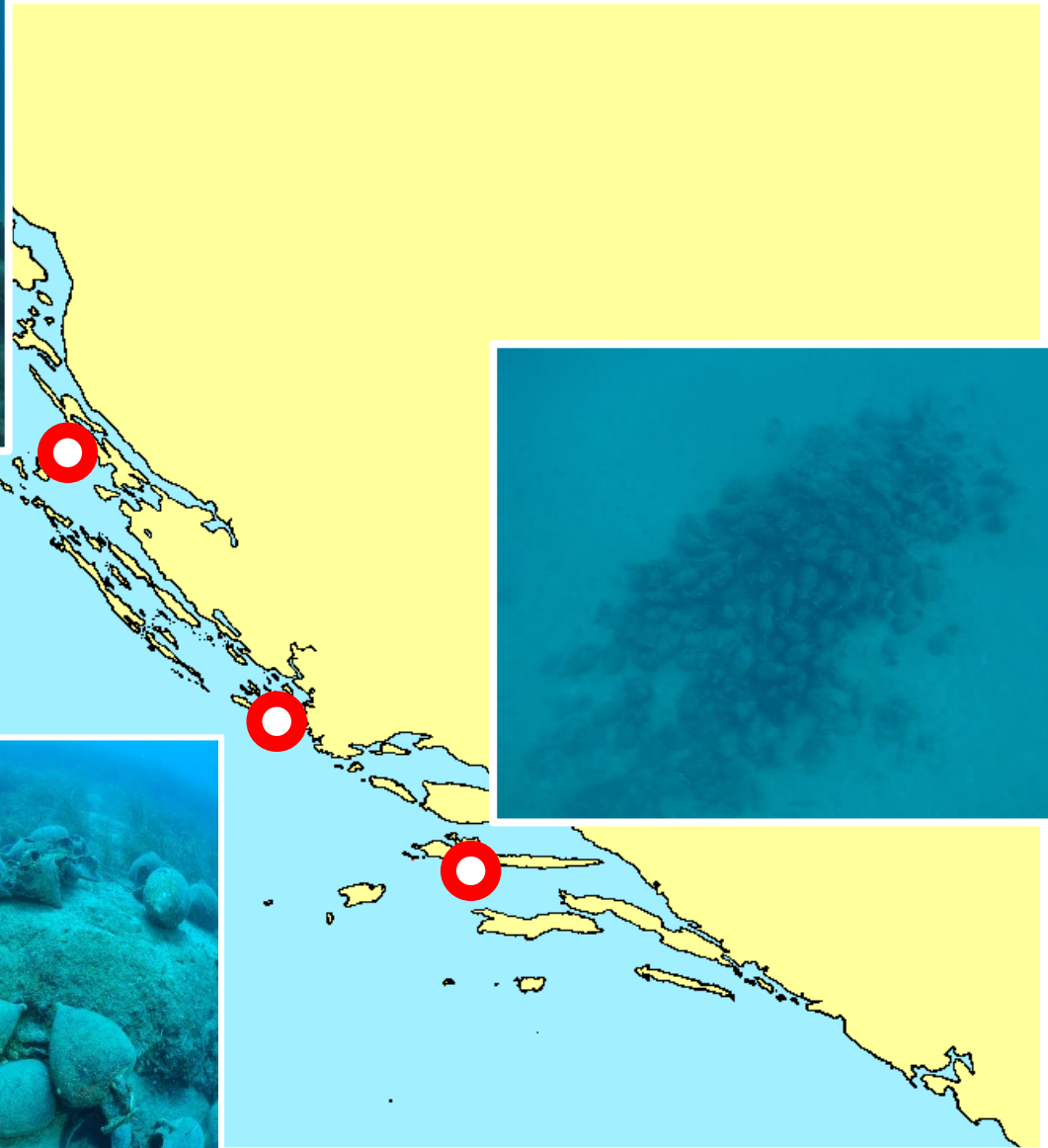




Islet of Supetar, Cavtat, shipwrecks, 1st c. AD and 3rd/4th c. AD, 2018



Distribution map of the protective cages and recently discovered sites

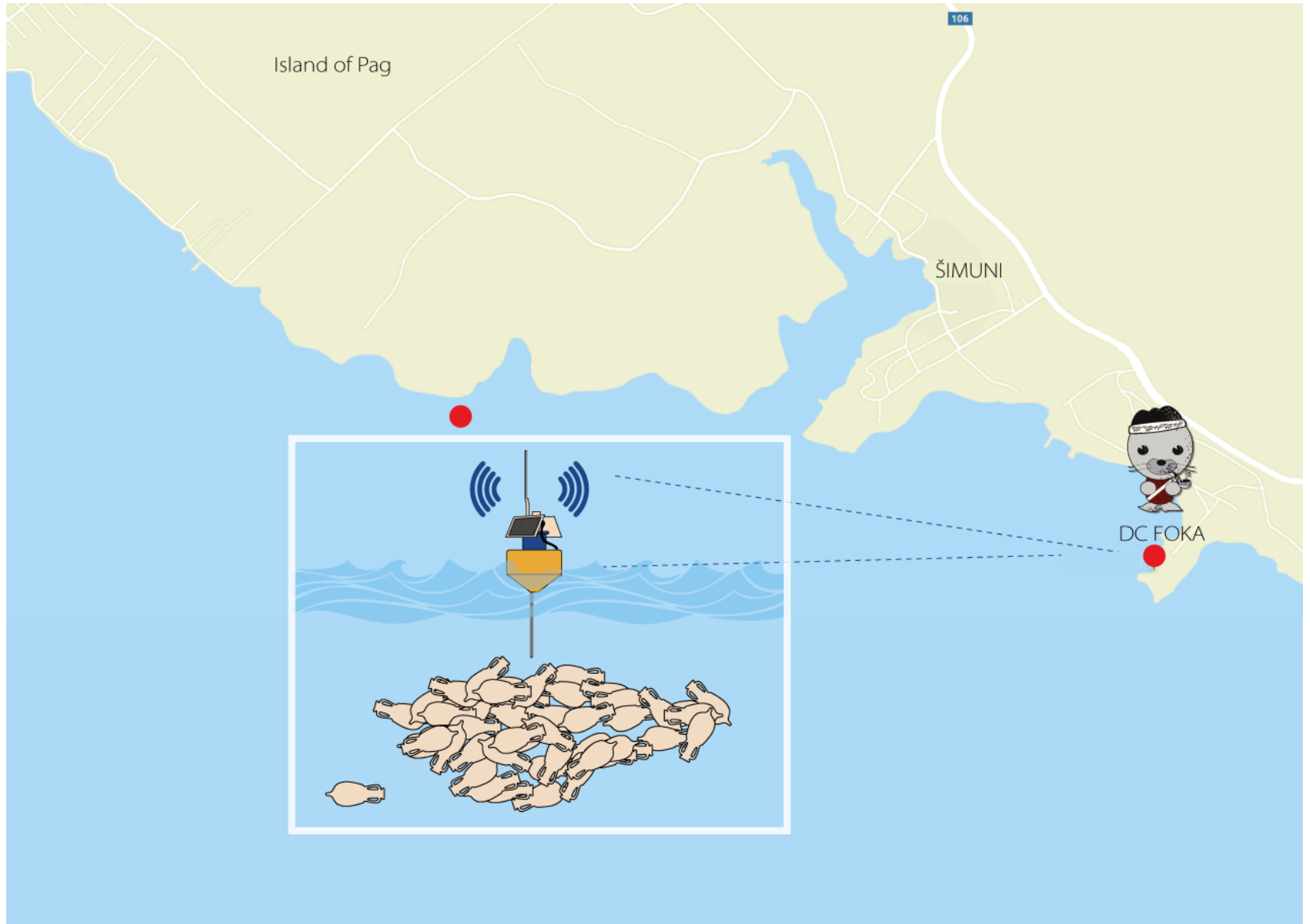


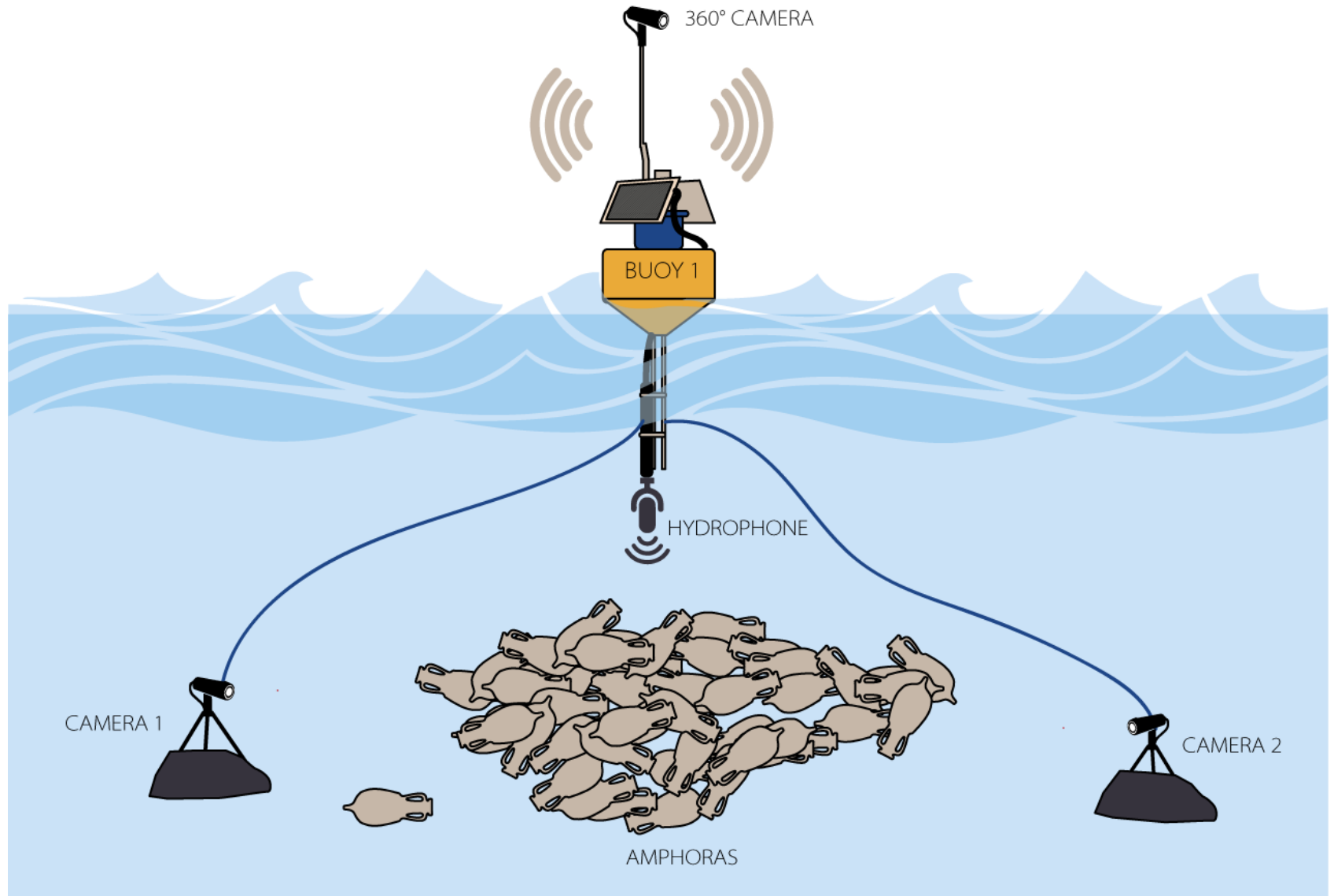
Recently discovered sites



Possible solution







We are looking forward to your suggestions!

Thank you for your attention!

