Field campaign 11 – the first and the fourth unconformity (17th to 18th of April, 2024)

During the 11th field campaign, a terra rossa and loess profile on Cape Kamenjak was visited together with the Rovinj-1 bauxite deposit by members of the PALAEO team. The Kamenjak site was visited to gain insight into the prospects of the fourth unconformity in this region, while the Rovinj-1 deposit was visited due to the new mining activities that have exposed a new part of the deposit.

Terra rossa and loess profile on the cape Kamenjak

The terra rossa and loess profile on Kamenjak was visited to verify the general location of the fourth unconformity in this region. Certain similarities were found with the other sampled outcrops of the fourth unconformity, especially with the outcrop on Savudrija, as the terra rossa on both profiles is covered by a thick layer of loess. Numerous calcified rhizoconcentrations were observed at the Kamenjak site. As the Kamenjak outcrop is located on the coast, a large area of the karstified bedrock of the fourth unconformity was exposed by marine erosion. This allowed a detailed study of the paleokarst that developed beneath the fourth unconformity and is represented by numerous speleothems and cave sediments, which are usually calcified terra rossa soils.

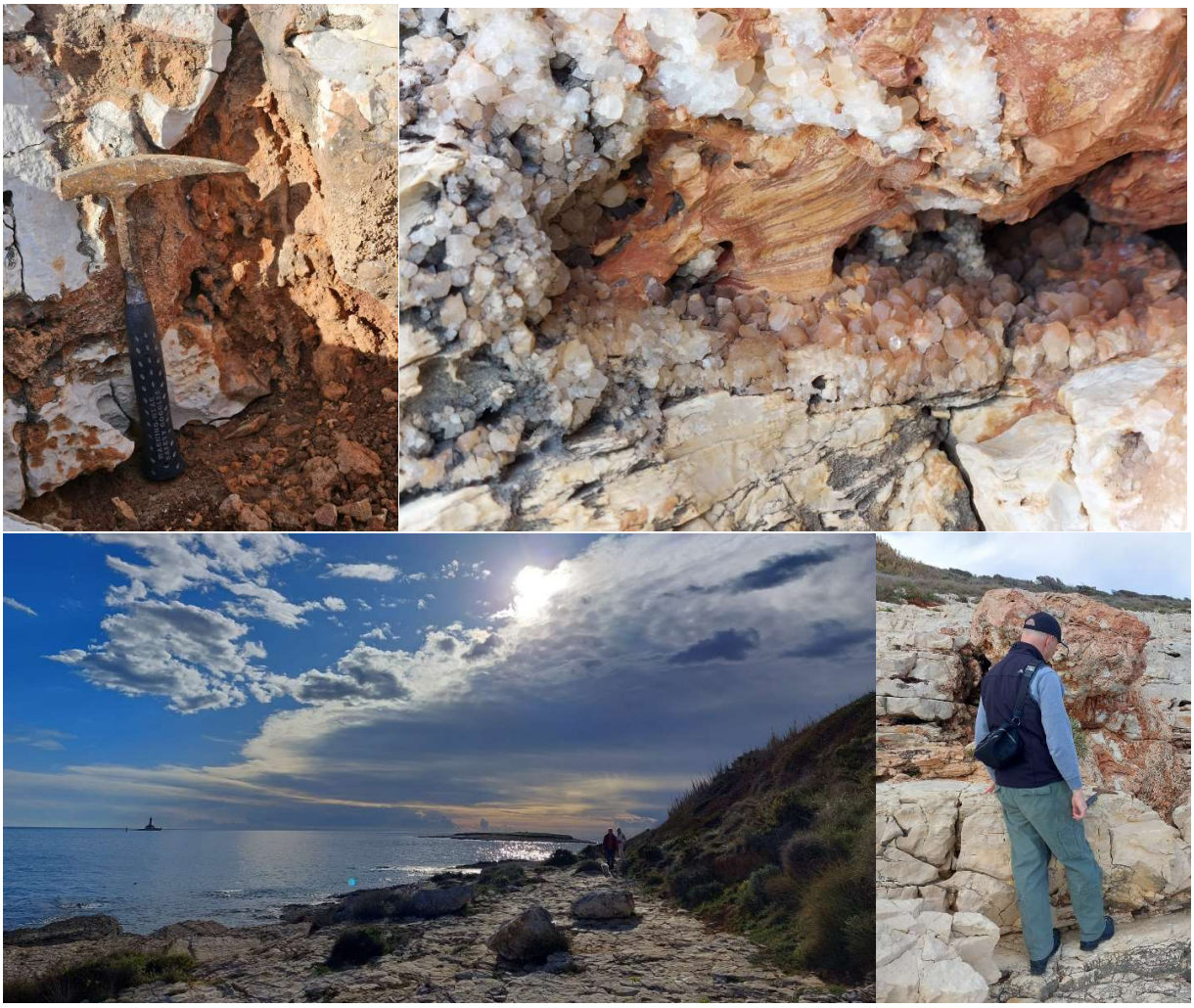


Figure 1. Photographs of Cape Kamenjak. Top left – speleothems and calcified terra rossa, top right – calcite crystals and laminated cave sediments represented by calcified terra rossa, bottom left – outcrop of the fourth unconformity, bottom right – uncovered cave, with visible speleothems.

Rovinj-1 deposit

The Rovinj-1 deposit was visited a third time because the new mining in the deposit exposed deeper parts of the deposit that were inaccessible during the first and second sampling. This was done to check whether the newly exposed bauxite sections could provide new findings, which was unfortunately unsuccessful as no differences could be detected.



Figure 2. Photograph of the Rovinj 1 deposit and the new outcrop exposed by blasting.