

Field campaigns 1 _ Upper Aptian–Upper Albian unconformity (June 15-19, 2020)

Upper Aptian–Upper Albian unconformity is planned to be represented with four locations where detailed sampling will be performed. Locations were planned based on previous field experience (see Map of Istria) and their selection updated as a result of the field campaign 1. They are situated in quarries (open pits) where best outcrops are available for investigation and detailed sampling. Within the field campaign 1, PALAEO and GEO groups visited together six possible locations (Lakovići, Tri jezerca, Goda, Seline4 , Kanfanar and Bale) and selected the following locations for detailed investigation: (1) Tri jezerca, (2) Seline 4, (3) Kanfanar and (4) Bale. PALAEO group almost completed the sampling while GEO group will start with detailed field work in September, 2020. Selected figures with short description from the Field campaign 1 are presented.

Lakovići-sjever Quarry

Upper Aptian–Upper Albian unconformity was not detected with certainty



Tri jezerca Quarry

In this quarry, dimension stone “Istrian yellow” was exploited. Upper Aptian–Upper Albian unconformity is accompanied with greenish-grey clays (mainly in palaeokarst pits) and coarse brecciated regolith. This quarry is selected for detailed investigation.



Goda Quarry

In this quarry, technical stone is currently under exploitation. Upper Aptian–Upper Albian unconformity is accompanied with greenish-grey clays (mainly in palaeokarst pits) and coarse brecciated regolith. The Goda Quarry is close to the Seline 4 Quarry. The later is selected for detailed investigation.



Seline 4 Quarry

Entrance with a block of dimension stone "Istrian yellow"



Seline 4 Quarry

In this quarry, dimension stone “Istrian yellow” is currently under exploitation.



Seline 4 Quarry

Upper Aptian–Upper Albian unconformity is accompanied with greenish-grey clays (mainly in palaeokarst pits) and coarse brecciated regolith. This quarry is selected for detailed investigation.



Seline 4 Quarry

Field work on the selected outcrop comprise digging, removing of weathered materials, cleansing of the profile surface, detailed field description of profile and sampling (positions of Kubiena boxes for micromorphological studies are presented). Photographs in the last row show greenish-gray clay and cleansed palaeokarst surface.



Kanfanar Quarry

In this quarry, dimension stone “Istrian yellow” is currently under exploitation.



Kanfanar Quarry

Upper Aptian–Upper Albian unconformity is accompanied with greenish-grey clays (mainly in palaeokarst pits) and coarse brecciated regolith. Lower part presents panorama photograph of the Upper Aptian–Upper Albian unconformity. This quarry is selected for detailed investigation.



Kanfanar Quarry

Field work on the selected outcrop comprise digging, removing of weathered materials, cleansing of the profile surface, detailed field description of profile and sampling (positions of Kubiena boxes for micromorphological studies are presented).



Kanfanar Quarry

Upper Aptian–Upper Albian unconformity is accompanied with greenish-grey clays (white arrows). In the same quarry, the Upper Eocene–Recent unconformity is also present (red arrows). Upper Eocene–Recent unconformity was of a very long duration even in the areas characterized by the longest deposition – up to the flysch in the latest Eocene (resulting in stratigraphic hiatus of approximately 35 Ma). However, on the limbs of the Western Istrian Anticline due to the synsedimentary tectonics hiatus was longer since there was probably no younger deposits than Middle Eocene foraminifera limestones (40–45 Ma), while it is possible that in the apical part there was no carbonate deposition since the Lower Cretaceous times, so duration of stratigraphic hiatus could be more than 100 Ma /this is the case in Kanfanar Quarry). This unconformity is accompanied with various sediments and soils/palaeosols among which terra rossa, loess–palaeosol sequences and pedo-sedimentary complexes predominate. In this quarry thick terra rossa soil is present.



Bale Quarry

In this quarry, dimension stone “Istrian yellow” was exploited. Upper Aptian–Upper Albian unconformity is accompanied with greenish-grey clays (mainly in palaeokarst pits) and coarse brecciated regolith. Although the quarry is overgrown with vegetation, it is planned for detailed investigation.



