

Lower and middle Jurassic platforms and ramps from the high atlas of Morocco.

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Supplemental materials captions

FIGURE CAPTIONS PART 1. DBD FIELD EXCURSIONS

Supplemental material Fig. 1. Stop 1.5. Upper slope coral calcareous sponge microbial boundstone (Sequence VI). (A) Panoramic view of the W side of the gully. (B, C, D, E and F) Coral-calcareous sponge boundstone (B3) around Stop 1.5. Phaceloid corals with thick corallites (1 to 2.5 cm; type 1 Della Porta et al. 2013) form m-size colonies that laterally amalgamate forming a reef framework. (D) Lithiotids and calcareous sponges are also common in the boundstone around the platform break. (F) Gravel-sized clast-supported rudstone with abundant FC and RFC occur in association with coral boundstone facies in the fore-reef area.

Supplemental material Fig. 2. Stop 1.6. Outer platform facies. (A) Panoramic view looking East of the margin and outer platform strata on the eastern-side of the gully. BNT2, BNT3 and BNT4 sections are marked by red lines and refer respectively to sections 2, 3 and 5 in Figs 7 and 11. Location of images of Supplemental material Figs 3 and 4 is indicated. (B and C) Phaceloid coral colonies in coral-calcareous sponge microbial boundstone (lithofacies B3) forming patches associated with coated grain grainstone (lithofacies G4). (D and E) Coral-calcareous sponge microbial boundstone (lithofacies B3) with type 2 phaceloid corals and thick micritic encrustations. (F) Oncoidal rudstone (lithofacies L2). (G) Lithiotid bivalves in lithofacies L4. Lithofacies codes refer to Merino-Tomé et al. (2012).

Supplemental material Fig. 3. Stop 1.6. Outer platform facies. Stratigraphic log of section BNT3 (refer to Figs 7 and 11 for location). Location of outcrop images A, B, C, D, E, F and G is indicated in the stratigraphic log and in Supplemental material Fig. 2. For key of colours of strata refer to Fig. 11.

Supplemental material Fig. 4. Stop 1.6. Outer platform facies. Stratigraphic log of section BNT2 (refer to Figs 7 and 11 for location). Location of outcrop images A to K is indicated in the stratigraphic log and in Supplemental material Fig. 2. For key of colours of strata refer to Fig. 11. Key for symbols is indicated in Supplemental material Fig. 3.

Supplemental material Fig. 5. Stop 1.7. Outer platform to inner platform transition (Sequence VI). Stratigraphic log of section BNT1 (refer to Figs 7 and 11 for location). The transition between outer platform facies belt and inner platform in the NW margin of the DBD carbonate platform is marked by the interfingering of coated-grain grainstone-rudstone (G4 lithofacies) and m-scale alternations of tabular intertidal/supratidal and subtidal facies, which characterise the platform interior (L1 and T2, T3 and B5 lithofacies). This facies transition is observable around Stop 1.7 and in sections BNT 1, BNT 2 and BNT10. Location of outcrop images (I) is indicated in the stratigraphic log. For key of colours of strata refer to Fig. 11. Key for symbols is indicated in Supplemental material Fig. 3.

Supplemental material Fig. 6. Outcrop image and photomicrographs of Sequence I and II lithofacies types (after Merino-Tomé et al. 2012). A) Lithofacies T1d laminated dolomicrite of Sequence I. B) Sequence I wavy microbial boundstone. C) Peloidal packstone/grainstone with

Favreina fecal pellets and Palaeodasycladus mediterraneus dasycladacean algae of Sequence I (lithofacies L1). D) Dolomitised peloidal packstone/wackestone with fenestrae (lithofacies T2d). E) Ooidal dolograinstone (Lithofacies G1d). F) Pisoidal peloidal grainstone with fenestrae associated with tepee structures.

Supplemental material Fig. 7. Photomicrographs of upper Sinemurian siliceous sponge microbial mounds of DBD Sequence III (after Merino-Tomé et al. 2012; Della Porta et al. 2013). A) On the top clotted peloidal to structureless micrite associated with a lithistid demosponge; in the lower part structureless micrite with sparse monoaxone demosponge sponge spicules. B) Framework of clotted micropeloidal micrite embedding the body of a lithistid demosponge. C) Clotted peloidal micrite framework including a hexactinellid hexactinosa sponge body and Terebella agglutinated worm tubes. D) Laminated stromatolitic microbial boundstone with laminae consisting of peloids alternating with a peloidal grainstone. E) Stromatactis-like cavities within the mound microbial boundstone with irregular tops lined by radiaxial fibrous cement; geopetal filled by peloidal sediment and burial blocky ferroan calcite. F) Coated grain skeletal packstone at the mound flanks with Involutina liassica and Dentalina foraminifers. G) A lithistid demonsponge (on the left side) encrusted by serpulid worm tubes (on the right side). H) A lithistid demosponge body with clotted peloidal micrite included in a skeletal coated grain packstone with Involutina liassica foraminifers.

FIGURE CAPTIONS PART 2. AR FIELD EXCURSIONS

Supplemental material Fig. 8. Photo-montage of the AR Amellago transect with the formations and members interpreted in terms of major depositional environments.

Supplemental material Fig. 9. Sedimentological section through the Gheris gorges. Most of the stops of the Excursion 3 are represented on this section.

Supplemental material Fig. 10. Sedimentological section through the Oued Mijdider. Most of the stops of the Excursion 5 are represented on this section.

Supplemental material Kmz. Kmz file of the stops location for DBD (Part 1) and AR (Part 2).