Р Н О Т О G R А Р Н S 1 - 1 6

Photograph 1. Panorama of the part of the Coriscao Olistostrome exposed due E of Pico Coriscao. The observer is looking E. The locations of other photographs are indicated by the numbers of those photographs.

Photograph 2. An elongated limestone slab has been "pulled" into several parts along low-angle normal faults. The imbrication is reverse ("dipping downstream") to the direction of transport of the olistostrome. The observer is looking S.

Photograph 3. A typical succession within the olistostrome. From bottom to top: the uppermost part of a huge olistolith consisting of turbidite sandstone beds which are younging upwards; a level of limestone olistoliths passing into: slump-folded bedded breccious marly mudstone containing limestone pebbles and boulders; a folded slab of overturned turbidite sandstone beds (the overturned middle limb of a chevron fold ?); an unconformable cover of marly boulder- and pebble-bearing mudstone. The observer looks E.

Photograph 4. Detail of Photograph 3.

Photograph 5. A succession of marly boulder mudstone in which is embedded a large flat slab of turbidite sandstone (the slab is internally deformed). The succession is covered by a level of limestone olistoliths. The observer is looking N.

Photograph 6. Crudely layered chaotic beds of angular to subrounded limestone boulders and small olistoliths in a matrix of breccious marly mudstone to wackestone; alternating levels contain large slabs of turbidite sandstone and levels with large limestone olistoliths. The observer is looking N.

Photograph 7. Example of an entirely chaotic part of the olistostrome: limestone olistoliths and boulders in a matrix of limestone cobble- to pebble-bearing breccious marly mudstone. The observer is looking E.

Photograph 8. Detail of the Coriscao Olistostrome: limestone boulders in breccious marly mudstone; irregular cleavages follow the outlines of the boulders, the pebbles too are oriented parallel to the boulder outlines.

Photograph 9. Microscopic slide of the breccious marly mudstone (the enlargement is 31 x). Irregular cleavages caused by the random dispersion of the subangular limestone clasts, impart to the handspecimen a scaly appearance (cf. the Italian "argile scagliosi").

Photograph 10. Small folds at the base of a large olistolith of turbidite sandstone beds are caused by drag during the transport of the olistolith over the substrate.

Photograph 11. Folds as described under 10.

Photograph 12. "Bulldozer" folds in front of a limestone olistolith caused by the pushing action of the olistolith during its transport.

Photograph 13. Buckle fold with a divergent cleavage fan developed in a turbiditic sandstone/shale alternation; Coriscao Olistostrome 200 m to N and 100 m below locality 80017.

Photograph 14. Upper Carboniferous nodular limestone occurring at the base of the Panda nappe.

Photograph 15. Detail of the Remoña Olistostrome exposed in the brook S of locality 81160 (Encl. I).

Photograph 16. Panorama of the largest limestone olistoliths (localities 81115, 81116) in the Branas Olistostrome; the near background from centre to left is the Montó unit, the far background to right shows the Picos de Europa complex resting on the Valdeón Formation. The panorama is from W (left) to NE (right).























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PLATES I-III

The enlargement is indicated by bars representing 500 microns: a short bar for photographs of whole specimens, a long bar for detailed photographs showing the wall structure.

PLATE I Fusulinella ex gr. bocki Möller Figs. 1-8. 1, slide 16 2, 7 13 З, 4, 12 5, 14 6, 14 (detail of Fig. 5) 7, 8 8 (detail of Fig. 7) 8,



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PLATE II
            Fusulinella cf. bocki Möller (→Protriticites)
Fig. 1.
            1, slide 17
            Fusulinella cf. pseudobocki Lee & Chen (-- Protriticites)
Figs. 2-4.
             2, slide 16
                14
18
             з,
             4,
Figs. 5-8.
            Pseudotriticites? sp. A
             5, slide 11(1)
            6,
                    12
             7,
                     13
                     11(2)
            8,
Figs. 9-10. Pseudotriticites? sp. B
            9, slide 9
10, 9 (detail of Fig. 9)
Figs. 11-13. Fusulina cylindrica Fischer
            11, slide 13
                  24
            12,
            13,
                      4
Figs. 14-15. Pseudotriticites? sp. A?
            14, slide 16
            15,
                   16 (detail of Fig. 14)
Figs. 16-17. Protriticites sp.
            16, slide 5
                   15
             17,
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PLATE III Protriticites ex gr. pseudomontiparus Putrya Figs. 1-4. 1, slide 6 2, 1 з, 6 (detail of Fig. 1) 1 (detail of Fig. 2) 4, Figs. 5-8. Fusulina cf. megaspherica Sheng 5, slide 12 6, 15 12 (detail of Fig. 5) 15 (detail of Fig. 6) 7, 8, Figs. 9-11. Protriticites ex gr. nakahatensis Ishizaki, 1963 9, slide 9 10, 9 (detail of Fig. 9) 11, 22









Northern Liébana & Valdeón flysch basin Hypothetic transitional area, nowadays covered by the Picos de Europa nappes Upper Carboniferous flysch resting on Palentine Lower Carboniferous

and Devonian sediments.

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Upper Carboniferous flysch alternating with biogenetic limestones, rests on a thin Caliza de Montaña, underlain by Alba nodular limestones and Palentine Devonian sediments.

Provenance area of the Coriscao, Brañas and Remoña olistostromes and of the Panda and Montó nappes.

Picos de Europa shelf area.

Upper Carboniferous biogenetic limestone (Picos de Europa Fm.) and the Caliza de Montaña limestone reșt upon the Alba Fm., which is underlain by Ordovician sediments (Barrios Fm.) or even older rocks.



