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East Greenland Caledonides: stratigraphy, structure and geochronology

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West-dipping white and rusty brown quartzites of the Lower Cambrian Slottet Formation, at Slottet in the Eleonore Sø foreland window, resting unconformably on dark clastic sediments of the Palaeoproterozoic Eleonore Sø complex. The summit of Slottet (1933 m high) is 600 m above the glacier surface.

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Preface

The East Greenland Caledonides extend from 70° to 81°30'N, and have been the subject of a series of regional mapping programmes between 1968 and 1998. The entire orogen is now covered by five published 1:500 000 geological map sheets. The six papers in this bulletin concern a variety of topics relating mainly to Kronprins Christian Land (79°–81°30'N) and the Kong Oscar Fjord region (72°–75°N).

The paper by Smith *et al.* on Lower Palaeozoic stratigraphy proposes amendments to several stratigraphical units that occur in Kronprins Christian Land and nearby Lambert Land. In the Kong Oscar Fjord region, two new formations are defined for quartzite and limestone/dolostone units that crop out in foreland windows, and the Lower Palaeozoic succession of the fjord region of East Greenland is formally placed in the Kong Oscar Fjord Group. The second paper by Smith *et al.* describes and formally defines the Neoproterozoic Rivieradal Group of Kronprins Christian Land. The paper by Higgins *et al.* analyses the thin-

skinned fold-and-thrust belt that marks the transition between foreland and orogen in Kronprins Christian Land, and presents a balanced cross-section restoration.

The two geochronological papers by Thrane report the results of ion microprobe zircon analyses from orthogneisses in the Charcot Land window (72°N), and results of reconnaissance Pb-Pb dating by the step-leaching method.

The final paper by Higgins & Leslie reviews the history of geological research in the Eleonore Sø and Målebjerg areas of the Kong Oscar Fjord region (72°–75°N). Recognition that the two areas are part of the Caledonian foreland implies that the two thrust sheets structurally overlying the Eleonore Sø and Målebjerg windows have large displacements (~ 100 km each), and that the 'stockwerke' concept of the orogen that focused on *in situ* vertical movements can finally be laid to rest.

A.K. Higgins