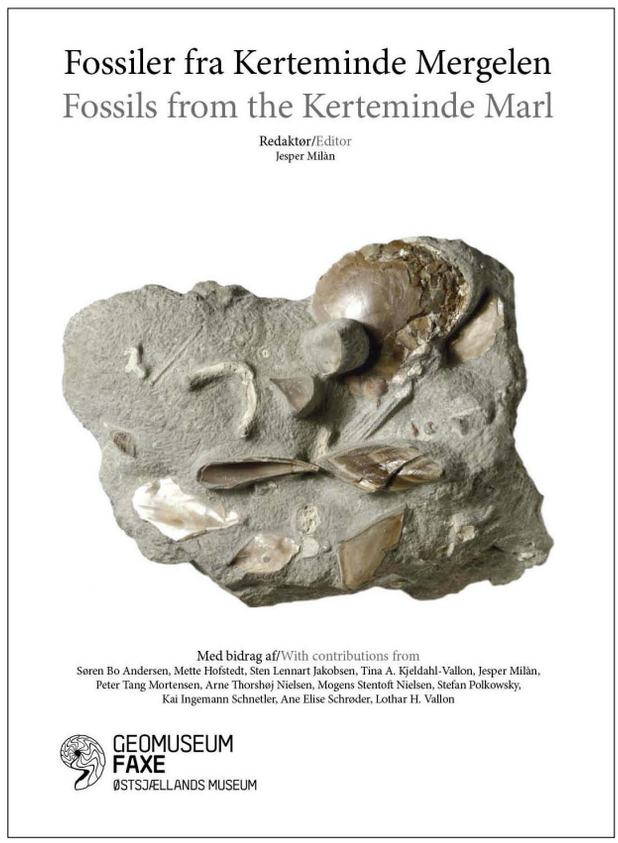
Book review

Fossiler fra Kerteminde Mergelen [Fossils from the Kerteminde Marl], 1. udgave, 1. oplag 2024. – Milàn, J. (ed.). Med bidrag af/With contributions from Søren Bo Andersen, Mette Hofstedt, Sten Lennart Jakobsen, Tina A. Kjeldahl-Vallon, Jesper Milàn, Peter Tang Mortensen, Arne Thorshøj Nielsen, Mogens Stentoft Nielsen, Stefan Polkowsky, Kai Ingemann Schnetler, Ane Elise Schrøder, Lothar H. Vallon, 131 pp. Geomuseum Faxe/Østsjællands Museum, Faxe (ISBN 978-87-99-6729-4-3). price: DKK 150 (*c.* 20 Euros)



Our Danish colleagues are definitely on a roll ... In recent years, a number of profusely illustrated books describing fossiliferous rocks (both *in situ* and as erratic boulders) of early Palaeocene (Danian and Selandian) age have appeared. The most recent one focuses on the so-called 'Kerteminde Mergelen' which had previously been considered poor in fossils. However, a special, lightly silicified type of this rock, referred to as 'Gundstrup blokke', found in the north of the Danish island of Fyn, has now completely altered this picture. Over a period of 35 years, several people have been collecting fossils from these blocks so that life in the warm, yet deep Selandian (middle Palaeocene, 61.6-59.2 Ma) sea may now be captured in much more detail. The present book is a great example of what can be achieved when professionals and citizen scientists join forces.

The book comprises several chapters that are more or less zoosystematically arranged and is bilingual throughout, with the Danish text in the left-hand column, the English in the right-hand. Collector Peter Tang Mortensen, who started this 'fossil hunt' 35 years ago, authored the foreword; he expresses his gratitude to the proprietors of the gravel pit at Gundstrup for great collaboration over the years. Another bonus, I would say.

What follows is a well-written account of the depositional history of the Kerteminde Marl, with a geological map and small maps of land/sea configurations during the latest Danian, earliest Selandian and middle Selandian. Similarly well done are explanations of how various time-equivalent rocks were laid down at different depths, illustrating a range of facies and fossil contents: the Kerteminde Marl, Lellinge Greensand and *Turritella* Sandstone, all of which may be found as erratic boulders and cobbles in Denmark and northern Germany. Maybe some of these actually made it to the north of the Netherlands.

Next is a historical overview of scientists who studied these types of rocks, with familiar names such as Von Koenen and Ravn. The most recent paper (Schnetler & Nielsen, 2018) on the molluscan faunas of the Kerteminde Marl counted no fewer than 133 species, 32 of which were described as new – not bad for a rock type previously considered to be fossil poor! The collection and preparation of fossiliferous blocks is also outlined, as is the production of silicone rubber casts of external moulds in order to assess protoconch type and details of ornament in originally aragonitic molluscs.

The main portion of the book comprises text on and illustrations of the various fossil groups, with short introductions to each of these. All photographs are full colour and of good quality, thus aiding identifications, with brief captions and indications of dimensions. Danekræ registration numbers are supplied where appropriate.

Although the great majority of fossils appear to be identified correctly, I do have some reservations where others are concerned. For instance, are the solitary corals on page 38 really assignable to the genus *Sphenotrochus*? And, is the specimen of *Antalis undifera* (p. 55) really an 'internal mould'? Judging from the crack near the upper end the shell appears to be preserved. On the impressive slab illustrated on page 79, there is at least one specimen that might not belong to *Echinocorys* – top left-hand: this test has a round opening in the centre of the lower test surface; if this does represent the peristome, it cannot be *Echinocorys*, but might be a cassiduloid of some sort.

With very few exceptions, primary spines of cidaroid sea urchins are notoriously difficult to identify. Whether or not two species are actually involved here (p. 81) is a moot point; spine morphology depends strongly on the original position on the test during life. Only associated test plating may resolve this issue. On page 85, why is the specimen of *Pseudholaster* not identified to species if it does preserve test material? The detailed picture on page 89 indeed shows dissociated marginals of an astro-

pectinid starfish and several small gastropods, but also isolated lateral arm plates of ophiomusaid brittle stars are visible, most likely pertaining to the same species as the material illustrated on page 91.

All in all, texts are clearly written and to the point (with the exception of some misspellings, also in the list of Danekræ), illustrations are of high quality and there is a good listing of other literature items of interest. I do recommend this book to all professionals and citizen scientists with an interest in post-Cretaceous palaeontology of northern Europe. The Kerteminde Marl is found as erratic boulders and cobbles all over the south of Denmark and across northern Germany, so more material will certainly be forthcoming. In short: do make sure to get your own copy!

Reference

Schnetler, K.I. & Nielsen, M.S., 2018. A Palaeocene (Selandian) molluscan fauna from boulders of Kerteminde Marl in the gravel-pit at Gundstrup, Fyn, Denmark. *Cainozoic Research*, 18: 3-81.

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