

Book Review : Mesozoic Geology and Paleontology of Misool Archipelago, Eastern Indonesia

By Fauzie Hasibuan (Geological Agency); published in 2012 by the Geological Agency, Ministry of Energy and Mineral Resources, Republic of Indonesia

Reviewed by Herman Darman (Shell International EP).

Scientific publications on the Mesozoic of Eastern Indonesia are very rare. This region is relatively remote and accesses to outcrops are generally difficult. Recent publications are predominantly published by petroleum companies based on their subsurface data. It is important to integrate subsurface and outcrops to understand the geology of the area. Hasibuan's research on becomes important piece of information because he worked entirely based on outcrop data.

Misool Island is located in the west of the 'bird head' of Papua. Silurian-Devonian age formation cropped out in the south of this island. The stratigraphy is younging towards the north and end with Paleocene age formation in the north. In term of stratigraphy, this island has the most complete section in East Indonesia. Therefore, geological study on Misool Island is a key to understand the regional setting in this area.

The Geological Agency published this book in soft cover, containing 230 pages, including color figures and outcrop photos. The book is 24.3 cm x 17.3 cm in size (Figure 1). As Hasibuan's thesis focus on macro-paleontology he included 22 black and white photos plates of macro fossils, together with their descriptions. The book is structured as followed:

1. Intro (12 pages)
2. Regional geology (29 pages)
3. Systematic paleontology (133 pages)
4. Biostratigraphy (9 pages)
5. Biostratigraphic correlation and age (11 pages)
6. Paleogeography and geological history (3 pages)
7. Conclusions (2 pages)
8. References (24 pages)

The nice colorful stratigraphic column of Misool Island summarized the stratigraphy of the outcrops which exposed mostly in the southeastern part of the island and adjacent islets. The geological map also shown the stratigraphic divisions of the island, which probably better to put in a larger folded sheet.

The author put detail descriptions of 7 Brachiopods, 3 Annelids, 3 Gastropods, 58 Bivalves, 4 Nautiloids and 26 Ammonoids. Based on these fossils and their distribution, a stratigraphic correlation was established in chapter 5. Hasibuan also included global biostratigraphic correlation panels, where he

compared Misool stratigraphy with other location in and outside Indonesia.

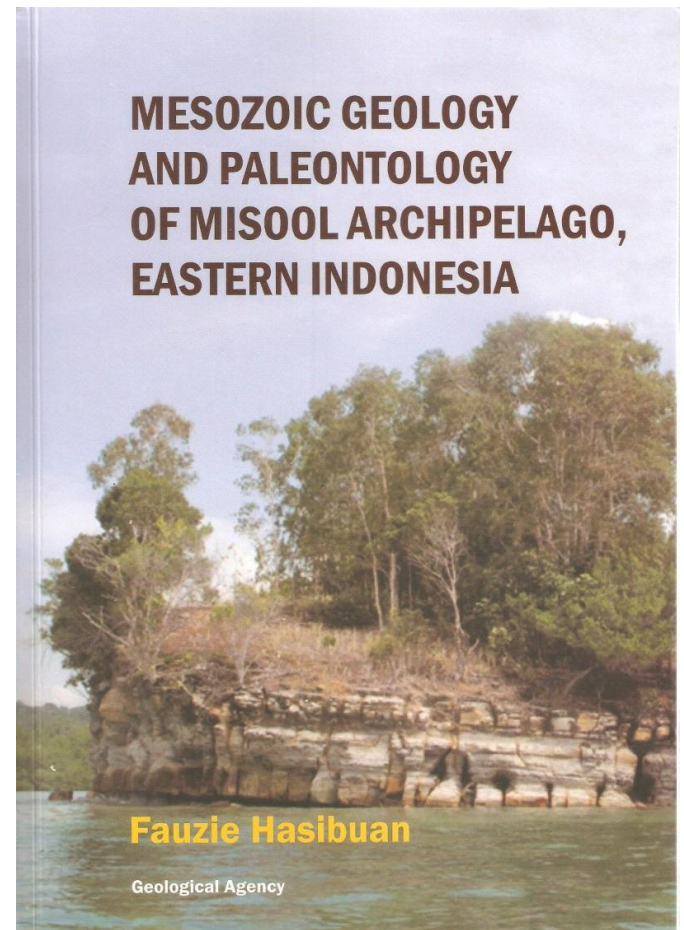


Figure 1. Book cover of "Mesozoic Geology and Paleontology of Misool Archipelago, Eastern Indonesia" by F. Hasibuan

Figure 2 shows an example of the pictures plate of the macro-fossils described in this book. Hasibuan provide the detail description with dimensions, location of occurrences, age, diagnosis and his personal remarks.

Figure 3 contain examples of outcrop photos discussed in this book.

This book is an excellent example of stratigraphic work, which is done by a professional. It is very important for university libraries to have a copy of this book, so that students can see an example of a research on stratigraphy, and the lecturers can use it as a teaching material. It is also recommended for those who work in this region to

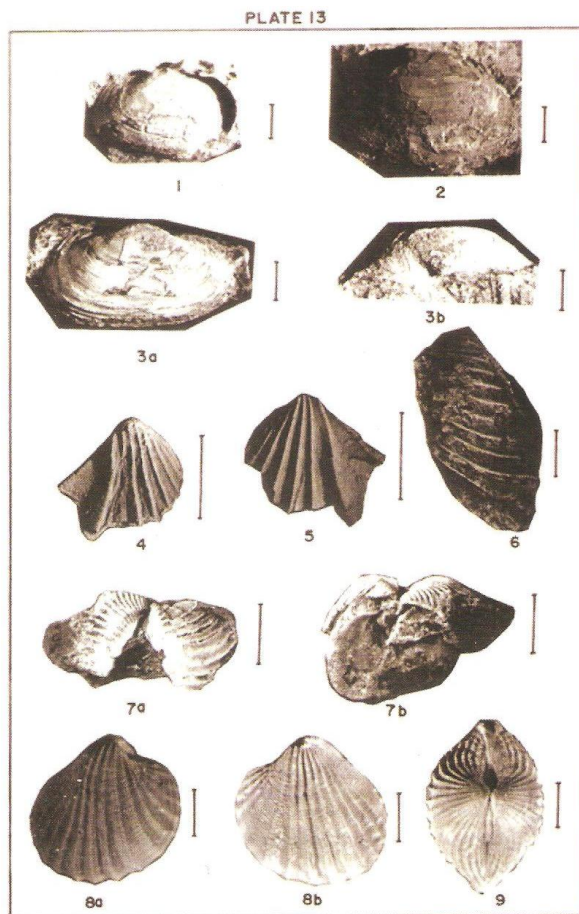


Figure 3. Example of macro fossil photos. This plate include pictures of *Unionites* sp.,. Scale bar is 1 cm.

refer to this book as it discuss stratigraphic type localities.

The book is available from
Geological Agency of the Republic of Indonesia,
general contact information



Figure 2.23 Shaly limestone (more common in the lower part) interbedded with dark grey tuffaceous calcareous silty shale, maroon tuffaceous in colour of the Fafanlap Formation, at Yillu Island.

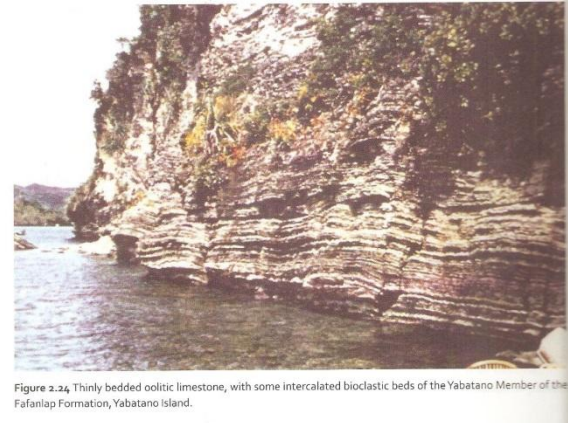
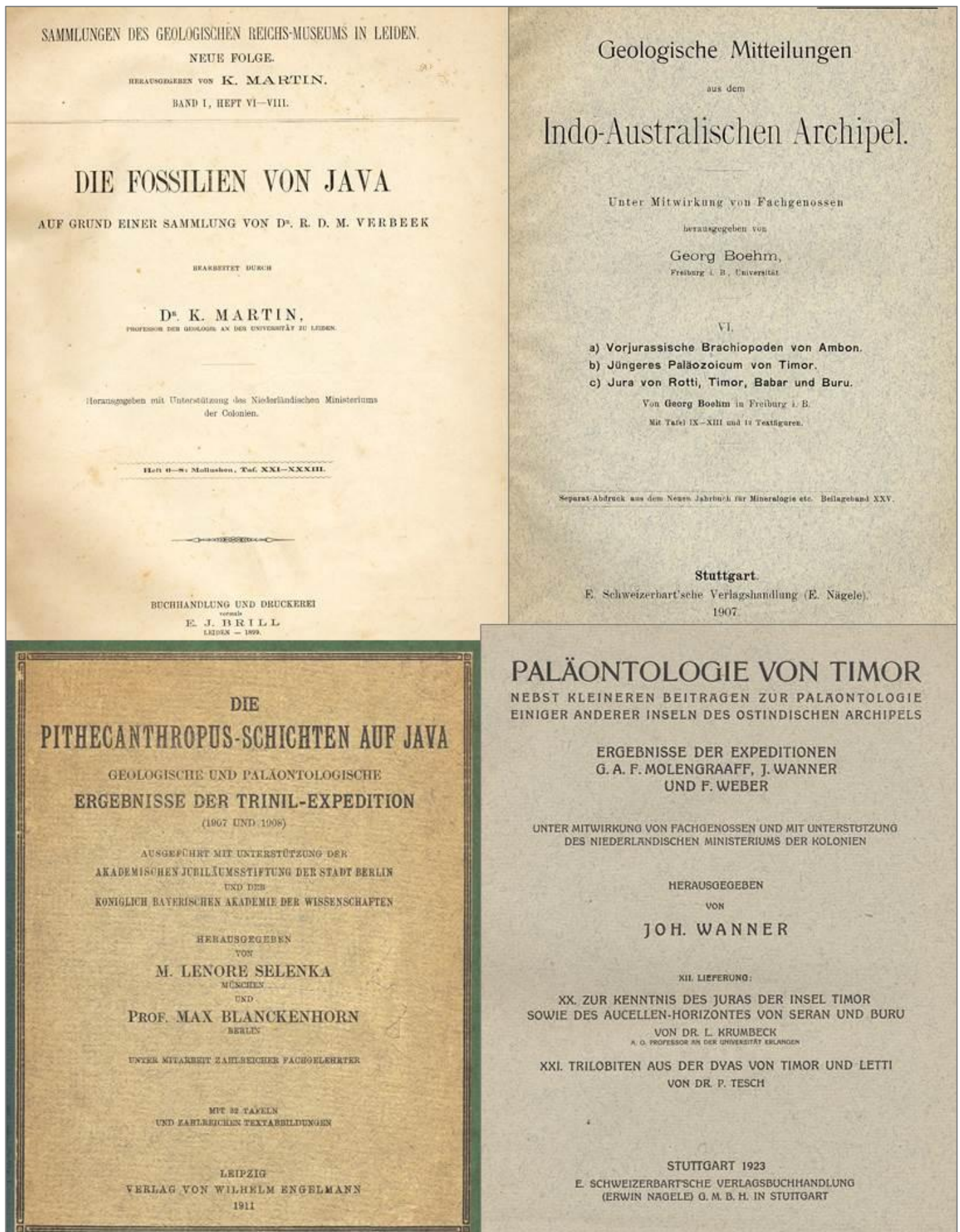
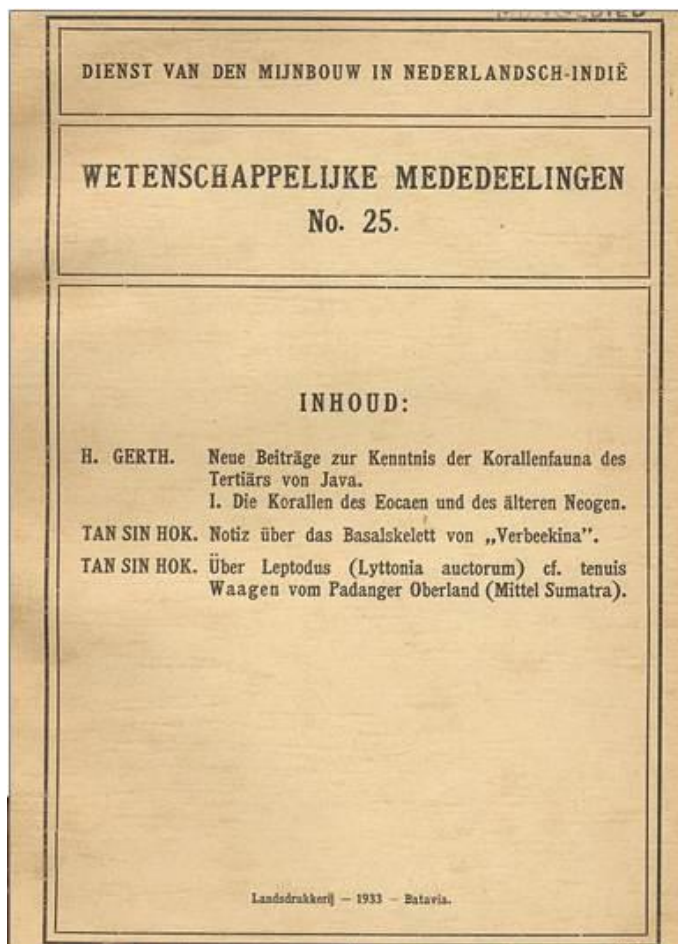


Figure 2.24 Thinly bedded oolitic limestone, with some intercalated bioclastic beds of the Yabatano Member of the Fafanlap Formation, Yabatano Island.

Figure 2. Example of color figures of outcrops.

- **URL:** <http://www.bgl.esdm.go.id>
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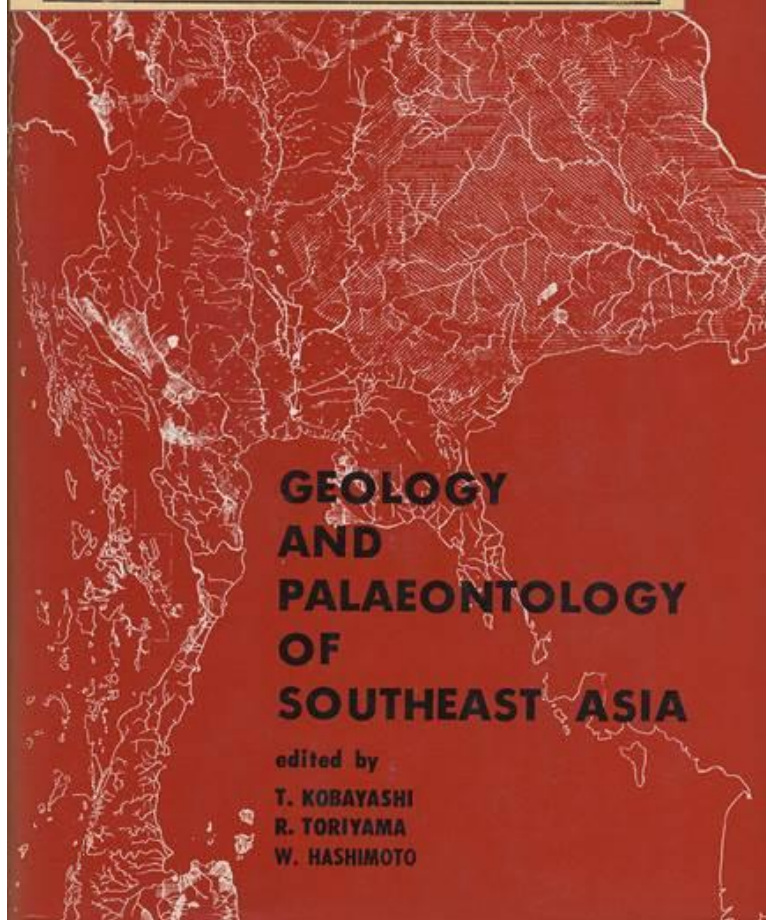
Covers of selected paleontologic publications on paleontology of Indonesia.

Covers of selected paleontologic publications on paleontology of Indonesia (cont'd).

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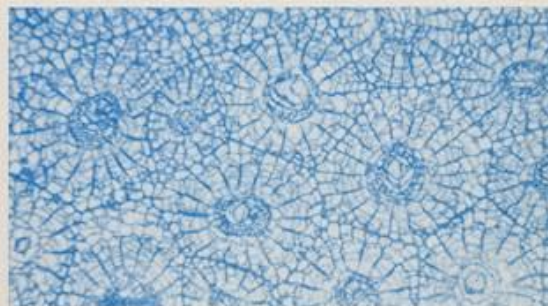
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THE PRE-TERTIARY FOSSILS OF SUMATRA
AND
THEIR ENVIRONMENTS

by
HENRI FONTAINE
and SUUDI GAFOER



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