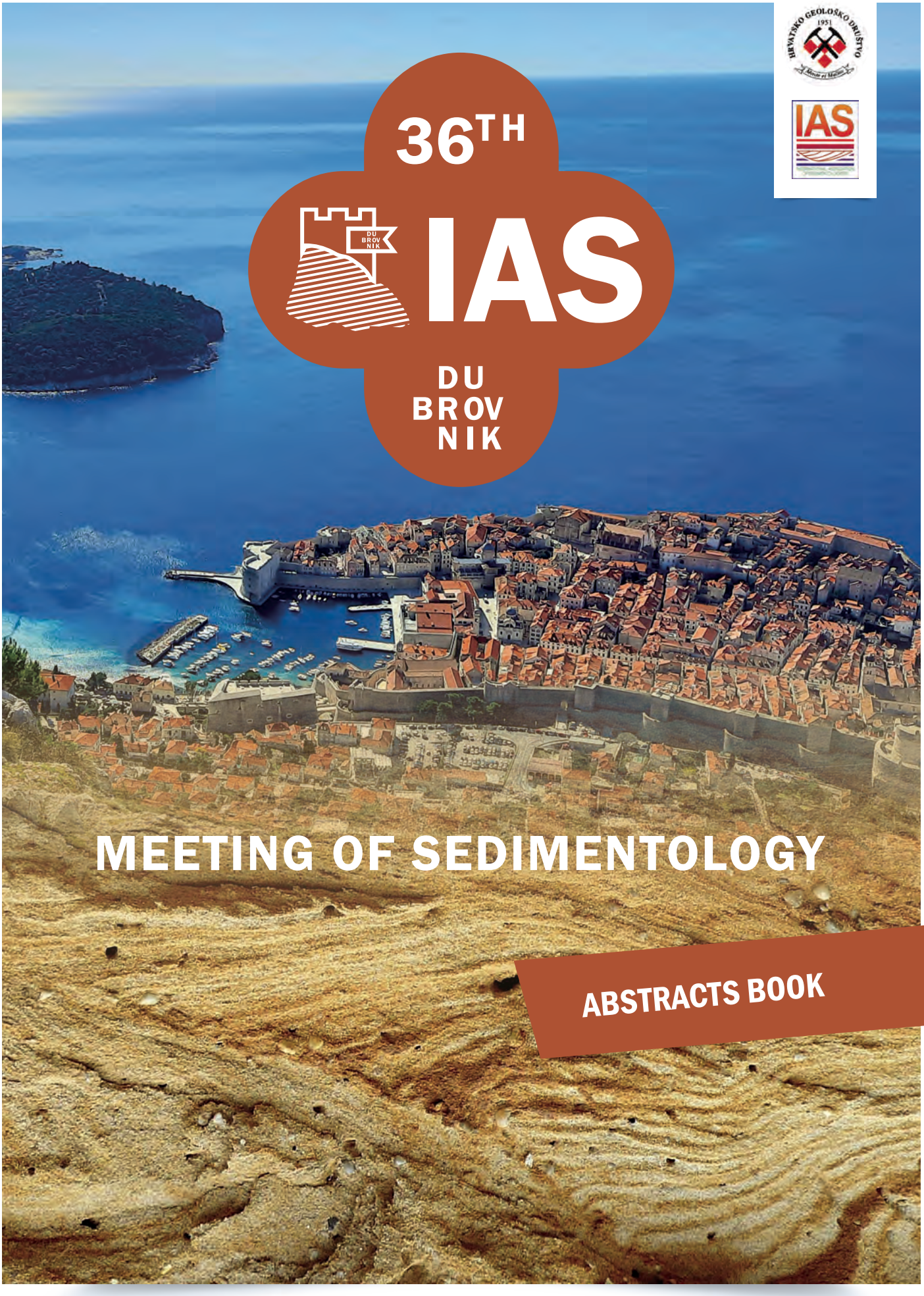
Larger benthic foraminifera as an important tool for palaeoenvironmental interpretation of Campanian inner platform settings, island of Brač (Croatia)

Cvetko Tešović, Blanka; Schlagintweit, Felix; Martinuš, Maja; Vlahović, Igor



36TH IAS MEETING OF SEDIMENTOLOGY

DU BROV NIK

ABSTRACTS BOOK

12–16 June 2023, DUBROVNIK, **CROATIA**

36th International Meeting of Sedimentology
June 12–16, 2023, Dubrovnik, Croatia

ABSTRACTS BOOK

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Publisher: Croatian Geological Society (HGD)
For the publisher: Slobodan Miko
Editors: Igor Vlahović and Darko Matešić
Language Editor: Julie Robson (Scotland, United Kingdom)
Digital layout: Laser Plus d.o.o
Cover design: Ana Badrić
eISBN: 978-953-6907-79-3

Theme 2. Shallow-marine carbonate depositional systems and carbonate platforms

General Session

Oral presentation

Larger benthic foraminifera as an important tool for palaeoenvironmental interpretation of Campanian inner platform settings, island of Brač (Croatia)

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The informal group of larger benthic foraminifera (LBF) generally exhibits a high potential for biostratigraphy, palaeoenvironmental interpretations, and palaeobiogeographic comparisons in Tethys, especially during the Cretaceous greenhouse period.

Late Cretaceous Global Community Maturation Cycle (GCMC) encompasses the Turonian–Maastrichtian interval representing a special period of increasing diversity of LBF in shallow water settings. The LBF suffered from the palaeoenvironmental distributions associated with the Cenomanian–Turonian boundary OAE2 event leading to the almost complete extinction. During the Coniacian–Santonian, LBF already underwent a remarkable diversification in a wider area of Tethys associated with widely distributed extensive platform carbonate evolution. From Campanian inner platform facies, numerous taxa of LBF have been reported from Spain, Greece and Croatian island of Brač. Shallow-marine carbonate platform deposition on Brač represents an essential contribution to understanding Late Cretaceous evolution of one of the best preserved Mesozoic Perimediterranean carbonate platforms with especially favourable conditions for the development of LFB in Campanian (Gornji Humac and Pučišća fms) as a consequence of gradual progradation of platform environments over hemipelagic Dol fm resulted in diachronous upper boundary. Platform progradation resulted in establishment of shallow-marine environments progressively covering larger areas until the final covering of the Brač Marbles mb: Rasotica and Lovrečina mbrs of Pučišća fm that merged with the Gornji Humac fm. Such complexity of very different lithofacies enabled Campanian assemblages to be most diversified.

Ongoing studies have revealed additional four new taxa (one new genus) of LBF described from lower–middle Campanian carbonates of the island of Brač, Croatia, two of them are also reported from time-equivalent strata of the Gavrovo–Tripolitza Platform (SW Greece), while providing further evidence for the pronounced Campanian diversification within the Late Cretaceous GCMC of AdCP.