

Orbital Forcing and Cyclic Sequences

While classically orbital cycles have been recognized in pelagic and lacustrine sequences, there is now increasing acceptance of the possibility that the effect is felt over large parts of the Earth's surface and that orbital cycles do leave signs as well in sedimentary environments which are commonly considered to be dominated by tectonics and eustasy. Even alluvial and submarine fan environments can now be proven to bear the marks of orbitally induced climatic changes.

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Once demonstrated in the record, Milankovitch cycles have applications in assessing rates and durations of geological processes, and in the analysis of the palaeoclimate.

This book presents a significant addition to the literature on orbital signals in sedimentary sequences in the form of 31 papers spanning the whole range of topics from astronomical theory, to field studies dealing with a broad variety of sedimentary environments and modelling.

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Cover illustration: Schematic representation of the astronomical variables influencing the climate on Earth (see p. 2) superimposed over illustration showing superposition of beds which form larger sequences corresponding to the 100-ka orbital cycle (see p. 291).

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Contents

- ix Preface
- 1 Orbital forcing and cyclic sequences
P.L. de Boer and D.G. Smith
- 15 Astronomical forcing through geological time
A. Berger and M.F. Loutre
- 25 Internal response to orbital forcing and external cyclic sedimentary sequences
N.-A. Mörner
- 35 Filtering and frequency mapping as tools in subsurface cyclostratigraphy, with examples from the Wessex Basin, UK
D.H. Melnyk, D.G. Smith and K. Amiri-Garroussi
- 47 Milankovitch cyclicity in the Upper Rotliegend Group of The Netherlands offshore
C.S. Yang and Y.A. Baumfalk
- 63 Identification of regular sedimentary cycles using Walsh spectral analysis with results from the Boom Clay Formation, Belgium
E. van Echelpoel
- 77 Fourier evidence for high-frequency astronomical cycles recorded in Early Cretaceous carbonate platform strata, Monte Maggiore, southern Apennines, Italy
G. Longo, B. d'Argenio, V. Ferreri and M. Iorio
- 87 Cyclostratigraphy of the Cenomanian in the Gubbio district, Italy: a field study
W. Schwarzacher
- 99 Milankovitch periodicities recorded in Cretaceous deep-sea sequences from the Southern Alps (Northern Italy)
M. Claps and D. Masetti
- 109 An astronomically calibrated (polarity) time scale for the Pliocene–Pleistocene: a brief review
F.J. Hilgen

- 117 Pleistocene evolution of orbital periodicities in the high-resolution pollen record
Funza I, Eastern Cordillera, Colombia
H. Hooghiemstra and J.L. Melice
- 127 Late Quaternary monsoonal variations in the western Arabian Sea based on cross-
spectral analyses of geochemical and micropalaeontological data (ODP Leg 117, core
728A)
W.G.H.Z. ten Kate, A. Sprenger, T.N.F. Steens and C.J. Beets
- 145 Milankovitch cyclicity in Late Cretaceous sediments from Exmouth Plateau off
northwest Australia
R. Boyd, Z. Huang and S. O'Connell
- 167 Complex rhythmic sedimentation related to third-order sea-level variations: Upper
Cretaceous, Western Interior Basin, USA
W. Ricken
- 195 Ichnofossils and ichnofabrics in rhythmically bedded pelagic/hemi-pelagic carbonates:
recognition and evaluation of benthic redox and scour cycles
C.E. Savrda and D.J. Bottjer
- 211 Orbitally driven cycles in trace-fossil distribution from the Piobbico core (late Albian,
central Italy)
E. Erba and I. Premoli Silva
- 227 Guilds, cycles and episodic vertical aggradation of a reef (late Barremian to early
Aptian, Dinaric carbonate platform, Slovenia)
J. Grötsch
- 243 High-frequency, glacio-eustatic cyclicity in the Middle Pennsylvanian of the Paradox
Basin: an evaluation of Milankovitch forcing
R.K. Goldammer, E.J. Oswald and P.A. Dunn
- 285 Milankovitch cyclicity and high-resolution sequence stratigraphy in lagoonal-peritidal
carbonates (Upper Tithonian-Lower Berriasian, French Jura Mountains)
A. Strasser
- 303 Lofer cycles of the Upper Triassic Dachstein platform in the Transdanubian Mid-
Mountains (Hungary)
J. Haas
- 323 Periodicities in the composition of Late Triassic calciturbidites (Eastern Alps, Austria)
J.J.G. Reijmer, A. Sprenger, W.G.H.Z. ten Kate, W. Schlager and L. Krystyn

- 345 Orbitally induced small-scale cyclicity in a siliciclastic epicontinental setting (Lower Lias, Yorkshire, UK)
F.S.P. van Buchem, I.N. McCave and G.P. Weedon
- 367 The sequence architecture of mid-Pleistocene (*c.* 1.1–0.4 Ma) cyclothems from New Zealand: facies development during a period of orbital control on sea-level cyclicity
S.T. Abbott and R.M. Carter
- 395 Cyclic deposition of the Devonian Catskill Delta of the Appalachians, USA
J. van Tassell
- 413 High-frequency, glacial–eustatic sequences in early Namurian coal-bearing fluviodeltaic deposits, central Scotland
W.A. Read
- 429 Orbital forcing on continental depositional systems – lacustrine and fluvial cyclicity in the Devonian of East Greenland
H. Olsen
- 439 Climatic controls on ancient desert sedimentation: some late Palaeozoic and Mesozoic examples from NW Europe and the Western Interior of the USA
L.B. Clemmensen, I.E.I. Øxnevad and P.L. de Boer
- 459 Global cyclostratigraphy: an application to the Eocene Green River Basin
M.D. Matthews and M.A. Perlmutter
- 483 Reading orbital signals distorted by sedimentation: models and examples
T.D. Herbert
- 509 The effect of orbital cycles on Late and Middle Cretaceous climate: a comparative general circulation model study
J. Park and R.J. Oglesby
- 531 Cyclicity or chaos? Orbital forcing versus non-linear dynamics
D.G. Smith
- 545 Index