

The Ordovician Earth System

Z077 B 497

edited by

Uni Göttingen
230 337 198

7



61

Stanley C. Finney
Department of Geological Sciences
California State University at Long Beach
Long Beach, California 90840
USA

William B.N. Berry
Department of Earth and Planetary Science
University of California, Berkeley
Berkeley, California 94720
USA



THE
GEOLOGICAL
SOCIETY
OF AMERICA®

Special Paper 466

3300 Penrose Place, P.O. Box 9140 ■ Boulder, Colorado 80301-9140, USA

2010

Contents

Preface

<i>Stanley C. Finney and William B.N. Berry</i>	v
1. Global setting of Ordovician orogenesis <i>Cees R. van Staal and Robert D. Hatcher, Jr.</i>	1
2. Ordovician explosive volcanism <i>Warren D. Huff, Stig M. Bergström, and Dennis R. Kolata</i>	13
3. Toward identifying potential causes for stratigraphic change in subtropical to tropical Laurentia during the Mohawkian (early Late Ordovician) <i>Achim D. Herrmann, and Bernd J. Haupt</i>	29
4. The Upper Ordovician Guttenberg $\delta^{13}\text{C}$ excursion (GICE) in North America and Baltoscandia: Occurrence, chronostratigraphic significance, and paleoenvironmental relationships <i>Stig M. Bergström, Birger Schmitz, Matthew R. Saltzman, and Warren D. Huff</i>	37
5. The Ordovician brachiopod radiation: Roles of alpha, beta, and gamma diversity <i>David A.T. Harper</i>	69
6. Ordovician paleogeography and tectonics of the major paleoplates of China <i>Chen Xu, Zhou Zhi-yi, and Fan Jun-xuan</i>	85
7. Ordovician of the Siberian Platform <i>Alexander V. Kanygin, Tatiana N. Koren, Anastasia G. Yadrenkina, Alexander V. Timokhin, Oleg V. Sychev, and Tatiana Yu. Tolmacheva</i>	105
8. Early–Middle Ordovician conodont paleobiogeography with special regard to the geographic origin of the Argentine Precordillera: A multivariate data analysis <i>Guillermo L. Albanesi and Stig M. Bergström</i>	119
9. Black shales: An Ordovician perspective <i>William B.N. Berry</i>	141
10. Paleogeographic, paleoceanographic, and tectonic controls on early Late Ordovician graptolite diversity patterns <i>Daniel Goldman and Wu Shuang-Ye</i>	149