China – Stratigraphy, Paleogeography and Tectonics

Arthur A. Meyerhoff

International Geological Consultant, Tulsa, Oklahoma, U.S.A.

Maurice Kamen-Kaye

Consulting Geologist, Cambridge, Massachusetts, U.S.A.

Chin Chen

Graduate Program of Oceanography and Limnology, Western Connecticut State University, Danbury, Connecticut, U.S.A.

and

Irfan Taner

Consulting Geologist, Tulsa, Oklahoma, U.S.A.



KLUWER ACADEMIC PUBLISHERS

DORDRECHT / BOSTON / LONDON

Table of Contents

Preface	ix	Mixed Faunas	43
Acknowledgements	хi	Devonian System	43
•		Distribution and Facies	43
Chapter I. INTRODUCTION	1	Type Sections	46
Physical Geography	2	Paleoecology and Paleogeography	48
		Carboniferous System	48
Chapter II. STRATIGRAPHY AND		Distribution and Facies	49
PALEONTOLOGY	7	Lower Carboniferous:	49
Introduction	7	Distribution and Facies	49
Sources	7	Middle Carboniferous:	51
Symbols	8	Distribution and Facies	51
Pre-Sinian	8	Upper Carboniferous:	54
General (Tables II-2 and II-3)	8	Distribution and Facies	54
Distribution	10	Type Sections	55
Definition of Pre-Sinian	11	Paleoecology and Paleogeography	59
Type Section	11	Permian System	60
Magmatic Activity	15	Distribution and Facies	60
Sinian	16	Type Sections	66
Distribution and Facies	18	Paleoecology-Paleogeography	67
Magmatic Activity	21	Magmatism	68
Paleozoic	21	Mesozoic	69
General	21	General Stratigraphy	69
Faunal Zones	23	General Tectonic Pattern	69
Cambrian System	23	Mesozoic Floral Groups	69
Distribution and Facies	23	Triassic System	70
Type Sections	28	Distribution and Facies	71
Paleoecology and Paleogeography	29	Type Sections	75
Ordovician System	32	Paleoecology and Paleogeography	77
Distribution and Facies	32	Jurassic System	79
Type Sections	33	Distribution and Facies	79
Faunal Boundaries	35	Type Sections	82
Paleoecology and Paleogeography	35	Paleoecology, Paleogeography,	
Silurian System	38	and Magmatism	85
Distribution	38	Cretaceous System	88
Facies	38	Distribution and Facies	88
Type Section	39	Type Sections	91
Distribution, Paleoecology and		Paleoecology, Paleogeography,	
Paleogeography	39	and Magmatism	91
Biogeographic Realms	42	Cenozoic	97
Boreal Realm	42	Tertiary System	97
Tethyan Realm	42	Distribution	97
Australo-Pacific Realm	43	Type Sections	103

VIII TABLE OF CONTENTS

Paleoecology, Paleogeography,		Chapter III. TECTONICS AND STRUCTURE	
and Magmatism	105	OF CHINA	
Overview of Jurassic Through Pliocene		Introduction	115
History, Eastern China	107	Geosynclines and Geotectonic	
Quarternary System	107	Cycles	115
Distribution	108	Tectonic and Structural History:	
Type Sections	109	Resume	115
Paleoecology, Paleogeography,		Mesozoic-Cenozoic	128
and Magmatism	111		
		Bibliography	153
		Subject Index	185