World Geomorphological Landscapes

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Paolo Billi
Editor

Landscapes and Landforms of Ethiopia

Springer

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Series Editor Preface

Landforms and landscapes vary enormously across the Earth, from high mountains to endless plains. At a smaller scale, nature often surprises us by creating shapes which look improbable. Many physical landscapes are so immensely beautiful that they received the highest possible recognition—they hold the status of World Heritage Sites. Apart from often being immensely scenic, landscapes tell stories which not uncommonly can be traced back in time for tens of millions of years and include unique geological events such as meteorite impacts. In addition, many landscapes owe their appearance and harmony not solely to the natural forces. For centuries, and even millennia, they have been shaped by humans who have modified hillslopes, river courses and coastlines, and erected structures which often blend with the natural landforms to form inseparable entities.

These landscapes are studied by geomorphology—'the science of scenery'—a part of Earth Sciences that focuses on landforms, their assemblages, surface and subsurface processes that moulded them in the past and that change them today. To show the importance of geomorphology in understanding the landscape, and to present the beauty and diversity of the geomorphological sceneries across the world, we have launched a book series *World Geomorphological Landscapes*. It aims to be a scientific library of monographs that present and explain physical landscapes, focusing on both representative and uniquely spectacular examples. Each book will contain details on geomorphology of a particular country or a geographically coherent region. This volume presents the impressive geomorphic legacy of Ethiopia which hosts many landscapes and landforms of global significance. Examples include the otherworldly Afar Depression with its sun-baked volcanoes, high-elevation basalt plateaus, the East African Rift valley with its splendid lakes, to name just a few. Ethiopia is also a country where geomorphology and people have remained in particularly close association since time immemorial. These relationships can be examined by referring to the past—as demonstrated by the chapter on geoarcheology of Aksum, but perhaps more importantly, with the reference to the present-day environmental problems arising from land use, soil erosion, water resources depletion and settlement growth. A number of chapters in this book remind us that geomorphological landscapes are not only beautiful; they are also very fragile if used improperly.

The World Geomorphological Landscapes series is produced under the scientific patronage of the International Association of Geomorphologists (IAG)—a society that brings together geomorphologists from all around the world. The IAG was established in 1989 and is an independent scientific association affiliated with the International Geographical Union (IGU) and the International Union of Geological Sciences (IUGS). Among its main aims are to promote geomorphology and to foster dissemination of geomorphological knowledge. I believe that this lavishly illustrated series, which keeps to the scientific rigour, is the most appropriate means to fulfil these aims and to serve the geoscientific community. To this end, my great thanks go to Prof. Paolo Billi, a person long involved in geomorphological research in Ethiopia, for agreeing to coordinate this timely volume in the series. I am also very grateful to all individual authors who accepted invitations to contribute and, often, delivered stories which contained original, not yet published research.

In contrast to many other countries, Ethiopia is far less known regarding its geomorphology at the local scale and many of its regions are still *terra incognita*. Therefore, it was not feasible to strictly follow the format of previous volumes in the series and offer a wide range of site-specific stories. However, I am sure the readers will value more general presentations of the geomorphic environment of Ethiopia which are not only beautifully illustrated, but also provide an updated, unique source of reference.

For me, to write the preface to the Ethiopia volume is of particular pleasure. In 2008 I was fortunate to join the IAG-organized field trip to the Ethiopian Highlands, expertly run by Paolo Billi, Franco Dramis and Giandomenico Fubelli (all involved in this volume), and became fascinated with the geomorphology of Ethiopia, which lasts until nowadays. As a little evidence of this fascination serves my own modest contribution to this volume, regarding the geomorphic scenery of Aksum. After touring the country for a week I thought I knew it reasonably well. This book in its final shape has told me how much is left to be seen.

Piotr Migoń

Contents

Part I General Introduction to the Geomorphology of Ethiopia

1 Geomorphological Landscapes of Ethiopia 3
Paolo Billi

2 Geology of Ethiopia: A Review and Geomorphological Perspectives 33
Ernesto Abbate, Piero Bruni, and Mario Sagri

3 The Climate of Ethiopia 65
Massimiliano Fazzini, Carlo Bisci, and Paolo Billi

4 Ethiopian Rivers 89
Paolo Billi, Semunesh Golla, and Dawit Tefferra

5 Planation Surfaces and the Long-term Geomorphological Evolution of Ethiopia 117
Mauro Coltorti, Dario Firuzabadi, Andrea Borri, Pierlorenzo Fantozzi, and Pierluigi Pieruccini

Part II Local Studies

6 Paleoglaciated Landscapes in Simen and Other High-Mountain Areas of Ethiopia 139
Hans Hurni

7 Geomorphology of the Archaeological Area of Aksum 147
Giovanni Ferrari, Rossano Ciampalini, Paolo Billi, and Piotr Migon

8 Geomorphology of the Adwa District 163
Maria J. Machado

9 The Amba Landscape of the Ethiopian Highlands, Shaped by Rockfall 179
J. Nyssen, J. Moeyersons, J. Deckers, Mitiku Haile, and J. Poesen

10 Gully Development in the Tigray Highlands 191
A. Frankl, J. Poesen, J. Moeyersons, and J. Nyssen

11 Tufa Dams in Tigray (Northern Ethiopia) as Late Pleistocene—Holocene Climate Proxies 201
Francesco Dramis and Giandomenico Fubelli

12 Geomorphology of Ephemeral Streams in the Kobo Basin 213
Paolo Billi

13 Sediment Yield Variability at Various Spatial Scales and Its Hydrological and Geomorphological Impacts on Dam-catchments in the Ethiopian Highlands 227
Nigussie Haregeweyn, Atsushi Tsunekawa, Jean Poesen, Mitsuru Tsubo, Jan Nyssen, Matthias Vanmaercke, Amanuel Zenebe, Derege T. Meshesha, and Enyew Adgo

14 Climatic and Hydrologic Changes in Northern Ethiopia in the last 3,500 Years: Evidence from the Geomorphic, Stratigraphic, and Geochemical Archives of Hayk Lake 239
Massimiliano Ghinassi, Marco Benvenuti, Filippo D'Oriano, and Marialelena Fedi

15 Rift-Related Morphology of the Afar Depression 251
Giacomo Corti, Ian D. Bastow, Derek Keir, Carolina Pagli, and Elizabeth Baker

16 Morphometric Characteristics and Hydrology of Selected Ethiopian Rift Lakes 275
Tenalem Ayenew and Merhawi GebreEgziabher

17 The Geomorphology of the Lake Region (Main Ethiopian Rift): The Record of Paleohydrological and Paleoclimatic Events in an Active Volcano-Tectonic Setting 289
M. Benvenuti and S. Carnicelli

18 Water–Rock Interaction and Lake Hydrochemistry in the Main Ethiopian Rift 307
Azeb Belete, Luigi Beccaluva, Gianluca Bianchini, Nicolò Colombani, Massimiliano Fazzini, Chiara Marchina, Claudio Natali, and Tewodros Rango

19 The Landscape and Landforms of the Ogaden, Southeast Ethiopia 323
Daniel Mège, Peter Purcell, Stéphane Pochat, and Thomas Guidat

Part III Applied Aspects

20 Geo-hazard in Ethiopia 351
Giandomenico Fubelli and Francesco Dramis

21 Land Degradation in the Ethiopian Highlands 369
Jan Nyssen, Jean Poesen, Sil Lanckriet, Miro Jacob, Jan Moeyersons, Mitiku Haile, Nigussie Haregeweyn, R. Neil Munro, Katrien Descheemaeker, Enyew Adgo, Amaury Frankl, and Jozef Deckers

Index 387