

## Preface

Laetoli in northern Tanzania is one of the most important paleontological and paleo-anthropological sites in Africa. It is renowned for the recovery of early hominin fossils belonging to *A. afarensis* and for the discovery of remarkably well-preserved trails of footprints of hominins, presumably made by *A. afarensis*. In fact, the first Pliocene hominin from East Africa was found at Laetoli, only 10 years after the announcement of *Australopithecus africanus* from Taung in South Africa, although it was not recognized as such at the time.

Given the significance of Laetoli for understanding and interpreting the evolutionary history of early hominins the author recognized that renewed investigations at Laetoli and at other fossil localities on the Eyasi Plateau could produce worthwhile results that might contribute to resolving some long-standing issues in hominin evolution. With this in mind, a long-term program of geological and paleontological investigations, directed by the author, was initiated at Pliocene localities on the Eyasi Plateau, including the hominid-bearing localities in the Laetoli area. The overall objectives were simple; to recover additional fossil hominid specimens and to obtain more detailed contextual information on the paleontology, geology, dating, and paleoecology.

Between 1998 and 2005 the author directed eight expeditions to Laetoli to accomplish these goals. These campaigns produced a wealth of original data on the fossil hominins, their associated fauna, and the paleoecological and paleoenvironmental context. The work presented here is the culmination of that research. It represents the combined effort of a dedicated and experienced field crew who were responsible for collecting the new fossils and samples described and analyzed here, and the subsequent research by a team of international specialists in paleoanthropology, vertebrate paleontology, mammalogy, malacology, entomology, ecology, palynology, paleobotany, taphonomy, geology, geochronology, and stable isotopes.

The present volume provides a compendium of research papers dealing with the geology, geochronology, paleoecology, taphonomy and paleobotany, as well as presenting new information on the modern-day Serengeti ecosystem to help provide baseline data for modeling Laetoli during the Pliocene. The companion volume focuses on the morphology, systematics and paleobiology of the fossil hominins and the associated invertebrate and vertebrate fauna. Together, these two volumes aim is to provide a comprehensive account of the geology, paleontology and paleoecology of Laetoli. It is hoped that the research presented here will provide an important building block in a broader understanding of early hominin evolution, faunal diversity and ecological change in East Africa during the Pliocene, and provide the basis for analyzing early hominin adaptation within the context of broader macroevolutionary models of speciation, diversification and extinction.

A special thanks goes to all of the dedicated, hardworking and resourceful team members who participated in the expeditions to Laetoli that contributed to the recovery of the material discussed and analyzed here. These volumes would not have been possible without them. I would especially like to single out the following individuals who were critical to the success of the field project: Peter Andrews, Remegius Chami, Amandus Kweka, Kaposhi Lasotumboyo, Moses Lilombero, Michael L. Mbago, Charles P. Msuya, Simon Mataro, Simon Odunga, Bill

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