FOREWORD

Time occupies a curious place in science. In most of science, including karst science, "how" questions predominate. How are caves formed? How are caves eroded? How do animals survive in caves? How do animals come to lose their eyes and pigment in caves? But "when" questions have probably been asked from the very beginning of karst studies. Some of the fascination with time comes from the parent disciplines of biology and geology. The difference between "catastrophism" and "uniformitarianism" in geology is also a question of differences in time—rapid catastrophes versus slow, small changes. In biology, particularly in the late 19th and early 20th centuries, great controversies raged between the slow pace of evolution envisioned by Darwinians and the fast pace of evolution envisioned by neo-Lamarckians.

Questions of time have been especially fascinating in the karst sciences, probably because our senses tell us that caves (and cave animals) are very ancient. Caves are after all the dwelling place in mythology of ancient creatures—dragons especially. Of course our senses (and our mythology) can be deceiving, and perhaps caves and cave animals are not as old as they seem to be. Wide differences of opinion have persisted about the ages of both caves and cave animals—estimates at present that range between less than a million years to up to 100 million years! The time is ripe to examine time in karst.

The set of papers and abstracts in this volume is the result of a meeting, *Time in Karst,* of karst scientists in Postojna, Slovenia, in March 2007. Jointly sponsored by the Karst Research Institute ZRCSAZU of Slovenia and the Karst Waters Institute of the U.S.A., an international group of scientists came together to learn about and discuss time processes in karst from six perspectives:

- *The age of karst landscapes, including caves and other karst landforms*
- *The biogeographic history of cave animals, especially as it relates to the present and past distributions of cave animals*
- *Methods of determining the age of caves, especially geophysical ones*
- *Paleokarst and what it can tell us about age*
- *The sediment record*
- *The age of lineages of cave animals, especially using molecular clock techniques*

Both the Karst Research Institue ZRCSAZU and the Karst Waters Institute have a history of promoting both international and interdisciplinary cooperation, and they are pleased to form a partnership in this international, interdisciplinary endeavour.

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