Preface

It is with great pride that we present the proceedings of the 6th International Symposium on High Mountain Remote Sensing Cartography (HMRSC VI), which took place in Addis Ababa, Ethiopia, from September 3 to 9, 2000. Symposia on HMRSC have been held biannually in Asia, North and South America, and twice in Europe since 1990, but a symposium in Africa – where glacier-covered mountains exist even at equatorial latitude – went beyond the wildest expectations of the HMRSC core group. However, Hubertus (Hugh) L. Bloemer, Professor at the Ohio University in Athens, Ohio, USA, volunteered to organize this sixth symposium in East Africa, since he had already been engaged in research projects in East Africa and was thus familiar with both the location and the customs of its people. It was a remarkable stroke of good fortune that Bloemer had met Tewolde Gebre Egziabher, General Manager of the Environmental Protection Authority of Ethiopia in Addis Ababa, some years before. Thanks to the support of Mr. Egziabher and his wife Mrs. Sue Edwards, Director of the Institute for Sustainable Development in Addis Ababa, contacts were made with the Department of Geography at Addis Ababa University. Two co-workers of the Department of Geography were eager to plan and arrange for the field excursions, which had always been a focal point at previous HMRSC symposia.

In August 1999, Eritrea and Ethiopia began peace negotiations, which quickly broke down and continued fighting along the border took their place. A short time before the scheduled date of the symposium, a cease-fire was agreed in June 2000 and the United Nations provided troops to patrol the buffer zone between the two nations until a permanent border could be agreed upon. Many of the announced participants withdrew their registration because of this political background. Nevertheless a small group of scientists from seven countries in four continents convened at the Semien Hotel in Addis Ababa. The management of the Semien Hotel provided all necessary infrastructure for a successful symposium. The Organizing Committee selected the highly appropriate symposium theme: "The Need for Eco-Tourism in High Mountain Environments". This theme is of immediate interest not only to various countries in Africa with high mountains but also to many other countries on Earth, where tourism, economy and ecology are in conflict with each other.

Absorbing and extensive presentations were given during 6 technical sessions covering a broad range of subjects relating directly or indirectly to the theme of the symposium. The last session was held in the Guest House of the "Literature Ministry Seminary and Conference Center" in Nairobi, Kenya.

The expert geographers Hailu Araya and Kailash N. Singh organized two excellent field excursions, i.e. a half-day excursion to the T'armaber Pass NE of Addis Ababa and a 4-day excursion to the Bale region in the SE of Ethiopia. Everything went smoothly and the participants were very much impressed by the beauty of the Ethiopian landscape, the diversity of wildlife, Ethiopian culture, and in particular by the friendliness of the local people.

The Organizing Committee of HMRSC VI asked the Austrian participants to support the editing and publishing of the symposium proceedings, since there were no other volunteers for this job, clearly because of time and financial constraints. The Austrians agreed provisionally until financial support was made available through the University of Graz, the Graz University of Technology and the Government of the Federal State of Styria. In this context the editors would like to extend their thanks in particular to Vice-Rector F. ZIMMERMANN, University of Graz, Rector E. HÖDL and Vice-Rector H. SÜNKEL, both from the Graz University of Technology, and Mrs. W. KLASNIC, Governor of the Federal State of Styria, who were unconditionally in favor of publishing the proceedings in Graz. It should be remembered in this context that the first symposium on HMRSC took place 10 years ago in Schladming, Styria.

Almost all the speakers submitted full written versions of their presentations to the editorial board in Graz, Austria, in good time. The editors also accepted some other papers from scientists who had not been able to participate in the Addis Ababa symposium personally either from fear of traveling in a country where conditions were uncertain or for other personal reasons. The proceedings are published in a black-and-white paper version and in a digital version on CD-ROM, which also includes colored illustrations. The digital version can be downloaded from Internet using a standard WWW-browser.

After the end of the symposium in Addis Ababa most participants extended their stay in East Africa during a scheduled post-symposium excursion from 10-18 September, 2000: The excursion included a visit to the Office of the United Nations Environmental Program/Global Resources Information

Database (UNEP/GRID) in Nairobi, Kenya, and a field trip to Central Kenya. The final highlight was a visit to the Kilimanjaro National Park in Tanzania with a climb to its highest elevation, Uhuru Peak (5895 m). 7 participants of HMRSC VI reached the top of the highest mountain of Africa.

H.L. BLOEMER, T. GEBRE EGZIABHER, S. EDWARDS, H. ARAYA and K.N. SINGH, and all other members of the Organizing Committee deserve our sincere appreciation for their tremendous efforts in making HMRSC VI a success. Mrs. A. PROHAMMER provided English language support, which is gratefully acknowledged. The excellent layout of the proceedings is thanks to K. SZARAWARA, Institute of Geography, University of Graz. The co-sponsors of the proceedings are the companies GEOSPACE, Austria, and VEXCEL Imaging Austria, Graz. Please see the respective advertisements of these companies at the back of this volume.

M.F. BUCHROITHNER, Professor at the Institute of Cartography, University of Dresden, Germany, announced that he is willing to organize the 7th International Symposium on High Mountain Remote Sensing Cartography (2002) in Bishkek/Tienshan, Kyrgyz Republic, together with national organizations of Kyrgyzstan.

The editors have dedicated these proceedings to the oldest living Austrian, Professor Dr. LEOPOLD VIETORIS, who is 110 years old and has made notable contributions not only to mathematics but also to photogrammetry (registered patent on orthophoto production, 1924) and high mountain research (rock glacier studies).

Graz, October 2001

Editors: Viktor Kaufmann Institute of Applied Geodesy, Graz University of Technology, Austria Wolfgang Sulzer Institute of Geography, University of Graz, Austria