



LETTER FROM THE GUEST EDITORS

This special mountain cartography issue of *Cartographic Perspectives* features papers by members of the Commission on Mountain Cartography, a special interest group of the International Cartographic Association (ICA). The commission focuses on a range of issues related to the mapping of mountains—peaks, cliffs, scree, glaciers, and various other types of rough terrain. Mapping such extreme places presents challenges. For example, standard mapping techniques often do not apply, and collecting good geospatial data of high mountains is an ongoing challenge despite technology advances. There also is a cultural aspect to mountain mapping. Many mountain dwellers live under the threat of gravity-induced natural hazards, from avalanches to mudslides to damn bursts, which maps can help them better understand and deal with. But mountains have also long been a source of inspiration for those who visit and map them alike, prompting cartographic innovation. The well-known maps of Heinrich Berann, Richard Edes Harrison, Eduard Imhof, Hal Shelton, and Bradford Washburn highlight just some of the contributions by those engaged in mountain cartography to the profession as a whole. Most papers that follow are a sampling of those presented at the 2008 Mountain Cartography workshop at Lenk, Switzerland.

Since its founding in 1999, the Commission on Mountain Cartography has held biannual workshops at various mountain venues. To date these have included the Austrian Alps (2000), Mount Hood in the USA (2002), the Spanish Pyrenees (2004), the Julian Alps of Slovenia (2006), the Swiss Alps (2008), and the Carpathian Mountains of Romania (2010). The workshops have attracted an increasing number of presenters, reaching almost 60 participants at the last two workshops in 2008 and 2010. In addition to the formal program, the relaxed atmosphere of the workshops is conducive for catching up with old friends and making new ones. A workshop tradition is to devote the last day to outdoor activities for a range of interests and abilities, from ski touring to curling, or hiking, depending on the season. The workshops typically occur over three days in either late February or early September.

The workshop participants represent diverse backgrounds and interests, but share a common passion for mountain mapping. The presentations take many forms. These include longer academic papers, Pecha Kucha-style short presentations, software demonstrations, panel discussions, and posters. The presentation topics generally fall

into four thematic groups. In the first group are techniques, software, and ideas about 2D or 3D relief mapping, which are topics of recurring interest. This includes the related pursuits of contouring, relief shading, rock drawing, and vegetation mapping. The second group covers the monitoring of mountain environments and thematic mapping. The survey and visualization of glacier movements, and the mapping of avalanches and other mountain hazards are common topics in this category. The third group focuses on information systems and digital maps of mountain areas used by tourists and outdoor recreation enthusiasts. And, the fourth group concentrates on historical mountain mapping, looking at the activities of cartographers and expeditions from the past and their rich contributions to our profession. However, many of the workshop presentations are on alternative and innovative topics that do not fit into these neat groups.

This special issue contains three papers from North American and two papers from European authors. The first paper by Alex Tait (International Mapping, USA) examines maps of alpine ski resorts in North America. He compares the graphical styles of trail maps of more than 400 resorts, and traces the history of past and present artists, such as James Niehues, Hal Shelton and Bill Brown. The paper by Tibor Tóth (Tóth Graphix, USA) looks back on his forty-year career as a relief artist, much of it spent at the National Geographic Society. He discusses the manual development of relief art created by pencil, airbrush, and acrylic painting, and ends with digital relief shading. Tom Patterson (US National Park Service) discusses the making of a National Park Service map of Glacier Bay. He describes the various steps leading to a brochure map of this wilderness park visited mostly by cruise ship passengers. The paper examines various mountain-mapping challenges, including shaded relief, land cover, glaciers, fjord bathymetry, braided rivers, and place names. David Schobesberger and his coauthors (University of Vienna, Austria) describe the design of a map of mountainous Himachal Pradesh, India. The aim of this map is to support an interdisciplinary research network focusing on the cultural history of the western Himalayas. Schobesberger's paper describes data compilation from a variety of mostly suboptimal sources, starting with maps originally surveyed by the colonial British and ending with satellite imagery. The main author of the last paper is Anna Leonowicz (University of Zurich, Switzerland). Her paper discusses Terrain Sculptor, a new freeware application that prepares generalized terrain models for relief shading.

For additional mountain cartography readings and to learn more about the ICA Commission on Mountain Cartography, visit <http://mountaincartography.org/>. The website offers the proceedings of past workshops, the commission's terms of reference, a list of commission members, and information about the next scheduled workshop. We would welcome your participation.

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