

## Mountain Cartography

[www.mountaincartography.org/](http://www.mountaincartography.org/)

### Workshop in Lenk, Switzerland

In February 11 to 15, 2008, for the first time Switzerland was a host nation of the 6th edition of the traditional ICA Mountain Cartography Workshop. The Workshop focused on mountain-related topographic and thematic aspects and their depiction on maps and map related representations. Since 1998, every second year cartographers and representatives of other fields related to cartography and GIS (e.g. geology, natural hazards, tourism, biology) are meeting in an inspiring mountain region to discuss their current projects and work.

Under the lead of Prof Lorenz Hurni, the Institute of Cartography at ETH Zurich was in charge of the Workshop organisation, which took place at Lenk im Simmental. Lenk is a small village in the Bernese Alps, and is situated in a wide valley north of the Wildstrubel massif. The sports and recreational complex KUSPO ([www.kuspo.ch](http://www.kuspo.ch)) provided convenient infrastructure and comfortable accommodation, making it an ideal place for a successful meeting.

Almost 60 participants from 15 countries took part in the Workshop. Besides core members of the Commission, many new experts and researchers were in attendance. The Workshop participants were honoured having welcome addresses delivered by William Cartwright, President of the ICA, and Stefan Arn, President of the Swiss Society of Cartography (SGK).

The Workshop programme featured three different kinds of presentations, i.e. "classic" presentations reporting on the latest research and developments, short presentations according to the Pecha-Kucha system (see [en.wikipedia.org/wiki/Pecha\\_Kucha](http://en.wikipedia.org/wiki/Pecha_Kucha)) covering

production processes and new products, and a small map and relief exhibition showcasing the newest map products. The 34 presentations were grouped into the following five main themes:

- Physical Geography
- DEM and Terrain Modelling
- Relief Depiction
- History of Mountain Mapping
- Multimedia Applications and Mobile Devices

In the *Physical Geography* sessions, a number of scientific mapping and cartographic projects as well as case studies from all over the world were presented (Michaela Kinberger, University of Vienna; Manfred Buchroithner, TU Dresden; Giorgio Vassena, University of Brescia; Richard Ladstätter, TU Graz; Sabine Stäubli, University of Lausanne). Other presentations covered issues relating to terrain evaluation or monitoring techniques (Igor Drecki, University of Auckland; Melanie Kunz, ETH Zurich; David Theler, University of Lausanne). Finally, developments of new interactive map and 3D-visualisation applications were discussed (Alexander Thimm, Swiss National Park; Karel Kriz, University of Vienna; Christophe Lienert, ETH Zurich).

The *DEM and Terrain Modelling* session covered projects that involved making use of latest laser technologies or high resolution satellite image data (Julien Vallet, Helimap.ch; Kirsten Wolff, ETH Zurich), new approaches for the visualisation of hidden geological structures (Peter Jordan, Böhlinger AG) and derivation of contour lines for small scale maps (Anna Leonowicz, ETH Zurich). A presentation by Maria Pla and Blanca Baella (ICC, Barcelona) focused on requirements for database-driven relief representations for topographic maps.

The sessions on *Relief Depiction* covered the broadest variety of presentations. First, the needs of mountain map users concerning the accuracy and symbolisation of topographic



View towards the upper end of the Simmental | Photography Christian Haeblerling

maps, especially members of Alpine Clubs, were evaluated (Martin Gurtner, swisstopo). Further two presentations dealt with the evolution of classic relief maps and perspective views for different cartographic purposes (Alex Tait, International Mapping; Martin Gamache, National Geographic). Similar, but more technical projects on the development of new tourist maps with an integrated shaded relief were demonstrated (Roger Smith, Geographx NZ; William McNulty, National Geographic; Tom Patterson, US National Park Service). David Schobesberger (University of Vienna) presented an evaluation of the application and effectiveness of 2-D vs 3-D representations in National Park maps. Loïc Gondol (IGN Paris) talked about tests for new cliff drawings and scree representation on topographic maps. Tibor Tóth (Tóth Graphix) demonstrated his relief shading methods using Photoshop and a tablet device. Finally, Stefan Räber (ETH Zurich) presented various physical relief depiction techniques, including the production of physical relief models with modern computer-driven drilling machines for an Earth Science exhibition at ETH Zurich.

The session on the *History of Mountain Mapping* started with a biographical presentation of the Swiss topographer and cartographer Jacot-Guillarmod (1868–1925) and his influential cartographic cliff representations (Hans-Uli Feldmann, swisstopo), followed by a presentation on the cartographic tradition and the latest technological developments at the Institute of Cartography of ETH Zurich (Lorenz Hurni). Alistair Pearson (University of Portsmouth) reported on laser measurements and geometric analysis performed on a historic relief model to check its accuracy.

A session on *Multimedia Application and Mobile Devices* for mountain mapping comprised presentations on web applications for data acquisition (Dusan Petrovič, University of Ljubljana), spatial communication using Google tools (Karel Kriz, University of Vienna) and accessibility visualisation (Adrian Weber, ETH Zurich). Furthermore, an implementation of GPS technology for mountain mapping and

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Participants of the 6th ICA Mountain Cartography Workshop in Lenk, Switzerland | Photography Christian Haeblerling



tour planning was demonstrated by Juan Galera (University of Leon).

The topics of the eight short presentations grouped in two sessions included representational principles of rock depiction (Jürg Gilgen, swisstopo), tourist mapping activities in Romania (Gabriela and Marin Ilies, University of Cluj-Napoca), the historic development of panoramic maps (Arne Rohweder, Gecko Maps), mobile trekking guide devices for the Rwenzori National Park, Uganda (Constante Bonacina, University of Brescia), smart interactive maps (Nathaniel Kelso, The Washington Post), Multidate habitat mapping approaches in Quebec (Guillaume Fortin, University of Moncton), a topographic map of the Tatra Mountains (Rafal Jonca, RJ Carto), and traditional hill-shading for digital maps (Gizella Bassa, Gizimap).

A new kind of discussion forum was tried out for the first time at the Workshop and immediately attracted a lot of interest due to its topic: New graphic design for the Swiss National Topographic Maps. The forum was led by Lorenz Hurni (ETH Zurich), and Hans-Uli Feldmann and Martin Gurtner (both swisstopo). Participants discussed vividly the new structure of the map content with new object classes, and shared their views about the displayed design specimens with different symbolisation and labelling options.

The Workshop featured various social events and activities which fostered great networking among the participants. On Tuesday evening, the welcome drinks at the *Cinema Lenk* were accompanied by the projection of two recent Swiss films. Due to the excellent weather, Wednesday presented itself as a wonderful opportunity to enjoy various outdoor activities like skiing, snow walking or simply relaxing in the sun. At the curling event that evening, many newly formed international teams were established to master this challenging sport. Finally, the "Raclette dinner", a traditional Swiss cheese dish, was very much appreciated by everyone on Thursday evening.



The traditional Swiss raclette dinner puts smile on many faces | *Photography Christian Haerberling*

All papers and contributions for the workshop will be published in the workshop proceedings in mid 2008. The contributions will also be accessible on the Commission website.

## Future Plans

The next ICA Mountain Cartography Workshop will take place in Borsa in the Maramures Mountains, Romania, 1–5 September 2010. Gabriela and Marin Ilies from the Babes-Bolyai University of Cluj-Napoca are the local organisers. For more information please visit the Commission's website.

**Christian Haerberling** | ETH Zurich | *Switzerland*

**Lorenz Hurni** | Co-chair | ICA Commission on Mountain Cartography | *Switzerland*

## Theoretical Cartography

[rcswww.urz.tu-dresden.de/~wolodt/tc-com/](http://rcswww.urz.tu-dresden.de/~wolodt/tc-com/)

### Workshop in Kyiv, Ukraine

Our Commission together with the National Aviation University, Department of Human Safety (co-organizer Prof. Zaporozhec) held the 2nd Joint Workshop *Cartography, Cartosemiotics and Ecological Safety* on 28 March 2008 in Kyiv, the capital city of Ukraine.



Participants of the 2nd Joint Workshop in Kyiv

Over 20 participants from Kyiv, Kharkov and Smolensk universities and institutes (National Aviation University, Faculty of Ecology; Kharkov Aviation University, Institute of Geography, Smolensk Pedagogical University, Institute of Telecommunication, Institute of Land Use and Information Technologies) took part in this one-day workshop. In three oral sessions there were 15 papers presented with topics covering theoretical cartography and cartosemiotics, ecological safety, education and mapping. The results of the workshop will be published as a CD-based Proceedings in the near future.

The 3rd Workshop is planned either for March 2009 in Kyiv or for September in Alushta, Crimea.

### Workshop in Vilnius, Lithuania

The ICA Commission on Theoretical Cartography and the Centre of Cartography, Faculty of Geosciences of the Vilnius University held a joint workshop *Selected Problems of Theoretical Cartography* on 14 May 2008 in Vilnius, capital city of Lithuania.

Our workshop aimed at discussing some

selected aspects of theoretical cartography concerning the national atlases of Germany, Lithuania and Ukraine. Alexander Wolodtschenko delivered the main report about (carto) semiotic portrait of the national atlas of Germany. Other discussion topics of the workshop included:

- conceptual aspects and peculiarities of national atlases
- classical and non classical atlases
- T-M method (thematic and module related method) of atlas analysis
- quantitative approach/research of semiotic atlas potential
- atlas index as accumulator of cartosemiotic knowledge



Participants of the Joint Workshop in Vilnius

The workshop brought together researchers, developers and editors of the National Atlas of Lithuania (volume 1 of this Atlas is planned to be published next year). It was a productive interdisciplinary meeting, with discussions and exchange of experiences amongst theoretical researchers and practitioners.

The next workshop of this series is planned for April 2009 in Vilnius.

**Alexander Wolodtschenko** | Chair | ICA Commission on Theoretical Cartography | *Germany*

**Giedre Beconyte** | Vilnius University | *Lithuania*

## Use and User Issues

[www.univie.ac.at/icacomuse](http://www.univie.ac.at/icacomuse)

Although this has not yet been very visible to the outside world and the ICA community, the new ICA Commission on Use and User Issues has been very active since its establishment in Moscow in 2007. But this visibility will soon improve, if only because of the following two achievements:

- The publication of a special issue of *The Cartographic Journal* (Volume 45, number 2)
- The opening of our new website

### Special issue of *The Cartographic Journal*

The special issue of *The Cartographic Journal* contains refereed articles from distinguished commission members: Muki Haklay & Antigoni

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