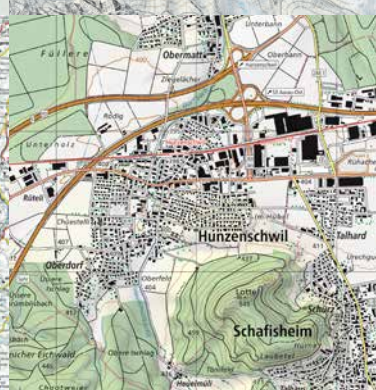
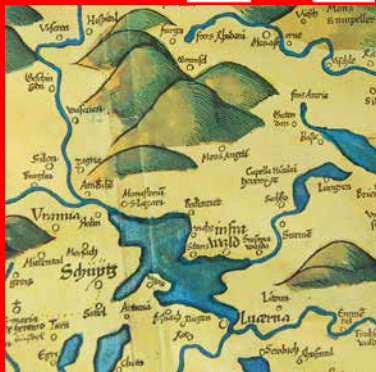


NATIONAL REPORT

Cartography in Switzerland 2011–2015



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Cartography in Switzerland 2011–2015

This report has been prepared by the Swiss Society of Cartography (SSC) and eventually submitted to the 16th General Assembly of the International Cartographic Association (ICA) in Rio de Janeiro, Brazil in August 2015.

Front cover



- 1 City map, Rimensberger Grafische Dienstleistungen
- 2 Geological map, swisstopo
- 3 Statistical Atlas, Federal Statistical Office (FSO)
- 4 Overview map, Canton of Grisons
- 5 Hand-coloured map of Switzerland, Waldseemüller
- 6 Matterhorn, Arolla sheet 283, swisstopo
- 7 City map Zurich, Orell Füssli Kartographie AG
- 8 Cadastral plan, Canton of Lucerne
- 9 Area Chart ICAO, Muff Map, Skyguide
- 10 Mount Kenya, Beilstein Kartographische Dienstleistungen

Imprint

Publisher

Swiss Society of Cartography SSC
Publication No 19

Design, Desktop Publishing, Compilation

Stefan Räber

Support

Institute of Cartography and Geoinformation,
ETH Zurich (Chair of Cartography)



- 11 Geo-analysis and Visualization, Mappuls AG
- 12 City map Lima, Editorial Lima2000 S.A.C.
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- 15 Island peak, climbing-map.com GmbH
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- 17 City map Berne, Mappuls AG
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Preface

Personal note regarding the last four years of cartography, geomatics and geovisualisation in Switzerland, written by Prof. Dr. Sara I. Fabrikant, University of Zurich, Chair of the ICA Commission on Cognitive Visualization.



Dear fellow cartographers and map enthusiasts

“ During the past four years since submission of the last Swiss National Report (2007–2011) to the International Cartographic Association, the collection, processing, analysis, dissemination, and preservation of geographic information have been as colorful, varied, and multi-faceted as the cover of this latest edition of Cartographic Activities in Switzerland (2011–2015) expressively illustrates.

Cartography is alive and thriving in Switzerland as can be seen in various government agencies, in the private sector—by companies and individuals—as well as in academic institutions of different flavors.

This report, many of you might even read it on a mobile smart device, amply documents significant recent changes in a connected and mobile information society. We are producing and consuming large quantities of spatial data through open geo-software, location aware applications for mobile smart devices, open online user generated spatial databases, crowd mapping, and are distributing geodata through vast social media networks.

We hope that you will enjoy the breadth and depth of cartographic activities at the verge of the International Map Year 2015–2016 as presented by the Swiss Society of Cartography herein.



*Prof. Dr. Sara I. Fabrikant
Geographic Information
Visualization & Analysis,
Department of Geography,
University of Zurich*



Cher collègues cartographes et amateurs de cartes

“ Depuis la soumission du dernier Rapport National Suisse auprès de l'Association cartographique internationale (2007–2011), la collecte, le traitement, l'analyse, la diffusion et la préservation de l'information géographique ont été particulièrement colorés, variés et multiples, comme l'illustre la couverture de cette dernière édition des activités cartographiques en Suisse (2011–2015).

La cartographie est vivante et florissante en Suisse, que ce soit dans les diverses agences fédérales, dans le secteur privé – entreprises et particuliers – ou dans les établissements universitaires.

Ce rapport, beaucoup d'entre vous pourront le lire sur une tablette ou sur tout autre support électronique mobile. Il est riche d'une documentation abondante concernant les changements significatifs et récents de notre société, toujours plus portée sur des sources d'information branchées et mobiles: de toujours plus gros producteurs et consommateurs de données spatiales, des logiciels de traitement de données géographiques en accès libre, des applications de géolocalisation pour les appareils mobiles, des bases de données spatiales en ligne libres, générées par des utilisateurs, de la cartographie des foules et de la répartition des données géographiques à travers de vastes réseaux sociaux.

Nous espérons que vous apprécierez l'ampleur et la richesse de ces activités présentées dans ce rapport par la Société Suisse de Cartographie, et ce au moment d'entrer dans l'Année Internationale de la Cartographie (2015–2016).

"Swiss Cartography means to me ..."

A non-representative Q&A session with few cartographers world-wide have been conducted. The goal was to come to know how the perception of Swiss cartography is internationally nowadays. A simple, single question was asked to every interviewee:

What does Swiss cartography mean to me?

“ One term sums up what Swiss cartography means to me: institutional excellence. At a time of great change when once-prominent cartographic firms are disappearing, government budgets are shrinking, and a “good enough” mentality characterizes map quality, Swiss cartography institutions (at the national level) have largely maintained their high standards. One reason for this is the teaching of map reading and use in Swiss schools, instilling residents with an appreciation for good maps.

Swiss cartography has inspired cartographers elsewhere in the world. Some examples: Imhof's Cartographic Relief Presentation is arguably the best cartographic text ever published. Swiss topographic maps are the benchmark against which all other topographic maps are measured. The interactive Atlas of Switzerland is, I believe, the best national atlas in the world. And Bernhard Jenny's research on automated terrain presentation and world map projections has yielded products that have benefited cartographers worldwide.

Although Swiss cartography institutions thankfully still thrive, I am unaware of a flourishing cartographic entrepreneurial community in the country. One reason for this may be the lack of public domain geospatial data from which to create derivative map products. Another reason is that Swiss cartographic institutions are already doing such a fine job.

“ While studying cartography at Glasgow University in the 1960s, my teacher, John Keates, introduced me to the magic of Swiss mapping. After graduating I had the unique opportunity to spend the summer of 1967 at the ETH in Zurich with Professor Ernst Spiess, and visiting the recently retired Eduard Imhof at his home in Erlenbach. My cartographic knowledge and mapping skills – especially relief shading – were richly extended in this famous Institute of Cartography and personal contact with such outstanding Swiss cartographers would have a lasting influence on my mapping career.

I was later proud to be involved with the English translation of Imhof's book, Kartographische Geländedarstellung, and enjoyed a fascinating correspondence with him during that time. In my own teaching I have always highlighted the world leadership of Swiss cartography, in all its aspects.



*Dr. Michael Wood
University of Aberdeen,
Scotland*



*Tom Patterson
US National Park Service
Harpers Ferry, WV*

“ For me, Swiss cartography is a role model that excellently combines cartographic design traditions, practice and multimedia design technologies. For half a century, it is considered as a benchmark in 3D terrain representations and Atlas Information Systems in Terms of aesthetic quality and semantic expressiveness world-wide. There are a bunch of cartographic textbooks that, despite being in different languages, comprise a number of sample maps professionally designed by Swiss cartographers. People trust the masterpieces of Swiss cartography. The reputation of Swiss cartography is well preserved through its sustainable development in the digital era and its social networking efforts among educational institutions, industry and governmental agencies.



*Prof. Dr. Liqiu Meng
Technische Universität
Munich, Germany*

“ Swiss Cartography means to me that the overall aim of maps, to communicate spatial information to human users in an efficient way, is put into the focus of efforts. It is not only data handling, it is not only applying technologies, it is not only visualising, it is the holistic effort of all those competences together which makes swiss maps usually world-leading examples of “How to do it right”. By constantly focusing on the graphical quality of the cartographic outputs Swiss cartographers have not only demonstrated how the profession of cartography can be a science, a technology and an art at the same time, but also set a benchmark for the rest of the world. Thus, for many of us this is a somewhat permanent goal: “If you can make a map like a Swiss cartographer, you have done it right!”



*Prof. Dr. Georg Gartner
Technische Universität
Vienna, Austria*

“ Swiss cartography means to me up-to-date maps with traditional quality execution and presentation. Switzerland is a small, wealthy country with a justifiably proud history in mapping. The Swiss public have a well-developed appreciation of quality mapping and have an expectation of good geo-graphics in all communications. Their investment in mapping education and research maintains a high level of interaction between designer and user. Contrary to these positive features, the weight of tradition discourages improvement in private or public sectors and gives a perception that cartography is slow to change and innovate. ... Perceptions are dangerous and sometimes misleading.



*Geoff Aitken
NewTopo (NZ) Ltd
Pohara, New Zealand*

“ Swiss cartography to me means heritage, quality and innovation. Heritage is related to the foundation and techniques developed by Swiss cartographers, and recognized by their international peers. Innovation is one of the hallmarks of Swiss mapping products – from paper to digital to distributed. Innovative cartographic products, methodologies, hardware and software from Switzerland has been at the forefront of advances in cartography.



*Prof. Dr. William Cartwright
RMIT University
Melbourne, Australia*

Swiss Society of Cartography (SSC)

The SSC is the official representative for Swiss Cartography at the International Cartographic Association (ICA). The society comprises of more than 360 members – specialists from private, academic, government organisations, and/or map enthusiasts. They love maps.

Goals of the Society

The Swiss Society of Cartography was founded in 1969. Its main goal is to promote theoretical and applied cartography and to support the education within the corresponding profession. The society disseminates the latest knowledge in the field of map production, map use and the history of cartography. In addition it assists in the exchange of experience and knowledge among experts and institutions both in Switzerland and abroad. Please consult our website www.cartography.ch.

Activities

The Swiss Society of Cartography:

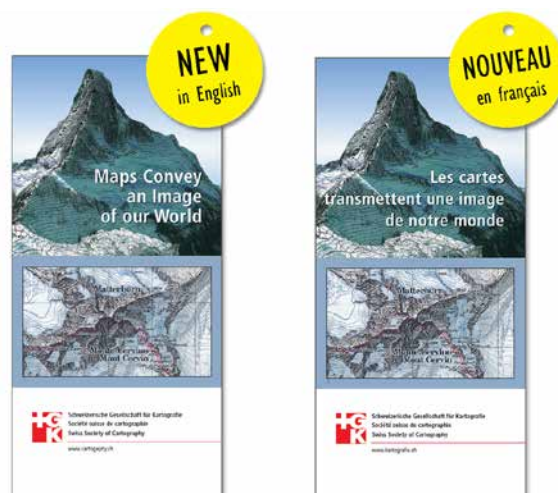
- organises meetings for its members twice a year
- organises workshops, continuing education, and excursions to cartographic enterprises and exhibitions (www.cartography.ch/veranstaltungen)
- publishes textbooks and national reports on cartography (www.cartography.ch/publikationen)
- is the official representative for Swiss cartography at the International Cartographic Association (ICA) and in the Swiss Organisation for Geoinformation (SOGI)
- participates actively in commissions and working groups of the ICA (www.cartography.ch/commissions)
- publishes and distributes a bi-monthly newsletter to its members (www.cartography.ch/infoblatt)
- distributes the journal *Kartographische Nachrichten* to its members six times a year

Commissions / Working Groups

- SSC working group on Map History (Chair: Dr. Martin Rickenbacher)
- Swiss Organisation for Geographic Information SOGI (Representative: Martin Probst)
- Permanent Committee on Geographical Names (Representative: Alfred Gut)

Swiss Representatives of ICA Commissions

- ICA Commission on Art & Cartography (Vice-chair Dr. Barbara Piatti)
- ICA Commission on Atlases (Vice-chair Dr. René Sieber)
- ICA Commission on Cartography in Early Warning and Crisis Management (Vice-chair Dr. Christophe Lienert)
- ICA Commission on Cognitive Visualization (Chair: Prof. Dr. Sara I. Fabrikant)
- ICA Commission on Digital Technologies in Cartographic Heritage (Prof. Dr. Bernhard Jenny)
- ICA Commission on Education and Training (Dr. Christian Häberling)
- ICA Commission on Generalisation and Multiple Representation (Prof. Dr. Robert Weibel)
- ICA Commission on Geovisualization (Prof. Dr. Sara I. Fabrikant)
- ICA Commission on Map Design (Vice-chair: Prof. Dr. Bernhard Jenny)
- ICA Commission on Mountain Cartography (Vice-chair Prof. Dr. Lorenz Hurni)
- ICA Commission on the History of Cartography (Hans-Uli Feldmann)



Flyers of the Swiss Society of Cartography

General assemblies and events organised between 2011 and 2015

SSC Symposium, Zurich, 13.09.2011

The autumn meeting 2011 is titled "Werkschau Kartografie Schweiz" (Work Exhibition Cartography Switzerland). Over 120 people visit the venue at the ETH Zurich, organized by both the SSC and the Institute of Cartography and Geoinformation. No less than 15 companies present their cartographic products and services. Concurrent to the company fair five presentations as well as the "Prix Carto" award ceremony add to the programme.



Zurich, 13 September 2011: "Retrospective of Cartography Switzerland" with exhibition and presentations.

General assembly, Lucerne, 31.03.2012

Around 45 people participate in the General Assembly 2012 in Lucerne. Successing Stefan Arn, Martin Urech is elected interim president of the SSC for a year. As a Successor of Martin Probst, Philipp Marty is elected as treasurer. With Madlena Cavelti a distinguished map historian is elected into the directorate, following Nicole Aeschlimann-Brönnimann. After the assembly the participants enjoy a guided tour through the Glacier Garden and its museum.



Lucerne, 31 March 2012: General assembly, afterwards guided tour at the Glacier Garden and Museum.

SSC Symposium, Berne, 26.10.2012

The traditional autumn meeting takes place on the 26th October 2012 in the swisstopo conference rooms. The topic of the meeting is "map projections – Gerardus Mercator and his legacy". 2012 marks the 500th anniversary of Gerardus Mercator's birthday. The five presentations as well as a small exhibition about map projections is visited by about 100 people. Afterwards the guests meet for dinner on top of Berne's very own mountain, the Gurten.



Berne, 26 October 2012: Symposium about Map Projections at swisstopo.

General assembly, Zug, 20.04.2013

In wintry weather the 44th general assembly of the SSC takes place at the "Vereinshaus am Siehbach" in Zug. The parting interim president Martin Urech guides through the agenda swiftly and humorously. The election of the new president of the SSC, Thomas Schulz, is the most important affair. In the afternoon the SSC invites to a very interesting two-hour city tour, guided by city registrar Christian Raschle.



Zug, 20 April 2013: General assembly, afterwards guided tour at the old town of Zug.

SSC Symposium, Zurich, 08.11.2013

At the ETH Zurich premises on top of the Höggerberg the SSC autumn meeting under the topic of "modern map applications" takes place. Nearly 90 participants follow the five presentations from Lorenzo Oleggini, Anja Obereisenbuchner, Adrian Weber, Rudolf Haller and Martina Forster. Ernst Spiess, who received the DGfK's Mercator Medal at the ICC2013, is honoured by the SSC. Information about the Prix Carto award ceremony may be found on page 77.



Zurich, 8 November 2013: Symposium "Modern Map Applications" – opening panel with all speaker.

General assembly, Wabern, 22.03.2014

The general assembly at the swisstopo is visited by 51 members. After the assembly Dominik Käuferle is giving a presentation on the new National Map design. At the following reception the SSC offers the third edition of its own SSC wine (see page 10). Lunch is served at the restaurant "Altes Tramdepot". The afternoon programme includes a visit at the "Berne Show – from yesterday to today" and an interesting tour through the city's bear park.



Wabern (Berne), 22 March 2014: General assembly at swisstopo.

SSC Symposium, Lucerne, 07.11.2014

At the University of Applied Sciences and Arts in Lucerne four professionals give talks on art and cartography. Furthermore, the short film "MDMD – Mapping Fiction" is shown. Afterwards the film makers and the attendants discuss the film. The film project itself originated from the "Cartography & Narratives" at ETH Zurich in 2013 (see report page 72). Around 60 participants could be received for this afternoon event.



Lucerne, 7 November 2014: A small exhibition to the meeting's topic "Art & Cartography" could be viewed in the recesses.

General assembly, Solothurn, 18.04.2015

In the historical building "Altes Spital" in Solothurn the 46th members' assembly took place. Susanne Bleisch was unanimously elected as new member of the committee board. Christian Häberling was given an honourable discharge after nine years of serving in the committee board. Also of note was the organisation of the International Map Year in Switzerland (see page 76). During the afternoon numerous members took part in a guided tour of the city.



Solothurn, 18 April 2015: SSC members talking after the general assembly.

Executive committee 2012–2015

In 2013 Thomas Schulz has been elected as new President of the Society. He took over the presidency from Martin Urech who remains in the society board. Apart from that, the composition of the Executive Board remains unchanged: Christian Häberling, Martin Urech, Thomas Schulz (president), Madlena Cavelti, Philipp Marty (treasurer), and Stefan Räber (secretary).

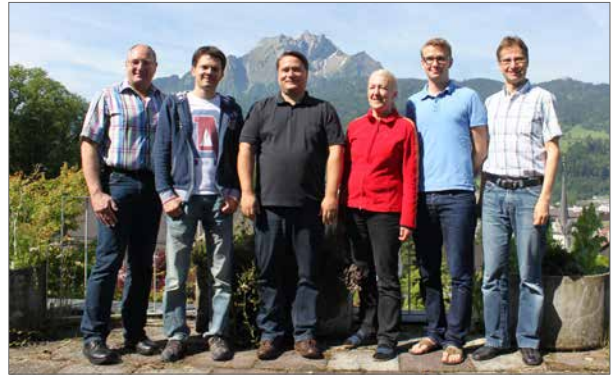
More information at www.cartography.ch/contact
List of all committee members since 1969 at www.cartography.ch/contact/committee.pdf

New Committee Member

Since spring 2015 Susanne Bleisch is a new member of the committee board and thus successor of Christian Häberling, who acted on the committee board for nine years. Since 2014 Susanne Bleisch holds the professorship for Geovisualisation and Visual Analytics at the FHNW's Institute of Geomatic Engineering – with emphases on research, teaching, further education and the rendition of services for third parties (see page 55). Susanne's profile may be seen in detail at www.fhnw.ch/personen/susanne-bleisch/profil

Wine of the SSC

Maps are our passion. However, we do not solely cater to the promotion of map products, but also to our loyal members' needs for red and white wines. For the cartographer's wine a label design competition is held each time. The label should incorporate a cartographic subject. The cartography student Sanghamitra Dhar of swisstopo won this competition for our second-edition SSC wine (2011); for the third edition (2014) the label of Joël Gasche from the Swiss Federal Statistical Office was chosen.



Members of the SSC executive committee in front of Mount Pilatus near Lucerne.



On the 18th of April 2015, Susanne Bleisch has been elected as a new member of the SSC committee board.



Second edition: Wine labels with contour lines.

Working Group on the History of Cartography

by Martin Rickenbacher

Portrait

The Swiss working group on the history of cartography is a section of the Swiss Society of Cartography (SSC) and co-founder of the mutual German-speaking working group on the history of cartography (D-A-CH). Members of the working group serve as editors of the journal for the history of cartography *Cartographica Helvetica*, some of them since its first issue in 1990. Two members act as a web team that supports karten-geschichte.ch, an internet platform publishing detailed information on the history of cartography of the German-speaking countries, including all links to the retro-digitized online version of *Cartographica Helvetica*. The working group was initiated by Prof. Arthur Dürst in 1977, and since 2000, it is chaired by Martin Rickenbacher. He is also the national representative for Switzerland to *Imago Mundi* in London.

Activities 2011–2015

Since 2011, several milestones of Switzerland's history of cartography have been commemorated. In 2012, the Swiss Cadastral Survey celebrated its 100th anniversary with several presentations and publications, in which the strong relationships between large-scale mapping and cartography were emphasized (see *Festschrift* and *Cartographica Helvetica* 46 (2012), p. 3–16).

The 175th anniversary of the Swiss Federal Office of Topography *swisstopo* was celebrated in 2013. Since its foundation by Guillaume-Henri Dufour (later General) in 1838, this office published three national map series (Dufour map, Siegfried map, National map) with a lot of several different editions of the individual map sheets. On the occasion of the anniversary, all printed and then digitized editions at the scales of 1:25,000, 1:50,000 and 1:100,000 were republished in a web-based map service, offering everybody the opportunity to undertake a "Journey Through Time" anywhere in the country (fig. 1 and 2). A geocaching contest was offered, in which the participants had to search a dozen places linked to the history of *swisstopo* (see *Cartographica Helvetica* 48 (2013), p. 3–14, 41–43).

Martin Rickenbacher

Since 2000, Rickenbacher from *swisstopo* chairs the very active working group. Current activities having been published on

www.kartengeschichte.ch

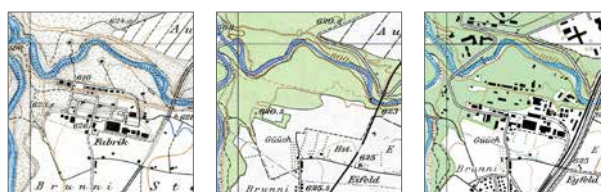


Figure 1: The "Journey Through Time" also shows cartography during the Cold War. In the last two editions of the *Topographical Atlas of Switzerland 1:25,000* ("Siegfried map"), the army ammunition factory of Wimmis is represented, even during World War II. With the first edition of the map sheet 1207 Thun of the *Swiss National Map 1:25,000* (NM25) in 1958, it disappears – probably for reasons of secrecy – until the 1993 edition, when it cartographically rose like a phoenix (geo.admin.ch/..., move transparency buttons).

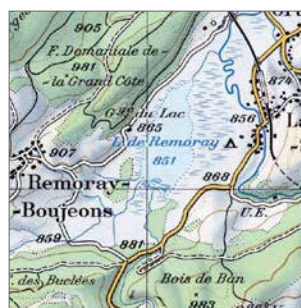


Figure 2: Another sample from the "Journey Through Time". In the 1980 edition of sheet 35 Vallorbe (NM100), the cartographer drew a fish in the southern part of Lac de Remoray (geo.admin.ch/..., move transparency buttons).

The Swiss Alpine Club, founded in 1863, celebrated its 150th anniversary in the same year. During its impressive history, this largest association of Switzerland, counting 135,000 members (2011), was a strong initial power for the creation of the "Siegfried map" (starting around 1867) and the modern National maps (since 1935). These links between alpinism and the Swiss history of cartography were memorialised in several publications and exhibitions (see *Cartographica Helvetica* 48 (2013) p. 44–47).

Furthermore, eight meetings were held during this period of reporting, which offered, for example, guided visits through exhibitions of Napoleon's maps of Switzerland 1803–1813 (swisstopo, with lecture at the Historical Society of Berne, 2011), the engineer Joseph Antoine Buchwalder (1798–1883) (*Musée jurassien d'art et d'histoire Delémont*, 2011), "Ueli's Maps – die Welt von Hand gezeichnet" (Gletschergarten Luzern, 2013, see figure 4), "Bergwelten: Die Zentralbibliothek des Schweizer Alpen-Club" (Zentralbibliothek Zürich, 2013), "300 Jahre Kanderdurchstich" (Rathaus Thun, 2013) and "Das Kartenmanuskript von Joachim Eugen Müller aus dem Jahre 1805" (Historisches Museum Obwalden, Sarnen, 2015). Other meetings gave presentations/colloquia on "200 Jahre Fundamentalpunkt Bern" in cooperation with the Swiss Geodetic Commission and the Society for the history of Geodesy in Switzerland (University of Berne, 2012) and "Historische Orthofotos: Die 'Amerikanerbefliegung' von 1946" (swisstopo Wabern, 2015). These meetings were usually attended by 20–40 persons.

In addition to the activities of the working group, there were other events related to the history of cartography, for instance in 2011 a colloquium on "Kartographien Politischer Räume" at the University of Zurich and in 2014 the memorial event for the officer, researcher and map maker Franz Fidel Landtwing (1714–1782). Swiss map historians also regularly supported the "Kartographiehistorisches Colloquium D-A-CH" of the German speaking countries in Munich (2010), in Marbach am Neckar (2012) and in Eichstätt (2014) with several presentations, and they participated at the International Conferences on the History of Cartography (ICHC) in Moscow (2011), in Helsinki (2013, figure 5) and in Antwerp (2015). These map historians presented papers at the ICA Conference in Dresden (2013) and the symposia of the ICA Commission on the History of Cartography in Budapest (2012) and in Gent (2014) as well.

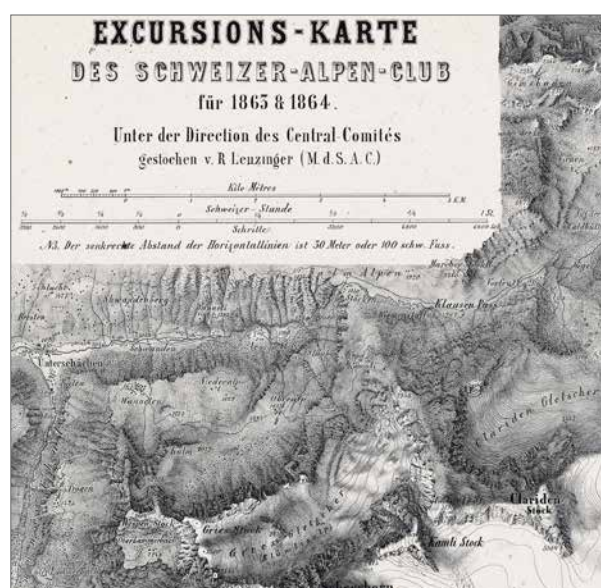


Figure 3: Extract from the first "Excursions-Karte des Schweizer-Alpen-Club für 1863 & 1864", marking the starting point for an intensive collaboration between the Swiss Alpine Club and the official map makers.



Figure 4: Ueli Läubli presents his hand-coloured maps in Lucerne, 2013.

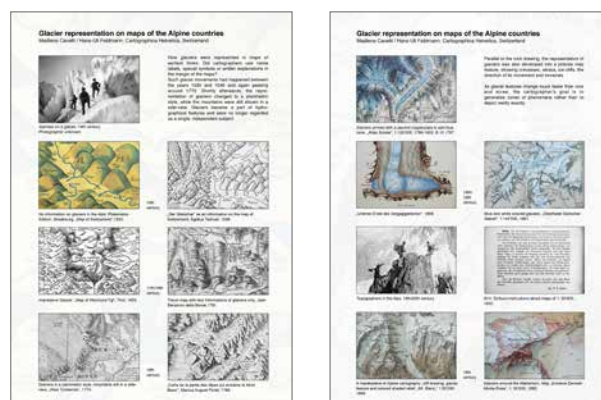


Figure 5: Poster presentations at the ICHC 2013 in Helsinki by Madlena Cavelti/Hans-Uli Feldmann, *Cartographica Helvetica*.

Archives and libraries

The number of Swiss archives and libraries making old maps available in digital form through web-based map services is increasing along with the availability of map bibliographic metadata. The central Swiss access for map libraries and archives www.kartenportal.ch (figure 6) was supplemented in 2011 by a map-based geographical search facility, which allows to retrieve current and old printed maps held by Swiss libraries. In 2014, swisstopo released the LUBIS-viewer, a web-based information system for aerial photographs (web link [a] – see right column). Four university libraries furnish map data to the platform www.e-rara.ch, which currently (May 7, 2015) has approx. 2540 maps online [b]. The Zentralbibliothek Zürich contributed 955 maps, the Universitätsbibliothek Basel 899, the ETH-Bibliothek 593 and the Universitätsbibliothek Bern 90. These numbers will increase rapidly. “e-manuscripta.ch” provides approx. 1000 maps [c] – no augmentation is expected.

In 2012, more than 4000 objects of the map collection of the “Dr. Albert Knoepfli-Stiftung”, which had been made accessible between 2007 and 2010, were digitized, and the approx. 8300 entities were transferred to the State Archives of the Canton of Thurgau. In the context of the project “Cartography of Central Switzerland”, managed by Madlena Cavelti, 12,130 items (maps, panoramas and reliefs) were registered up to now. The “Kartenportal Zentralschweiz” references to several thousand map products from Central Switzerland [d]. Recently, a manuscript map of Central Switzerland was identified at the Historisches Museum Obwalden. The map is of inestimable value for Swiss cartography (figure 7).

Cartographica Helvetica

After an impressive series of 50 issues, which present 228 articles from 155 authors on 2784 pages, the journal Cartographica Helvetica has changed its concept 25 years after the first edition. Instead of various articles and general information, each issue will now feature a single topic based mainly on the history of Swiss cartography. From 2015 onwards, the journals will be published at irregular intervals, depending on the current importance of the topic. Regarding the 150th anniversary of the first ascent of the Matterhorn on July 14, 1865, the first number of the new series will focus on the mapping activities covering this impressive mountain.

Web links

- [a] <http://map.lubis.admin.ch>
- [b] www.e-rara.ch/maps/nav/classification/3273917
- [c] www.e-manuscripta.ch/maps/nav/classification/642361
- [d] www.editioncavelti.ch/tool/karto/index.php

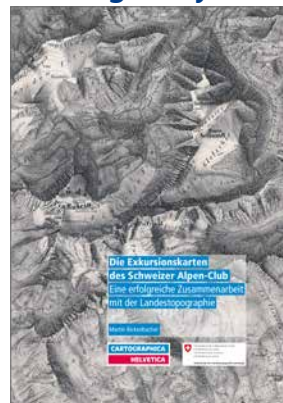


Figure 6: Screenshot of www.kartenportal.ch



Figure 7: The recently found map manuscript (155 x 83 cm, approx. 1:100,000), surveyed and drawn by Joachim Eugen Müller (1752–1833) around 1805, extensively restored by Sibylle von Matt (Photo Melchior Imboden)

Cover gallery, 2011–2014



Cover, special issue 22, 2013



Cover, special issue 23, 2014

Books and articles

Various books and articles on historic map topics have been published, for instance:

Amtliche Vermessung Schweiz 1912–2012 [Festschrift]. [Wabern]: AV Schweiz, 2011. (published also in French and in Italian).

Rickenbacher, Martin: Napoleons Karten der Schweiz. Landesvermessung als Machtfaktor 1798–1813. Baden: hier+jetzt, 2011.

Feldmann, Hans-Uli; Wyder, Samuel: Hans Conrad Gyger: seine Schweizerkarten (1620–1657). Murten: Cartographica Helvetica (Sonderheft 21), 2012.

Anker, Daniel (Ed.): Helvetia Club – 150 Jahre Schweizer Alpen-Club SAC. Bern: Verlag des SAC, 2013.

Anker, Daniel (Ed.): Bergwelten – Die Zentralbibliothek des Schweizer Alpen-Club SAC. Zürich/Bern: Zentralbibliothek/Schweizer Alpen-Club SAC, 2013.

Jacquat, Marcel; Juillerat, Claude; Miserez, Jean-Paul: Antoine Joseph Buchwalder (1792–1883) – éminent cartographe jurassien. Porrentruy: Société jurassienne d'Émulation, 2013.

Rickenbacher, Martin: Die Exkursionskarten des Schweizer Alpen-Club: Eine erfolgreiche Zusammenarbeit mit der Landestopographie. Murten: Cartographica Helvetica (Sonderheft 22), 2013.

Staatsarchiv des Kantons St. Gallen (Ed.): St. Gallen à la carte – Alte Karten und Pläne fürs neue Jahr. St. Gallen: Staatsarchiv, 2013.

Bundesamt für Bevölkerungsschutz, Fachbereich Kulturgüterschutz (Ed.): Kartografie und Kulturgüterschutz. Bern: KGS Forum 22/2014, 2014.

Germann, Georg (Ed.): Das Multitalent Philipp Gosset 1838–1911. Baden: Hier und Jetzt, 2014.

Oehrli, Markus (collaboration: Martin Rickenbacher): Deutsche Kriegskarten der Schweiz 1939–1945: ein Vademecum. Murten: Cartographica Helvetica (Sonderheft 23), 2014.



Cover, Volume 43, 2011



Cover, Volume 44, 2011



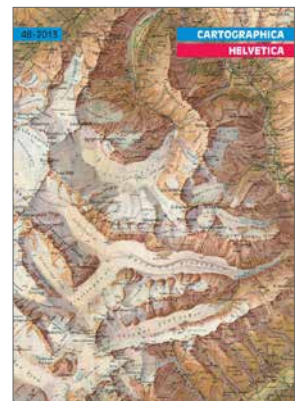
Cover, Volume 45, 2012



Cover, Volume 46, 2012



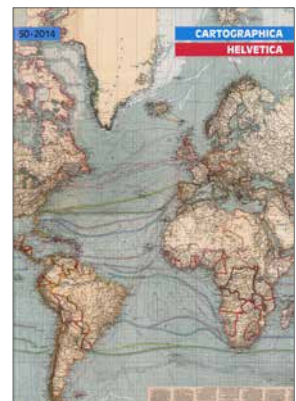
Cover, Volume 47, 2013



Cover, Volume 48, 2013



Cover, Volume 49, 2014



Cover, Volume 50, 2014

Swiss Organisation for Geographic Information

by Martin Probst

Portrait

Swiss Organisation for Geographic Information (SOGI) promotes the know-how and use of geo-information. SOGI is the umbrella organisation, the network of all actors in the geo-information market, pooling professional associations, governmental organisations, private companies as well as individual professionals and students. The Swiss Society of Cartography is member of SOGI. More information is available at www.sogi.ch.

GEOSummit

SOGI organises a.o. technical conferences and workshops like GEOSummit, the most important communication platform in the geoinformation business in Switzerland. This event is a congress with workshops, presentations and a trade show. This bi-yearly mayor event is held since 1990 and in 2012 GEOSummit was introduced successfully as a relaunch in Berne.

The concept of combining a congress GEOConf and a trade show GEOExpo satisfied both visitors as well as exhibitors.

The year 2014 was a very special year for SOGI: the 20th anniversary offered the opportunity to review and honour the manifold activities and achievements of the past years and to create visibility on national and regional level. Again, a successful technical conference GEOSummit was held in Berne, with a record-breaking number of participants, gathering more than 1000 professionals, experts, students and schoolkids. Also the number of exhibitors increased to over 80, what outperformed the pervious events. This attractive trade show that combines conference and professional trainings has become indispensable in the Swiss geo-information ecosystem. For more information please consult www.geosummit.ch.

Geowebforum

SOGI also operates a web-based platform for geo-information-exchange called geowebforum, which helps to disseminate information from the market to the market: www.geowebforum.ch



GE+Summit



Session of the GEOSummit 2014 in Berne.



Kick-off meeting for the GeoSummit 2016. The event will take place in Berne from 7th to 9th June 2016.

Cartographic Training in Switzerland – A Brief Overview of Alternatives

by Christian Häberling, Stefan Arn, Thomas Schulz, Martin Urech

Cartographic education as contribution to the Swiss cartographic tradition

Swiss cartography has an excellent, international reputation based on the high precision national topographic maps, innovative atlas projects (Atlas of Switzerland, Swiss World Atlas), and many exceptional technological solutions (e.g. engraving on glass plates). Not only cartographic pioneers like Henri Dufour, Fridolin Becker, Johannes Wild, Hermann Siegfried or Eduard Imhof contributed to this status. Countless skilled staff in topographic offices, private companies, and publishing houses worked, and continue working, to produce high quality map products, both printed and digital.

Historically, the technical craftsmanship and the cognitive skills had to be acquired over many years, and these skills had to be handed from generation to generation. How is cartographic knowledge acquired today, and what is the present situation of Swiss cartographic education? In the following, a short summary of the modules for cartographic education on different levels will be presented.

Professional apprenticeships

Until one decade ago many professional cartographers learned their cartographic skills through a multi-year apprenticeship dedicated to designing and producing maps, especially printed maps.

Since 2006, the Swiss cartography education system has adapted to the digital world by extending the contents of the cartography apprenticeship courses to cover geo-information. With the new "Geomatician, specialisation in cartography" apprenticeship program, geo-information students are exposed to all aspects of geomatics, including map-specific training such as the generation and design of map data and digital processing techniques. This curriculum is offered only in the two Swiss federal institutions of the Swiss Federal Office of Topography swisstopo (in Wabern next



Section of a city map as a semester work of a cartography trainee at swisstopo.



Cartography trainees of swisstopo during a field course in cliff drawing in the Swiss Alps. (Photo Stefan Arn)



Cartography trainees of swisstopo with office work.

to Berne) and the Swiss Federal Office of Statistics (in Neuchâtel). Even in a tight job market, the young professionals graduating from the new program usually have no difficulties to find an employment within the larger business sector.

The geoinformatics sector also offers professional continuing education courses that include modules that focus specifically on map-making. Especially for ambitious junior employees, such new educational programs can offer more professional perspectives and lucrative job options.

Academic curriculum at Swiss universities

In addition, Swiss universities and universities of applied sciences offer a wide range of courses where geomatics or geography students at the undergraduate or Master's level can acquire skills in map design and enhance their cartographic knowledge. However, a dedicated Master's degree in cartography is not currently offered.

Some universities complement their curriculum in "Geoinformation" (ETH Zurich, EPF Lausanne, University Zurich, FHNW Muttentz), "Geographical Information Visualisation" (University of Zürich) or "Geoinformation Engineering" (ETH Zurich) by offering courses like "Cartography Basics" (map types, map content, history in cartography, generalisation principles, map design, legend structure, map layout, etc.), "Thematic Cartography", "Digital Cartography", or "Web and Multimedia Cartography". In addition, students can study and develop cartographic topics in detail within semester works, Bachelor and Master Theses at most of the Swiss universities.

Even though most graduates of academic cartographic courses are not primarily working in map design or map production in their professional career, many apply their cartographic background for innovative solutions and high quality map designs and for effective visual communication.

Future of cartographic education in Switzerland

Despite the many courses and training programs that are already on offer in Switzerland, work will continue on developing this discipline to ensure the survival of the Swiss map-making tradition as well as the development of innovative cartographic concepts and products.



*Cartography trainees at the Swiss Federal Office of Statistics discussing maps together with their instructors.
(Photo Thomas Schulz)*



Student works on a map project at the Institute of Cartography and Geoinformation, ETH Zurich.



Reference

Abridged and translated from the article:
Häberling, C., S. Arn, T. Schulz (2014):
Erwerb von kartografischem Wissen in der Schweiz – ein Kurzüberblick über Ausbildungsmöglichkeiten.
FORUM 22/2014; Bundesamt für Bevölkerungsschutz BABS – Fachbereich Kulturgüterschutz KGS (Eds.); 76–80.

Beilstein Kartographische Dienstleistungen

by Matthias Beilstein

Map Services

- Visualisation and mapping of environmental issues
- Visual support for policy makers
- City maps
- Relief shading

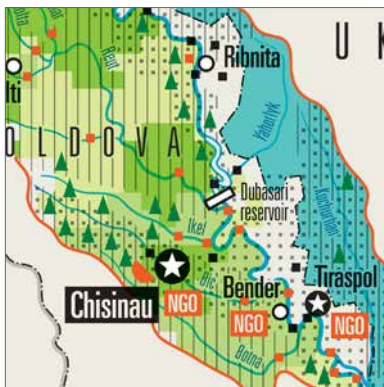
Railway maps

Our rail maps feature well-balanced content, clear cartographical detail and an attractive layout. Illustrations are used to explain technical aspects as well as other useful information. The graphics have been carefully designed so the maps are easy to read, while showing the railway world to its best advantage. The maps will delight all railway enthusiasts whether in a professional capacity, as a leisure pursuit or as rail travellers. And, of course, everyone who loves maps.

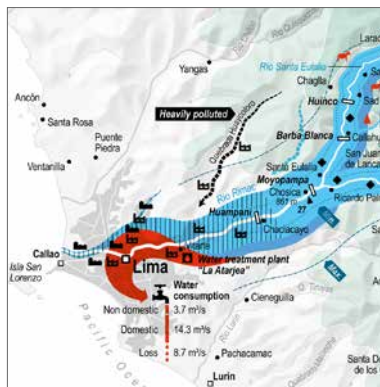
Contact

Beilstein Kartographische
Dienstleistungen
Villenstrasse 8
CH-8200 Schaffhausen

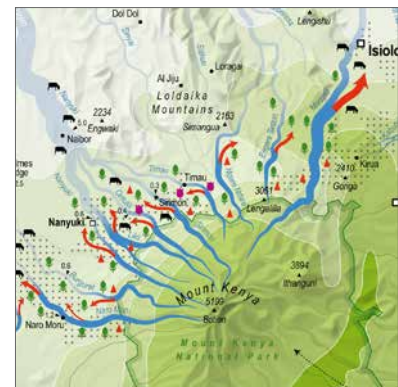
☎ +41 52 624 60 51
🌐 www.beilstein.biz
✉ info@beilstein.biz



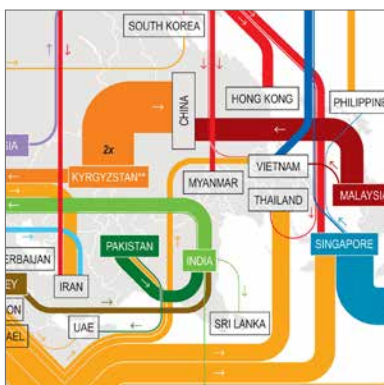
*Climate change in the Dniester basin,
Moldova and Ukraine*



Water use in the Rimac basin, Peru



*Environmental issues in the Ewaso
Ngiro basin, Kenya*



Data visualisation



Relief map



City map

CAT Design

by Claudia A. Trochsler

Portrait

CAT Design Claudia A Trochsler is a cartographic and graphic agency in Baar in the canton of Zug in Switzerland. Since 1987 we have been providing specialized services in visual communication with core competence in cartography and graphic maps services for schoolbooks and specialized books. We are a full service agency, but one part of our work is carried out for publishers and agencies in partnership with other organizations.

During all these years CAT Design broadened his competence by attending professional trainings in scientific illustration and 3D visualization/animation. Up to now we have over 25 years of experience to communicate scientific phenomena in many fields, e.g. medicine, biology, meteorology, cartography, geography, infographics, advertising and industry.

Additionally I'm working as a part time instructor for Cinema 4D and scientific illustration at EB Zurich.

Services

Specialised services in visual communication: 2D/3D cartography and infographics (educational books, advertising, scientific illustrations). We convert spatially referenced specialised information into cartographic means of representation: from topographical maps to thematic maps and their huge variety of special visualization forms.

It is our goal to offer 3D visualizations which meet our customers demands on quality and reliability. These may be based on your sketches, photos, DEM's or data from CAD applications etc.

3D visualizations may be used for cartographical as well as scientific topics, end user instructions (manuals), advertising, etc., Renderings intended for print media or motion pictures will be done with special attention to the specific quality standards of these means. Those are

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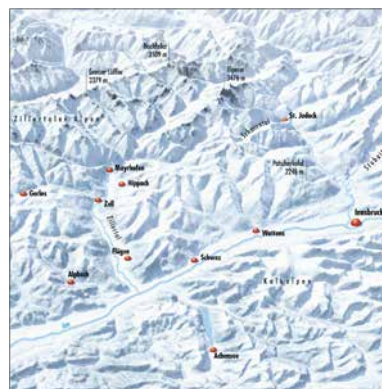
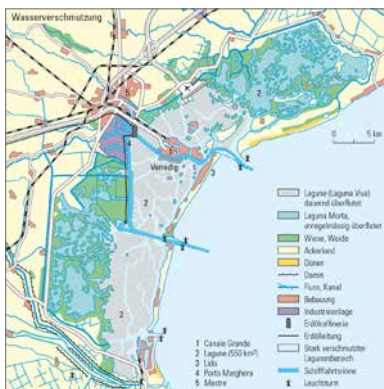
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Topographic and thematic maps for "Züri compact";
Lehrmittelverlag Zürich

published in medical textbooks, professional journals, computer-assisted learning programs and magazines.

Furthermore we are offering Cinema 4D instruction for special products of your company.



climbing-map.com GmbH

by Sandra Greulich and Sacha Wettstein

Vision

People who explore the world's mountains via hiking, trekking or climbing often experience a lack of useful maps in many popular destinations. Major peaks worldwide are covered by many books and travel guides but good topographical maps are still not available or do not satisfy the mountaineers' needs. This situation inspired us to create thematic mountain maps of some of the most prominent peaks worldwide as part of the climbing-map project. The high-quality topographic maps with thematic content not only help with orientation and navigation but also provide geographic and mountaineering background information.

Map Contents and Cartography

Based on our professional background in mountain guiding and cartography we are very familiar with the specific requirements for maps used for navigating unfamiliar terrain. The topographic representation of the landscape is designed based on the best available information and a significant amount of field work. Moreover, the maps contain important additional information regarding mountaineering and local geography.

Climbing Maps are multilingual and easy to understand for everybody. They are professionally designed to meet the highest Swiss mapping quality standards regarding information display, readability and beauty. The carefully crafted Climbing Maps not only portray the topographic landscape but also include high quality pictures, general maps and drawings. They are a useful tool while preparing a tour, en route, and a wonderful souvenir to keep the memories of your adventure alive.

Services

Topographic and thematic climbing-maps with further useful information about the climbing routes, trekking profiles, climate, vegetation, history, city maps, overview maps and other illustrations. The maps have different map scales: 1:25,000 / 1:40,000 / 1:50,000 / 1:80,000.

Contact

climbing-map.com GmbH
Pestalozzistrasse 34
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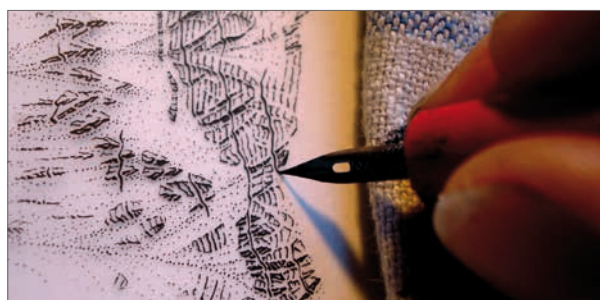
www.climbing-map.com
info@climbing-map.com
[climbing.map](https://www.facebook.com/climbing.map)



Section of the Island Peak map



Painting from the Island peak map



Rock drawing by hand

Edition Cavelti

by Madlena Cavelti Hammer

Portrait

Edition Cavelti, formerly Edition Plepp, is a publisher of historic facsimile maps and publications related to historical maps and the history of cartography. Edition Cavelti is a personal undertaking of Madlena Cavelti Hammer.

Madlena Cavelti Hammer studied geography. She worked at the University of Lucerne and was a director of the High School of Lucerne. In 1990 she co-founded Cartographica Helvetica, a professional journal dedicated to the history of maps, and since was an editor thereof. As a map historian her area of expertise is the 18th and 19th century. She published works covering subjects of terrain models, early maps for tourism, and panorama views. She conducted several exhibitions in the Swiss Alpine Museum and in other locations in Switzerland and Vienna/Austria. In her Edition Cavelti she publishes facsimiles of historic maps. Besides, she is the president of the foundation of Glacier Garden, Lucerne. Since 2012 she is a member of the managing-committee of the Swiss Society of Cartography. She further participated in the project Relief der Urschweiz von General Franz Ludwig Pfyffer [Relief of Central Switzerland by General Ludwig Pfyffer] with the Swiss National Science Foundation (SNSF) and ETH Zurich.

Services

Catalog of publications

Edition Cavelti currently provides 65 facsimiles of historic maps and five books related to the history of maps. The focus of the publications of Edition Cavelti is on Swiss national and regional maps.

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Reliefkarte der Centralschweiz by Xaver Imfeld (section), 1887



Plan de la Route du Simplon, 1800–07

Projects

Edition Cavelti assists scientific research projects related to historical cartography. The following are examples of recent projects:

Project 1: Cartography of Central Switzerland

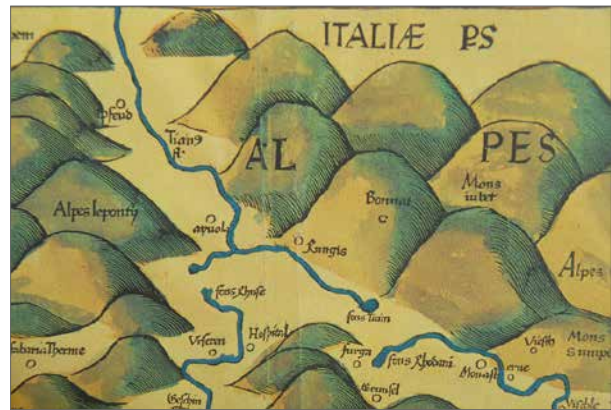
Project Manager: Madlena Cavelti

Objective: All historic maps and the entire material related to the cartography of Central Switzerland is to be made publicly available. Researchers, students, experts as well as any interested person was given simple access to these materials. A digital inventory was created encompassing all related documents from the greater region of Central Switzerland. This catalog includes maps, panoramas and reliefs. After the digital registration the material is to be explored scientifically with the goal of a new publication "Cartography in Central Switzerland" and regional exhibitions.

Project 2: Glaciers, Rocks Drawing on Maps

Project Managers: Madlena Cavelti and Hans-Uli Feldmann

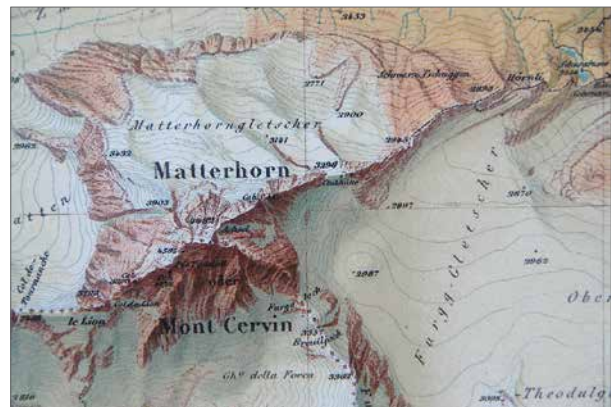
Objective: Switzerland pioneered the art of mapping terrain, especially in the 19th and 20th century The project "Glaciers, Rock Drawings on Maps" focuses on the development of the mapping of glaciers and rocks drawing in Swiss cartography. The intended publication explores the following topics: craftsmanship of mapping glacier and rock terrain from its very origins to the benchmark "Atlas Suisse"; glacier mapping in the 19th century, mapping of rock terrain as particularity of the map by Siegfried, publications of the Swiss Alpine Club (SAC), experiments of Swisstopo in 1900 and 1935; representing glaciers and rocks on panoramas; terrain models, glaciers and rock drawing in the digital age.



*Hand-coloured map of Switzerland (section),
Martin Waldseemüller, 1520*



"Atlas Suisse" (section), 1:120,000. Glaciers printed with a second copperplate to add blue color, 1796–1802



*"Evolena-Zermatt-Monte Rosa" (section Matterhorn),
Swiss Alpine Club map, 1:50,000, 1892*

Editorial Lima2000 S.A.C.

by Oliver Perrottet

Portrait

In 1970, the Swiss citizen Oliver Perrottet emigrated to Lima, Peru. The lack of information on the city's well over 200 public transportation lines and Perrottet's old predilection for cartography motivate him to create a pocket transportation guide. After travelling in buses full time for four months to collect the data and dealing with cartographic and financing challenges, the map is published in 1975 and quickly becomes quite popular.

Perrottet's next step is making a complete street map of the city, which shows the vast belt of shanty towns that has formed around the traditional nucleus for the first time. In 1977, Perrottet founds Editorial LIMA2000 – as a projection towards the still distant year 2000 – to publish and distribute his transportation and street maps.

As the city is growing at a rate of 1,000 new inhabitants per day, updating is the main priority for the new business, which already has five employees. In 1982 a giant 3 meter wide wall map of Lima is published. In 1987 a road map of Peru and a tourist guide of Cusco/Machu Picchu follow, while the company moves to its new business location on Lima's main street Avenida Arequipa.

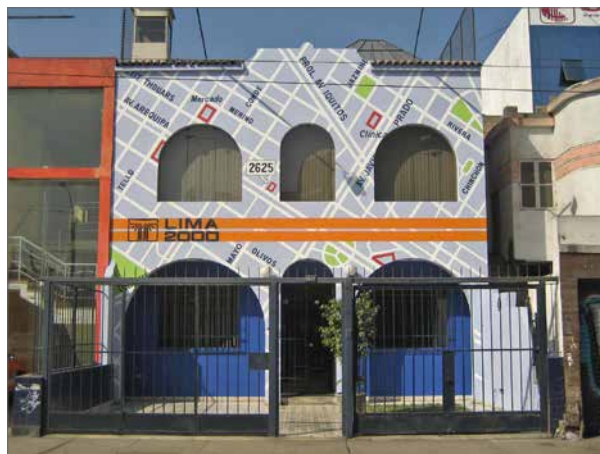
During the 1990's, Geographic Information System technology is implemented for storing and processing the growing amount of data. More maps of the country's touristic regions are published, among them a topographic map of the popular Inca Trail. During the same period, the company's building is renovated, its new front showing a section of the Lima map.

In the first decades of the new millenium, LIMA2000 publishes street maps of the country's major metropolitan areas, and a new hiking guide for the Cusco area. At present, the company is preparing a publication which looks into the past for the first time: A

Contact

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The characteristic front of the LIMA2000 building



Book fair visitors locate their house on the map

large-sized book containing more than 120 maps of Lima, elaborated from its foundation in 1535 to the present, accompanied by a text which is what the book's title says: Lima – a history told in maps.

Services and Products

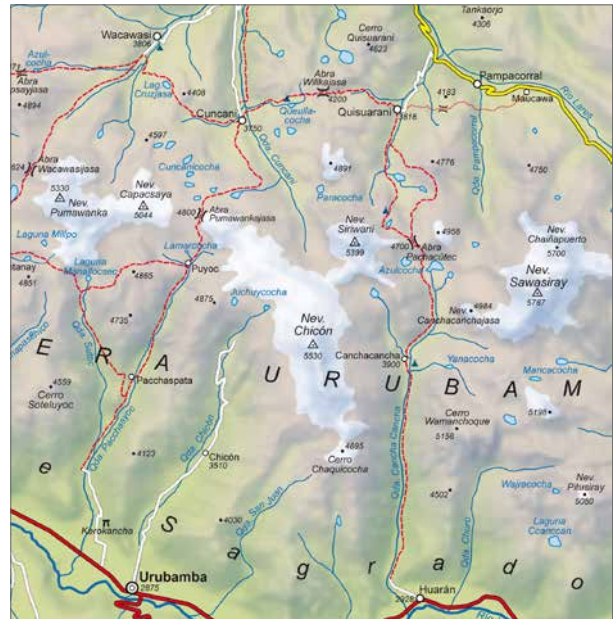
Consulting, concepts, technical developments, GIS data management, map design, maps for print, interactive maps, network plans, floorplans, interactive applications, small to large scales, wayfinding systems, icons, website development.

Publications

- Lima street guides and wall maps
- Street maps of Arequipa, Cusco, Trujillo, Chiclayo
- Visitor's plans of Lima, Cusco and Arequipa
- Visitor's maps of the Inca Trail, Colca Canyon and Cordillera Blanca
- Trekking Guide of the Cusco region
- Road map of Peru
- Physical and political wall maps of Peru

Services

- Street finder for Greater Lima (on website)
- Customized maps for all purposes
- Standardization and Geocoding of addresses



Trekking-map of Cusco 1:130,000



Section of the City map of Lima, scale 1:12,500

Esri Switzerland Ltd.

by Martina Forster

Portrait

Esri Switzerland has over the last 4 years evolved into the European cartographic competence centre for the Esri software platform.

Offering training, consulting, as well the completion of many successful cartographic projects covering a wide scope of scales and uses have helped establish a solid experience base in all aspects of GIS cartography be it Desktop, Mobile or Web.

Three of the successful projects which have recently been completed are, the swisstopo 1:25,000 New National Map series of Switzerland (figure 1), the Overview Map from the Canton of Grisons (figure 2) and the ArcGIS Online World Topographic Basemap for Switzerland (figure 3).

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Figure 1: New National Map, section of sheet 1229, Grindelwald, published by swisstopo. See more on page 44.



Figure 2: Overview Map from the Canton of Grisons, see more on page 48.

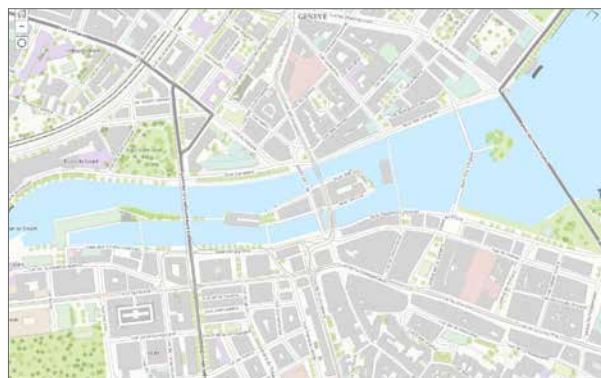


Figure 3: ArcGIS Online World Topographic Basemap for Switzerland.

evoq communications AG

by Christian Sutter

Portrait

evoq is a privately owned agency for design and communication with offices in Zurich and Cologne. For the Swiss Federal Railways, we have been establishing information systems over the past decade, including GIS based cartographic products covering the whole public transportation network in Switzerland as well as floorplans for all major stations throughout the country. Other clients, such as the Swiss Federal Institute of Technology in Zurich (ETH Zurich) or the Greater Zurich Area profit from our expertise. Our services include development, design and production for both print and online applications.

Services

Consulting, concepts, technical developments, GIS data management, map design, maps for print, interactive maps, network plans, floorplans, interactive applications, small to large scales, wayfinding systems, icons, website development.



Interactive floorplans for SBB Railway Stations



Trafimage maps for SBB Travel Cards

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📘 evoqcommunications



Trafimage covers all aspects of public transportation in Switzerland

Gaja maps GmbH

by David Vogel

Portrait

Founded in 2008, Gaja maps GmbH is a dynamic and flexible cartographic company. Our goal is to produce innovative and modern cartographic products in tradition to the highest quality of Swiss cartography.

Services

The company's main field of activity is the conception, compilation and realisation of cartographic products of any kind, and the visualization of geodata.

Our portfolio varies from small hiking maps, city maps or guides to complex thematic and large topographic maps for online or print productions. In the name of our customers we realise their project from the beginning to the end or accompany parts of them. Our clients include book publishers, transit agencies, government agencies, organizations and individuals.

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Road map Switzerland 1:303,000



Information graphic "Aufgaben Bern" –
Position of restaurants



Hiking map "L'Etivaz – Château-d'Oex"

Geomodelia GmbH

by Stefan Räber

Portrait

Toni Mair, founder and owner of Geomodelia, was teacher of geography and geology at the Cantonal school of Zug. In the last decades he realised important alpine reliefs (e.g. Matterhorn, Bernina, Eiger), but also works of the Swiss Midland and non-european landscapes (e.g. Simien National Park, Ethiopia). He is widely regarded as one of the world's finest in this domain. For one square meter relief 300 to 350 hours of work are needed, regardless of whether high mountains or urban fabric is depicted.

Services

Toni Mair builds three-dimensional landscapes, naturalistic or geologically painted reliefs at the desired scale. He also creates detailed reconstructions of landscapes as they existed thousands of years ago. He realises and restores individual objects for museums, foyers and exhibitions.

Book

Together with Susanne Grieder Toni Mair realised a book project titled "the landscape relief – symbiosis of science and craftsmanship" (Das Landschaftsrelief – Symbiose von Wissenschaft und Kunsthandwerk).



Restoration of Imhof's 70-year-old "Windgällen" model in the dungeon of ETH Zurich in 2007 – several plaster blocks.

Toni Mair (1940–2015)

Toni Mair died on the 8th of August 2015 at the age of 75, just two weeks prior to the release of this publication. Toni was an outstanding relief builder. In many museums his works, which he created with ample love for details and scientific meticulousness, are to be admired. We will always honour Toni in our memories.



A list of his works can be seen on www.mair-relief.ch/werke.php



Val Forno (Bregaglia) at the scale of 1:25,000.



Toni Mair (right) explains his Engelberg model at the scale of 1:10,000 displayed at the Talmuseum Engelberg to visitors.

Hallwag Kümmerly+Frei AG

by Marianne Saner and Danielle Zingg

Portrait

In December 2001 Hallwag AG acquired the cartographic division (rights, programs, map stores and company name) out of the legal estate of Kümmerly+Frei AG and founded the new company Hallwag Kümmerly+Frei AG on March 11th 2002.

Hallwag Kümmerly+Frei is the leading publishing house in Switzerland for tourism. Our international distribution network has ensured a worldwide presence and made our familiar red/yellow and blue maps famous everywhere. Swiss cartographic standards guarantee you a high level of accurate information.

To round off its tourist package, Hallwag Kümmerly+Frei AG is also the exclusive Swiss supplier of many famous travel guide series including Baedeker, Marco Polo, Dumont, Vis-à-Vis, LonelyPlanet, promobil, Caravaning, National Geographic Germany and Kunth.

Hallwag Kümmerly+Frei AG also has two special series, which are a perfect addition to your leisure time information:

- The hiking maps and guides from the Swiss Alpine Club (SAC)
- The excursion maps and leisure guides from the Kompass publishing house.

2012: Hallwag – 100 Years Anniversary

In 1707 Niklaus Haller and Franz Fels founded a printing office, which later merged with the Wagnersche Verlagsanstalt founded by Emil Wagner into the Hallwag AG in Zurich in 1912.

100 years on the right way: A milestone in the company's history. Over this period, the range of products has evolved but the basic idea of turning mobility into a great experience in all its aspects remains. This is how Hallwag and its products keep pace with the times for discoveries and exceptional experiences in all four corners of Switzerland and far across its borders.

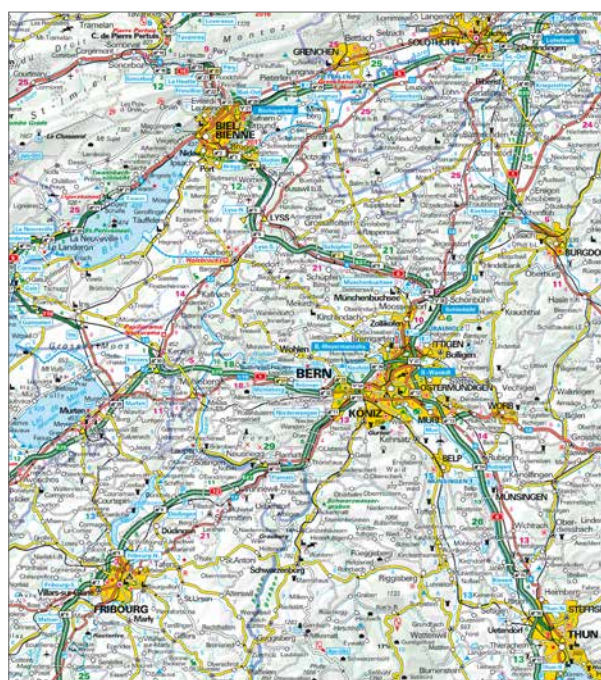
Contact

Hallwag Kümmerly+Frei AG
Grubenstrasse 109
3322 Schönbühl-Urtenen

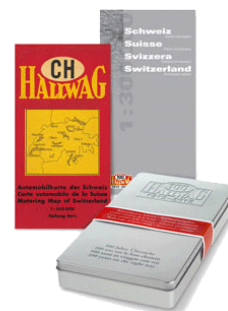
☎ +41 31 850 31 31

💻 www.swisstravelcenter.ch

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Road map "Schweiz Suisse", 1:303,000 by Hallwag (section)



Services

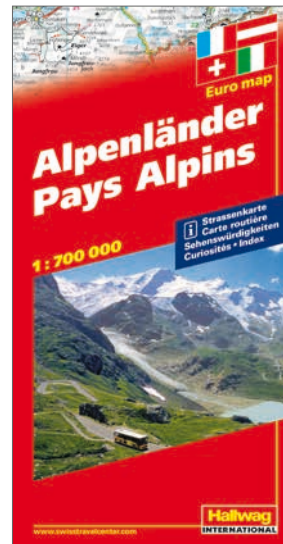
The publishing programme is divided into:

Hallwag – the program for worldwide mobility

Hallwag offers travelling safety with such products as: road maps with e-Distoguide, USA Road Guides, road atlases for planning and traveling, international city maps, Camping-/Caravaning-Program, hiking maps, mountainbike maps and winter adventure maps.

Kümmerly+Frey – the program for active recreation near and far

Popular companions are hiking and cycling maps, European regional maps, holiday maps and leisure books, world and continent maps.



Covers of Hallwag and Kümmerly+Frey map products

Grand Tour of Switzerland

The Grand Tour of Switzerland is an expedition combining all the highlights of Switzerland into one journey. For this tour, Hallwag Kümmerly+Frey has published, next to a tour guide, a map:

As special as the Grand Tour of Switzerland is also the laminated map at a scale of 1:275,000. 44 highlights along the 1600 route kilometers as well as the most picturesque route sections are specifically marked out. The map is a small tour guide in its own right. Pictures and quadrilingual text (German, French, Italian, English) supplement the cartographic basis. Thus the attractions of the memorable Grand Tour of Switzerland may be ideally anticipated and brought to life.



Map cover of Grand Tour of Switzerland



Touring Map Grand Tour of Switzerland by Hallwag Kümmerly+Frey, 2015 (sections)



HERE Switzerland GmbH

by www.here.com

Portrait

HERE, the leading location cloud. Our mission is to make maps for a better life.

How we do it

HERE is a leader in navigation, mapping and location experiences. We build high-definition (HD) maps and combine them with cloud technology to help you and your business navigate a complex world with personalised solutions. Anytime, everywhere, across a broad range of devices, operating systems and vehicles.

Maps for people, made by people

Our global reach is unmatched. We've created maps for 196 countries with more than half navigation grade. In addition we have public transit maps in more than 950 cities and indoor maps for more than 90,000 buildings across over 11,000 venues. With millions of daily updates and the support of our online community using the HERE Map Creator, we make the world's most detailed, accurate and up-to-date maps.

HERE works with business partners to ensure their customers the best available location solutions. Built on the core of our map data, the HERE Platform for Business offers a powerful and flexible set of software services that are fast and easy for companies to access, from anywhere in the world.

HERE, a Nokia business. HERE Switzerland GmbH is the Swiss branch of HERE Global B.V.



HERE logo

Contact

HERE Switzerland GmbH
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CH-3052 Zollikofen

www.here.com
[@here](https://twitter.com/here)



HERE Real Time Traffic delivers speeds, travel times and incidents



The HERE True Car maps the streets of Berlin



The HD Map powers autonomous vehicles

Karten + Grafik Bianca Schmidt

by Bianca Schmidt

Portrait

"Karten + Grafik Bianca Schmidt" is a sole proprietorship with domicile in Zofingen that deals primarily with individual and customer-oriented solutions in the field of cartography.

Cartographic products and solutions are constant companions in our daily life. The possibilities to provide information on blueprints and maps are numerous and diverse. However, despite the common use of GPS assisted smartphone applications, high quality paper based maps remain highly popular. In particular, access of information without the need of electricity and network coverage is a major advantage. Our map products will assist you in providing your guest information, about activities that you offer in a particular region. From a detailed route planner with elevation profile to schematic overview maps, our customised solutions are created with passion and precision. We bring your topic of interest together with our map fundamentals and attune the map product to your individual needs.

In addition, we design and create to our customer's intentions and specifications various other graphical work such as logos, flyers, leaflets, brochures, advertisements and information boards. During the implementation of a cartographic project, we support our customers with our expertise and accompany you from the start to the final product.

- Creation of comprehensive map products like folding and pocket maps, brochures, etc.
- Concept development and layout design
- Use of raster and vector-based databases
- Data editing for print and digital media
- Data enrichment
- Advice on paper choice, printing, folding scheme, etc.

Services

Maps: Local maps, leisure maps, hiking maps, bicycle maps, overview maps. Graphics: Information and theme panels, logos, flyers, brochures, advertisements.

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Hiking Map Gstaad-Saanenland



Overview map of a sport-event



Local Map with different POI's and public institutions

Mappuls AG

by www.mappuls.ch

Portrait

Symplan Map AG was founded in 1988. By the turn of the millennium, Symplan had received a great deal of attention for their TopMap products, the first aerial maps to be forecast to a wide audience.

Symplan Map AG became Endoxon AG in year 2000. At this time, Endoxon AG was considered a leading provider of technologies for the preparation of digital mapping material and a major developer of mapping solutions on the internet. Endoxon AG was acquired by Google Inc. in December 2006.

Following the acquisition, Mappuls AG was formed. Today, Mappuls AG furnishes geo-data and geo-information on a customer-specific basis for map-making products and for additional services such as spatial analysis. Mappuls AG relies on the traditional Swiss art of cartography to innovate and advance the latest digital technologies.

Services

The Mappuls product range includes cartography, geo-analyses and spatial data examination. We invite you to learn more about our varied services and products on our website www.mappuls.ch.



Imagery maps: High quality aerial imagery for tourism maps (2D maps and 3D panoramas)

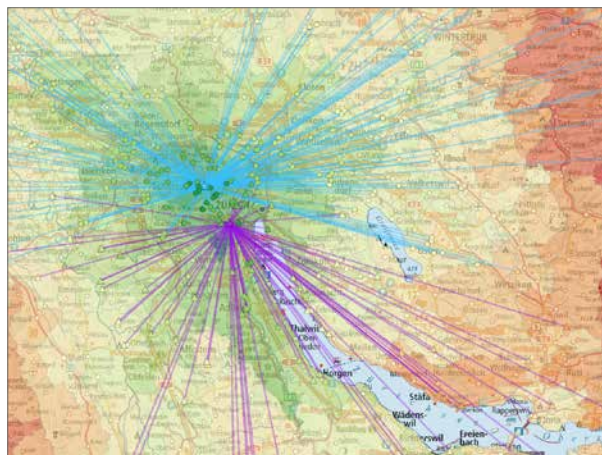
Contact

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🌐 www.mappuls.ch
✉ solutions@mappuls.ch



City maps: Over 200 detailed maps of Swiss cities presented to scale between 1:8,000 and 1:12,000



Geo-analysis and Visualization: Tailored solutions to optimize business

Muff Map

by Hans Muff

Portrait

Muff Map is a one-man company and was founded on March 16th 1976 by the cartographer Hans Muff.

Muff Map is specialised on civil aviation maps and supervises the VFR (visual flight rules) manual as well as the AIP (airfiel information publication) and the TMA (terminal areas) map of Switzerland in cooperation with skyguide Switzerland.

The maps were transferred by muffmap from conventional cartography in today's purely database-supported form. The topographic map is based on swisstopo's data set Vector 200. The air traffic control information printed on top is derived from multiple databases.

Services

The VFR manual, the AIP and the TMA map are published both in paper and digital format.

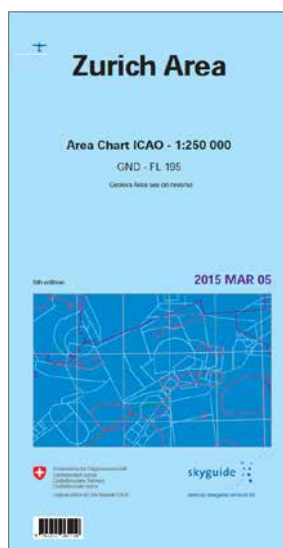
Contact

Muff Map
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CH-3004 Bern

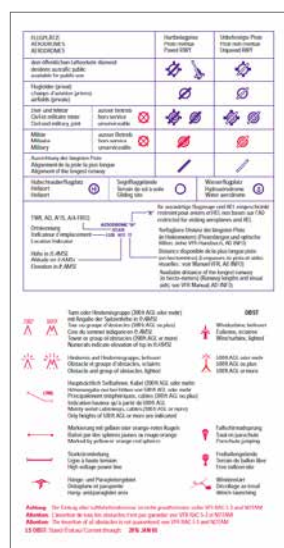
+41 31 302 63 34
muffmap@bluewin.ch



Area Chart ICAO – 1:250,000. Section of the Lake Geneva area
Publisher: Federal Office of Civil Aviation FOCA and Skyguide



Map cover Zurich area



Part of the legend



Area Chart ICAO – 1:250,000. Section of the Basel area

OCAD Inc.

by Thomas Gloor

Portrait

OCAD Inc. sells its cartographic software OCAD in various editions worldwide, adapting customer requests. OCAD is the result of 25 years of software engineering and features specialized cartographic drawing and editing tools, including an ingenious map symbol editor, Bezier curves, line tracing, etc. It also automatically draws junctions correctly and derives contour lines and hill shading from Digital Elevation Models.

OCAD is more than just a map-drawing software. It is in fact a powerful package which covers the entire workflow of map production, from the capture of geo-data (a mobile application) to the import, export and publishing of paper or web-based maps.

The head office of OCAD Inc. is located in Baar, Switzerland. OCAD is available in 13 languages and is being used successfully in more than 65 countries in a wide variety of sectors: land survey offices, the military, national institutes of cartography, cities, communities, cartographic publishers, planning and engineering offices, schools, universities, sport and recreation clubs, etc.

Software Packages

OCAD 11 Professional – Efficient for Professional Map Making

This edition provides the whole spectrum of functionality. All new features of OCAD 11 (e.g. Layout layer, WMS-Server connection, drawing and editing tools, DEM module) are included as well as the GPS real-time module, the new Laser Range Finder, database connection, XML-Script and OCAD Internet Map Export (OIM). OCAD 11 Professional is a Single User License.

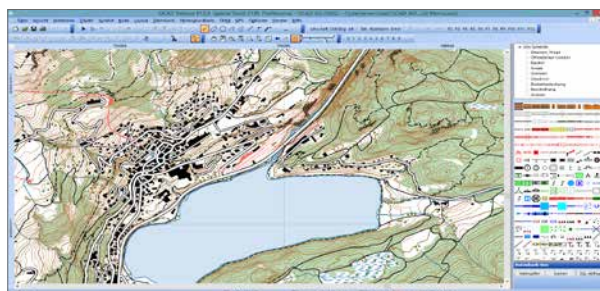
Contact

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In 2013, team OCAD after orienteering competition on the banks of river Elbe in Dresden. From left: Gian-Reto Schaad, Thomas Gloor, Sabine Hauswirth, Markus Fuchs-Winkler and Hubert Klauser.



GUI of the OCAD software application.

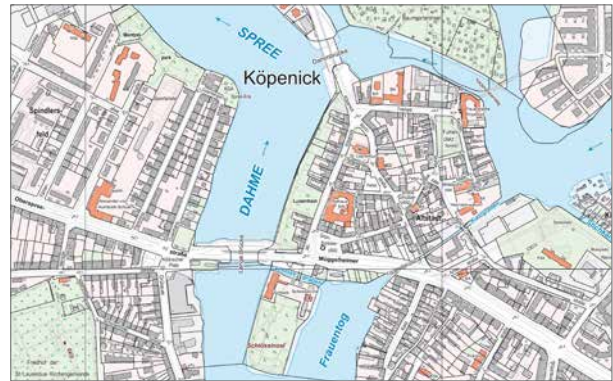
OCAD 11 Enterprise – Efficient for Professional Map Making in Teams

OCAD Ltd is moving its cartographic software into a next generation. The latest edition of the OCAD product family is called “OCAD 11 Enterprise”. It introduces “client-server architecture” to the current known OCAD Professional environment: Multiple users are able to work simultaneously on a map project regardless of their place of work.

The “client-server architecture” of OCAD 11 Enterprise is based on the PostgreSQL server system, which can be installed on local or hosted servers. The OCAD software has been visually extended by adding a new “client toolbar”. It enables to store and edit maps in the database system. The minor change for current OCAD users is that they first have to download the map objects from the server and check out map objects before editing. The latter locks the object to the member of the map project to prevent unintended simultaneous editing of the same object. The “client-server architecture” project is a huge milestone for OCAD. It now enhances the stand-alone software into multi-user software in the cloud, accessible from anywhere. OCAD 11 Enterprise edition enhances the functionality of OCAD 11 Professional.

First Orienteering Map by OCAD

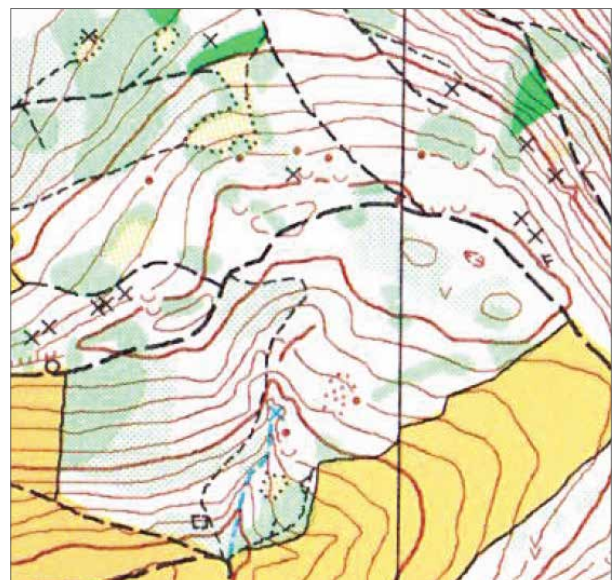
For more than 25 years, orienteering maps can be produced with OCAD. On 14th April 1989, the very first OCAD map for an orienteering competition was used. It took place in Schneitwald (Switzerland). The map was created with OCAD 1, which was running under the operating system MS-DOS (Microsoft Disc Operating System).



Map produced with OCAD software: Bezirksämter Berlin, (section), published by Bezirksamt Treptow-Köpenick.



Orienteering competitors use maps produced with OCAD software. In action Sabine Hauswirth, employed and sponsored by OCAD. Photo www.swiss-orienteering.ch.



Schneitwald was the first OCAD map, 1989 (section).

Orell Füssli Kartographie AG

by Gottfried Borys

Portrait

History of the company

Orell Füssli has been in the printing business for almost 500 years. Christoph Froschauer, originally from Bavaria, was awarded citizenship of Zurich by Zurich City Council in 1519, which then commissioned him for printing jobs. This meant that the company also became the national printing house and soon gained importance beyond the borders of the then Swiss Confederation. In 1576 the land surveyor Jos Murer printed a city view of Zurich. In the following three hundred years the ownership of the company frequently switched between three Zurich families, Orell, Gessner and Füssli, whereby the activities were now increasingly concentrated on publishing and printing.

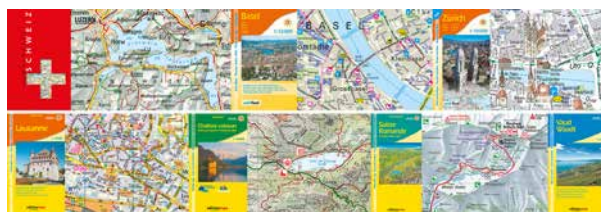
In 1827 the first securities were printed, followed by the printing of the first stamps in mainland Europe in 1843. The company began to print bank notes for the Swiss National Bank in 1911. To this day the Orell Füssli group produces highly-specialised bank notes in its Security Printing department.

Orell Füssli began manufacturing maps in 1924 when it acquired the company Kartographia Winterthur based in Winterthur. From then on important map works such as the Schweizerische Mittelschulatlant [Swiss World Atlas for Grammar Schools], and later the follow-up work, Schweizer Weltatlas [Swiss World Atlas] were produced and printed in-house. In 1992 the entire company was drastically restructured. The commercial printing works were sold to the Zürichsee Druckereien AG in Stäfa and the Orell Füssli cartography division became largely independent through a management buyout in 1993. In 2004 Orell Füssli Kartographie AG took over responsibility for printing and publishing its map products, but the distribution remained with Photoglob. With the acquisition of the French-speaking company MPA GéoDistribution SA in 2007, the company positioned itself as a prominent publisher of map products in the fields of hiking, tourism, city plans and geo-services in Switzerland and abroad.

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Products Orell Füssli Kartographie AG



School Map of Tajikistan 1:800,000

Services/Products

Orell Füssli Kartographie AG – internationally renowned for high-quality Swiss map artistry – is one of the leading companies in cartography.

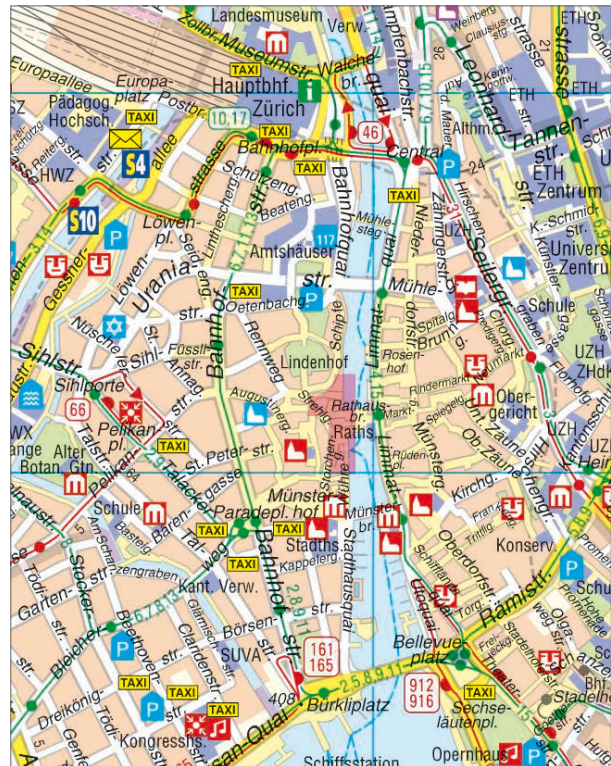
For over 90 years Orell Füssli has stood for high-quality map products and for reliability. We offer planning, consultation and development of all cartographic products, from the concept stage, through to drafting and editing of the basics, right up to the modelling of your data according to cartographic principles and corresponding graphics.

Especially in focus are the variety of cartographic products such as educational maps, atlases, (including "Swiss World Atlas"), geological and hydrological maps, linguistic atlases, city plans, hiking maps or tourist maps are our main focus.

The range of publications include the Orell Füssli city plans/atlases and educational maps, Orell Füssli holiday maps and the edition mpa range: TopoRando hiking maps, PanoramaRando panoramic maps, City-Pocket city plans, CitéTourisme city plans, MaxiPlanSur city plans und EuropeRoute street maps.

We also offer special services in cartographic pre-pressing, check your map products using colour management system CMS, create reliable authoritative digital proofs, generate your CtP print data with 100% reliability or scan your documents for archiving purposes.

As a general contractor we also offer all printing services, including multicolour offset printing, digital printing, further processing, packing and forwarding. Our complete range of services is rounded off by our cooperation with efficient photogrammetry and geoinformatics companies.



City Map Zurich 1:20,000



Loipenkarte Engadin St. Moritz



Hiking map Brigels-Waltensburg-Andiast, 1:25,000

Rimensberger Grafische Dienstleistungen

by Christof Rimensberger

Portrait

Christof Rimensberger, cartographer, has been active in the graphics industry for over 27 years. The one-man business was established in 2010 and is located in Biel/Bienne.

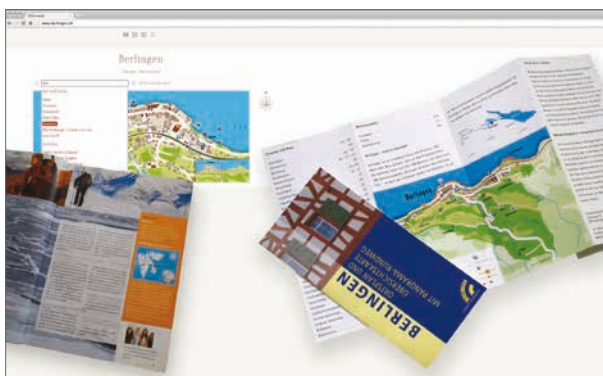
Services

Rimensberger Grafische Dienstleistungen offers a wide range of graphic, especially cartographic, support for printed and web products. This includes any kind of design as well as customized website programming and database solutions for aviation logistics, event ticketing, tourism and eGovernment services.

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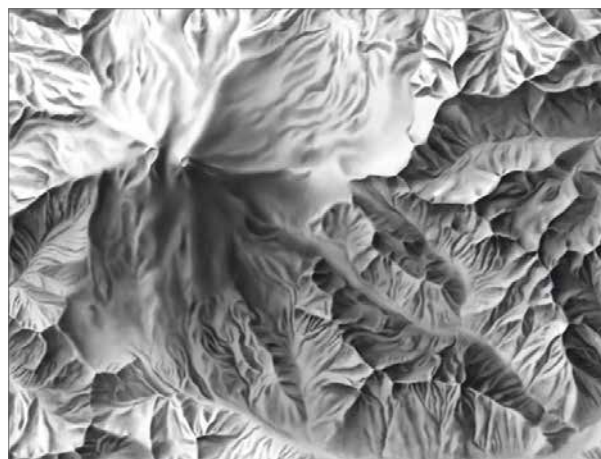
Graphic and cartographic design for print and web



City map



Street map



Shaded relief of Mount Elbrus area

Federal Office of Meteorology and Climatology MeteoSwiss

www.meteoswiss.ch

Portrait

For over 130 years, MeteoSwiss, the Swiss national weather and climate service, has contributed to Switzerland's safety and prosperity. The general public, industry and science all profit from the range of services provided by the dedicated team of 360 employees in Zurich, Geneva, Locarno, Payerne and Arosa.

On behalf of the Federal Government, MeteoSwiss performs the duties set out in the Federal Act on Meteorology and Climatology. It operates the national surface and radar measurement network and collects, manages and analyses weather and climate data. Its staff create forecasts, inform, warn and advise, get involved in research and develop tailor-made products and services.

MeteoSwiss is an institution with a passion for innovation. It considers itself to be a modern, benefit-driven service provider who adapts to the requirements of industry and society. To this end it works hand in hand with its customers and research partners in Switzerland and abroad.

Our aim is to provide first-class weather and climate services for the Swiss public and the international community, now and in the future.

Services

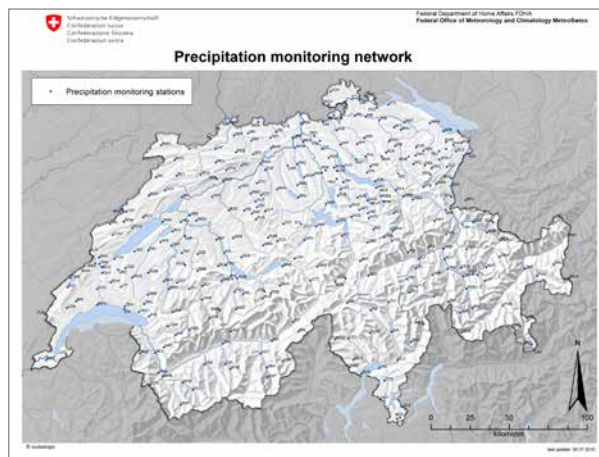
Acting on behalf of the Federal Government, MeteoSwiss provides various weather and climate services for the protection and benefit of Switzerland.

Under the Federal Act on Meteorology and Climatology, MeteoSwiss is responsible for the following tasks:

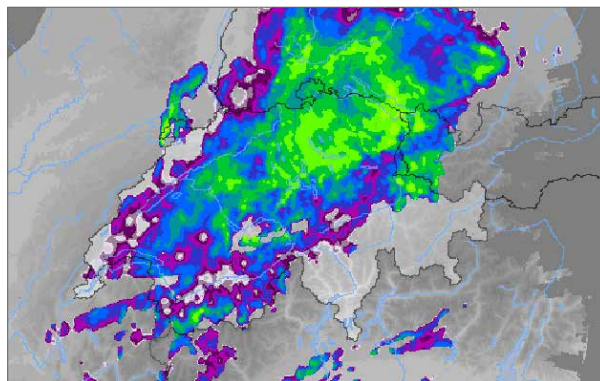
Contact

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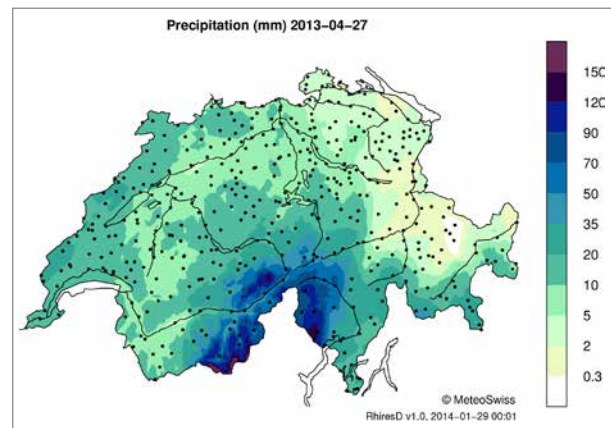


Gridded daily precipitation values (2013/04/27)



Radar data (2015/04/28)

- Permanent and comprehensive collection of meteorological and climatological data in Swiss territory.
- Participation in the recording, exchange and analysis of international meteorological and climatological data.
- Provision of warnings about weather hazards.
- Provision of meteorological information for air traffic and air safety in Swiss territory.
- Provision of climate information and implementation of measures to secure a healthy environment in the long term.
- Monitoring of atmospheric radioactivity and provision of the meteorological basis for calculating the spread of air pollutants.
- Advancement of theoretical meteorology and climatology and conduct of applied research and development projects.
- Provision of further meteorological and climatological services for the benefit of the general public.



Precipitation monitoring network map

Federal Office of Topography swisstopo

by Andrea Bühler

Portrait

2013 the Swiss Federal Office of Topography swisstopo celebrated its 175th anniversary. In the following year swisstopo started with a comprehensive upgrade of Switzerland's biggest official map series – the 247-sheet 1:25,000 national map – and created a new hiking map with an increased map scale of 1:33,333.

Swisstopo was originally founded in 1838 by General Guillaume-Henri Dufour as the Federal Topographical Bureau in Geneva. Today swisstopo is the centre of competence for the Swiss Confederation responsible for geographical reference data and is a part of the Federal Department of Defence, Civil Protection and Sport (DDPS). The modern production organisation has 359 employees and is located in Wabern near Bern. Swisstopo consists of six different divisions and the support section:

- Geodesy
- Topography
- Cartography
- Federal Directorate of Cadastral Surveying
- Coordination, Geo-Information and Services COGIS
- Swiss Geological Survey

In average, swisstopo employs eighteen Geomatician trainees. They join an internal vocational education and training course of four years. Trainees are thereby taught by specialists of each division of swisstopo. Read more on page 16. Further information in German available at www.geomatikausbildung.ch.

Within the swisstopo^{EDU}-MSc programme swisstopo supports Masters theses (MSc) dealing with issues of relevance to swisstopo. Students at Swiss and European universities have the opportunity to work together with swisstopo and its specialists, within the scope of their studies for a Masters degree.

www.swisstopo.ch/edu

Awards for swisstopo are listed on page 86.

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The sculpture "Ding 1:x", originally created for the 150th anniversary, has found a new place in front of the office building at the main entrance.



swisstopo geomatics trainees.

Services and Products

New National Maps for Switzerland

swisstopo is updating the national maps. A cartographic database is made up of fundamentals. To that end, landscape data have been collected in the topographical landscape model (TLM) in three-dimensional form. The objects required are selected from the TLM and represented cartographically. Simple displays are automatic, while cartographers process the more complex cases. The result of all this is known as the digital cartographic model (DCM) from which, among other things, the national maps are derived. The new construction also means changes to the cartographic representation. Legibility will be improved as a result of a variety of measures (new font style and colour differentiation). The replacement will take place gradually with the updating of individual map sheets and completion is expected in 2019.

More information: www.swisstopo.ch/nlk

Aeronautical Chart ICAO

The 2015 editions of the ICAO chart and the Military Airspace Chart have been derived for the first time from the new digital cartographic model. Both maps have been developed in close cooperation with sky-guide, the Federal Office of Civil Aviation and the Swiss Air Force. More information: www.swisstopo.ch/...

New Hiking Maps 1:33,333

In 2013 swisstopo published in cooperation with Swiss Hiking Federation a new series of hiking maps with an increased map scale of 1:33,333 and clear representation of hiking trails. These waterproof and tear-resistant maps cover well-known and popular hiking regions of Switzerland and are much easier to read.

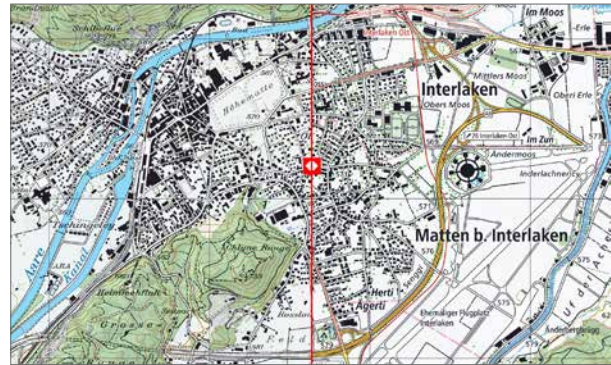
More information: www.swisstopo.ch/...

Geological Atlas of Switzerland 1:25,000

The sheets of the Geological Atlas of Switzerland give detailed information on the uppermost layers of sediment and bedrock. For each sheet, an explanatory booklet is also published, in which the geological formations and special features of the area in question are described. 222 geological maps are planned. About 60% have already been published (2015).



Section of the new national map 1:25,000 Beatenberg (2015)



Close-up: Comparison of the old (left) and new design of Swiss national map (right). Section, 1:25,000 Beatenberg



Official Aeronautical Map of Switzerland



Section of the hiking map 1:33,333 Lötschental – Aletschgebiet (2015)



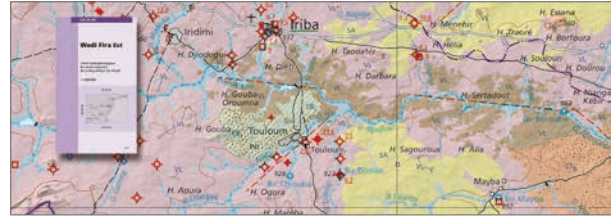
Geological Atlas of Switzerland is available printed and digital

Hydrogeological Maps of Chad

Within the UNOSAT-project "ResEAU: water resources mapping of Chad" swisstopo produces two series of hydrogeological maps. Until the end of 2015 the area of northeast Chad will be edited (first phase). The first series, on a 1:500,000 scale, covers the entire area by assembling eight contiguous maps. The second series, on a 1:200,000 scale, will include twenty-one maps; some will illustrate the more densely populated areas and others sites of particular hydrological significance.

Further Products and Services

- Digital national maps 1:25,000 – 1:1 million (raster and vector data)
- Printed topographic and thematic maps
- Geological maps
- Interactive map applications (online and mobile)
- Military Cartography
- Archive for historical maps



Hydrogeological maps of Chad



Chad map mapped and printed by swisstopo (2014)

Federal Statistical Office (FSO)

by Thomas Schulz

Portrait

The Federal Statistical Office (FSO) constitutes the hub of the Swiss statistical system. It is the national service and competence centre for statistical observation in key areas of the State and society, the economy and the environment. The FSO is also the country's main producer of statistics and maintains the Swiss statistics data pool, providing information about virtually all thematic fields of public statistics by conducting surveys of private individuals or companies, analysing registers or compiling synthetic statistics. Through innovative approaches, the FSO analyses, interprets and publishes statistical information, providing the foundation for checking the impact of government actions, decision making and future scenarios. It provides insight into society's development and its complexity and helps to make it transparent for democratic debate.

The FSO, which is part of the Federal Department of the Interior (FDI), employs approximately 770 people, 65% of whom hold a university or higher educational institution diploma. The FSO edits more than 400 publications annually (printed, internet or mobile) and approximately 140 press releases as well as answering to more than 100,000 enquiries. Furthermore the FSO runs a very busy internet portal which is consulted more than 20 million times every year by the interested public.

As the largest national provider and centre for regional statistical data collection for more than 150 years, the FSO has also always made large use of thematic maps in its publications. Ever since the publication of the first statistical yearbook in 1891, the FSO has been adding maps and charts to illustrate its publications, press releases and, of course, over the past two decades, also its growing number of webpages and mobile applications. FSO's own cartographic service (ThemaKart) provides more than 10,000 thematic maps annually and offers a competent and fast cartographic information service for institutional and general customers.

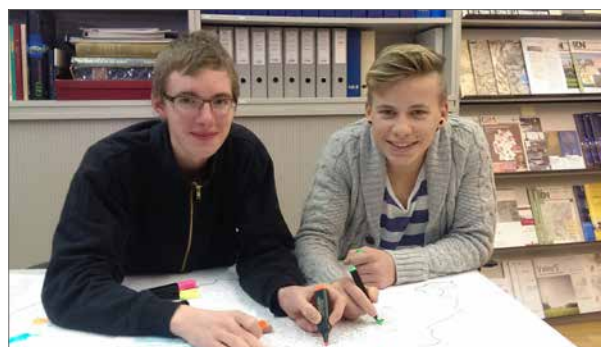
Contact

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CH-2010 Neuchâtel

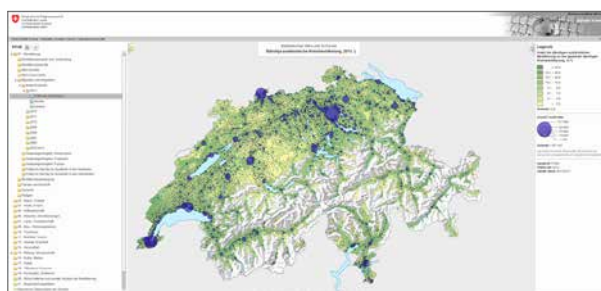
☎ +41 32 713 60 11

💻 www.statistics.admin.ch

🐦 @Swiss_Stats



FSO cartography apprentices at editorial works of the map of administrative divisions of Switzerland



Foreign population map (2010) from the Statistical Atlas of Switzerland

Services and Products

Maps from the FSO cover the whole range of topics of socio-economic regional data collected in the Swiss statistical system. They are published in five languages and made available for all possible access devices, including new dissemination channels like apps or OGD and LOD portals. They can cover all geographical levels, grids and special regions for Switzerland, Europe and the World. Most of FSO's maps are updated on an annual basis. On the days of National Council elections and popular votes, the FSO offers live mapping services with continuously updated statistical maps.

Around 90% of FSO's new maps are published through statistical atlas interfaces, which are very popular with our customers, as they allow for an easy-to-use overview of all cartographic products and statistical topics. FSO has currently three interactive statistical atlases running online which are updated almost on a daily basis. Users can not only view and study the maps on the Web, they can also download ready-to-print maps in various layouts and extract all underlying regional data. All online atlases are naturally free of charge for individual and commercial users.

Statistical Atlas of Switzerland

www.statatlas-switzerland.admin.ch

Our standard reference work with more than 3,000 interactive thematic maps on all statistical topics.

Political Atlas of Switzerland

www.statatlas-politics.admin.ch

The specialised atlas on all current and historical Swiss elections and votes contains more than 5,000 maps.

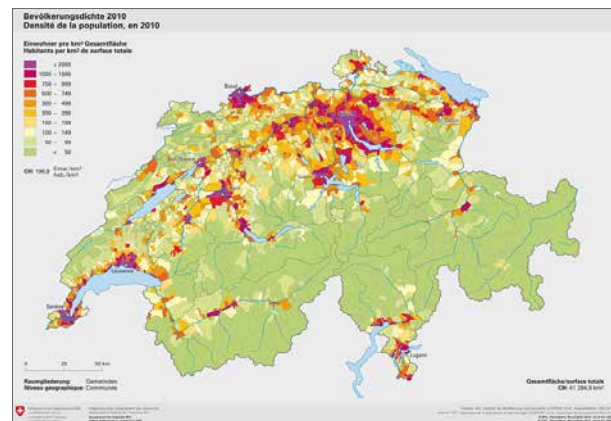
Statistical Atlas of Swiss Cities

www.statatlas-cities.admin.ch

The specialised atlas covers statistical data for the 10 largest Swiss cities broken down to sub-city districts.

Graphical Statistical Atlas of Switzerland 1914–2014

FSO's latest and probably most attractive printed atlas compares in 80 maps and charts rich historical with current statistical data and allows for a visual time travel of almost 150 years. Available through the FSO website.



Population density map (2010) from a PDF publication



Graphical Statistical Atlas of Switzerland 1914–2014 (cover)



The evolution of the Swiss railway network (1844–2013) from the Graphical Statistical Atlas 1914–2014

Kanton Graubünden – Amt für Landwirtschaft und Geoinformation

by Armin Oswald

Portrait

The Bureau of Agriculture and Geoinformation (Amt für Landwirtschaft und Geoinformation) of the Canton of Grisons (Kanton Graubünden) is an office of the Department of Political Economy and Social Policy and employs about 45 people.

Its main tasks are the conservation and promotion of a competitive agriculture and a nature-oriented and environmentally sound husbandry as well as the supervision and verification of the official cadastral survey work.

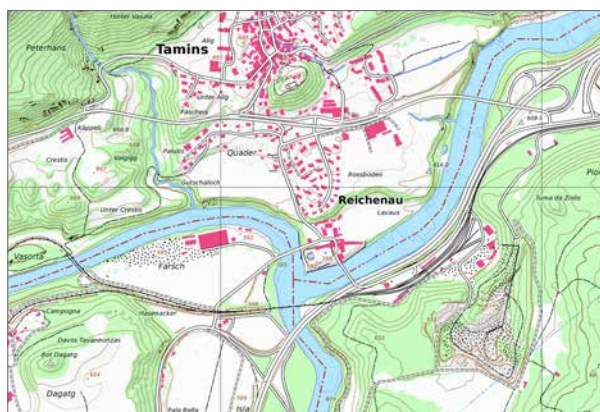
Also located at the Bureau of Agriculture and Geoinformation are the GIS competence center and a proper specialist department for geoinformatics, which is – amongst other things – entrusted with the creation of the official cadastral survey base plan.

Services

The official cadastral survey base plan "BP-AV" is a map product which is automatically derived from official cadastral surveying data. Additional data sets used are the rock and scree drawings of the National Map 1:25,000 as well as the relief, the contour lines and the height notations (generated since SwissALTI3D).

To improve the information content it was decided in Autumn 2013 to enhance the base plan with the following additional objects:

- orography arrows
- important walls
- height notations
- embankment hachures
- multi-track railway areas
- church crosses
- graveyards
- power stations



Three examples of the cadastral survey base plan "BP-AV"

A recording of the additional objects was undertaken for one map sheet in Spring 2014 as a pilot scheme. In Summer 2014 a comprehensive recording was begun, which has been successfully completed since then. As an acquisition base the survey map as well as aerial imagery were used.

The multi-track railway areas were recorded to display railway tracks outside of these areas with the same track signature used in the survey map.

Furthermore, with assent from swisstopo, the TLM road network was used instead of the official cadastral survey road network, thus allowing a classified depiction of the road network and an enhanced portrayal of crossroads, underpasses and flyovers, bridges and tunnels.

To supplement the timbered areas from official cadastral survey data, tree rows, solitary trees, hedges/shrubberies/bushes and orchards surveyed as part of an agricultural project were incorporated into the base plan.

The creation of the base plan was done with ArcGIS/ArcMap and additional cartography tools (Carto-Tools). The production was fully automated via Python scripting.

Due to the enhancement with miscellaneous additional objects the product is now called "base plan of the Canton of Grisons". The area-wide production of this new map product at a scale of 1:10,000 began in May 2015.

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Kanton of Luzern – Raum und Wirtschaft (rawi), Abteilung Geoinformation

by Clemens Oberholzer

Portrait

The department for district and economy (Raum und Wirtschaft – rawi) of the Canton of Lucerne (Kanton Luzern) is divided into four sections, of which one is the Section for Geoinformation (geo). This section is again divided in four areas: Geodata Management, Geo Applications, Geofundamentals and Survey Supervision.

Services

The Section is responsible for the surveying, processing and managing of spatial data within the cantonal administration. The main task is the coordination of spatial data of the Cantonal administration. The formulation of data standards (data models), the execution of GIS trainings and the customer service locally or via hotline ensure an optimal use of GIS.

The main task of the Geodata Management area is the operation and maintenance of the Canton's central spatial database. Apart from adopting existing data, data models are defined and newly acquired data are corrected, updated and provided. Internet apps (online maps and data catalogues) as well as a comprehensive metadatabase are the primary tools for this. For example, thematic data are prepared and made available to the general public for informational purposes. Furthermore, digital survey data and over 650 other geo-data sets may be ordered and obtained directly over the Internet.

The conception, supervision or implementation of GIS applications (geoapplications) enable a rational and goal-oriented approach towards spatial data both in planning or as basis for decisions. Many areas of the Cantonal administration, be they infrastructural planning, the police, etc., use customised GIS products, for example digital maps, data modellings, or local and remote applications.



Overview plan 1:5,000



Geoportal Canton of Lucerne, cadastral plan



Geoportal Canton of Lucerne, map for land use planning

The Survey Supervision initialises, attends, supervises and verifies the operations of official surveys within the Canton. It coordinates the operations undertaken by patented field surveyors with the Federal Government serving as superintendence. Furthermore, the super-ordinate fixpoint network is maintained and renewed as a base for all surveys. The Geofundamentals area issues the monochrome general plan. At the moment, a system to regenerate and semi-automatically update the general plan is being developed.

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Alpine Museum of Switzerland (alps)

by Luzia Carlen

Portrait

The Alpine Museum of Switzerland (alps), located at the Helvetiaplatz in Berne since 1934, was opened to the public in 1905, going back to an initiative of the Bernese section of the Swiss Alpine Club. Since its founding, the collection, preservation and presentation of objects documenting the uniqueness of the Alps and people living in the mountains was the central concern for its initiators. The evolution of Swiss cartography and relief creation as well as the art of the panorama were emphases of the first collection programme and considerably shaped the collection and presentation activity of the museum for decades.

In 2011 the alps struck a radically new path: It does not just strive to be storage and showroom for historical objects of the Alpine area, but rather a thematic venue of the present and a platform for encounters and events. The alps works with different stages: In large special exhibitions on two floors on the one hand and with smaller projects in the presentation box 'Biwak' on the other hand contemporary issues such as climate change, mobility, mass tourism, energy consumption and the leisure-loving society's yearning for nature are mooted, often in cooperation with external partners. The Hodler hall with the famous paintings 'ascent and fall' by Ferdinand Hodler is part of the exhibition space and is used as function room. On the ground floor, the museum restaurant 'las alps' invites the visitors to look into the Alpine subject from a culinary point of view.

The historically grown collection has not disappeared from view with this new concept. It forms a rich pool, delivering links for projects and showpieces for the exhibitions. Pieces of the collection are furthermore regularly loaned to other institutions. In the last year, the collection strategy has been revised on the basis of the new exhibition concept. The collection shall continue to be extended according to newly defined criteria in the future, especially in its core areas mountain

photography and alpinism. Major historical collection stocks like the relief, panorama and map collections shall be supplemented as far as possible. Moreover, the estates of famous alpinists shall increasingly find their way into the collection. For the near future an extension of the museum is contemplated, giving room for a new presentation of the collection and thus making the collection's highlights available to the public once again in varying constellations.

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The Alpine Museum of Switzerland is located in Berne. It is dedicated to the nature and culture of the Alps.

"Biwak#08: Tierra incógnita. Robert Helbling's Map Treasure from Argentina"

In the first half of the year 2014 the Alpine Museum dedicated an exhibition in the small showroom 'Biwak' to the Swiss alpinist, geologist and pioneer of stereophotogrammetry Robert Helbling (1874–1954). Between 1908 and 1912 Robert Helbling surveyed the until then largely unknown glacial area of the Juncal Tupungato Group in the Argentine-Chilean border region, leading to the first exact topographical maps of this high mountain region in 1914. The stereophotogrammetric method used by Helbling was – on his initiative – also commenced to be used in the Swiss Federal surveying from the beginning of the First World War on.

In 2012 a briefcase with original material from Helbling's surveying campaign in the Andes was discovered in the estate of Zurich geologist Rudolf Staub. The content of the briefcase, consisting of sketches, photos and maps, was first shown to the public in the Alpine Museum. The find was enhanced with further original material and an iPad application conveying the biography and the lifework of this in multiple respects extraordinary figure to both the specialised and the general public. The exhibition resulted from a close collaboration with the Helbling biographer Andreas Schellenberg, the cartographer Hans-Ulrich Feldmann and the map historian Martin Rickenbacher (Andreas Schellenberger: Robert Helbling – Pionier der Stereophotogrammetrie in den argentinischen Anden und in der Schweiz, in: Cartografica Helvetica, 49, 2014).



Exhibition: *Tierra incógnita. Robert Helbling's Map Treasure from Argentina.* (Photo Willi Duss)

The Relief Collection of the Alpine Museum

One of the collection foci of the Alpine Museum since its opening in 1905 is the relief modelling. The current relief inventory of the alps is the most extensive in Switzerland with over 300 entries. Next to the works of great relief builders like Xaver Imfeld, Albert Heim, Carl Meili, Simon Simon, Charles-Eugène Perron or Eduard Imhof, the collection also contains such rarities like the Relief of the Mont-Blanc-Massif (1807) by Charles Dupuy after Charles-François Exchaquet. Alongside, the collection documents the achievements of numerous regionally active relief builders as well as the relief production for the purposes of national education and tourism.

Until 2011 the landscape reliefs dominated the permanent exhibition and thus the Alpine Museum's image in the public eye. The renovation of the exhibition rooms and the reorientation of the exhibition concept necessitated a relocation of the relief collection into the depots. For the near future the Alpine Museum plans an extension of the museum with a new presentation of the collection, in which the relief collection will once again hold a great significance. In the meantime the most important reliefs are being restored by external experts in the framework of a privately funded project. In 2006 the Alpine Museum published an up-to-date definitive book on the topic of Swiss relief building including a Swiss relief catalogue in cooperation with the publishing house hier+jetzt (Toni Mair/Susanne Grieder: *Das Landschaftsrelief. Symbiose von Wissenschaft und Kunsthandwerk*, 2006).



Relief model "Eiger, Mönch und Jungfrau" created by Joseph Reichlin, 1908.

ETH Zurich, Institute of Cartography and Geoinformation

by Lorenz Hurni

Portrait

The Institute was founded in 1925 by Professor Eduard Imhof, one of the main founders of modern academic cartography. It is therefore the oldest university institute in cartography world-wide. Traditionally, research has focused on topographic cartography (relief representation), thematic cartography, and atlas cartography (school atlases, national atlases). These domains are still considered the main fields of application, but adapted to new demands, media, and technologies. The institute is also responsible for the editorial work and development of two prize-winning atlases, the "Atlas of Switzerland" (national atlas) and the "Swiss World Atlas" (official Swiss school atlas). In 2011, with the establishment of the new chair of Geoinformation Engineering, the scope of activities of the institute was expanded and its name adapted.

In cartography, the institute strives to maintain its leading position by exploiting and further developing cartographic knowledge and adapting it to new interactive technologies and application domains. Geoinformation Engineering aims at analyzing, representing, modelling, and visualizing spatio-temporal decision processes and integrates such models in mobile geoinformation services and spatial information technologies.

In teaching, students should learn how to set up, model, manage, and visualize geoinformation for general-purpose and specific spatial information system applications.

Web resources

Research: www.karto.ethz.ch/forschung.html

Teaching: www.karto.ethz.ch/studium.html

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Offices of the Institute are located on the ETH campus Hönggerberg, Zurich. Map produced by cartography students.



Institute members, 2014

FHNW, Institute of Geomatics Engineering

by Susanne Bleisch

Portrait

The Institute of Geomatics Engineering (IVGI) at FHNW University of Applied Sciences and Arts Northwestern Switzerland fulfils mandates in four categories – application-oriented research and development, academic education, further education and services. The Institute offers a Bachelor of Science in Geomatics and a Master of Science in Engineering with specialisation in Geomatics. Its key strength is the coverage of the whole Geomatics process chain from data capture (figure 1), modelling, and analysis through to visualizations. Traditionally, the focus was mainly on Geodetic Metrology, Photogrammetry and Geographic Information Science. With the redesign and extension of the BSc curricula in 2013 Cartography and Geovisualization have been introduced as additional focus areas. Consequently a new Professor in Geovisualization and Visual Analytics was appointed in 2014. Research at the Institute is application-oriented and generally co-financed by industry partners. This ensures a direct translation and implementation of research results and scientific knowledge into products and services. These close collaborations with industry are also employed for teaching by offering student projects within applied research and development activities both on Bachelor and Master level.

Research

Three focus areas of research and development at the Institute of Geomatics Engineering IVGI are portrayed through the images and additional details as follows. The IVGI has a strong reputation for innovative research in 3D geoinformation technologies. While the OpenWebGlobe project (www.openwebglobe.org) is well known, the recent Augmented Reality Technologies project GeoAR researches different AR and Geovisualization technologies (figure 2). It aims to develop new ways of portraying various sets of geodata on mobile devices and thus offering additional benefits compared to more traditional maps. The challenges included image-based indoor navigation and orientation, the optimisation of 3D interaction on touch-

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Figure 1: Student project in data capture – scanning archeological objects



Figure 2: Prototype of a mobile Augmented Reality Application for the extension of traditional paper maps

based user interfaces as well as improved (geo)information communication, for example through gaming applications, or the integration of real-time information.

Another primary field of research is the integration, analysis and visualization of volunteered geographic information. Often this is facilitated through the development of mobile applications for areas as diverse as noise level measurements (figure 3), crisis mapping, analysing zoo visitor and bike messenger trajectories, or educating school kids in collecting data and letting them analyse their use of spaces and places.

In a range of projects collaboration is not limited to industry partners but research is done with other institutes of the FHNW. One project analysed all alpine lakes in Switzerland and assessed their potential for small-scale hydroelectric power generation and communicated the results through maps. Another project used visual data mining techniques to evaluate the influence of different social factors of a range of settlement structures to improve future city building projects and communicated the results through a range of thematic maps (figure 4).

50th Anniversary of the Institute of Geomatics Engineering at FHNW

In 2013 the Institute of Geomatics Engineering celebrated its 50th anniversary with a range of events for the students, the alumni and the public. The first students started their studies in the surveying institute of the newly established "Technikum beider Basel" in 1963. That was the start of the surveying engineering education in the area of Basel.

From Surveying to Geoinformation

The emphases with regards to contents of the studies have shifted considerably since the start. While at the beginning the courses were focused on surveying, nowadays students study the whole process from data capture, management to analysis of geographic information. Since 1998 research, especially in the field of 3D geoinformation technologies, has gained importance. A current impression of the studies at IVGI can be found at www.youtube.com/watch?v=foHUK1_RJH4



Figure 3: Poster advertising secondary school modules for noise data collection and the analysis of noise poll

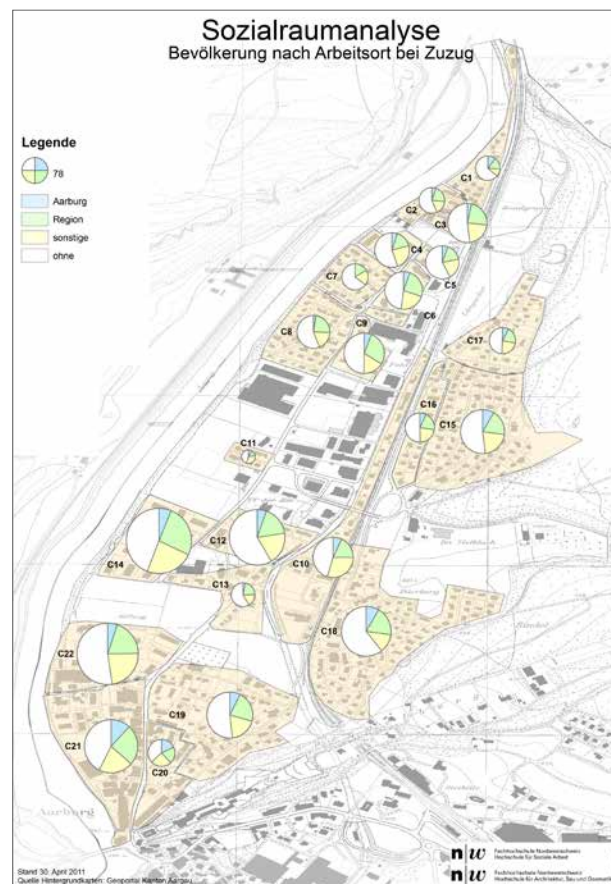


Figure 4: Exemplary thematic map for settlement analysis of Aarburg-Nord based on a range of social factors

Swiss National Park

by Rudolf Haller

Portrait

In 1914 an experiment began within the Swiss National Park: Nature was left to itself and its evolution monitored.

Map Products

The Atlas of the Swiss National Parks documents the activities of the 170 km² nature reserve in the core area of the Alps from a cartographic point of view on 248 pages. Beginning with the geographic foundations over historical and spatial comparative references up to plants, animals, humankind and its research including perspective, the work offers a plethora of maps and illustrating text. The result is a both comprehensive and concise synopsis of the first and best-preserved national park of the Alps.

The publication with the subtitle "the first 100 years" is a milestone in the literature over national parks: The broad spectrum of topics covered, the high cartographic level of detail on a spatially manageable perimeter and the multitude of comparisons along a time axis are unique in this form.

Award-winning Atlas

The atlas was prized the cartography prize 'Prix Carto' by the Swiss Society of Cartography (see more on pages 77 and 83). Furthermore, the atlas is the winner of the 'Prix Georges Erhard', awarded by the Société de Géographie de la France.

iWebPark

The digital hiking guide iWebpark, a smartphone application, leads you through the National Park and its surrounding area with detailed maps, information and stories. Since 2014, iWebpark is available with a new look and with new content.

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Cover of the awarded Swiss National Park Atlas (2014)



iWebPark: The app as a digital multimedia guide includes maps, images, audiotext, videos, quizzes, etc. (Screenshots)

University of Basel, Physical Geography

by Nikolaus J. Kuhn

Portrait

The section Physical Geography belongs to the Department of Environmental Science of the University of Basel and was founded in 2007. Around 25 researchers and administrative staff are employed.

Earth is a complex system of interacting spheres. Our research in Physical Geography and Environmental Change focuses on the interaction between climate, water, soil, surface, vegetation and humans. Our aim is to identify the functioning of landscape systems, their spatial extent, reaction to change and mutual effects on each other.

Services

Research and Teaching in Physical Geography, especially on surface processes and their interaction with climate and land use. Current projects include soil hydrology in northern Namibia, runoff generation and erosion on alpine pastures, alien species and river geomorphology and ecology, soil erosion and the global carbon cycle, sedimentation on Mars.

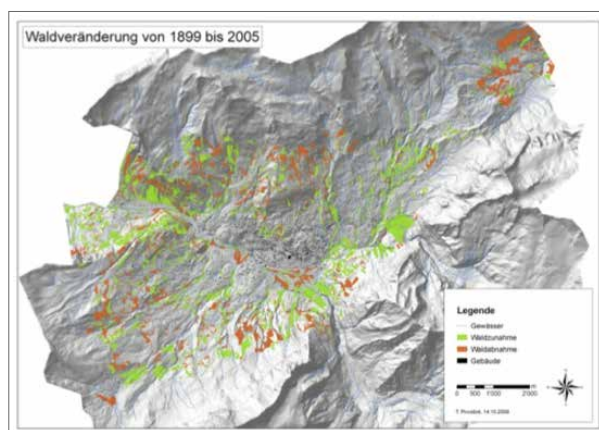
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The change of tree and forest cover between 1898 and 2008 shows hardly any reaction to warming, but mostly to land use change. (Tobias Providoli, Nikolaus J. Kuhn, 2012)

Source: www.geogr-helv.net/67/15/2012/gh-67-15-2012.pdf

University of Zurich, GIScience Center

by Sara I. Fabrikant

Portrait

The University of Zurich hosts one of the world's leading GIScience centers, renowned for its fundamental, inter- and transdisciplinary research on digital cartography, mobile systems, environmental geoinformatics, geovisual analytics development and evaluation, spatial cognition and cognitive engineering, as well as geographic information retrieval and geosemantics.

There are three research groups at the GIScience Center responsible for teaching and research in Geographic Information Science within the UZH Geography Department: Geographic Information Visualization & Analysis (GIVA) which is portrayed in more detail below, including the Geocomputation (Geocomp), and the Geographic Information Systems (GIS) groups (see web links in the contact information box above).

Research and teaching activities are broadly centered around spatial data handling and analysis, geographic information visualization, and on geocomputation.

In addition to BSc, MSc, and PhD programs in geography with foci in GIScience, the GIScience Center also offers a specialized MSc program in GIScience, starting in Fall 2015.

Research at the Geographic Information Visualization & Analysis (GIVA) group

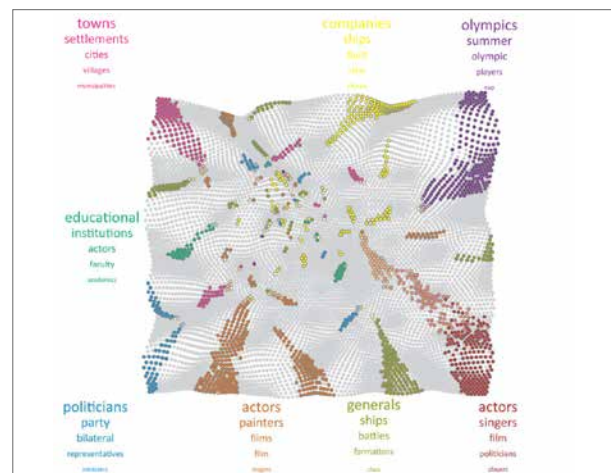
Research activities are centered around four threads involving:

- spatio-temporal analytics (i.e. relevance modeling, moving object representations, vague concepts formalization, spatialization, human navigation, etc.)
- interface design of large and small interactive displays (i.e., mobile cartography and location-based services, 3D stereoscopic wall displays, dynamic and interactive exploratory visualization tools, etc.)
- fundamental empirical evaluations of developed visualizations
- tools based on theoretical underpinnings from geography, psychology and cognitive science (i.e., eye tracking studies and other human-subjects experiments)

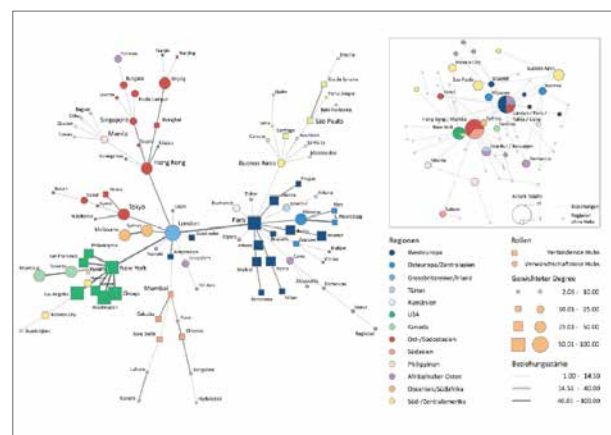
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www.geo.uzh.ch/en/units/giscience-gis
www.geo.uzh.ch/en/units/giscience-geocomputation



Cartogram of a Self-Organizing Map with the thematic content of the World City Network extracted from Wikipedia Entries.
Image source: Marco Salvini (2012)



World Cities Network Map generated from semi-structured Wikipedia Entries. Image source: Marco Salvini (2012)

ZB Zentralbibliothek – Map Department

by Jost Schmid-Lanter

Map Collection

The Zentralbibliothek Zürich is proud to hold a map collection of international significance. This collection is impressive in both range and depth. The library pursues an active purchasing policy and it has material dating from the 16th century to the present day. There is an extensive national and international collection with indigenous material from all continents well represented within the same time scale. A special focus is on material concerning the City of Zurich and its environs. It is important to remember though that the map department is more than just a top-class repository. The highly trained staff are delighted to use their extensive expertise to aid with any request.

Requests usually come from...

- urban or rural planners who wish to trace the evolution of a particular region
- research students with a particular interest in historical geography
- those who are interested in tracing the changing nature of map accuracy
- those who recognise that five centuries of maps represent a formidable source of artistic inspiration
- those who are planning a foreign trip and prefer to access a 'real' map as opposed to an online version

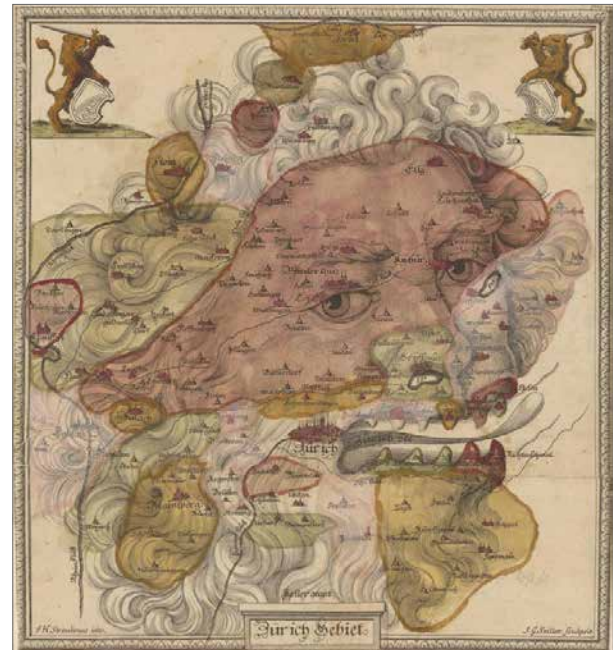
Map Year Activities

Conscious of its cultural heritage the Zentralbibliothek Zürich joins the celebration of the International Map Year 2015–2016 organising activities on this matter. There are five lectures about themes that deal with technical, historical and artistic aspects of map making. In addition to this, the Map Department of the Zentralbibliothek Zürich is weekly presenting a hand-picked cartographic document in cooperation with the Swiss Society of Cartography. These maps show a typical line-up of Swiss map making in a commented blog (www.cartography.ch/imy).

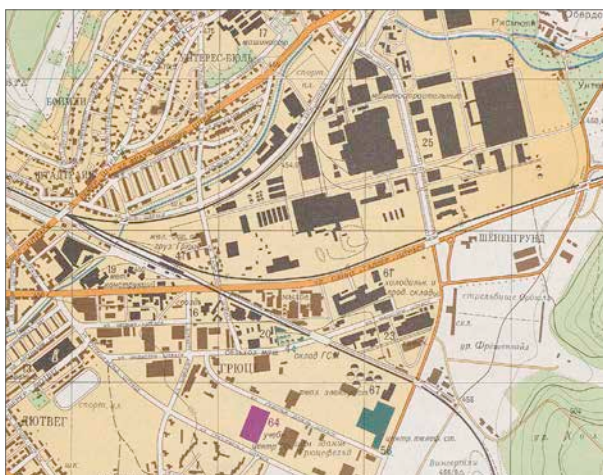
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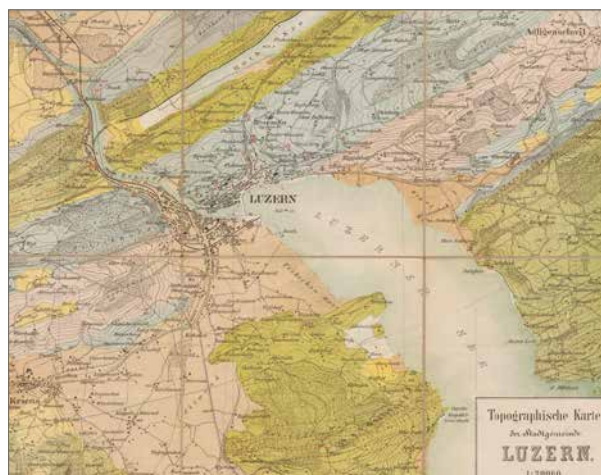
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A lion-head-shaped map by Johann Heinrich Streulin 1698 shows the self-confidence of the Republic of Zurich. It also has a political subject: The different colours mark different bailiwicks.



This detail of a map by the Soviet General Staff of 1981 exemplifies how well the Soviets have been prepared for a military strike. Important public and industrial buildings were marked, bridges were indicated with collapse load and width. (Zentralbibliothek Zürich, 5 Kx 08: 3)



Topographische Karte der Stadtgemeinde Luzern (Topographic map of the City of Lucerne) by F.J. Kaufmann, 1887. The map is an annexe to the "Geological sketch of Lucerne and its environs" published at the scale of 1:20,000. (Zentralbibliothek Zürich, K 686038)



Reliefkarte der Albiskette (Relief map of the Albis hill chain) by Fridolin Becker, Zürich, scale 1:25,000, 1889. (Zentralbibliothek Zürich, 4 Kg 06: 1 Expl 2)

Addresses of Map Producers

In Switzerland dozens of map producers deal with geodata and GIS. Most of them are constituted into associations and federations. This chapter gives an overview of those map-making companies which are organised in the Swiss Society of Cartography. The list is in alphabetical order, sorted by enterprises, authorities and institutions.

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mapgraphic edition

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Federal Geoportal

www.geo.admin.ch

The Federal Geoportal

geo.admin.ch is the geographical information platform of the Swiss Confederation within the Federal Administration. As a user, you can directly access federal geographical information, data, services and metadata right here. The practical implementation of the strategy for geo.admin.ch laid down by the coordinating agency for Federal geographical information GCG is the responsibility of the Federal Office of Topography swisstopo.

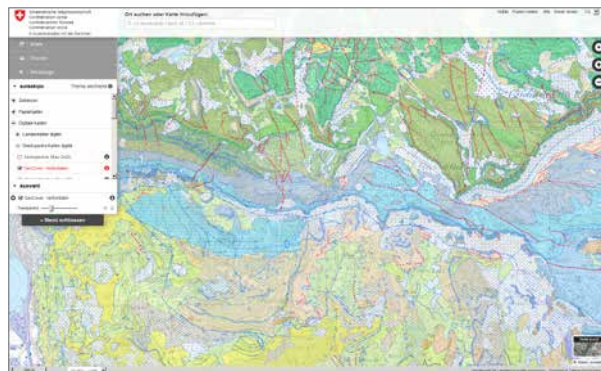
Digital data can be viewed, printed out, ordered and supplied by means of the map viewer tool. The required data is available in the form of digital maps and photos, vector data and also as online services. With the map viewer you can view, print out, order and obtain geographical data. The desired data is available in the form of pixel maps, digital images, vector data etc., at a variety of scales.

Thematic geoportals

Different Federal Offices operate specialised portals with thematic map applications. Here you will find a list of publicly available WebGIS-applications: www.geo.admin.ch/internet/geoportal/en/...

Web Integration: iFrame

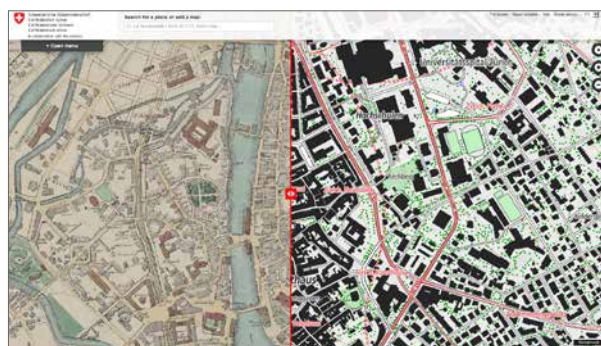
With iFrame, geo.admin.ch provides a simple and free possibility to integrate maps in websites. The description of a place, a plan for an event or an illustration to support a presentation are now easily viewable. In addition, the map content can be extended and, if necessary, the entire application can be incorporated by iFrame.



Screenshot of map.geo.admin.ch: geological bedrock composition on the map GeoCover: Geologische Vektordatensätze 1:25,000 (swisstopo)



Screenshot of map.lubis.admin.ch: coloured and/or historical aerial imagery from swisstopo



Screenshot of map.lubis.admin.ch: "Kellerplan" from 1864 in comparison with the current swisstopo dataset

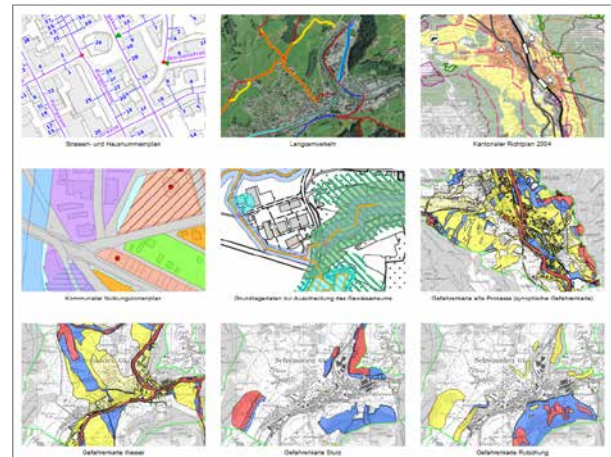
Cantonal and Communal Geoportals

It has become an increasing trend for Cantonal and Communal offices to provide part of their geodata to the general public free of charge using online platforms.

Cantonal Geoportals

Cantonal geoportals are platforms for geoinformation, geodata and geoservices. Most of the 26 Swiss Cantons provide easy access to official geodata to the population. These geodata may be viewed via geoportals and ordered free of charge in many places. The range of data offered may be vast: Cantonal Structure Plan, Cadaster Survey Plan, Communal Land Use Zone Plan, Forest Plan, risk map, waters protection map, earthquake map, national heritage protection map, landscape conservation map, leisure map, just to name a few.

A good overview with continuing links to the cantonal geoportals is found under [www.kkgeo.ch/geodatenportale/...](http://www.kkgeo.ch/geodatenportale/)



Geoportal Canton of Glarus (screenshot) with a great selection of base data: map.geo.gl.ch

Communal Geoportals

Major communes or commune associations are also offering the aforementioned map services.

The City of Uster for example provides a broad spectrum of geodata for its population, including newer forms of visualisation: e.g. a representation of the population distribution as heat map. These heat maps are made available in two forms:

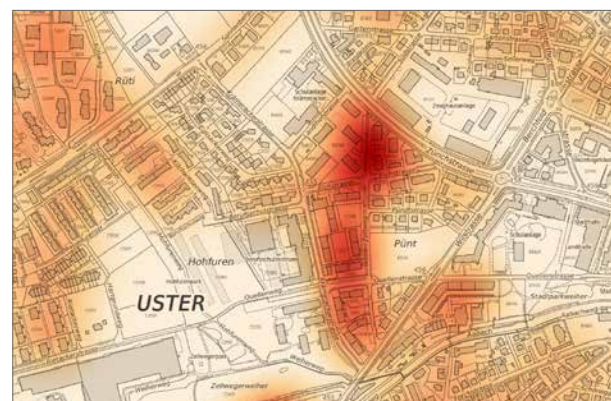
- static heat maps (pre-calculated for three levels of detail): updated daily
- adaptive heat maps (calculated on request for the respective area): also updated daily from the residents' register

For the adaptive heatmaps maximum values are newly determined for every request, meaning that every map clipping is provided with a new maximum value, resulting in varying colour intensity of the visualisation with every repositioning.

Source: Geodata portal GIS competence centre of the City of Uster: gis.uster.ch (in German)



Geoportal Canton of Aargau: [www.ag.ch/de/dfr/geoportal/...](http://www.ag.ch/de/dfr/geoportal/)
Historical maps: Michaeliskarte, 1840 (screenshot)



Heat map Stadt Uster (section)

Topographic Maps – Map Graphics and Generalisation

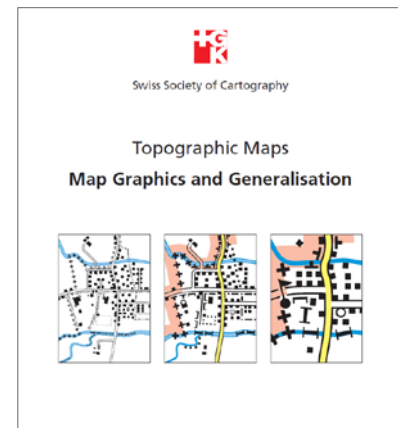
by Ernst Spiess

Topographic Maps – Map Graphics and Generalisation

Map graphics and generalisation have a common aim: to generate a clearly legible and understandable map image for the user, in which individual statements are combined into a logically constructed, informative, positional accurate overall image, which is also attractive. Confusing, uncoordinated, incorrect, overloaded and illegible maps are frustrating for the user and are often useless.

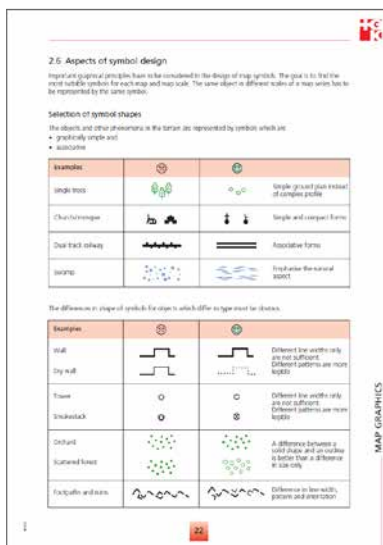
The topics treated in this publication are an important module for each training step in map graphics. It is an essential component in the education of every map designer, independent of the working tool used and of the presentation media. The publication is directed towards all those working in the field of cartography and in related fields such as GIS, geomatics and web graphics.

Source: Extract from the preface of the publication

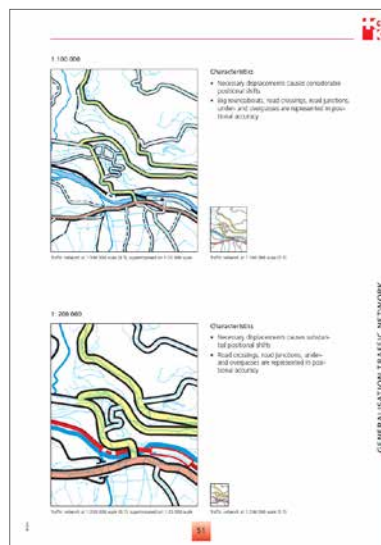


Cover of *Topographic Maps – Map Graphics and Generalisation* 126 pages. 2014, The Swiss Society of Cartography SSC greatly reduced the publication costs to achieve a better distribution in schools and for educational purposes.

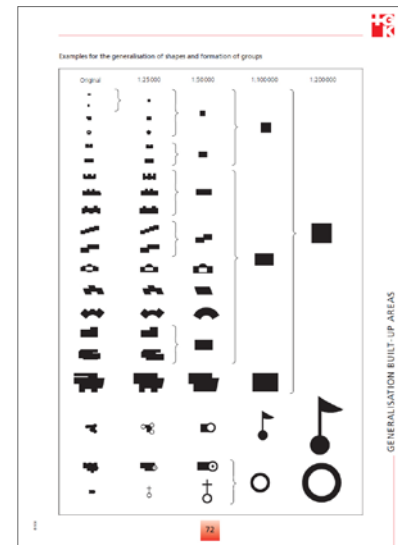
www.cartography.ch/publikationen



Map graphics



Generalisation traffic network



Generalisation built-up areas

Cartographic Online Publications

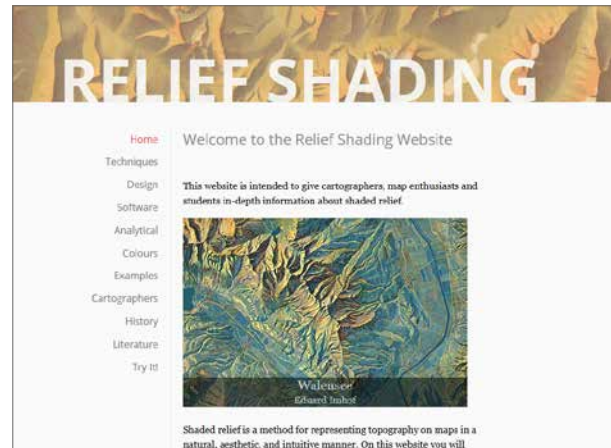
by Stefan Räber

Relief Shading Website

Shaded relief is a method for representing topography on maps in a natural, aesthetic, and intuitive manner. The website "reliefshading.com" has been created by members of the Institute of Cartography and Geo-information at ETH Zurich. The goal is to give cartographers, map enthusiasts and students in-depth information about shaded relief.

On this website you find rules and guidelines for the design and production of shaded relief, an overview of its history, examples produced by professional relief artists, technical tips, and much more. A fresh redesign including new content went live in 2014.

www.reliefshading.com



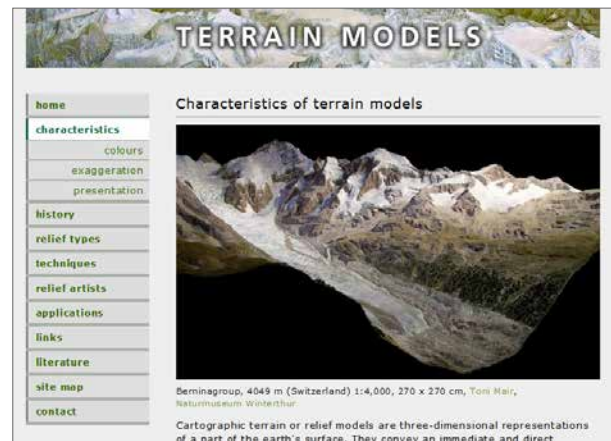
Screenshot of the reliefshading.com homepage

Terrain Models Website

Terrain models give a fast overview over a landscape and are often fascinating and overwhelmingly beautiful works of artists who invest all their affection and an immense amount of work and know-how, combined with a developed sense for the portrayed landscape.

On this website, you will find information about different relief types and production techniques, about the history and the artists, as well as about applications of terrain models. The website was launched at the Institute of Cartography and Geo-information of ETH Zurich, with its content being permanently updated and expanded.

www.terrainmodels.com



Screenshot of terrainmodels.com

Publications published or supported by the SSC

Apart from the society's own newsletter the SSC supports publications of other publishers and authors on the field of theoretical and practical cartography.

Newsletter SSC (Infoblatt SGK)

The newsletter ist the official bulletin of the SSC. It is mailed bimonthly to the society's members with a run of 360 copies in German language each. Editor-in-chief is Christian Häberling. All newsletters since 2000 may be found in PDF form on the SSC website: www.cartography.ch/infoblatt

Supported Publications

The SSC supports selected cartographic publications financially and through advertisement. Here a small list of lately supported works:

Das Matterhorn im Kartenbild (The Matterhorn depicted in maps)

The Valais had aroused the attention of historians and cartographers already in the 16th century. In his *Cosmographia*, Sebastian Münster published in 1545 in Basel a rich description of the Valais, supplemented by a topographic map in two sheets (Upper and Lower Valais) created by Johannes Schalbetter. However, Zermatt itself remained practically unknown, and until 1820 there was no known view of Zermatt and its surroundings.

Geografische Informationssysteme II (GIS)

This teaching material perpetuates the established book 'Geographic Information Systems (GIS)'. The publication is mainly used at Swiss secondary schools. The book addresses both advanced readers and those familiarising themselves with GIS for the first time.

Support of other publications

- Rickenbacher, Martin: Die Exkursionskarten des Schweizer Alpen-Club, Cartographica Helvetica, 2013. 36 pages.
- Oehrli, Markus; Rickenbacher, Martin (collab.): Deutsche Kriegskarten der Schweiz 1939–1945 Cartographica Helvetica, 2014.



Newsletter of the SSC has been released six times per year



Cover, Volume 51, July 2015



Teaching material

Kartographische Nachrichten KN – Kartographisches Taschenbuch KT

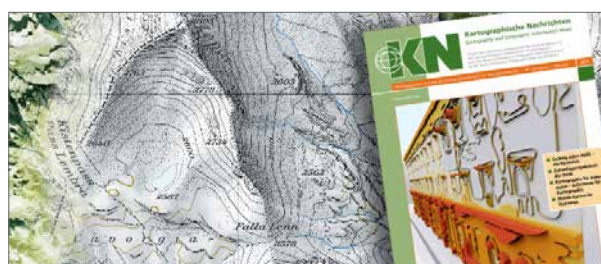
In cooperation with the German Society for Cartography DGfK and the Austrian Commission on Cartography ÖKK the Swiss Society of Cartography SSC supports publications released in the German-speaking world.

Kartographische Nachrichten

The Journal for Cartography and Geographic Information (Kartographische Nachrichten KN), one of the very few cartographic periodical written in German, is published by the German Society for Cartography DGfK in cooperation with the Swiss Society of Cartography SSC and the Austrian Commission on Cartography ÖKK. There are six issues per year which SSC members receive free of charge. In articles, reports, reviews, and further information as well as job advertisements, this periodical mirrors cartographic news in Germany, Switzerland and Austria. It is published by Kirschbaum..

KN Open Access Article

In order to improve the attractiveness of publishing papers in the "Kartographische Nachrichten KN" the editorial team chooses one article per issue for open access publication on www.dgfk.net. Hence, the article appears in the analogue printed version of KN as well as digitally.



Kartographische Nachrichten KN



Covers of the first three issues of 2015

Kartographisches Taschenbuch

At the German Cartographic Council 2013 in Dresden the new Cartographic Manual of Practise was presented to the scientific community.

Next to the DGfK and the ÖKK the SSC has offered its members the opportunity to represent themselves and their professional emphases, their occupational activities and their fields of interest. The Manual of Practise inter alia provides information on the official cartography in Switzerland and in Europe, the educational and research institutions for cartography/geoinformation as well as on companies and suppliers in this field. The comprehensive register of persons completes the Manual of Practise.



Cover of Kartographisches Taschenbuch 2013 KT.

Format DIN A5 (148 x 210mm), 196 pages.

Publisher: GEOMATIK Tagungs-GmbH and DGfK

ICC Paris 2011 – Swiss Insights

From the 3rd to the 8th of July 2011 the 25th ICA International Cartographic Conference took place at the Palais de Congrès in Paris.

Cartographers meet in Paris

The Swiss delegation could register a large attendance with around 30 persons, which was possibly linked to the geographical proximity of the venue.

Technical and Map Exhibition

The OCAD Inc. from Baar demonstrated its innovative extensions of the cartography program OCAD 10. A broad spectrum of printed maps and atlases was on display in the framework of the International Map Exhibition. All entries for the Swiss cartography award Prix Carto 2011 were also presented at the map exhibition – at least in printed form.

Experimental Walking Tour in Paris

A dialogic walk with cartographers and artists, organised by the ICC Art & Cartography Commission under the lead of Barbara Piatti, Anne-Kathrin Reuschel (SSC members) and Sébastien Caquard, solved a creative task together: Four different parcours and a folder with quotations, hints and maps along with some tools and devices for the documentation process were set up. Later on, groups gathered for the finishing: a series of largely plotted maps of the given areas were prepared, so that the sketches, notes, photos, objects could be arranged and labelled in the sense of a collage.



Part of the Map Exhibition at the Palexpo in Paris. Switzerland displayed ten paper maps and two atlases. Various digital products and research projects have been presented in talks.



Group presents its map collage resulting from collected items of the experimental walk through Paris, organised by the ICA Commission Art & Cartography.



Swiss representative and Chair of the ICA Commission on Cognitive Visualization Sara I. Fabrikant meets Menno-Jan Kraak (University of Twente) at the ICC in Paris.



A small portion of the Swiss delegation visits IGN France in Paris. Only members of the Institute of Cartography and Geoinformation at ETH Zurich are shown.

Cartography & Narratives

This workshop was organized by the Commission on Arts & Cartography in collaboration with ETH Zurich and Concordia University (Montreal) and took place in Zurich, Switzerland on June 11th–13th, 2012.

Art meets Cartography

"Story maps", "fictional cartography", "narrative atlas" and "geospatial storytelling" are some of the terms that characterize the growing interest in the relationship between maps and narratives. Building upon the extensive work on literary geography and on cartographic cinema, a range of scholars in the humanities have endorsed mapping as a conceptual framework to improve our understating of narratives. Meanwhile, geographers and cartographers have recognized the importance of mapping personal stories and vernacular knowledge in order to better understand their contribution to the production of places.

Participants

The experimental workshop brought together 30 artists, scholars and students from cartography, geography, the humanities and the arts interested in further exploring the relationships between maps and narratives from multiple perspectives (e.g. theory, performance, technology, design). Participants of the workshop discussed and debated any type of relationships between maps and narratives including:

- The theoretical underpinning of the relationships between maps, narratives and places;
- The forms and functions of maps in/of fictions (e.g. in novel and films);
- The practices of mapping vernacular knowledge and personal stories;
- The political implications of narrative maps;
- The technological and practical aspects of narrative cartography (e.g. the Geoweb).

Movie

The main outcome of this workshop was the production of a collective movie dedicated to fictional cartography. This movie was made of the different contributions of the participants of the workshop in collaboration with professional filmmakers and artists.



Presentations and discussions of filmmakers, dramaturgs, artists and cartographers.

It is hoped that this film will be screened in film festivals, as well as in Cartographic Conferences.

The organizers Barbara Piatti, Anne-Kathrin Reuschel, and Sébastien Caquard sincerely wish to thank the Institute of Cartography and Geoinformation at ETH Zurich and the International Cartography Association (ICA) for their generous support.

References

"MDMD – Multi Dimensional Mapping Device"

A Cartometry (Short movie):

www.100-days.net/en/projekt/mdmd-mapping-fiction

Commission on Art & Cartography:

artcarto.wordpress.com

The Graphical Web – SVG Open 2012

*1st International Conference on Open Web Graphics. Venue: ETH Zurich, Switzerland.
Date: September 11–14, 2012. Co-organisier: Andreas Neumann.*

Summary

Andreas Neumann, cartographer and member of the Swiss Society of Cartography, was co-founder of the conferences on Scalable Vector Graphics (SVG Open) in 2002. In total, 9 conferences took place in 7 different countries on 3 different continents: Zurich, Switzerland (2002); Vancouver, Canada (2003); Tokyo, Japan, (2004, 2007); Enschede, The Netherlands (2005); Nuremberg, Germany (2008); Mountain View, CA, USA (2009); Paris, France (2010); Cambridge, MA, USA (2011).

In 2012 Andreas Neumann and his team brought back this conference to ETH Zurich, Switzerland. The 10th anniversary edition of the SVG Open conference was the last "traditional" edition of the conference series. At the same time it was the first edition of a new conference series called "The Graphical Web" which includes cartographical aspects as well.

At past SVG Open conferences it became increasingly obvious that many graphical web applications usually do not rely on a single graphic technology (like SVG), but often on a mixture of different technologies, such as SVG, CSS, Canvas, WebGL, Javascript, HTML5 video and audio. For this reason the organizers are broadening the scope to a wider range of open graphic technologies for the web – in principal all graphic technologies that are officially backed by the W3C consortium and that are not under control of a single company.

Conference website: www.graphicalweb.org/2012



Audience at the Graphical Web conference, ETH Zurich (Campus Hönggerberg). The sessions have been well-visited.

The conference was of interest to the following groups or individuals:

- Software developers
- Web and UI designers
- Web application developers
- Graphic artists
- Creators of database-driven content and applications
- Creators of mobile computing solutions
- Specialists in GIS, CAD, modeling, publishing, multimedia and other fields involving professional graphics
- Creators and users of data visualisation solutions, including business charting, scientific visualisation and exploratory graphics, graphing, schematics, maps, etc.

ICC Dresden 2013 – Swiss Insights

From the 25th to the 30th of August 2013 the 26th International Cartographic Conference of the International Cartographic Association ICA took place at the Dresden Congress Centre, being attended by around 1400 participants from over 80 countries.

Cartographers meet in Dresden

Switzerland was present in the scientific programme with a large number of speakers, 20 of which were SSC members.

Technical and Map Exhibition

Our collective members OCAD, swisstopo, Swiss Federal Statistical Office and Esri Switzerland stood out with convincing appearances at the Technical Exhibition. At the Map Exhibition cartographic novelties from Switzerland who were submitted to this year's SSC innovation award 'Prix Carto' 2013 were presented on three panels and thus optimally promoted the diversity of our country's innovative cartographic products.

Mercator Gold Medal for Ernst Spiess

Ernst Spiess receives the Mercator Gold Medal in Dresden; read more about the tribute on page 88.

Successful Orienteering Event

Sabine Hauswirth, geographer and OCAD employee, won the women's ICC orienteering event. No wonder, she is a Swiss national team member. Two months later, Sabine Hauswirth won the gold medal at the team event of the European Championship in Portugal. Congratulations!



Sabine Hauswirth, winner of the women ICC orienteering event, represents OCAD Inc. with a booth at the ICC Dresden.



Part of the Swiss delegation, from ETH Zurich and Swiss Federal Statistical Office, at the ICC2013 farewell dinner.



Swiss Federal Office of Topography (swisstopo) was part of the technical exhibition. From left: Christian Häberling (visitor), Olaf Forte and Reto Künzler (swisstopo).



As Chair, Sara I. Fabrikant presents the topics of the ICA Commission on Cognitive Visualization sessions to the audience.

Exhibition of Alpine Terrain Models

by Marita Fuchs, University of Zurich

Geo Reliefs on Display again

At the Irchel campus of the University of Zurich an extraordinary exhibition is open to the public since the mid of June: Ten geo reliefs show Swiss landscapes and the mountainside en miniature. The reliefs date from various time periods, with the oldest being from 1836. The Matterhorn relief is the youngest exhibit; a present from the renowned relief builder Toni Mair.

Even though digitised map material is used today, reliefs still captivate with their attention to detail and workmanship. Geo reliefs fascinate through their unique liaison of art, craft and science. They show landscapes and mountains from the last ice age until today, and this true to scale and detailed; ascertainable with one look; not gaudy, but colorised with the delicacy of water colours. With their constant presence, with the recurrent encounters with them they convey familiarity, even a sense of home.

Now this experience at the Irchel campus is not only available for students. During the normal opening hours of the Institute for Geography the exhibition around the atrium of the building Y25 is open to the public free of charge. The new permanent exhibition presents ten relief exhibits spread over three floors. Attractive panels provide information regarding the exhibits. "The UZH is home to one of the larger collections of geo reliefs in Switzerland," Prof. Dr. Max Maisch, the initiator of the exhibition, proudly states.

Web Resources

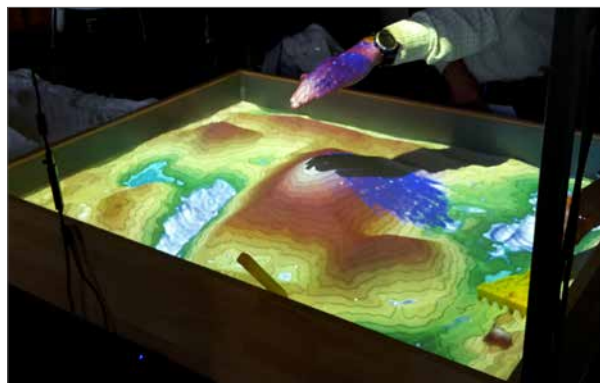
- Detailed description of the ten exhibited relief models (in German)
www.geo.uzh.ch/en/events/relief
- Workshop of relief artist Toni Mair (in German)
www.mair-relief.ch
- General information about terrain models
www.terrainmodels.com



Relief artist Toni Mair (right) and the Matterhorn relief at a scale of 1 : 5.000, his youngest donation.



Prof. Dr. Max Maisch explains the exhibition concept on the occasion of the vernissage at the 27th of April 2015.



Augmented Reality Sandbox (with Real-Time Water Flow Simulation).

Preview: International Map Year 2015–2016

The International Cartographic Association ICA, with support by the UNO, proclaims the 'International Map Year' (IMY) for the years 2015 and 2016.

Activities and Events

The International Map Year is ceremoniously opened on the 23rd of August 2015 at the ICC in Rio de Janeiro and ends on the 31st of December 2016. The SSC also starts its activities regarding the map year on the 23rd of August 2015.

Goal and Purpose

The main targets of this IMY are to make cartography and its related aspects better known to the public around the world. It wants to generally promote cartographic visualisations as an important means of communication and raise awareness for their value. Furthermore, the handling of such visualisation and especially map reading capabilities shall be conveyed in schools and universities worldwide. In addition it shall be demonstrated how geodata and the techniques for their surveying and modelling may be used sensibly. For this, the disciplines cartography, geodesy, photogrammetry, geoinformational sciences and remote sensing shall be introduced to as many students as possible.

Activities

The SSC was urged by the ICA as a national member to coordinate or organise events and activities in Switzerland promoting the aforementioned goals. For this, the SSC called upon all its collective members to report events with a cartographic reference. Notable companies, institutions and associations have announced special activities on the occasion of the IMY. Amongst others, these include exhibitions, book publications, lectures, symposia, media appearances, online games, etc.

For the IMY, the SSC itself launches a new award to foster young academics on the field of cartography, geomatics and geovisualisation, which is to be ceremoniously awarded on the 4th of November 2015: 'Prix Carto – start'.

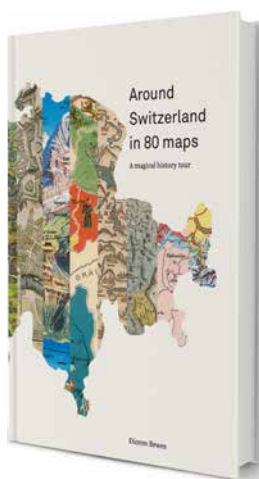


National Map Day

In the Autumn of 2016 the SSC organises a national map day: A retrospective with presentations and an exhibition shall appreciate the cartographic works in Switzerland.

Agenda

A good overview of all map year events in Switzerland is provided in the framework of the continuously updated agenda with further links, to be found under www.cartography.ch/imy



One of many planned Map Year events: Book presentation "Around Switzerland in 80 maps" by the author Diccon Bewes at the SSC Symposium on November 4th, 2015.

Prix Carto – Swiss Cartography Awards

"Prix Carto" is a cartography prize, awarded every two years, to bring attention to companies, institutions or authorities who have shown excellence in the field of cartography and geovisualisation.

Award for Map Products

Innovation Prize

One of the aims of the Swiss Society of Cartography is to encourage better mapping by providing a prize to companies or individuals who have shown excellence in this field. Another aim in awarding a prize is to bring due attention and credit to the efforts of those who developed and published an innovative map product. Therefore, the so-called Prix Carto was established for the first time in 2006. Since 2007 the prize is awarded every other year, in the years which ICA conferences take place. This allows all applicants to participate in addition at the ICC map exhibition. Conditions of participation are mainly the same as for the ICC exhibition. A jury – five experts from various areas of the field of cartography and GIS – select the winners from the applicants for their outstanding work. The award ceremony takes place at the "Herbsttagung" (Cartography Symposium) organised by the SSC.

Prix Carto



Winner "Prix Carto 2011": Swiss World Atlas – interactive. Authors (from left): Hansruedi Bär, Thomas Kobelt, Stephan Wondrak, Juliane Cron, Philipp Marty, Christian Häberling, Lorenz Hurni, Sascha Thöni (Institute of Cartography and Geoinformation, ETH Zurich).



Winner "Prix Carto – print" 2013: Atlas des Schweizerischen Nationalparks – die ersten 100 Jahre. Authors (from left): Heinrich Haller, Antonia Eisenhut, Rudolf Haller (Swiss National Park). Publisher: Haupt Verlag.



Winner "Prix Carto – digital" 2013: Politischer Atlas der Schweiz 1866–2012. Authors (from left): David Vogel (Gaja Maps GmbH), Sabine Kuster-Ahrens, Madeleine Schneider, Thomas Schulz (Federal Statistical Office). Publisher: Federal Statistical Office, Neuchâtel.

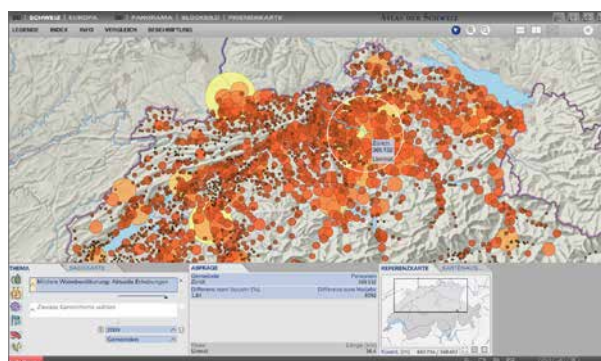
Prix Carto – Selected Entries for 2011

In 2011 the SSC awarded the Swiss cartography award Prix Carto for the fourth time. Short descriptions with images of noteworthy entries are listed here. The selected order represents no statement to the valuation of the mentioned products.

Selection of Honoured Mentioned Entries

Atlas of Switzerland

The Atlas of Switzerland includes 2,000 themes structured in seven topics, such as transport, energy, nature and environment, economy. These themes are visualized in high-quality and interactive 2D maps of Switzerland and Europe, 3D panoramas, 3D block diagrams and 3D prism maps. Beside a plethora of display options (linear network maps, 2D diagrams), several analysis options are available, such as 3D profiles, or the selection and comparison of individual values.



ETH Zurich, Institute of Cartography and Geoinformation
www.atlasderschweiz.ch/en

Blue Marble 3000

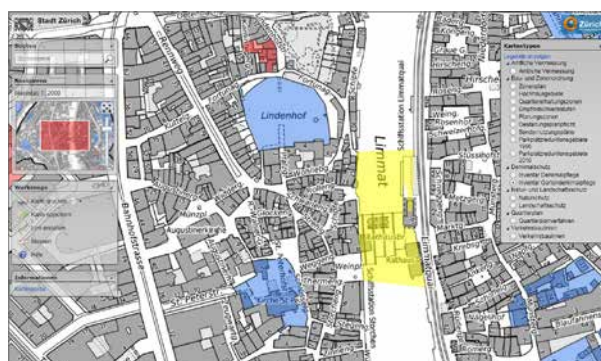
This visualisation shows the Earth in a realistic representation, starting with the last glacial maximum 21,000 years ago, and ends 1,000 years into the future. The ice coverage, the vegetation, as well as the sea and lake levels are taken into account. Additional information, such as the CO₂ content of the air, the annual average temperature, and the population density are illustrated. The visualisation is a typical mashup of already existing data.



Adrian Meyer, Karl Rege
Zurich University of Applied Sciences, Winterthur, Switzerland

ZueriPlan

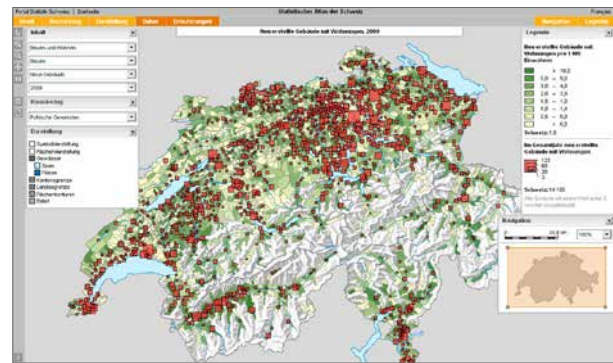
Children's playground or retirement home? Heritage conservation or urban development? The location of these zones can be visualised interactively with the ZueriPlan website, which is online since 2011. The user-friendly application simplifies the handling of a multiplicity of map types and topics which can be combined with search items.



GIS centre City of Zurich, Switzerland

FlashInfo – Easy Visualisation of Statistic Data

This mapping application can create thematic maps for web pages and other digital media, as well as for print production, using a variety of statistical data. FlashInfo focuses on a correct cartographic presentation and optimal solutions. Currently, the model includes 40 administrative classifications of Switzerland and Europe, and offers the functionality to create interactive presentations. Beside single maps with various chart types, entire (time) series can be composed and played back.

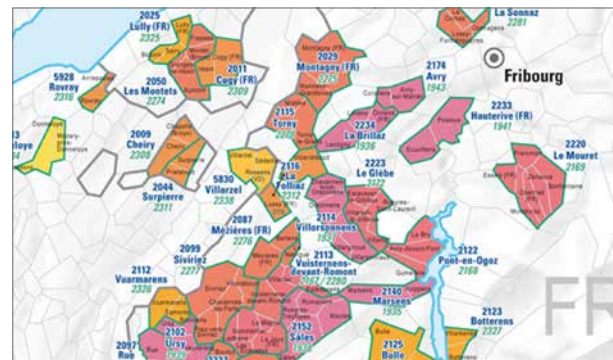


Federal Statistical Office, Neuchâtel

www.bfs.admin.ch

Map of municipality mutations 2000–2010

As early as since 1990, the number of municipality mergers is constantly increasing. A general map together with a publication document the increasing dynamics of these fusions and give detailed information about past abolishments, fusions, new foundations and name changes of Swiss municipalities since 2000. Mutation numbers according to the historic municipality index of Switzerland are included, as well as names and numbers of former and new municipalities.



Federal Statistical Office, Neuchâtel

www.bfs.admin.ch

MapRank Search: Unique technology to explore thousands of maps in time

MapRank Search is a central entry point for searching printed and digital maps in map collections and archives by various geodata providers. This unique search technology unites traditional geospatial catalogues and map libraries. Through innovative and user-friendly tools and databases it ensures a quick search result based on different search criteria.

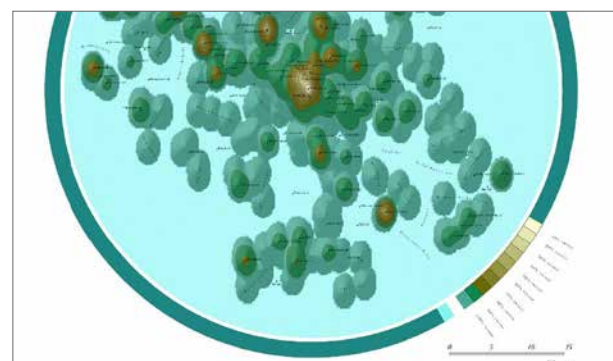


Klokant Technologies GmbH Baar, Switzerland

www.klokantech.com

New City Landscape

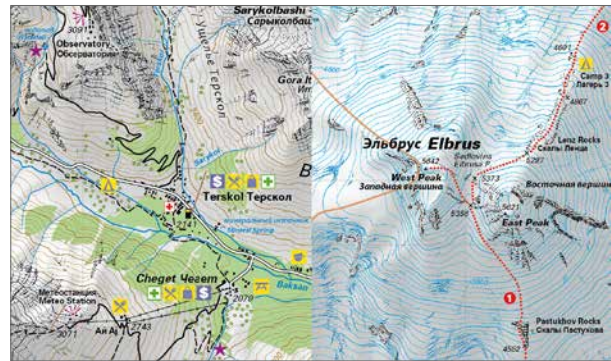
The New City Landscape maps show the Twitter activity of an urban area as a landscape map. The map is based on data with integrated GPS information. The online messages can be spatially references, which in turn allows for the creation of a "city history" in the form of a virtual landscape. The map series shows the increasing virtualisation of our daily life and highlights the changing perception of a predominantly urban space.



Fabian Neuhaus, Steven Gray, Richard Milton. Centre for Advanced Spatial Analysis, University College London

Climbing map ELBRUS ЭЛЬБРУС

This topographic and thematic map at a scale of 1:50,000 is for climbers and trekking tourists. The backside of the map provides additional information, for example pictures with marked climbing routes, description of hiking routes in three languages with the corresponding elevation profiles, a overview map at 1:670,000, a variety of village maps, a panorama map, and renderings of the local flora and fauna. The map is compatible with GPS devices, and combines information normally found in tourist guides with a map.



Sandra Greulich, Sacha Wettstein Bern, Switzerland
www.climbing-map.ch

Globi in the Snow

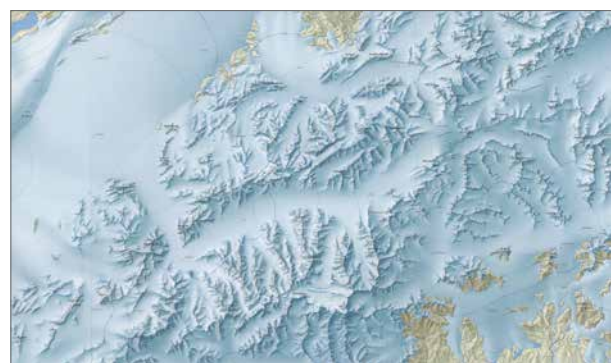
Globi, a parrot, has been searching the whole of Switzerland for places where one can enjoy all kinds of winter sports. Besides places for skiing and snowboarding, there are locations for skating, tobogganing, cross country skiing or snowshoeing. Small, more familiar and cheaper locations are also mentioned. The new map with 100 winter excursions for the whole family is printed on glossy paper and can also be used as a poster.



Hallwag Kümmerly+Frey AG, Schönbühl
www.swisstravelcenter.ch

Switzerland during the Last Glacial Maximum

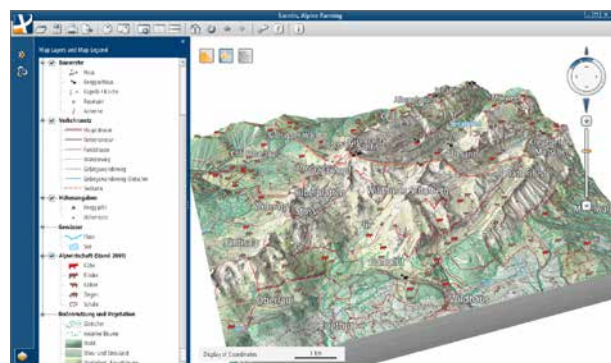
"Switzerland during the Last Glacial Maximum (LGM), 1:500,000" is a paleogeographical map. It shows the topographical surface of Switzerland during the maximum extent of glaciation at the height of the last Ice Age about 24,000 years ago. The latest results of research on the Ice Age in Switzerland are visualised on this map. The LGM map depicts an event in the Earth's history that strongly shaped today's landscape of Switzerland.



Swiss Federal Office of Topography swisstopo, Wabern
www.swisstopo.ch/...

Swiss World Atlas Interactive

In October 2010, the Swiss World Atlas (SWA) was expanded by an interactive Web Atlas, which further increases the attractiveness of the atlas with new and innovative forms of use. The project team pursued various goals taking the specifics of the Swiss World Atlas into account, for example, to warrant the expectations of teachers regarding current trends and ideas about a modern geography curriculum, as well as sustainability and feasibility. The current version contains more than 70 maps, several block diagrams, and virtual globes. (Winner of the Prix Carto 2011.)



ETH Zurich, Institute of Cartography and Geoinformation
www.swissworldatlas.ch/...

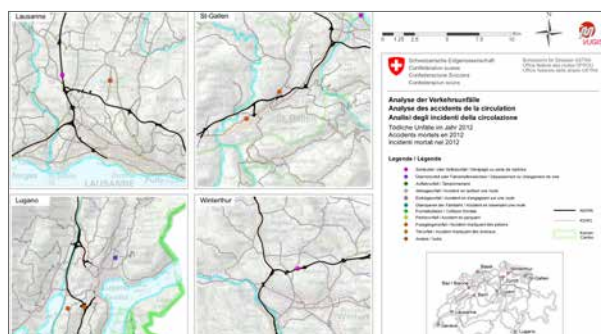
Prix Carto – Selected Entries for 2013

In 2013 the SSC awarded the Swiss cartography award split into two categories for the first time: The 'Prix Carto – digital' (map products published utilising new media) and the 'Prix Carto – print' (printed map products). Short descriptions with images of noteworthy entries are listed here. The selected order represents no statement to the valuation.

Selection of Digital Map Products

Road Traffic Accident Statistics

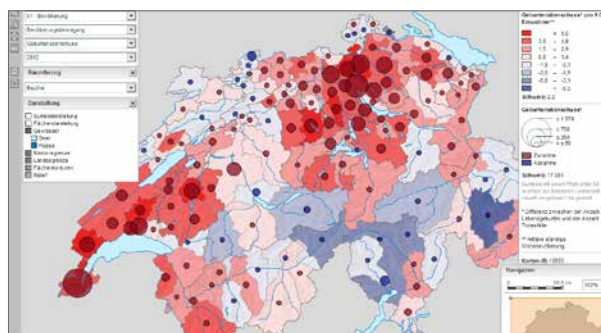
Since 2011 ASTRA is responsible for the road traffic accidents statistics of Switzerland. This information is provided by ASTRA to the public on a website via point- and area-based maps. Furthermore, maps with special thematics (e.g. accidents involving pedestrians, bi- or motorcyclists) are also produced. Thanks to these visualisations the problem areas in the Swiss road networks are swiftly determined. Thus the accident events are transparently communicated for the first time.



Bundesamt für Strassen ASTRA, Bern
www.astra.admin.ch

Statistical Atlas of Switzerland

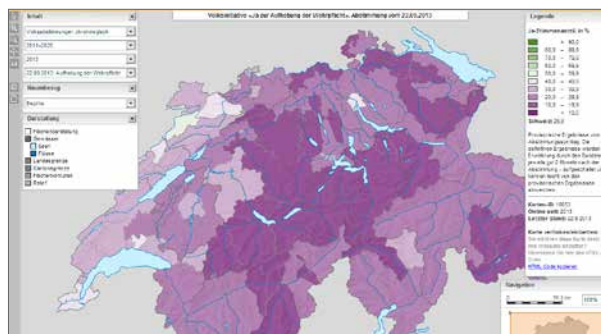
Counting over 2000 interactive thematic maps, the Statistical Atlas of Switzerland provides a modern and permanently available overview to exciting regional questions from all thematic fields of the Swiss Federal Statistics Office. In 24 chapters spatial disparities and correlations may be discovered visually or in numbers, using a simple and intuitive browser interface. The data are available online (Web, app) and offline (USB, DVD, print).



Viktor Goebel, Sabine Kuster-Ahrens, Thomas Schulz, *David Vogel. Federal Statistical Office, Neuchâtel, *Gaja Maps GmbH

Political Atlas of Switzerland 1866–2012

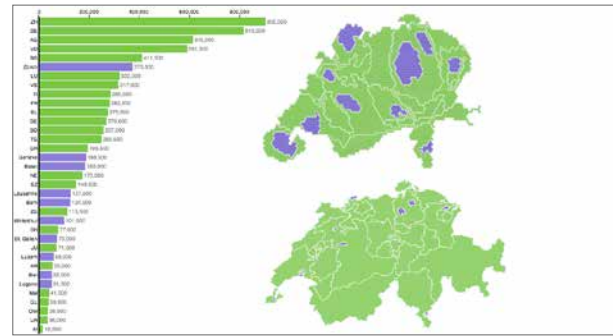
The 'Political Atlas of Switzerland' is a handy and user-friendly instrument to visualise voting results cartographically. Using cartographic time series, it provides insight into over 160 years of evolution of Switzerland's political system. In over 2700 communal, regional and cantonal maps and about 1500 Excel tables the results of the National Council votes since 1919 and of the federal referendums since 1866 are made available. The online version may be used free of charge. (Winner of the category digital.)



S. Kuster-Ahrens, M. Schneider, Th. Schulz, *D. Vogel.
Federal Statistical Office, Neuchâtel, *Gaja Maps GmbH

Population Ratios

This product constitutes a 'linked view display', linking a bar chart, a map and a cartogram. The visualised parameter is the population, displayed for the Cantons and the ten largest cities. Displaying the cartogram together with a map resolves a weakness of the cartogram, namely the difficulty for the user to assess the cartogram's distortion relatively precise.



Dr. Ralph Straumann, Zurich

www.ralphstraumann.ch/cartogram_cantons

"Journey through time" Viewer

How did Berne look like in 1900, or the banks of Lake Zurich in 1864? How far did the Aletsch glacier reach twenty years ago? To answer these questions, swisstopo has developed a viewer for topographical maps allowing a journey through time. You can go on this virtual journey back to 1844 – the year the first Dufour map was published. Geodata for the whole of Switzerland has never been made available online to the public on such a scale before.



Swiss Federal Office of Topography swisstopo, Wabern

www.swisstopo.ch/...

Trafimage – Web Map Portal

The system of Trafimage maps was complemented by a web map portal in 2012. This portal with multiple interactive web maps serves as an extension to the existing offering of printed maps. The maps may be either retrieved directly over the website or via API. The web map portal is a consequent continuation of the offering in the field of Internet and digital media.



Duplex Design (Basel), 7r (Schaffhausen),

camtocamp (Lausanne)

Trafimage – Maps and Plans for Public Transport

The map system Trafimage enables displaying current public transport data via easy-to-read maps and plans. Both publication maps and regional transport maps for travellers and communication and planning maps for operators exist. A broad spectrum of different scales, dimensions and information densities is offered. The map features are a firm component of the public transport's appearance in Switzerland (SBB, private railways, ...)



Duplex Design (Basel), 7r, (Schaffhausen),

camtocamp (Lausanne)

Selection of Printed Map Products

Babbu – The little Runaway

An exciting children's book about Babbu, an elephant who ran away from circus. Using a web map, the reader may follow Babbu's course through the city. The web map is augmented with information and images. The map is a supplement to the book, bringing its contents to life for children, parents and tourists.



Caroline Breitenmoser, Christophe Emery

Publisher: Editions à la Carte, Zürich

Navigator Europe

Hallwag's 'Navigator Europe' delivers clear road maps at a scale of 1:800,000; furthermore, 59 city maps of important metropolises are available. The road atlas comprises registers of localities, landmarks, motorails and distance charts. New: When buying a Navigator Europe one receives a free code to download the Europe road map at a scale of 1:800,000 onto a mobile device and use it for one year.

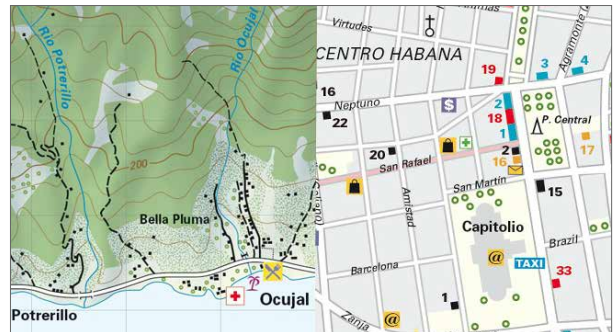


Hallwag Kümmerly+Frey AG, Schönbühl BE

www.swisstravelcenter.ch

Trekking map 'Cuba – Pico Turquino'

The trekking and tourist map 'Cuba – Pico Turquino' at a scale of 1:50,000 depicts the highest mountain of Cuba. The map contains a topographical trekking map, a distance profile, city maps of Havana, Santiago de Cuba and Bayamo, a general map at a scale of 1:1 million, the history of the revolution, a chronology and a historical general map. Under politically difficult circumstances surveys and elaborate investigations were undertaken on-site. The cartographic implementation was carried out in Switzerland.

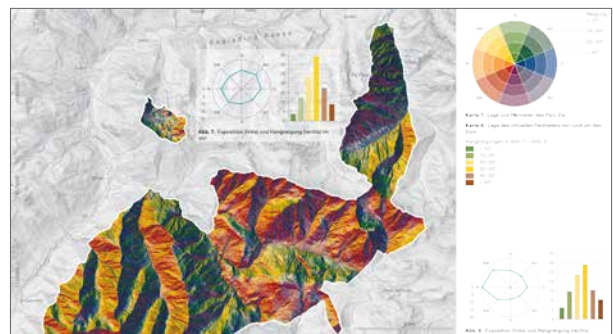


Sandra Greulich, Sacha Wettstein

climbing-map.com GmbH, Berne

Atlas of the Swiss National Park

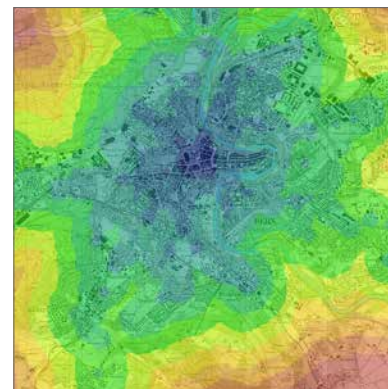
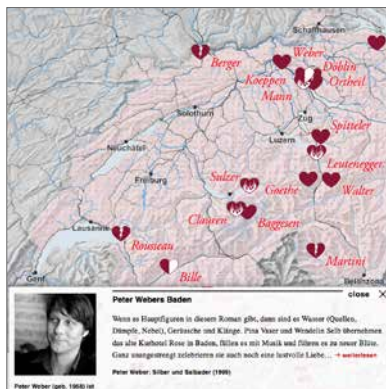
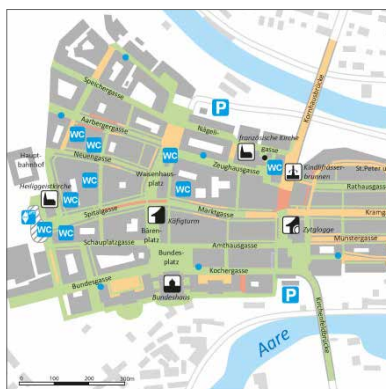
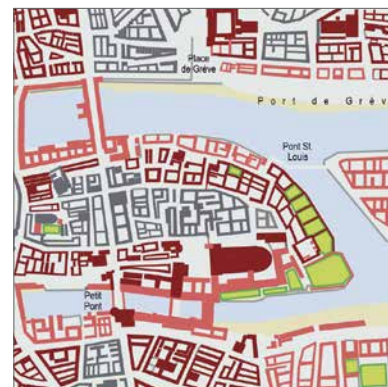
100 years of the Swiss National Park (SNP), one century of regional environmental monitoring, and one oeuvre to summarise all that: These are the key points of this atlas, which describes the spatial evolution in and around the SNP in in all its variety, reviews and opens up new perspectives for the future – all this utilising a variety of cartographic representations and according commentary. (Winner of the category print.)

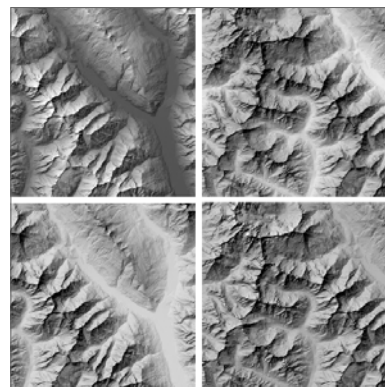
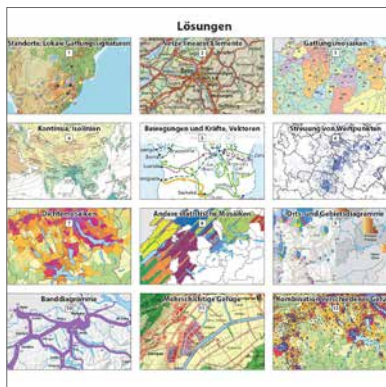
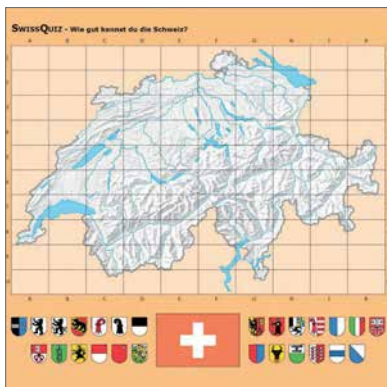
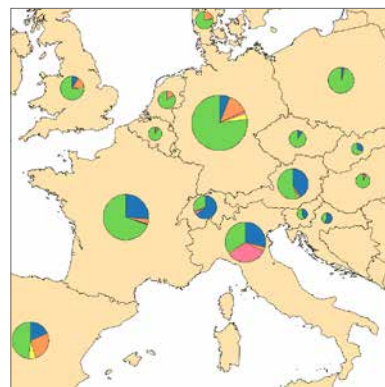
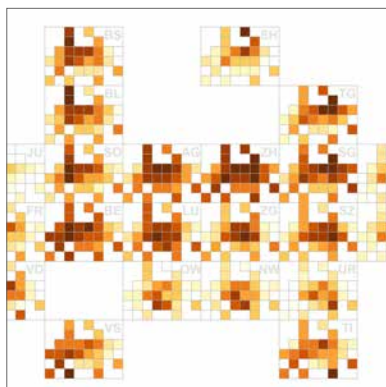
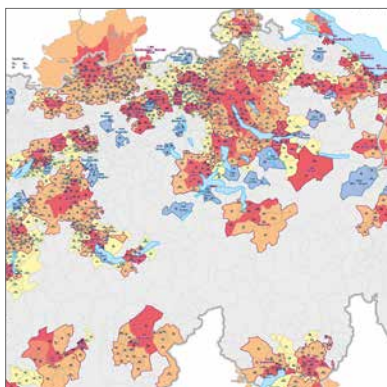
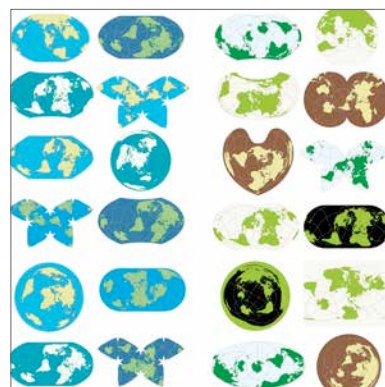
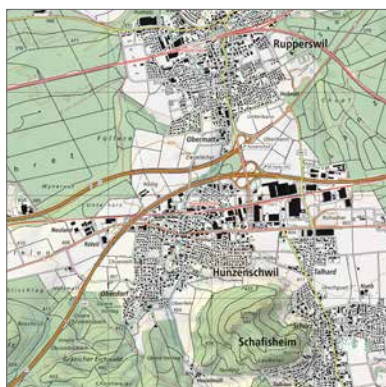


Map from the "Atlas des Schweizerischen Nationalparks – die ersten 100 Jahre." [www.nationalpark.ch/jubilaeum/...](http://www.nationalpark.ch/jubilaeum/)

Prix Carto – Selected Entries for 2015

In 2015 the Prix Carto awards are posted in three different categories for the first time: 'Prix Carto – start' (young talent award), 'Prix Carto – print' (print products) and 'Prix carto – digital' (new media). The jurying occurs after this publication's press deadline. A selection of entries is presented visually in this place.





Awards for swisstopo 2012–2015

by swisstopo

2012

"Geospatial World Leadership Award for National Mapping"

swisstopo received at the Geospatial World Forum the "Geospatial World Leadership Award for National Mapping".

"2012 United Nations Public Service Award" – 2nd place

geo.admin.ch has won the "2012 United Nations Public Service Award", 2nd place, in the category of "Advancing Knowledge Management in Government".



The geoportal geo.admin.ch is awarded numerous prizes

2013

"Euro Cloud Award 2013", 2nd place

geo.admin.ch, the geoportal of the Swiss Confederation has achieved the 2nd place in the EuroCloud Award 2013 in the category of "Best Cloud Service Use Case Public Sector".

"Geospatial Policy Implementation Award"

geo.admin.ch, the geoportal of the Swiss Confederation received at Geospatial World Forum 2013 in Rotterdam the "Geospatial Policy Implementation Award".

"Swiss Cloud Award 2013"

The geoportal of the Swiss Confederation received the "Swiss Cloud Award 2013" in the category "Best Cloud Case Study Public Administration".



Euro Cloud Award 2013 – all winners

2014

Three Map Gallery Awards (ESRI)

At the annual Esri user conference in San Diego (California) swisstopo's maps were awarded the 1st prize in the three categories: "Best Overall", "Best Cartographic Design Map Series or Atlas" and "Best Cartographic Design Single Map Product".



swisstopo is awarded three prizes at the ESRI User Conference. Dominik Käuferle, Daniel Josi, Olaf Forte (from left)

"Swiss ICT Public Award", 1st place

Switzerland's federal map viewer map.geo.admin.ch was the popular favourite among all finalists in an online voting poll.

Open Source Software Award 2014

Out of 23 applicants the Federal geoportal geo.admin.ch received the Open Source Software Award 2014.

"Best of Swiss Web 2014": map viewer of Swiss Geoportal distinguished with four awards

map.geo.admin.ch, the map viewer of the geoportal of the Swiss Confederation has achieved at "Best of Swiss Web 2014" the 2nd rank in the categories "Technology" and "Publique affairs", the 3rd rank in the category "Mobile web" and the 4th rank in the nomination for the Master Award.

2015

eGovernment Award

The e-government project geo.admin.ch were awarded the 2nd rank in the category "best e-government project 2015" of the german speaking countries Germany, Austria and Switzerland.



They were entitled to accept the Audience Award at the ICT Award 2014 on behalf of swisstopo: Hanspeter Christ, Fridolin Wicki und David Oesch (from left)



ICT Award 2014: swisstopo CEO Fridolin Wicki during the interview

Ernst Spiess receives Mercator Medal

The German Society for Cartography DGfK has awarded Prof. Dr. h.c. Ernst Spiess its highest honour, the Mercator Medal, in recognition of his outstanding merits for cartography. Ernst Spiess is honorary president of the Swiss Society of Cartography.

Mercator Medal

Medal and certificate were presented by the DGfK's president Prof. Dr. Manfred Weisensee at the opening ceremony of the 61st German Cartographic Assembly on the 28th of August 2013 within the framework of the 26th International Cartographic Conference. In a highly personal speech Prof. Dr. Ulrich Freitag – bearer of the Mercator Medal since 2004 – dignified the laureate's personality and the reasons for this distinguished decoration.

Laudatio through Prof. Dr. Ulrich Freitag

Ernst Spiess, born in Rapperswil (SG, Switzerland) in 1930, studied surveying and mapping from 1949 to 1954 and was scientific assistant to Eduard Imhof at the ETH Zurich from 1956 to 1958. From 1958 to 1964 he held the position of engineer-topographer at the Swiss Federal Office of Topography. In 1964 he became assistant professor and in 1970, following Eduard Imhof, full professor of the Institute of Cartography at ETH Zurich. Here he was active until his retirement in 1996.

By awarding its highest decoration to Ernst Spiess, the German Society for Cartography dignifies a scientist of international distinction. Starting from ETH Zurich and in an exemplary manner, Ernst Spiess has contributed in research, teaching and practice to develop cartography to a theory-determined science and a discipline oriented towards digital methods. In his clear and vivid lectures and talks, in essays and international textbooks he constantly looked into the task and the role of cartography. He devised rules for the cartographic design of base maps for thematic maps, for cartographic generalisation, for the automatic construction of signatures and for the combination of graphical components to produce visual and cognitive hierarchies. His well-grounded works regarding func-



Ulrich Freitag, Ernst Spiess, Manfred Weisensee (President DGfK)



Mercator Medal



Ernst Spiess with wife Barbara (in the middle)

tional map types enabled the improvement of numerous map types like expedition and orienteering maps, national and planning maps and analytical and complex economic maps for educational purposes.

Ernst Spiess also acted as editor and publisher of prestigious atlases, the Swiss World Atlas and the Atlas of Switzerland, contributing to the latter's advancements towards an interactive multimedia-based atlas. As head of the Institute of Cartography he created a modern centre of cartographic teaching and research of international relevance at ETH Zurich.

For his versatile and border-crossing work the German Society of Cartography expresses its sincere gratitude and appreciation towards the new bearer of the Mercator Medal, Prof. Ernst Spiess.

Reference

Deutsche Gesellschaft für Kartographie (DGfK)
www.dgfk.net

Road Sign and Pyramid for Eduard Imhof

Eduard Imhof (1895–1986) was awarded several prizes for his achievements in the world of cartography. Even beyond his death the cartographer and artist Imhof is bestowed with due honours. Here two select examples from the Communes of Zurich and Fahrni.

Road for Eduard Imhof

Eduard Imhof is honoured by the City of Zurich with his own street. Imhof grew up in Zurich and taught there at the ETH Zurich for 45 years. He was initiator of the National Maps of Switzerland and the Atlas of Switzerland, designed school wall maps, wrote important textbooks and became a world-renowned cartographer. The street with Imhof's name is 'path-breakingly' located in the booming quarter Oerlikon (Zurich-North).



Eduard-Imhof-Strasse in Zürich-Oerlikon

Imhof Memorial as Pyramid

Eduard Imhof was citizen of the Commune of Fahrni in the Canton of Berne. The municipality of Fahrni erected a memorial honouring its famous citizen symbolically held in the form of a pyramid (triangulation point) at the commune's highest point (915m above sea level) in a beautiful panoramic location. From here one may enjoy an incomparable panoramic view from the Alps and the Swiss plateau to the Jura hills.



Imhof memorial in Fahrni, Canton of Berne

Sincere thanks to all authors and participants of this National Report issue.
Stefan Räber, Swiss Society of Cartography, 2015

