Cartography in Switzerland 1999 – 2002

National Report for the ICA-Conference 2003 in Durban (South Africa)

Goals of the Society

The Swiss Society of Cartography was founded in 1969. Its main goal is to support theoretical and practical cartography and the education of the corresponding professionals. The society distributes 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 with experts and institutions in Switzerland as well as abroad.

Activities

The Swiss Society of Cartography

- organises a meeting for its members twice a year
- organises workshops, further education, and excursions to cartographic enterprises and exhibitions (→ Veranstaltungen)
- publishes an internal newsletter bi-monthly (→ Mitteilungen)
- publishes textbooks and national reports on cartography (→ Publikationen)
- is the official representative for Swiss cartography in the International Cartographic Association (ICA), in the Association of Swiss Geographers (ASG) and in the Swiss Organisation for Geoinformation (SOGI)
- takes part in commissions and working groups of the ICA (→ Commissions)
- distributes to its members the journal *Kartographische Nachrichten* bi-monthly

Present working groups and commissions

- ICA-Commission on Mountain Cartography (chairman: Prof. Dr. Lorenz Hurni)
- ICA-Commission on Map Generalisation (chairman: Prof. Dr. Robert Weibel)
- ICA-Commission on Map Production (Prof. Dr. Lorenz Hurni)
- ICA-Commission on National and Regional Atlases (Dr. René Sieber)
- ICA-Commission on History of Cartography (Markus Oehrli)
- ICA-Commission on Education and Training (Hans-Uli Feldmann)
- SGK-working group on Map History (chairman: Dipl.Ing.ETH Martin Rickenbacher)

For further details see (→ Commissions)
Information about current activities can be found in the annual reports (→Jahresberichte).

Members (state 1.1.2003)

255 individual members
24 collective members

Executive Commitee

During the reporting period 1999–2002 the Swiss Society of Cartography was managed by the following executing committee:

President: Hans-Uli Feldmann (Federal Office of Topography, Wabern)
Vice-president: Lorenz Hurni (Institute of Cartography, ETH Zurich)
Secretary: Stefan Räber (Institute of Cartography, ETH Zurich)
Treasurer: Claude Vez (Federal Office of Topography, Wabern)
Member: Robert Weibel (Institute of Geography, University Zurich)
Member: Nicole von Arx (Wäger + Partner, Frauenfeld)
Member: Camillo Kohli (Kohli Cartography, Berne)

Present executing committee: → Contact

Education

Cartographer

During the last 10 years the situation of the private cartographic companies in Switzerland has essentially changed.

In the year 1990, 5 to 6 apprentices were trained every year in 4 different companies and institutions (Kümmerly+Frey AG Berne, Orell Füssli AG Zurich, Hallwag AG Berne, Federal Office of Topography, Wabern).

In the year 2002, the Federal Office of Topography was the only institution, where the official training for the professional diploma as a cartographer could be achieved (3–4 trainees / year).

New educational directives for cartographers (new curriculum and examinations) have been discussed and finally approved by the representatives of the supervising school authorities and of the employer organisations. The new directives became effective on the 1st of January 2000. As previously the duration of this apprenticeship for cartographers is four years. Each week one day is reserved for theoretical courses at the School for Graphic Design in Berne.

The entire practical training follows a common plan and is a matter of the enterprises. The new directives are formulated more generally, in order to allow space for later adaptation to new developments. The most important change is certainly the inclusion of computer-aided cartography and GIS-technology.

For more details see (→ Ausbildung)

Practical Training
Compared to earlier where the first 2-3 years consisted of intensive handwork exercises in drawing and film engraving, today the apprentices are quickly integrated into the production process.

Instead of practice work, often small thematic maps and printed materials are produced, and in the 3rd and 4th apprenticeship year a map 1.25 000 and 1.50 000 is professionally updated.

1. Apprenticeship year
– Simple drawing exercises on Film
– Introduction to Macintosh (Programs: Freehand, Photoshop, Power Point, NT, Word, Excel)
– Data capture in raster and vector format
– Digital Maps 1:25 000
– Screen / Internet-maps

2. Apprenticeship year:
– Basics of computer science
– Introduction to Macintosh (Programs: Quark XPress, Filemaker)
– Basics of topography
– Locality and city maps
– Composition of thematic maps
– Generalisation exercises (maps1:25 000, 1:50 000 and 1:100 000)
– Relief representation
– Introduction to the software program Dry/Nuages
– Introduction to Intergraph (Microstation, I/RAS B)

3. Apprenticeship year:
– Rock representation
– Topographic base data collection in the field
– Production: Updating of one map sheet 1:25 000
– Generalisation exercises and map editing for small scales 1: 50 000 – 1:200 000
– Production: GIS, updating vector maps 1: 25 000

4. Apprenticeship year:
– Topography and image integration
– Map sample1:200 000
– Production: updating one sheet 1:50 000.
– Work preparation and production control
– Internet, Web paging

Further education possibilities
In the area of pre-press/printing as well as geomatics there are many possibilities for further education for cartographers. These are primarily concentrated in the general graphic industries:

Professional examination with federal certificate
(Preparation at vocational schools and private institutions):
Proof-reader, Topographic-designer, Techno-polygraph, Multimedia-coordinator and Print sales.

Higher subject examination with federal diploma
(Preparation at vocational schools and private institutions):
Specialist with a diploma in the graphic arts industry.

Technician TS: Education is offered by the schools for design in Basel (1½ years full study), Bern (2½ years, part of it on the job), ERAG in Lausanne (3 years, part of it on the job) as well as the TGZ Zurich (3 years, part of it on the job).

Engineer FH: The École d'Ingenieurs du Canton de Vaud (eivd) offers specialised university education as an engineer for communication management (2 directions: printing engineer and communication engineer)

Geomatic study:
In Switzerland almost all universities within the scope of geographic study offer at least basic lectures in cartography. However extensive sessions with specialist themes such as thematic cartography, digital cartography and multimedia cartography are almost never available. A fundamental in-dept study in cartography can only be taken at the ETH Zurich as part of the five year Geomatics course. This specialisation can also be taken by geography students of other universities as a minor subject. Geomatic-engineers and geographers have most career opportunities in the areas of GIS within public offices, private engineering offices and research establishments.

Review on the present situation of cartography in Switzerland

Cartography in Switzerland continues to follow its traditional path. The official topographical map series are periodically up-dated (→ Federal Office of Topography).

The number of major private cartographic publishing companies in Switzerland has unfortunately been reduced. In 2002, Kümmerly+Frey AG (founded in 1852!) was taken over by Hallwag AG (= Hallwag Kümmerly+Frey AG, Schönbühl-Bern). The other major company is Orell Füssli Kartographie AG, Zurich).
There are several other companies (with one or more employees) and institutions which produce printed maps and digital geodata products. Most of them are listed (with an illustration of one of their products) in this National Report.

The following major atlases are produced:
- Geological map series of Switzerland 1:25 000
- Atlas of Switzerland - interactive
- Hydrological Atlas of Switzerland
- Climate Atlas of Switzerland
- Swiss World Atlas for Schools

A wide range of inventories and suitability maps for local, regional and national planning purposes and scientific research have been published or are updated frequently (selection):
- Inventory of sites to be protected 1:5000 / 1:10 000 / 1:300 000
- Inventory of landscapes and natural monuments of national importance 1:25 000
- Inventory of amphibians 1:25 000
- Inventory of flora (wet/dry locations) 1:25 000
- Inventory of bird reserves 1:25 000
- Inventory of historical trails 1:25 000
- Inventory of fauna species 1:25 000

- Water protection maps 1:25 000
- Water supply atlas 1:25 000
- Inventory of natural dangers and hazards 1:100 000
- Inventory of aerial photographs and satellite images 1:50 000 / 1:300 000
- Geotechnical map 1:200 000

National Mapping

Since 1.1.2000 the Federal Office of Topography has consolidated with the Federal Directorate of Cadastral Surveying.
The Federal Office of Topography is a part of the Ministry of Defence and Sports and consists of 4 different divisions:
- Geodesy
- Federal Directorate of Cadastral Surveying
- Topography
- Cartography

Founded: 1838
Staff: 245 and 20 apprentices
Expenditure (2002): CHF 38.8 Mio
Revenue (2002): CHF 32.5 Mio.

Vision:

As a Swiss Federal competence centre, we supply high quality spatial reference data and derived products and enhance their economic benefit.

Products and services:

- Reference systems and map projections
- National survey
- Positioning and information service
- General management of cadastral surveying
- Digital national maps 1:25 000 – 1:1 Mio. (raster data)
- Digital topographic bases (vector data)
- Aerial and satellite images and orthophotos
- Archive for historical maps and aerial photos
- Aerial photography
- Topographic maps
- Thematic maps
- Interactive map applications (CD-ROM)
- Cartographic services
- Inter-departmental coordination centre COGIS
- Competence centre (Institute of Military Geography)

Topographic maps:
Revision cycle: 6 years for approx. 350 maps:

1:25 000	247 sheets
1:50 000	78 sheets
1:100 000	22.5 sheets
1:200 000	4 sheets

1:300 000 1 sheet
1:500 000 1 sheet
1:1 mio 1 sheet

Map assemblies:
1:25 000 17 sheets
1:50 000 24 sheets
1:100 000 10 sheets

For more information → www.swisstopo.ch

COGIS

The national and political dimension of this infrastructure calls for controlled and high quality communication with all our partners. Under the name of e-geo.ch, COGIS organised an event in the autumn for the Federal offices and cantonal governments to present this e-geo.ch incentive programme to a wider public. Further information is available at www.e-geo.ch.
One important component of NSDI is the definition of a general charging and distribution strategy, facilitating access to geodata. Proposals by the Federal administration and an analysis of the Swiss market in connection with geodata context have been worked out by COGIS. Within the Federal administration, COGIS is in permanent contact with the departments (UVEK, EVD, VBS) through standing coordination groups. In parallel with this basic work, COGIS was also active in the following areas in the year under review:

– Since its inception, COGIS has assisted the departments in dealing with their problems and projects on request. A geodata publication platform is currently being developed on the Internet for the Federal departments. The long-term intention is to make available to the Federal departments the services and basic data which will enable them to publish their geodata in a less complicated manner.

– COGIS is also working on interdepartmental projects for metadata (standardisation and tools), data modelling and associated tools, together with the development of a descriptive and transfer standard for XML-based geodata. In the field of geodata and GIS standards, GKG-COGIS has been acknowledged by the Federal IT Board as a decision-making authority.

– Training is an essential component for the promotion of the efficient use of and correct upgrading of geodata. In 2002, COGIS coordinated the organisation of courses for more than 100 persons drawn mainly from the Federal administration. Some courses will in future be listed as official courses of the Swiss Federal Office for Information Technology.

– COGIS is also cooperating with various organisations both international such as ISO and OGC and national such as SOGI, SIK-GIS, IGArc, IGIntergraph, INTERLIS-Kernteam, IKUB and EPFL for the French speaking part of Switzerland. Under the auspices of the inter-departmental coordination group GKG-COGIS, COGIS focused its efforts in 2002 on the preparation of an implementation concept for a Federal strategy on geoinformation adopted in June 2001 by the Federal Council. The first

priority of this strategy is the creation of a national spatial data infrastructure (NSDI) which will permanently facilitate networking of geodata services – not only within the Federal administration but also in relation to activities of the cantonal authorities in this area.

Geoinformation

A smoothly functioning direct democracy would be inconceivable without geographic information. This is a prerequisite for the transparent and traceable implementation of decisions and to enable the population to participate in the main political decisions and social trends.

Transport, energy, environment and nature conservation, agriculture and forestry, regional planning, real estate regulations, information technology and telecommunications, education, culture, insurance services, public health, national defence, internal security, civil protection and disaster relief, supplies and disposal – in practically every walk of life, geographic information is becoming increasingly important. As a central element of the national infrastructure it is of comparable importance to the transport or communication network, or the nationwide energy and water supply of a modern state. In the European Union, governments spend around 10 billion euros every year on public information, more than half of it involving geographic data. This represents a GDP volume estimated at 60 to 70 billion euros.

To eliminate existing difficulties associated with geodata management (in particular because of the lack of uniform standards and technologies, inadequate coordination during the compilation of new data and the lack of standard prices and distribution arrangements), and in order to guarantee in the long run the extensive use of high quality geographic information, a national spatial data infrastructure (NSDI) is essential. This is a generally available system of procedures, institutions, technologies, data and persons which permit the mutual exchange and efficient use of geographical data.

In Switzerland, this framework is provided by the e-geo.ch contact network which coordinates and controls all the relevant performance factors:

– Political support at the highest level
– Definition of basic geographic information and services which are to be provided and updated by the agencies
– Definition of the necessary meta-information and supervision of updates
– Identification and creation of the necessary technical infrastructure
– Definition and / or adaptation of the legal basis COGIS
– Development and implementation of binding standards for metadata, modelling and data exchange
– Promotion of basic and advanced training and research
– Development and introduction of a common charging and sales strategy

Because up to 80% of all political and economic decisions have spatial references, the Swiss authorities, using egovernment, wish to promote the development of a national spatial data infrastructure, to network all kinds of data, facilitate access to them and promote their use. The activities and measures needed for this purpose are

being combined and promoted under the lead management of COGIS with the e-geo.ch incentive program.

All the Federal agencies, as well as the cantons and local authorities, economic enterprises and research establishments which collect, manage and work with geodata, are invited to work towards these common goals. They are all expected to play an active part in the development of the NSDI by creating the prerequisites, further development of electronic cooperation and services, together with benefit orientated networking. This willingness can be unambiguously documented by signing the e-geo.ch charter.

Information about e-geo.ch:
→ info@e-geo.ch
→ www.e-geo.ch
→ www.kogis.ch

NATIONAL REPORT

Overview

Swiss Cartographic Companies and Institutions

Anderhub Kartographie AG, Eschenbach/LU
Bundesamt für Landestopografie, Bern
Bundesamt für Wasser und Geologie BWG, Bern-Ittigen
Endoxon AG, Luzern
Gecko Maps, Hinteregg/ZH
Geo-Atelier, Münchenbuchsee/BE
Geoconcept, Zürich
Geomap AG, Uetendorf/BE
Hallwag Kümmerly+Frey AG, Schönbühl-Urtenen/BE
Hydrological Atlas of Switzerland, Bern
Institute of Cartography, ETH Zürich
Intergraph (Schweiz) AG, Dietikon/ZH
Kartografie Frank Weber, Courgevaux/Murten/FR
Kohli Kartografie, Bern
Orell Füssli Kartographie AG, Zürich
Schad+Frey AG, Kirchberg/BE
Schweizerische Konferenz der kantonalen Erziehungsdirektion, Zürich
Steinegger Software, Baar/ZG
Swiss Federal Statistical Office, Neuchâtel
Wäger+Partner GmbH, Frauenfeld/TG
Wasser- und Energiewirtschaftsamt des Kantons Bern

Others

The Pamir Archive, Winterthur/ZH

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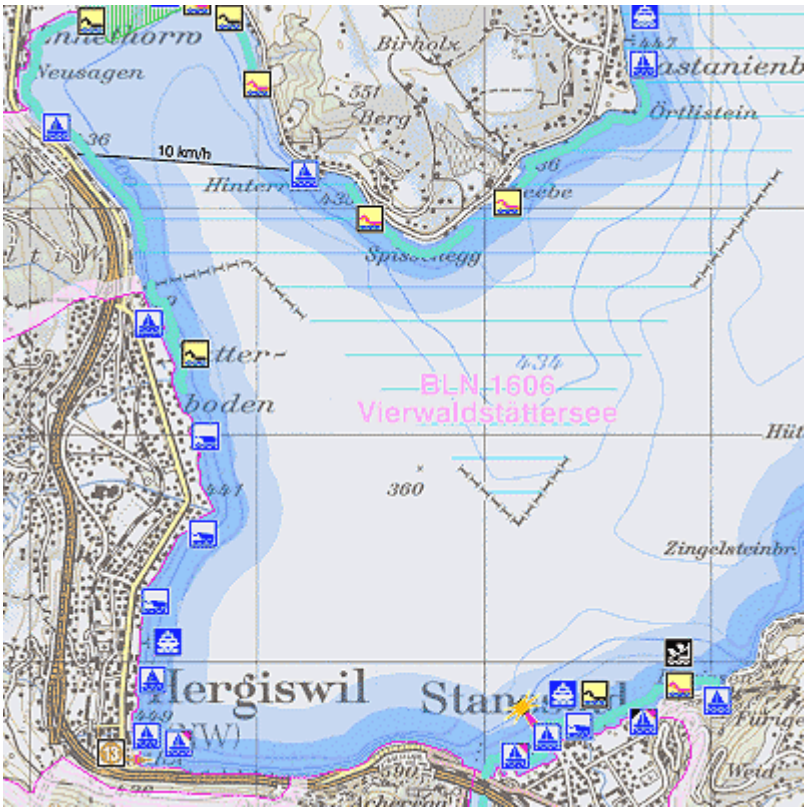
NATIONAL REPORT

Anderhub Kartographie AG



Anderhub Kartographie AG
Feldhaus 9
CH-6274 Eschenbach/LU
Tel.: +41 41 449 41 41
Fax: +41 41 449 41 44
zae@zae.ch
www.zae.ch

Founded: 1970
Employees: 5

Fields of activity:
- GIS-Mapping
- Internet-Mapping
- GEO-Information
- Application development

Title:	Land protection and utilisation map of Lake Lucerne (section)
Scale:	1:37 500
Year of publication:	2003
Publisher:	Anderhub Kartographie AG
Author:	Supervisory commission Lake Lucerne
Contents:	Land protection and utilisation maps, harbour areas, speedlimits on the lake

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Federal Office of Topography

Federal Office of Topography
Seftigenstrasse 264
CH-3084 Wabern
Tel.: +41 31 963 21 11
Fax: +41 31 963 24 59
info@swissopo.ch
www.swisstopo.ch

Founded: 1848
Employees: 65 (cartography department); overall: 255 employees

Fields of activity:
- National maps of Switzerland
- Derived products as thematic maps
- Interactive map products

Title:	National Map of Switzerland, sheet 1347 Matterhorn (section)
Scale:	1:25 000
Year of publication:	1997
Publisher / Author:	Federal Office of Topography
Cartographic design:	Federal Office of Topography
Contents:	Topographic map with contour lines (interval 20m), hill-shading, rock-symbols
Cartographic methods:	Original map: colour separated scribing on glass plates. Updating: digital Nuage- / Intergraph CAD-software
Reproduction method:	8 colour offset printing

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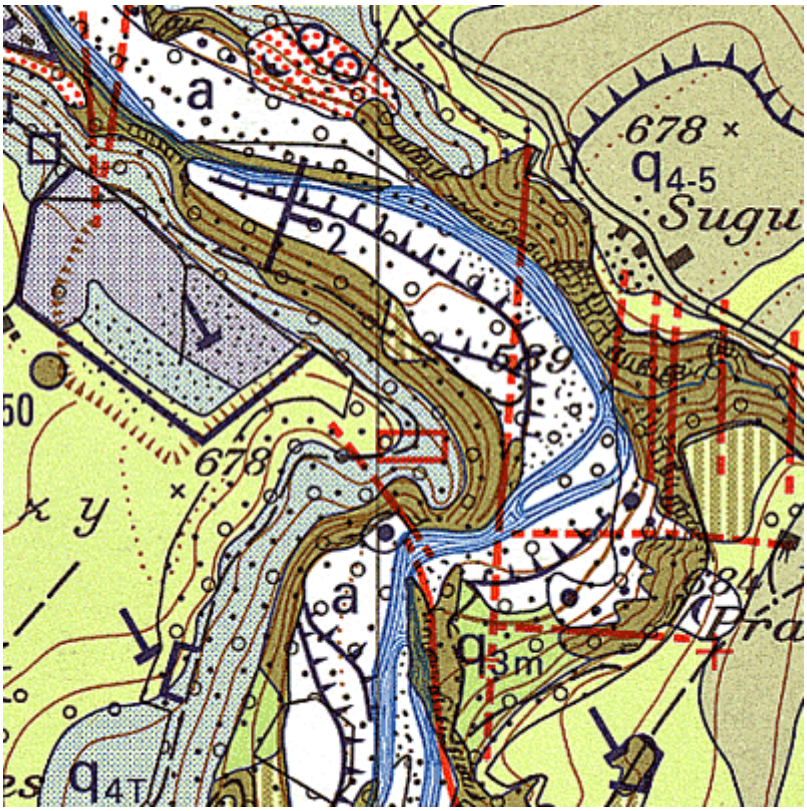
NATIONAL REPORT

Federal Office for Water and Geology FOWG



Federal Office for Water and Geology FOWG
National Geological Survey
CH-3003 Bern-Ittigen
+41 31 324 77 58
+41 31 324 76 81
info@bwg.admin.ch
www.bwg.admin.ch

Founded: 1986
Employees: 1 (+5 external)

Fields of activity:
production of geological maps

Title:	Geological Atlas of Switzerland, sheet Rossens (section)
Scale:	1:25 000
Year of publication:	2002
Publisher:	Federal Office for Water and Geology FOWG
Authors:	M. Weidmann, J.-P. Dorthe and C. Emmenegger
Cartographic design:	Geomap Ltd., Uetendorf
Contents:	Base map: National Map of Switzerland (pixel map) Thematic overprint: geological details based on field
Cartographic methods:	Rascon
Reproduction method:	14 colour offset printing

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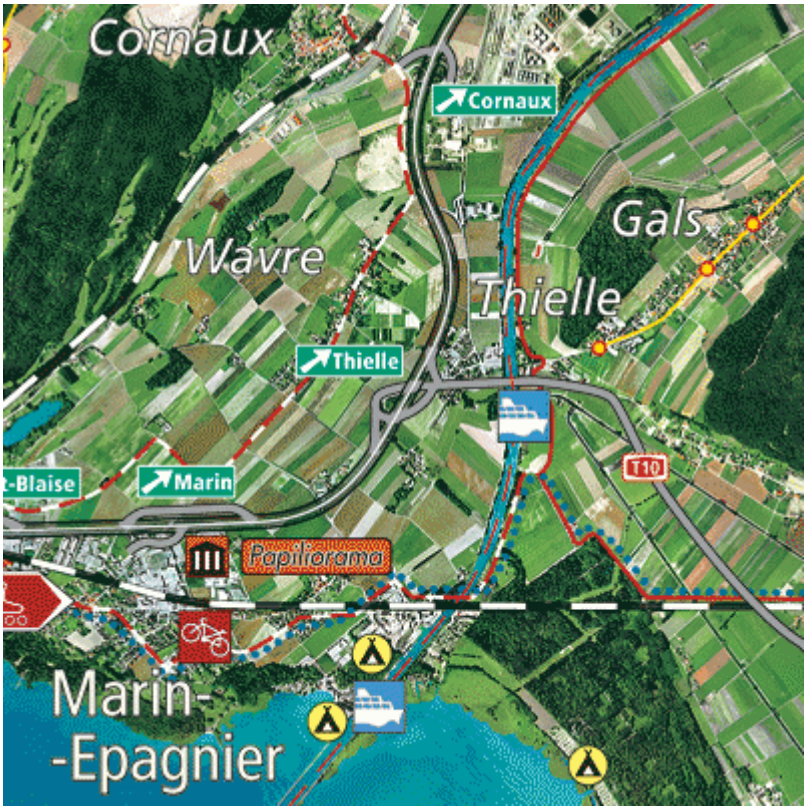
NATIONAL REPORT

Endoxon AG



Endoxon AG
Schlössli Schönegg
Wilhelmshöhe
6003 Luzern
Switzerland
Tel +41 41 249 23 23
Fax +41 41 249 23 24
info@endoxon.com
www.endoxon.com

Founded: 1988
Employees: 50

Fields of activity:
geo-solutions for print, multimedia, internet and mobile applications

Title:	Expo.02 Land of Three Lakes / Drei-Seen-Land (section)
Scale:	1: 75 000
Year of publication:	2002
Publisher / Author::	Endoxon AG (licensed by Expo.02)
Contents:	Aerial image with touristic information, city maps including Arte-plages Biel, Murten, Neuchâtel and Yverdon-les-Bains (88 x 66 cm).

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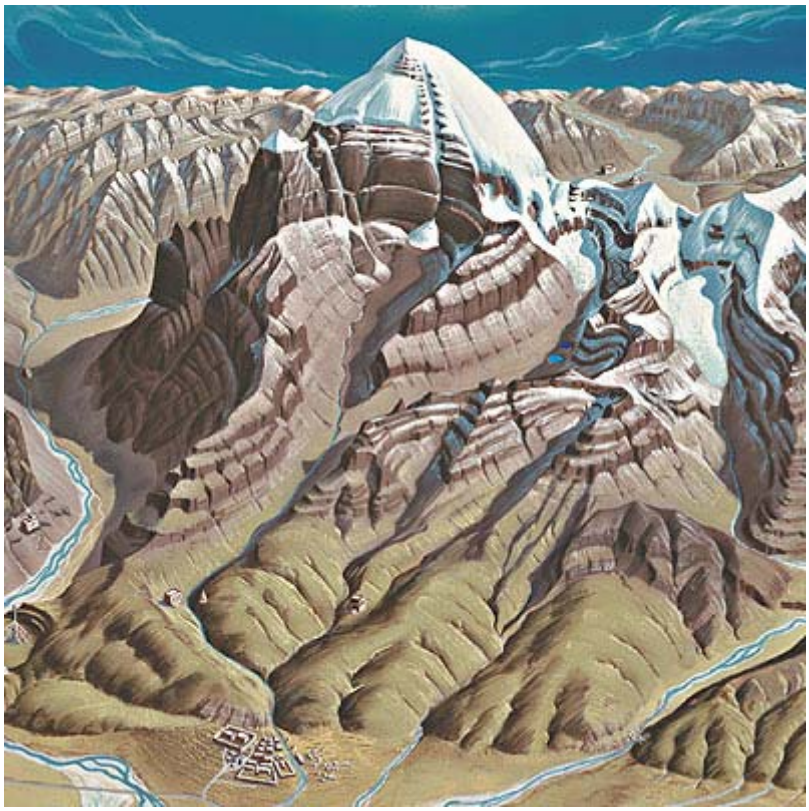
Gecko Maps



Gecko Maps
Neuwiesenweg 1
CH-8132 Hinteregg
Tel.: +41 1 980 61 21
Fax: +41 1 980 61 22
info@geckomaps.com
www.geckomaps.com
www.rohweder.com

Founded: 1992
Employees: 2, collaborators and experts on all continents.

Fields of activity:
panoramic maps, road maps, tourist maps, trekking maps, hiking maps, bike maps, climbing maps, city maps, relief (hill) shading, rock drawing, aerial maps, satellite maps, maps for travel catalogues

Title:	Kailash, Tibet (section)
Year of publication:	2002
Publisher:	Gecko Maps
Cartographic design:	Arne Rohweder
Contents:	Handpainted panoramic map
Cartographic methods:	Brush und airbrush in guache on drawing cardboard, text, trails and signatures with Macromedia Freehand
Reproduction method:	Reproduction of the original painting with digital camera Print: CTP, 5 colours

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Geo-Atelier

GEO-ATELIER
Lätti 441
CH-3053 Münchenbuchsee
Tel.: +41 31 869 25 25
Fax: +41 31 869 53 25
info@geo-atelier.ch
www.geo-atelier.ch

Founded: 1977
Employees: 2

Fields of activity:
- City maps
- Plans of sites
- Thematic maps

Title:	Stadtplan Luzern (section)
Scale:	1:3 500
Year of publication:	1999
Publisher:	Geo-Atelier
Cartographic methods:	Mac FreeHand
Reproduction method:	7 colour offset printing

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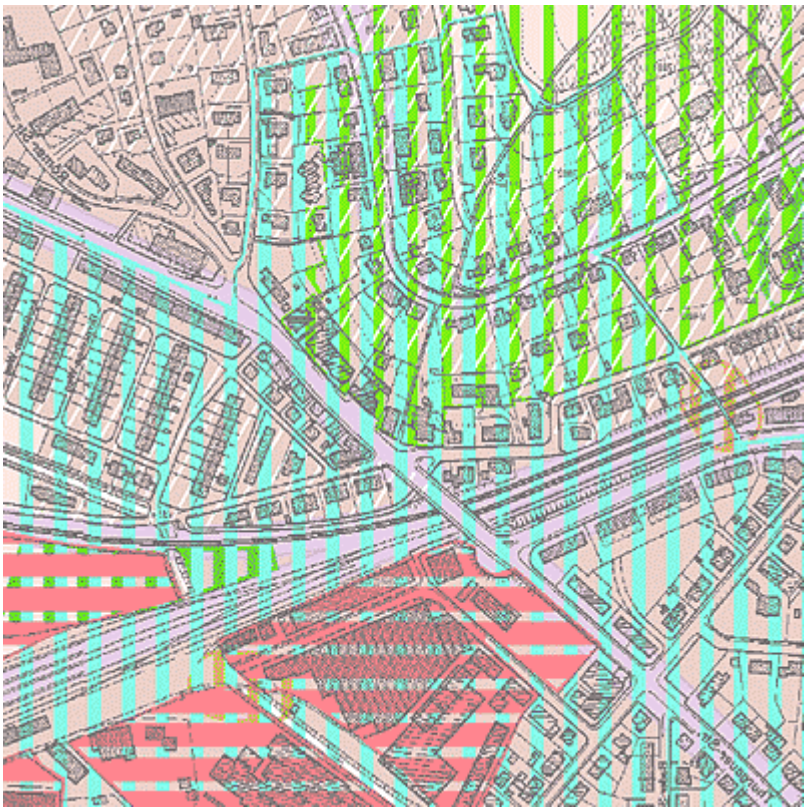
NATIONAL REPORT

Geoconcept



Geoconcept
Dammstrasse 54
CH-8037 Zürich
Tel.: +41 1 440 77 33
Fax: +41 1 440 77 47
info@geoconcept.ch
www.geoconcept.ch

Founded: 1999
Employees 1 (+ externals)

Fields of activity:
- Digital Cartography
- GIS-Consulting
- GIS-Training
- Support in the use of GIS
- Data capturing

Title:	Areas of examination for soil movements, Canton of Zurich (For data protection reasons areas in the sample are fictitious.)
Scale:	1:5 000
Year of publication:	2003
Publisher:	Department of Public Economy, Canton of Zurich
Cartographic design:	Geoconcept
Contents:	Areas of examination for soil movements as per the inventory establishec by the authorities of the Canton of Zurich (The areas have partly multiple overlappings due to current and historic land usage or exposure.)
Cartographic methods:	Cartographic concept with ESRI ArcView 3, Plotting with ESRI ArcPlot (ArcInfo)
Reproduction method:	Plot

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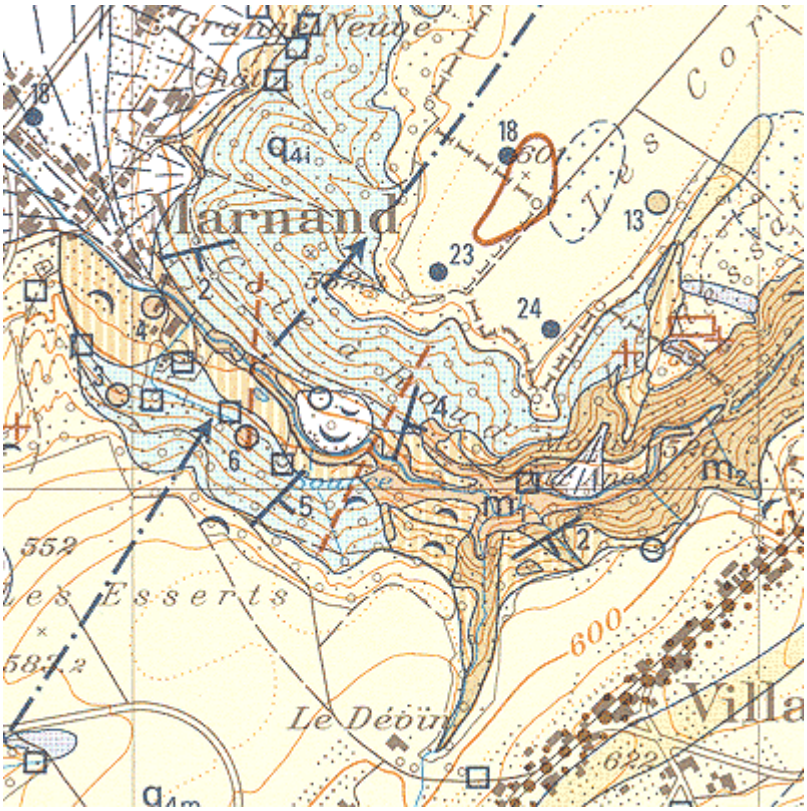
Geomap AG



Geomap AG
Zelgstrasse 71
CH-3661 Uetendorf
Tel.: +41 33 345 70 78
Fax: +41 33 345 70 77
info@geomap.ch
www.geomap.ch
www.stadt-info.ch
www.landkarten.ch

Founded: 1994
Employees: 2 (in the area of cartography)

Fields of activity:
digital cartography, special geological maps, RASCON-software sales and training, panorama maps / panorama photos, web design

Title:	Geological Atlas of Switzerland , sheet Romont (section)
Scale:	1:25 000
Year of publication:	1995
Publisher:	Swiss National Hydrological and Geological Survey
Author:	Swiss Geological Commission
Cartographic design:	Geomap Ltd., Uetendorf
Contents:	Base map: National Map of Switzerland (line features) Thematic overprint: geological details based on field interpretation Mapped area: 70 x 48 cm
Cartographic methods:	RASCON, digital production
Reproduction method:	Offset printing in 16 colours

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Hallwag Kümmerly+Frey AG

Hallwag Kümmerly+Frey AG
Verlag für Kartografie
Grubenstrasse 109
CH-3322 Schönbühl
Tel.: +41 31 850 31 31
Fax: +41 31 850 31 00
info@swisstravelcenter.ch
www.swisstravelcenter.ch

Founded: 2002 (formed from a merger between Hallwag AG and Kümmerly+Frey AG)
Employees: 40

Fields of activity:
road maps, regional maps, city maps, guides and atlases, continental maps, world maps, panoramic maps, universe maps, posters, thematic maps, plastic relief, hiking guides, holiday maps, excursion maps, bicycle maps

Title:	Switzerland Road Map 2003 (section)
Scale:	1:301 000
Year of publication:	2003
Publisher / Author:	Hallwag Kümmerly+Frey AG
Cartographic design:	Hallwag Kümmerly+Frey AG
Contents:	Base map; 126 x 99.6 cm 13 transitplans; tourist information, motorway service areas, distance table, placename index etc.
Cartographic methods:	Backend; MapServer Version 4.2.1.40 of Morelli Informatik with Oracle 8i Spatial Database, Frontend; Rascon PC cartographic software version 3.56
Reproduction method:	4 colour offset printing (CYMK)

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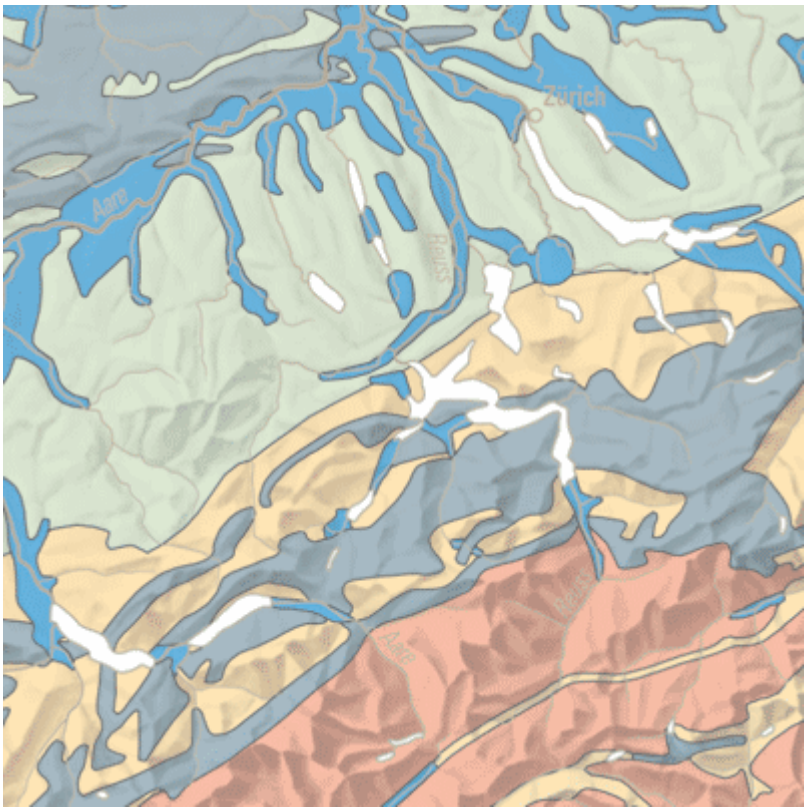
NATIONAL REPORT

Hydrological Atlas of Switzerland



Title:	General map of Hydrogeology, from: Hydrological Atlas of Switzerland, Plate 7.5 (section)
Scale:	1:2,2 Mio
Year of publication:	2001
Publisher:	Swiss Federal Office for Water and Geology
Author:	A. Pochon, S. Dupasquier, A. Parriaux
Cartographic design:	Institute of Geography of Berne University – Hydrology, A. Hermann
Contents:	The map describes the main aquifer types of Switzerland
Cartographic methods:	CorelDraw
Reproduction method:	8 colour offset printing Federal Office of Topography

Hydrological Atlas of Switzerland
Institute of Geography of Berne University
Hallerstrasse 12
CH-3012 Bern
Tel.: +41 31 631 80 15
Fax: +41 31 631 85 11
hades@giub.unibe.ch
www.hydrant.unibe.ch/hades/hadeshome.htm

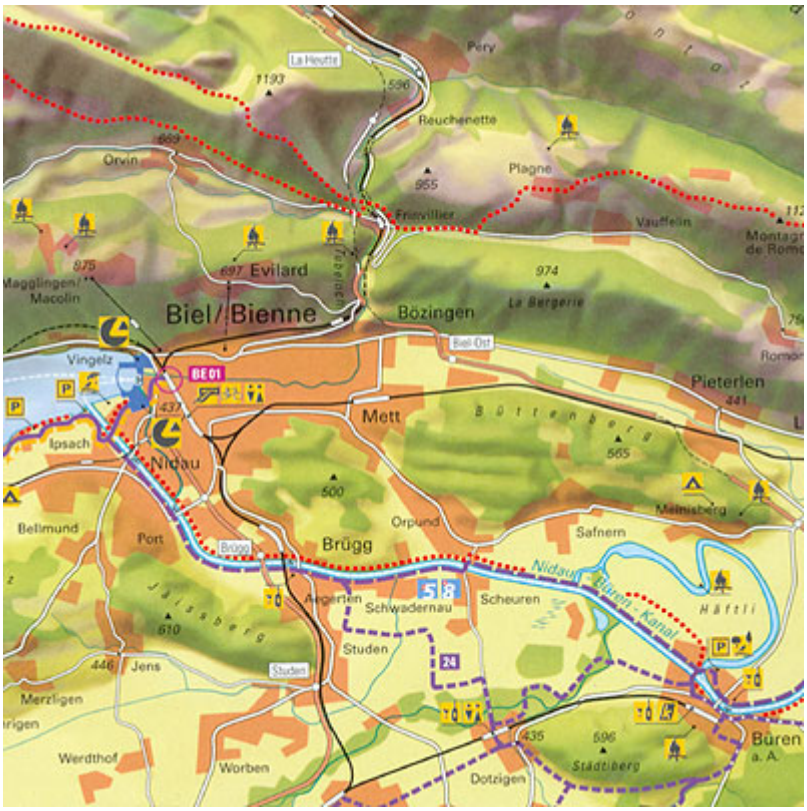
First publication: 1992
Members of staff: 4 (project lead, job percentage 300)

Fields of activity:
the «Hydrological Atlas of Switzerland» combines and represents current knowledge on water resources which has been gathered by general surveys of the whole country. The hydrological knowledge acquired in Switzerland over many decades of measuring activity, analysis and research is thus made available not only to specialists and research scientists but also to a wider public. The sequence of maps follows the topics of the water cycle and covers the chapters Fundamental Maps, Precipitation, Snow and Glaciers, Evaporation, Rivers and Lakes, Water Balance, Material Balance, Soil- and Groundwater. At present the Atlas comprises six publication sets and contains a total of 44 plates. Additional plates are scheduled.

SCHWEIZERISCHE GESELLSCHAFT FÜR KARTOGRAPHIE
SOCIÉTÉ SUISSE DE CARTOGRAPHIE
SWISS SOCIETY OF CARTOGRAPHY

NATIONAL REPORT

Institute of Cartography



Institute of Cartography
ETH Hoenggerberg
CH-8093 Zurich
Tel.: +41 1 633 30 33
Fax: +41 1 633 11 53
www.karto.ethz.ch
sekarto@karto.baug.ethz.ch

Founded: 1925
Employees: 28

Fields of activity:
research and teaching:
- Theoretical aspects of various methods of graphic representation are studied and developed in the field of topographic and more specifically of thematic maps
- Development of interactive CD-ROM or web-based multimedia map information systems

Title:	Drei-Seen-Land (section)
Scale:	1:100 000
Year of publication:	2002
Publisher / Author:	Wäger & Partner GmbH
Cartographic design:	Wäger & Partner GmbH; Institute of Cartography, ETH Zürich
Contents:	Topographic map with shaded relief; Human Power Mobility Map
Cartographic methods:	Hill-shading with software by Institute of Cartography, Photoshop, FreeHand
Reproduction method:	4 colour offset printing (CMYK)

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NATIONAL REPORT

Intergraph (Schweiz) AG

Intergraph (Schweiz) AG
Neumattstrasse 24
8953 Dietikon 1, Switzerland
Tel.: +41 43 322 46 46
Fax: +41 43 322 46 10
info-ch@ingr.com
www.intergraph.ch

Founded: 1985 (CH)
1969 (USA)
Employees: 20

Fields of activity:
software for cartography (DCS, Map-Publisher) and GIS (GeoMedia / Professional, GeoMedia WebMap / Professional)

Title:	Intranet Portal city of Horgen Switzerland
Scale:	1:25 000
Year of publication:	2003
Publisher:	Public Works Departement City of Horgen
Cartographic design:	Intergraph (Schweiz) AG
Contents:	Map: parcels, buildings Report: Online query with information about the owner of the parcel
Cartographic methods:	Intergraph's GeoMedia WebMap 5.1

NATIONAL REPORT

Kartografie Frank Weber

Kartografie Frank Weber
chemin des Blés d'Or 48
CH-1796 Courgevaux / Murten
Tel.: +41 26 670 17 71
weberkarten@smile.ch

Founded: 1965
Employees: 1

Fields of activity:
- General cadastral plans
- Town maps
- Thematic maps
- Publicity

Title:	City map Murten, section (for Expo.02)
Scale:	env. 1:6 500
Year of publication:	2002
Publisher:	Wasser- und Energiewirtschaftsamt des Kantons Bern (WEA)
Author:	Cartography Frank Weber
Cartographic design:	Cartography Frank Weber
Cartographic methods:	Macintosh, Freehand
Reproduction method:	4 colour offset printing (CYMK)

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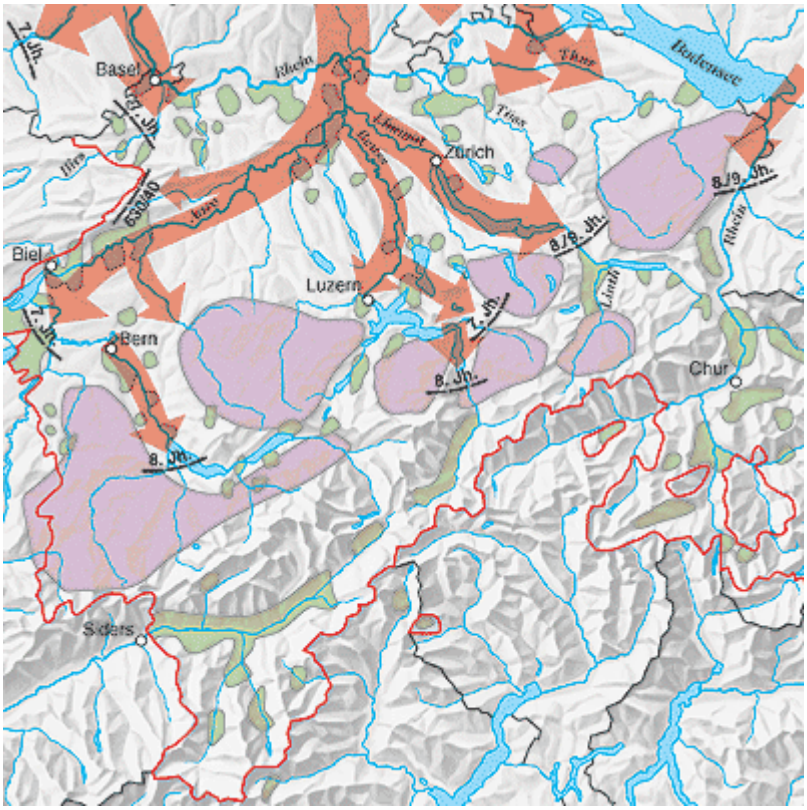
NATIONAL REPORT

Kohli Kartografie



Kohli Kartografie
Zähringerstrasse 66
CH-3012 Bern
Tel.: +41 31 301 50 56
Fax: +41 31 302 00 96
info@kohlikarto.ch
www.kohlikarto.ch

Founded: 1978
Employees: 2

Fields of activity:
- City maps
- Road maps
- General maps
- Thematic maps
- Street- and site maps (for Internet)

Title:	Historisches Lexikon der Schweiz, Karte Sprachgrenzstücke zum Artikel "Deutsch" (section)
Scale:	env. 1:2 Mio
Year of publication:	2002
Publisher:	Stiftung Historisches Lexikon der Schweiz (HLS) und Schwabe & Co. AG Verlag
Author:	Marco Jorio (editorship)
Cartographic design:	Kohli Kartografie, Bern
Contents:	Erste deutsch-romanische Sprachgrenzstücke im frühen Mittelalter
Cartographic methods:	FreeHand, Photoshop, Macintosh
Reproduction method:	4 colour offset printing

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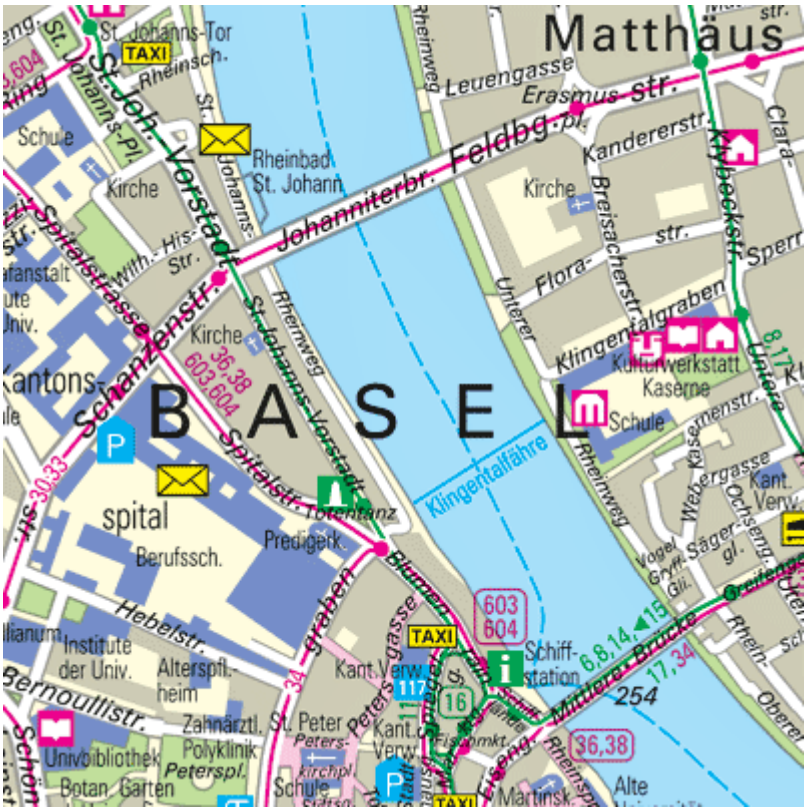
NATIONAL REPORT

Orell Füssli Kartographie AG



Orell Füssli Kartographie AG
Dietzingerstrasse 3
CH-8036 Zürich
Switzerland
Tel.: +41 1 451 20 40
Fax: +41 1 451 20 45
info@orellkarto.ch
www.orellkarto.ch

Founded: 1993
(Management Buyout)
Staff: 10

Fields of activity:
- Town maps, atlas maps, school maps, road maps and other thematic maps
- GIS-services
- scanning and filmrecording services
- consulting and training

Title:	City map Basel (section)
Scale:	1:15 000
Year of publication:	2002
Publisher:	Photoglob AG, Zürich
Author:	Orell Füssli Kartographie AG, Zürich
Cartographic design:	Orell Füssli Kartographie AG, Zürich
Contents:	Typical generalized city map with street network, public transportation, points of interest and street index
Cartographic methods:	Intergraph
Reproduction method:	4 colour offset printing (CMYK)

NATIONAL REPORT

Schad+Frey AG

Schad+Frey AG
Solothurnstrasse 17
Postfach
3422 Kirchberg
Tel.: +41 34 447 49 49
Fax: +41 34 447 49 47
info@sf-ag.ch
www.sf-ag.ch

Founded: 1964
Employees: 2

Fields of activity:
- Road maps
- Hiking maps
- Panorama maps
- Locality maps
- Nautical maps of Swiss lakes
- Updating of cadastral overview maps
- Maps of Europe and the World

Title:	Strassen- und Touristenkarte Schweiz (section)
Scale:	1:300 003
Publisher:	Schad+Frey AG
Cartographic methods:	Rascon 3.53
Reproduction method:	4 colour offset printing

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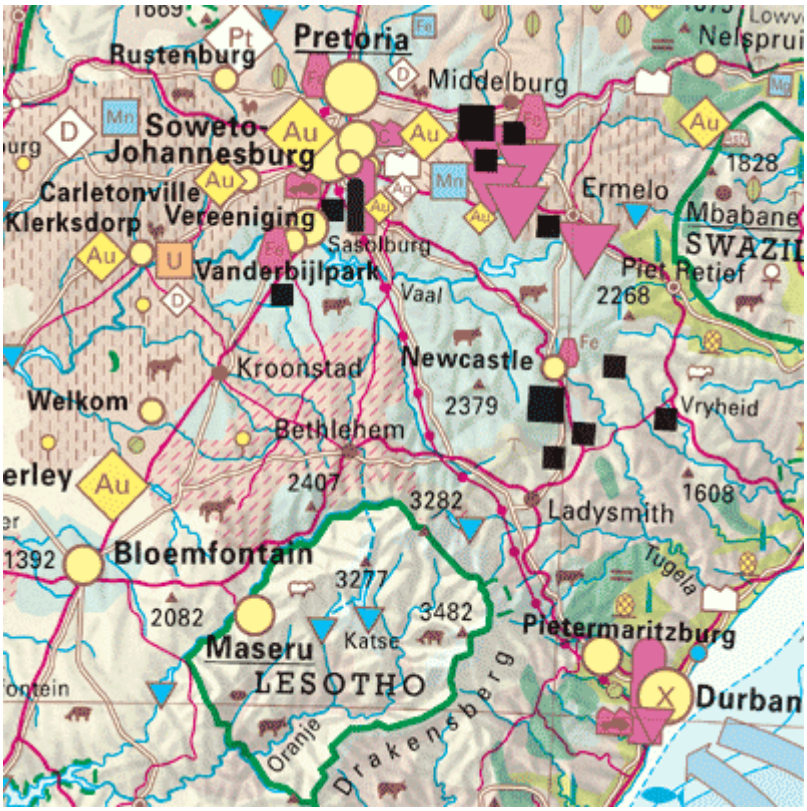
NATIONAL REPORT

Swiss Conference of Cantonal Ministers of Education



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espiess@cybercity.ch
www.lehrmittelverlag.com/deutsch/pages/LE_SW.htm

Various editions since 1898
Editor, various external collaborators

Fields of activity:
editing of the Swiss School Atlases

Title:	Atlas Mondial Suisse; Afrique du Sud (section)
Scale:	1:10 Mio
Year of publication:	2002
Publisher:	Swiss Conference of Cantonal Ministers of Education
Author:	Prof. Dr. h.c. Ernst Spiess
Cartographic design:	Wäger & Partner, Frauenfeld
Contents:	Base map: hydrography, hill-shading by Regula Spiess Thematic overprint: land use, industry, services and transport
Cartographic methods:	Freehand original, rasterization on Intergraph system
Reproduction method:	Offset printing in 6 colours

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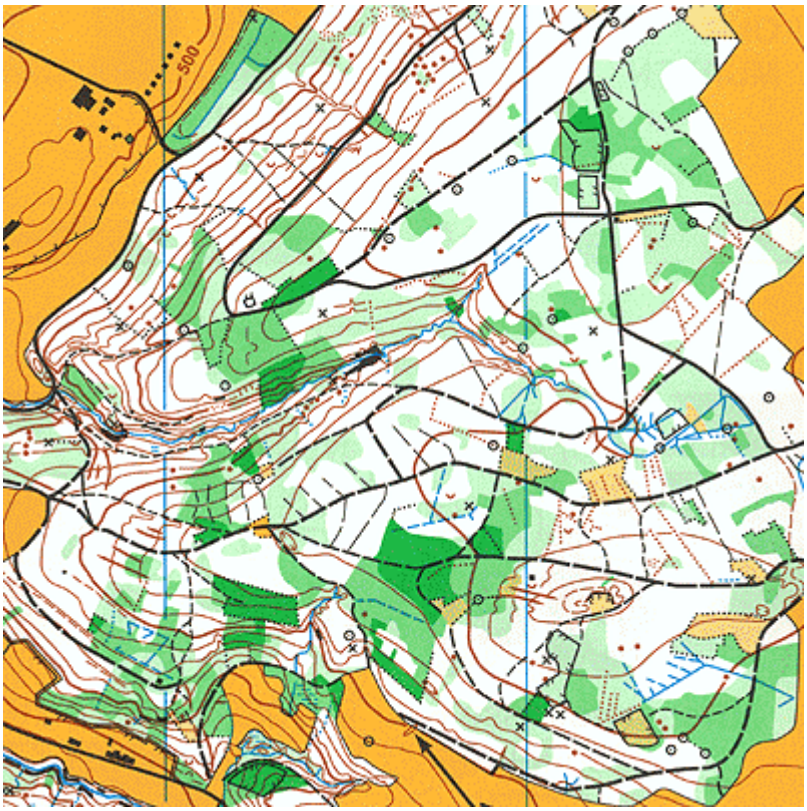
NATIONAL REPORT

Steinegger Software



Steinegger Software
Oberneuhofstrasse 5
CH-6340 Baar
Tel.: +41 41 763 18 60
Fax: +41 41 763 18 64
info@ocad.com
www.ocad.com

Founded: 1992
Employees: 1

Fields of activity:
development of the cartographic drawing program OCAD

Title:	Chandossel (map for orienteering competitions)
Scale:	1:10 000
Year of publication:	1999
Publisher:	Orienteering Club Murten
Author:	Christian Studer, Murten
Cartographic design:	Christian Studer, Murten
Contents:	Symbols: International standards for orienteering maps: equidistance 5m open terrain: yellow, wooded area: white, thickets: green
Cartographic methods:	CAD-software OCAD 7
Reproduction method:	5 colour offset printing

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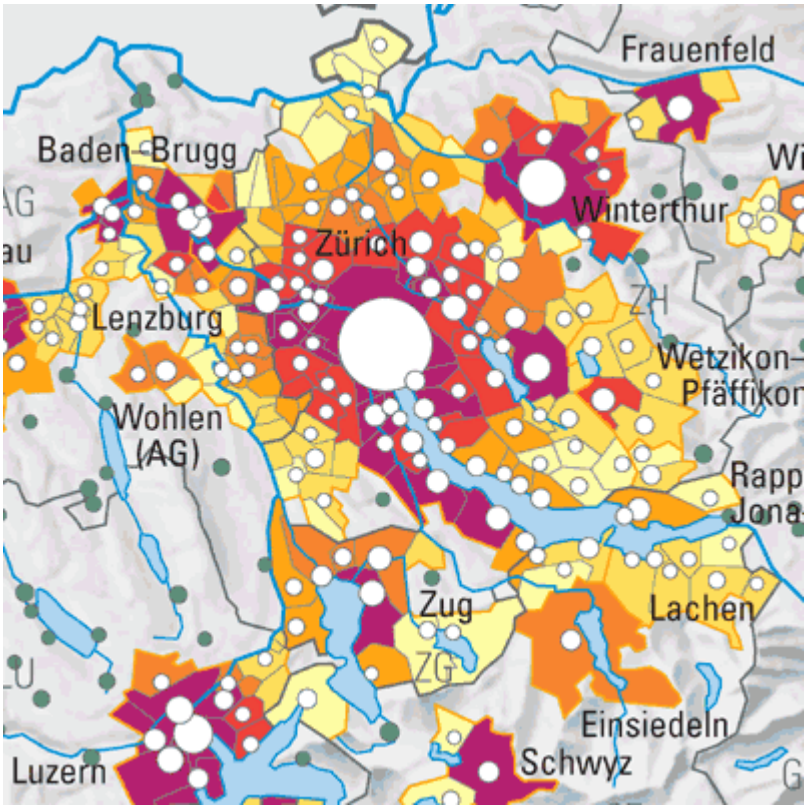
NATIONAL REPORT

Swiss Federal Statistical Office



Swiss Federal Statistical Offic
Espace de l'Europe 10
CH-2010 Neuchâtel
Tel.: +41 32 713 60 11
Fax: +41 32 713 60 12
info@bfs.admin.ch
themakart@bfs.admin.ch
www.statistik.admin.ch

Founded: 1860
Employees: 600 in total, cartography: 4

Fields of activity:
Thematic maps on a wide range topics covering all fields of the official public statistics for print and electronic distribution, all administrative geographical leve and special analytical regions for Switzerland are covered, as well as major regions for Europe

Title:	Urban and rural communes with more than 2500 inhabitants
Scale:	1:1,4 Mio
Year of publication:	2003
Publisher/Author:	Swiss Federal Statistical Office
Cartographic design:	Swiss Federal Statistical Office
Contents:	Choropleth map with proportional symbols superimposed, thematic base map (rivers, lakes, boundaries), shaded relief (Federal Office of Topography)
Cartographic methods:	Digital production: principal thematic map with CarThema, finishing with FreeHand
Reproduction method:	4 colour offset printing (CMYK)

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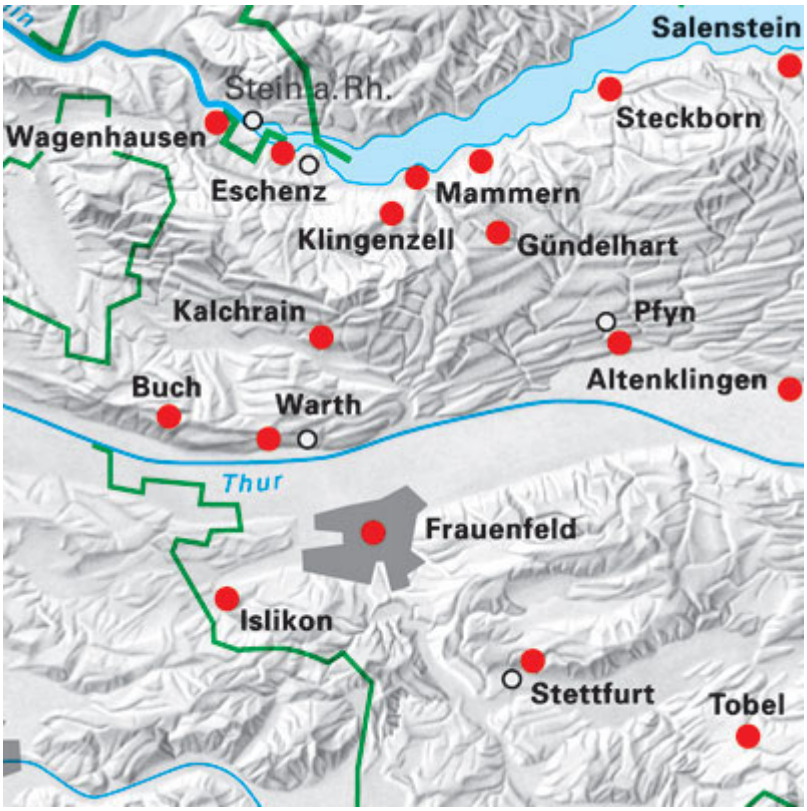
NATIONAL REPORT

Wäger & Partner GmbH



Wäger & Partner GmbH
Rheinstrasse 1
Postfach
8501 Frauenfeld
Tel.: +41 52 722 27 90
Fax: +41 52 722 27 91
info@waegerpartner.ch
www.swiss-skate-map.ch

Founded: 1990
Employees: 7

Fields of activity:
- Swiss skate maps
- Hike- and bikemaps
- Village- and citymaps
- Hill-shading originals
- Atlases
- Traffic signalisation

Title:	Reliefkarte Ostschweiz (section)
Scale:	1:80 000
Year of publication:	2003
Publisher:	Huber Verlag, Frauenfeld
Author:	Regula Spiess
Cartographic design:	Wäger & Partner GmbH
Contents:	Kulturschätze im Thurgau
Cartographic methods:	Hill-shading drawing on bromide paper
Reproduction method:	Offset printing

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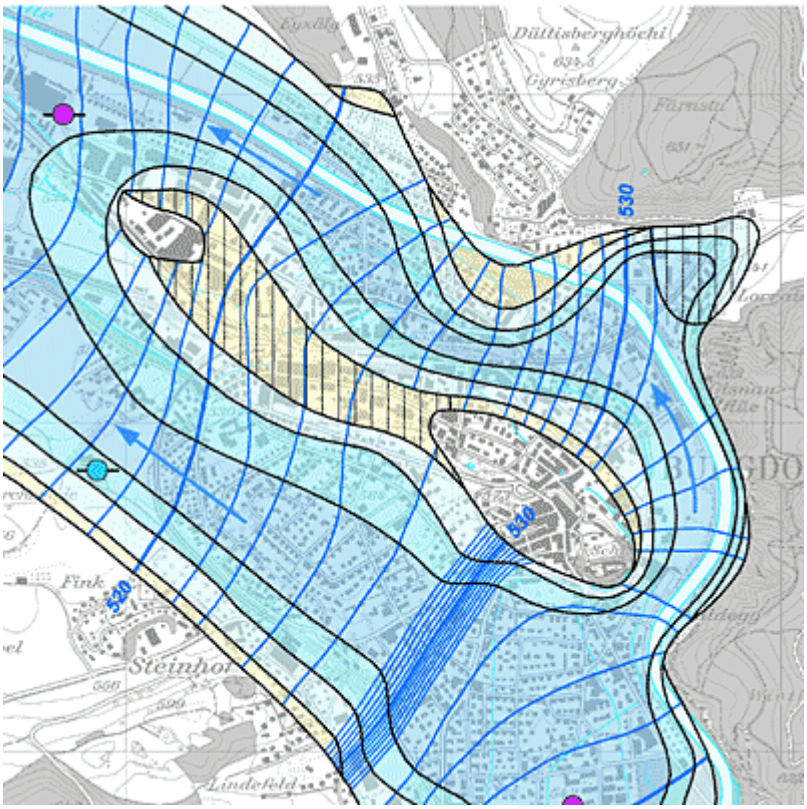
NATIONAL REPORT

Wasser- und Energiewirtschaftsamt des Kantons Bern



Wasser- und Energiewirtschaftsamt des Kantons Bern
Reiterstrasse 11
CH-3011 Bern
Tel.: +41 31 633 38 11
Fax: +41 31 633 38 50
info.wea@bve.be.ch
www.wea.bve.be.ch

Employees (cartography department): 1

Fields of activity:
base maps for planning (cantonal administration)

Title:	Digital map for ground water (canton of Berne)
Scale:	1:25 000
Year of publication:	2003
Publisher / Author:	Water and Energy Department, canton of Berne (WEA)
Cartographic design:	WEA, CH-Bern; Geotest7 AG, CH-Bern
Contents:	Total coverage of canton of Berne - Occurance of ground water - Ground water level - Flowing direction - Measure stations
Cartographic methods:	ArcGis
Reproduction method:	Digital (Intranet), Plot
Base map:	PK25 © swisstopo

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SWISS SOCIETY OF CARTOGRAPHY

NATIONAL REPORT

THE PAMIR ARCHIVE

Title:	Usoi-Dam / Lake Sarez (section)
Scale:	1:110 000
Year of publication:	2001
Publisher:	THE PAMIR ARCHIVE
Author:	Markus Hauser
Cartographic design:	Markus Hauser
Contents:	Topographical map with contour lines, hill-shading, trekking information
Reproduction method:	Offset printing in CMYK (4 colours)

THE PAMIR ARCHIVE
Markus Hauser
Gutstrasse 7
CH-8400 Winterthur
Tel.: +41 52 233 01 67
pamirmountains@yahoo.com
www.geocities.com/pamirmounta

It's a non-profit project with a passion for cartography and for travelling in the Pamir Mountains.

Fields of activity:
- Cartographic work of Pamir (Tajikistan)
- Managing an archive about Tajikistan / Pamir (books / maps)