

Map Collections and the Internet: Some Ideas about Various Online Map Services, Based on the ETH Map Collection in Zürich

by JÜRIG BÜHLER

MAP COLLECTIONS ON THE INTERNET – WHY?

The Internet enables a map collection to be easily available to the general public. There are three different categories of information that can be provided:

1. General information about the map collection (e.g. opening hours, terms and conditions, user support, workspaces)
2. Search tools for maps, such as the library OPAC, index sheets for map series, map catalogues on the Internet
3. Access to in-house and external digital products such as a digital map archive, thematic virtual map libraries, links to gazetteers, links to maps, bibliographies, courses and tutorials.

The Internet allows worldwide usage of map libraries. It is well suited for public relations and therefore important for today's map libraries.

How can we develop and maintain a Web site? Usually there is no Webmaster available for map librarians. We have to do the work ourselves, including:

- Creating a Web site
- Finding useful links and integrating them in the Web site
- Digitizing our holdings for a digital archive or a thematic index

The map librarians have to learn how to create web sites using HTML. They have to learn how to navigate efficiently on the Web to find useful links for their own Web site. In addition, it is helpful to be creative using graphics in

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developing Web sites. This means more work and additional training and education.

On the other hand, we can profit from the work of our colleagues, for example by copying their index sheets or lists, selecting links from their Web sites or by consulting them. Communication between colleagues is helpful in developing and maintaining a useful Web site. The ETH-Bibliothek map site can illustrate some of the possible map services on the Internet.

HOW TO FIND THE HOMEPAGE OF THE MAP COLLECTION

The site can be located by:

- Entering the exact Internet address
- Going to the homepage of the library and selecting „maps“ or „map collection“
- Searching on Internet map machines for the „Map Collection“ or going to addresses like Oddens' Bookmarks¹ or The World of Maps².

THE HOMEPAGE OF THE MAP COLLECTION³

The homepage introduces the services and the collections.

Map Collection

Special collection of modern topographical and thematic maps

[Address](#)
[Hours: Mon-Fri 10-18h](#)
[Head, staff, competence](#)
[Projects](#)



Offers

Information	Subject Coverage and Holdings	Use of the Collection	Use of the Map catalogs	Projects - Archive	Internet addresses
Search	OPAC NERIS 40000 map records	Index sheets of map series	CD-ROM and GIS	GIS data Switzerland	Map search on the Internet
Digital products	Digital Map Archive	Gazetteers	Virtual Library: Eduard Imhof	Literature: Maps and Map Librarianship	Online Tutorials

The services and collections can be divided into three levels:

1. Information
2. Search tools
3. Electronic products

Level 1: Information

Information	Subject Coverage and Holdings	Use of the Collection	Use of the Map catalogs	Projects - Archive	Internet addresses
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a) Information about the Map Collection and how to Use it:

This lists available maps, people to contact, address, opening hours, terms and conditions, available workspace.

Subject Coverage and Holdings

- **Maps (300 000 documents)**
Modern thematic and topographical maps of all countries
- **Atlases (2500 documents)**
National atlases, world atlases, old atlases, thematic atlases
- **Books (1000 documents)**
Cartography and the history of mapping, map bibliographies, gazetteers
- **Electronic Maps**
Digital maps on CD-ROM and on networks (Internet).

Use of the Collection

We provide a **map reading room** with work tables, light tables and an **open access library** of approx. 4000 books and atlases shelved by topics.
2 PC stations are available for searching **digital (electronic) maps** on CD-ROM and on the Internet.
For fear of damage or loss our **cartographic materials** (mostly rare editions) are **non-circulating**. Possibility of **photocopying**: black and white (up to A2 format) and color (up to A3 format).

A link takes you to examples of digital maps covering our subject area.⁴

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b) *How to Use the Catalogue*⁵

The catalog help offers the following facilities:

- Access to the WebOPAC
- Search strategies
- Subject search
- Free text search
- Browse search
- Order number search

Level 2: Online Catalog and Search Tools

Search	OPAC NEBIS 40000 map records	Index sheets of map series	CD-ROM and GIS	GIS data Switzerland	Map search on the Internet
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Maps can be searched in:

- a) Library online catalog (NEBIS-WebOPAC),
- b) an index sheet of the map series,
- c) CD-ROM and GIS data holding lists
- d) Internet search tool such as the World of Maps.

a) *Online Catalog NEBIS (Network of Libraries)*⁶

NEBIS	Reset Database Feedback Preferences Language Help																						
<p>Search Browse Results List View list Modify Filter Mail Save History Basket User</p>	<p>NEBIS - Full View of Record</p> <p>1 out of 129 Choose format: Standard Citation MARC tags</p> <p> <input type="button" value="Prev Page"/> <input type="button" value="Next Page"/> </p> <p> <input type="button" value="Print Page"/> Order: Click on <i>Holdings</i> to see items and to make a loan or photocopy request. Exception: Click on <i>Downlinks</i>, when present, to specify volume etc. Browse lists: Click on an underlined field name (in left column) to see a browse list. Similar items: Click on underlined term to see other, similar items. </p> <table border="1"> <tr><td><u>Title</u></td><td><u>København</u></td></tr> <tr><td>Kartendaten</td><td>(E 12°24'-E 12°38'/N 55°47'-N 55°37')</td></tr> <tr><td>Imprint</td><td>Braunschweig : Bollmann-Bildkarten-Verlag, [199.?)</td></tr> <tr><td>Descr.</td><td>1 Bild : mehrfarbig ; 50 x 64 cm</td></tr> <tr><td><u>Subject ETH</u></td><td><u>COPENHAGEN/CITY (DENMARK) : (489.11*KOEENHAVN)</u></td></tr> <tr><td><u>Subject ETH</u></td><td><u>CITY PLANS : 912%911.375.53</u></td></tr> <tr><td><u>Subject ETH</u></td><td><u>PICTORIAL MAPS + PANORAMIC MAPS : 912(084.3-22)</u></td></tr> <tr><td><u>Holdings</u></td><td><u>ETH-BIB (Zuerich)</u></td></tr> <tr><td>All Holdings</td><td>All items</td></tr> <tr><td>Location</td><td>ETH-BIB (Zuerich) K 363010 TS Kartensammlung</td></tr> <tr><td>Sys. no</td><td>1918501</td></tr> </table>	<u>Title</u>	<u>København</u>	Kartendaten	(E 12°24'-E 12°38'/N 55°47'-N 55°37')	Imprint	Braunschweig : Bollmann-Bildkarten-Verlag, [199.?)	Descr.	1 Bild : mehrfarbig ; 50 x 64 cm	<u>Subject ETH</u>	<u>COPENHAGEN/CITY (DENMARK) : (489.11*KOEENHAVN)</u>	<u>Subject ETH</u>	<u>CITY PLANS : 912%911.375.53</u>	<u>Subject ETH</u>	<u>PICTORIAL MAPS + PANORAMIC MAPS : 912(084.3-22)</u>	<u>Holdings</u>	<u>ETH-BIB (Zuerich)</u>	All Holdings	All items	Location	ETH-BIB (Zuerich) K 363010 TS Kartensammlung	Sys. no	1918501
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NEBIS comprises over 60 libraries. It contains holdings of the map series and atlases as well as the monographs in the ETH map collection. In NEBIS there are 40,000 records representing 300,000 maps.

b) The Indexes of Map Series⁷

Sheets of the map series are not recorded in NEBIS-WebOPAC. To find specific map sheets you have to go to the index of a map series. Once a map series is displayed, you can click on the index map to select the desired sheet number, and you can see a list of sheets with different editions. Wolfgang Crom (Berlin) presented this idea on a workshop in January 1999, which is easy to reproduce and also convenient for small map collections (see also Crom, 1999).

Landeskarte der Schweiz 1:100 000

Kartenbestände (Liste der Kartenblätter)

Blattübersicht

	26 Basel	27 Bözberg	28 Bodensee	28 bis Lindau
30 Besançon	31 Biel/Bienne	32 Beromünster	33 Toggenburg	34 Vorarlberg
35 Vallorbe	36 Saane · Sarine	37 Brünigpass	38 Panixerpass	39 Flüelapass
40 Le Léman	41 Col du Pillon	42 Oberwallis	43 Sopra Ceneri	44 Passo del Maloja
45 Haute-Savoie	46 Val de Bagnes	47 Monte Rosa	48 Sotto Ceneri	

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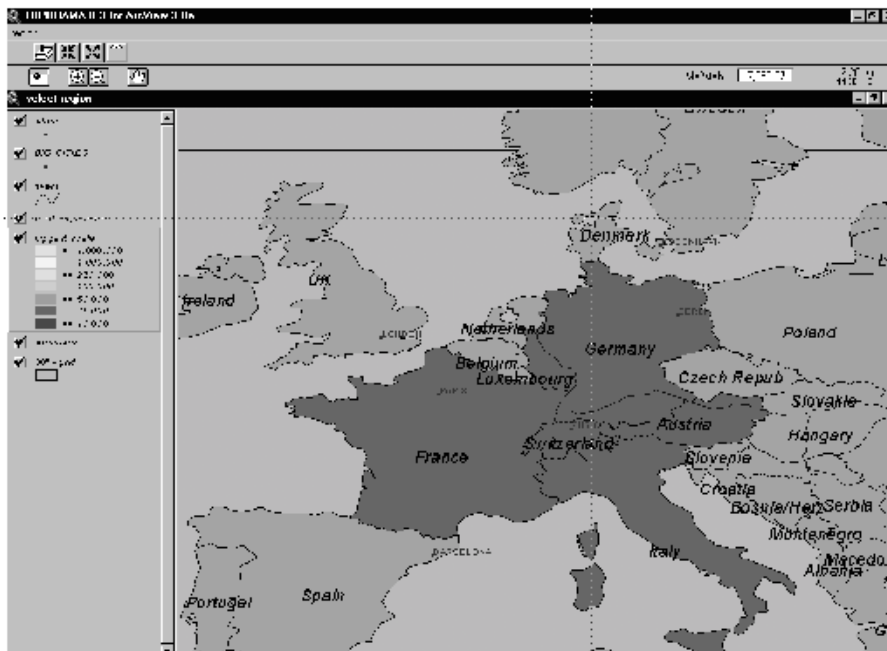
Landeskarte der Schweiz 1:100 000

Verzeichnis der Kartenblätter (je plano und gefaltet)
Legende: * = nur plano, * = nur gefaltet vorhanden, () = nicht vorhanden

Zurück zum Indexblatt

26 Basel: 1994/97, 1988/94, 1982/85, 1980, 1970, 1963, 1958
27 Bozberg: 1984/98, 1988/93, 1982/87, 1976, 1970, 1959
28 Bodensee: 1990, 1984/88, 1978, 1973, 1966, 1962*
28bis Lindau: 1990, 1984/87, 1978, 1972, 1967, 1963
30 Besançon: 1990/95, 1980, 1974, 1968, 1962
31 Biel/Bienne: 1994/97, 1987/91, 1982/85*, 1976, 1970, 1967, 1958
32 Beromünster: 1994/97, 1982/86, 1970, 1965, 1959
33 Tuggenburg: 1999, 1989/93, 1984/88*, 1978/82, 1973, 1967, 1962
34 Vorarlberg: 1989/1994, 1984/87, 1978, 1971, 1964
35 Vallorbe: 1990/95, 1986/89, 1980, 1974, 1968, 1962
36 Saane/Sarine: 1993/96, 1981, 1975, 1969, 1965, 1960
37 Brünigpass: 1993/97, 1987/91*, 1981, 1976, 1970, 1969, 1957
38 Panixerpass: 2000, 1990/94, 1985/89, 1979, 1973*, 1966, 1963, 1956
39 Fuellapass: 1991/95, 1985/88, 1979, 1973, 1966, 1962, 1957
40 Le Léman: 1992/96, 1986/90, 1980, 1974, 1968, 1965, 1959

For a map collection with large holdings of map series it is recommended to use the professional software product TOPORAMA. It is user-friendly and has the map serial control function. TOPORAMA works with the software ArcView and requires an Internet map server from ESRI.



TOPORAMA: An integrated, interactive search net for map sheets worldwide. By clicking on an area of the index the desired map sheet can be obtained.


c) CD-ROMs⁸

The Web site contains a list of over 100 CD-ROMs with digital maps, spatial data and GIS products. They can be viewed on three large screen workstations in the map library. Examples:

- Switzerland: Country map 1:100,000/50,000, Digital Atlas of Switzerland, GIS „Gewässer“
- Europe: Mountain High Map, Centennia Geschichtsatlas, European Union
- Germany: Topographical map 1:50,000 including all federal states, atlas BR
- Global: Digital Chart of the World, Encarta-Weltatlas, Climate diagrams, Terra Forma

d) *The World of Maps – Search for Maps and Mapping on the Internet*⁹

The World of Maps
Le Monde des Cartes
Die Welt der Karten



Digital maps and GIS on the Internet - and how to find them
 Links to Web or Telnet catalogues of map holdings, map collections and map archives,
 map curatorship and map history, map institutions, map events and many others

[Deutsch](#)
[Français](#)

Internet catalogue "Maps worldwide"		Internet catalogue "Maps of Switzerland"	
Geographic catalogue	Subject catalogue	Geographic catalogue	Subject catalogue

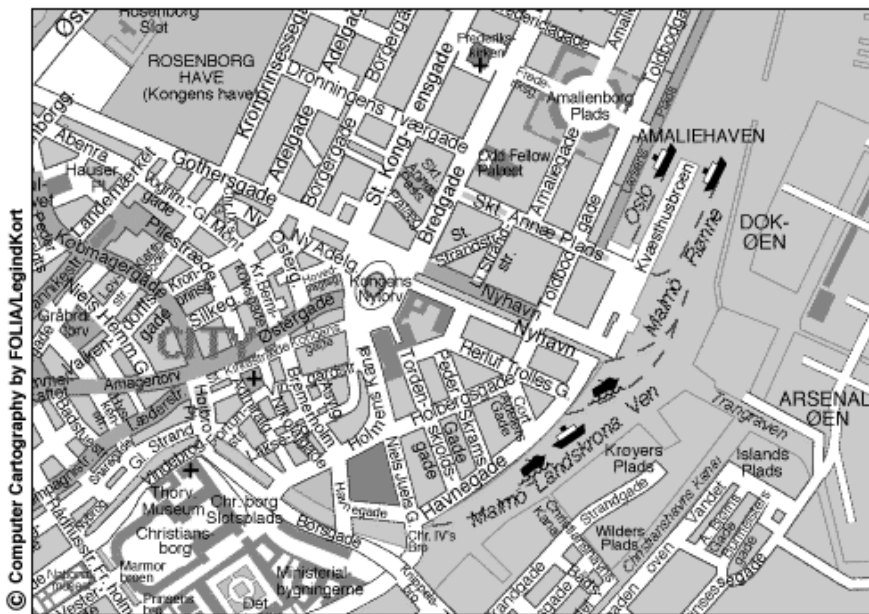
The World of Maps is an extensive link collection for maps, spatial data, map catalogues and cartographic information.

It contains a geographical and a thematic map catalogue with metadata and digital maps,

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Metadata: Worldwide WWW map catalogues

- [Oddens Bookmarks "The Fascinating World of Maps and Mapping"](#)
- [Odden's Bookmarks "The Fascinating World of Maps"](#)
- [Odden's Bookmarks: What's New in the last month](#)
- [Digital Map Catalogue \(Perry-Castaneda Library Map Collection, University of Texas\)](#)
- [World - Maps of all Countries \(PCL\)](#)
- [Alexandria Digital Library, World](#)
- [Geography Guide at the Mining Company](#)
- [Maps and References, University of Iowa](#)
- [Excite Maps](#)
- [BUBL link: Catalogue of internet ressources](#)
- [National Geographic Map Machine](#)
- [Map Quest!](#)
- [WorldAtlas.com](#)
- [Reliefweb Map Center: Recent events](#)
- [World - Links to Maps](#)
- [Active Maps World-Wide](#)
- [Map Library, Berkeley: Internet Resources in Maps and Cartography](#)
- [ArcDataOnLine Browser: GIS data in the Internet](#)
- [A World of Maps: Mail order of maps](#)



and numerous links to Web pages in cartography and map librarianship:

Search ways for maps on Internet	Map libraries and map archives worldwide	Map curatorship worldwide	Institutions, map research, map production	Cartography and map history	Actual
Inventories of maps, spatial data and GIS	Map libraries and map archives in Switzerland	Map curatorship Switzerland	Map events	Virtual Library Eduard Imhof	The Weather today Snow Switzerland 1/2

- Search tools for maps on the Internet (map catalogs, search engines, OPACs)
- Map libraries and map archives
- Map librarianship, international
- Map institutions, research, producers
- Map events
- Cartography and map history
- Virtual Library „Eduard Imhof: Cartographer and Artist“

Level 3: Online Products

Digital products

[Digital Map Archive](#)

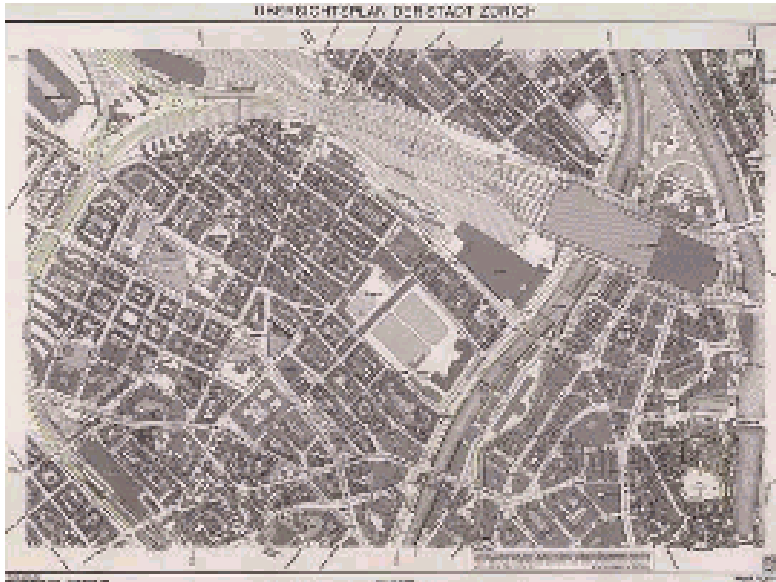
[Gazetteers](#)

[Virtual Library
Eduard Imhof](#)

[Literature: Maps
and Map Librarianship](#)

[Online Tutorials](#)

a) Digital Map Archive¹⁰



The digital map archive shows examples of the map holdings in digital form on the Internet.

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This was created to be a map catalogue with image information. By zooming you can see a larger scale of map displayed with more cartographic and bibliographic details.

Queen Maud Range ; Axel Heiberg glacier region. - 1:1 267 200 and 1:316 800. - [London] : Royal Geographical Society, 1963. - 2 Karten auf 1 Blatt ; 21 x 29 cm, 33 x 30 cm Bestell-Nr.: K 671 653



b) Registers of Local Places¹¹

Registers of local places on the Internet are useful and popular sources.

**Map Collection:
Gazetteers**



Gazetteers - worldwide

- [Global Gazetteer](#)
- [Getty Thesaurus of Geographic Names](#)
- [Interactive world atlas](#)
- [Expedia place finder](#)
- [Falk-Atlas \(New world edition\)](#)

Biobibliography of Gazetteers

- [Odden's Bookmarks "The Fascinating World of Maps and Mapping"](#) > Browse > Gazetteers

Regional Gazetteers



- [Grossbritannien: Ordnance Survey, Gazetteer of Place Names](#)
- [Grossbritannien: Interactive atlas of Great Britain \(Multi-Media Mapping\)](#)
- [Switzerland: Interactive map of Switzerland \(with gazetteer\)](#)
- [Switzerland: Placenames \(Switzerland\)](#)
- [Switzerland: Geographical names of the Swiss Federal Office of Topography \(database to buy\)](#)
- [USA: U.S. Gazetteer](#)


A „World Gazetteer“ is compiled from the index of Bartholomew Times Atlas, containing more than 100,000 names worldwide and searchable by name, country, co-ordinates, etc.

We plan to connect the World Gazetteer to TOPORAMA index sheets. From the index sheet it is easy to select a local place to get to the right map sheet.

c) *Map Bibliographies*¹²

The Web site was composed for the „Groupe des Cartothécaires de LIBER“ containing extensive multilingual bibliographies in map librarianship, map history and GIS/cartography, and important gateways for map curatorship.

		Ligue des Bibliothèques Européennes de Recherche Groupe des Cartothécaires de LIBER Working Group for Education : Littérature					
Literature	Program Activities	<small>NEW!</small> Who is who	Contact, Addresses	Tutorials and courses		LIBER Groupe des Cartothécaires	G&C Discussion Group

 [Home](#)

The Gateways to Literature and Tutorials for Education in Map Curatorship

- [Literature for Map Curatorship \(LIBER Groupe des Cartothécaires\)](#)
- [Tutorials and Courses for Map Curatorship \(LIBER Groupe des Cartothécaires\)](#)
- [The Fascinating World of Maps and Mapping \(Oddness Bookmarks\)](#) (Browse: IX Literature)
- [Map History / History of Cartography THE Gateway to the Subject with a literature list](#) (Tony Campbell)
 - [Who is who in map librarianship, Personal contacts](#) NEW!
 - [IFLA - Section of Geography and Map Libraries](#)
- [International Map Curatorship: Institutions, discussion groups, activities](#)


Literature for Education in Map Curatorship
- by Subject and Language

Map Curatorship	History of Cartography	GIS (Geographic Information Systems)	Cartography
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d) *Tutorials and Reference Sources*¹⁵

This is a collection of links to free educational programs and reference sources in cartography, GIS, geography and geo-sciences.

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	Ligue des Bibliothèques Européennes de Recherche Groupe des Cartothécaires de LIBER Working Group for Education : Tutorials and Courses						
Tutorials and courses	Literature	Program Activities	<small>NEW!</small> Who is Who.	Contact. Adresses		LIBER Groupe des Cartothécaires	GdC Discussion Group



GdC Campus: Tutorials and Courses

[Cartography](#) - [Digital Library](#) - [GIS](#) - [Geography](#) - [Geosciences](#) - [Internet](#)

See also: [Oddens Bookmarks](#): Browse - XI Miscellaneous - Subcat: Educational

A. Cartography

Metadata

- [The WWWVL Cartography Resources \(Jeremy W. Crampton's Web Pages\)](#) NEW!

General Cartography

- [3G on W3: The Great Globe Gallery \(Cartography\)](#)
- [Cartographic Communication](#)
- [Cartography \(Virtual Geography Department\)](#)

e) Who is Who in Map Librarianship¹⁴

„Who is Who in Map Librarianship“ contains useful information about map librarians and their special fields of knowledge, serving as a guide to find help for any particular problem on a personal level. A valuable tool, organized by country and subject in order to find the relevant person.

		Ligue des Bibliothèques Européennes de Recherche Groupe des Cartothécaires de LIBER - Working Group for Education "Who is who" Questionnaire by nation					
NEW Who is who.	Program Activities	Contact, Addresses	Literature	Tutorials and courses		LIBER Groupe des Cartothécaires	GdC Discussion Group



Who is Who in Map Librarianship (by nation / by subject)

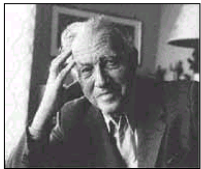
Questionnaire by nation

[Austria](#) - [Belgium](#) - [Croatia](#) - [Denmark](#) - [Estonia](#) - [Finland](#) - [France](#) - [Germany](#) - [Italy](#) - [Latvia](#) - [Luxembourg](#) - [Netherlands](#) - [Norway](#) - [Poland](#) - [Portugal](#) - [Russia](#) - [Spain](#) - [Sweden](#) - [Switzerland](#) - [United Kingdom](#) - [Questionnaire by subject](#)

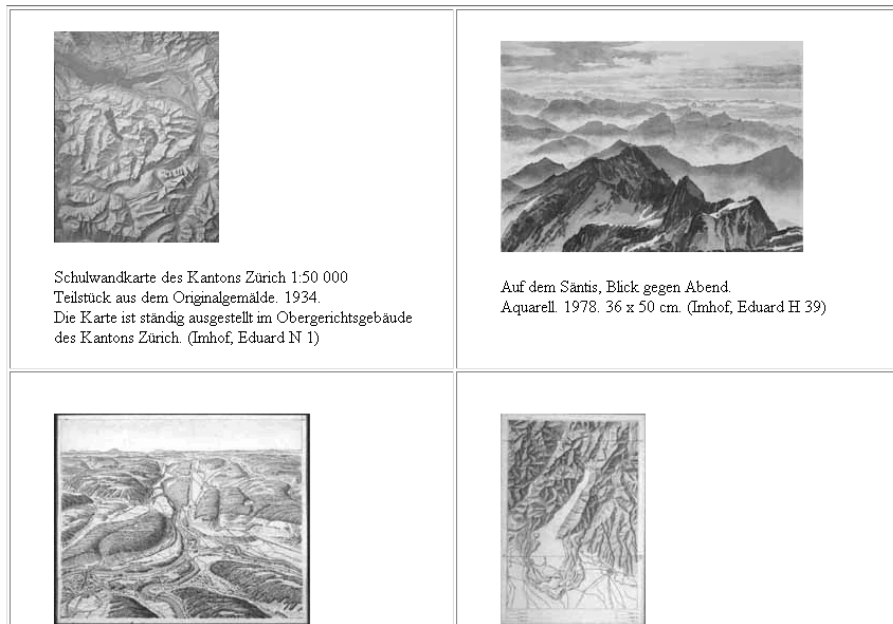
Austria:	
Cernajsek, Tillfried Geologische Bundesanstalt Postfach 127 A-1031 Wien Phone: +43 1 712 56 74 500	german, english knowledge in map curatorship in general acquisition aerial photographs cataloguing and formatting

f) Virtual Library Eduard Imhof – History of Cartography on Internet¹⁵

„Virtual Library Eduard Imhof“ is created from original documents of the famous cartographer. This virtual library, is an interesting product making our archival material accessible world-wide, containing over 50 web sites with close to 200 pictures divided in 11 chapters, a biographical section and a reference list of the original resource. This is a valuable Web site both for historians in cartography and the general public.

	<p>Eduard Imhof (1895-1986) war von 1925-1965 Professor für Kartographie an der Eidgenössischen Technischen Hochschule Zürich. Durch seine Schulkarten und Atlanten wurde er weit über die Hochschule hinaus bekannt. Im Jahre 1995 jährte sich sein Geburtstag zum 100. Male. Das war ein Anlass, durch Ausstellungen an ihn und sein Werk zu erinnern, unter anderem in Zürich, Bern, Bad Ragaz, Barcelona, Karlsruhe und Berlin. Die letzte Ausstellung in diesem Zusammenhang fand im Sommer 1997 in der Graphischen Sammlung der ETH statt. Dort konnten besonders viele der Karten und Bilder im Original gezeigt werden. Im Anschluss an diese Ausstellung wurden Imhofs Original-Werke der ETH-Bibliothek Zürich von der Familie als Legat übergeben. Frau Viola Imhof, die Witwe von Eduard Imhof, die seiner Arbeit sehr verbunden ist, hat die Erschliessung der Arbeiten durch ihre Mitarbeit unterstützt.</p>
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CONCLUSION

The Map Collection on Internet is an opportunity with many possibilities:

- Information about the collection
- Links to online library catalogs and GIS data
- Internet search tool for maps
- Worldwide local index
- Map index
- Digitizing in-house resources

It is a broad and demanding field and a challenge for our profession!

REFERENCES

Crom, W. A map collection on the Internet, *LIBER Quarterly* 9 (1999), pp. 222-227.

- 1 <<http://oddens.geog.uuu.nl/index.html>>
- 2 <<http://www.maps.ethz.ch>>
- 3 <<http://www.ethbib.ethz.ch/ks/karten.html>>
- 4 <<http://www.maps.ethz.ch/digarchiv.html>>
- 5 <<http://www.ethbib.ethz.ch/ks/kartenkatalog.html>>
- 6 <<http://opac.nebis.ch:4505/ALEPH/start/nebis-ger/new>>
- 7 <http://www.ethbib.ethz.ch/ks/karten-indexbl_e.html>
- 8 <http://www.ethbib.ethz.ch/ks/kart_cd_e.html>
- 9 <<http://www.maps.ethz.ch/maps3.html>>
- 10 <<http://www.maps.ethz.ch/digarchiv.html>>
- 11 <http://www.ethbib.ethz.ch/ks/kart_ortsreg.html>
- 12 <<http://www.maps.ethz.ch/gdc-education2.html>>
- 13 <<http://www.maps.ethz.ch/gdc-education4.html>>
- 14 <<http://www.maps.ethz.ch/gdc-education6.html>>
- 15 <http://www.maps.ethz.ch/imhof_engl.html>