International Cartographic Association
Commission on Education and Training

CARTOGRAPHIC RESOURCES
Volume 1

MAPPING SOCIETIES

International Cartographic Association

The mission of the International Cartographic Association is to promote the discipline and profession of cartography in an international context.
ICA is the world authoritative body for cartography, the discipline dealing with the conception, production, dissemination and study of maps.
A map is a symbolised image of geographical reality, representing selected features or characteristics, resulting from the creative effort of its author's execution of choices, and is designed for use when spatial relationships are of primary relevance.
http://cartography.tuwien.ac.at/ica/

The British Cartographic Society

The British Cartographic Society promotes all aspects of cartography to a wide range of potential users.Find out about maps and cartography, careers in cartography and current job vacancies. Also join the BCS Forum to discuss anything map related!
http://www.cartography.org.uk/

Mapping Sciences Institute, Australia

Mapping Sciences are the disciplines that deal with acquisition, management and communication of geospatial information.
The Mapping Sciences Institute, Australia is a learned society established in 1952 to engender the professional development of individuals and organisations involved in the many facets of the mapping sciences
http://www.mappingsciences.org.au/

The following to be advised:
Colombia
Czech Republic
France
Greece
Hungary
Indonesia
Israel
Netherland
Norway
Russia
Spain
Switzerland
TFYR OF Macedonia
Turkey
USA

MAGAZINES, NEWSLETTERS AND JOURNALS

GeoInformatics' July/August issue
The digital version can be found at:
http://fluidbook.microdesign.nl/geoinformatics/05-2009

Mapping Sciences National Newsletter
http://www.mappingsciences.org.au/newsletter.htm

Journal of Spatial Science
http://www.mappingsciences.org.au/journal/dec_08.html

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CARTOGRAPHERS

Salary Survey Report for the job "Cartographer" (June 2009)
Median salary by years experience
[A median is the number separating the higher half of a sample from the lower half]

Australia	1-4 years	5-9 years	10-19 years	20 years or more
Cartographer	$40,500 (AUD)			$54,000
GIS Officer	$42,000			$63,000
Land Surveyor	$46,000	$51,000	$64,000	$72,000

U.S.A	1-4 years	5-9 years	10-19 years	20 years or more
Cartographer	$42,383 (AUD)	$79,530	$60,878	$79,706

Source: http://www.payscale.com/research/AU/Job=Cartographer/Salary

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TECHNICAL DETAIL

What is the location of that IP address?
To find out the geographical location of an IP Address, enter it in the text box at this site. Try the IP address for the **"Straight to the Point"** software. The IP address is
136.186.123.244
(Go to link)
http://www.networldmap.com/TryIt.htm

Twitter with the GeoCommunity
Twitter is a free geographic information service that lets you keep in touch with people through the exchange of quick, frequent answers to one simple question: What are you doing? http://twitter.com/GeoCommunity

CARTOGRAPHIC EDUCATION

Toponymy is the study of geographical names. Geographical names can be used to track the movement over time of peoples around the world. A course is available at Toponymy (Ferjan Ormeling, The Netherlands)

Worldwide undergraduate cartography teaching programs can be explored by visiting http://lazarus.elte.hu/cet/undergraduate/index.htm

Scene Savers
Swinburne University of Technology has produced a CD called **Scene Savers** containing information on communicating for safety at a fire incident. It is designed to assist trainers and firefighters in the public safety industry with the development of specific communication skills required at a fire scene. Animated images of fire trucks, map reading procedures and fire scenes are presented with relevant audio in an effort to depict likely incidents. An example of the nature of the images is provided below. For more information phone 03 9210 1963.

"Straight to the Point" CD – Introduction to Map Reading
http:136.186.123.244/StraightToThePoint/default.htm
For more information telephone 03 92101963:

This CD provides two real life situations, using graphical representations, which allow practice in reading different types of maps. It incorporates learning by becoming involved in the situations. The user may choose the situation to suit their training needs.

1.   Street Directories - This will be useful for anyone who uses a street directory.
2.   Topographic Maps - This will be most useful for emergency services workers.

By solving the problems posed in each situation, skills are developed and practiced, such as:
- recognising map symbols
- using the scale to estimate or calculate distances
- locating an address or position and
- planning a route from one place to another

Mathematics of cartography
Neat lessons in cartography from a mathematical point of view.
Copyright 1996-2008 Cynthia Lanius
http://math.rice.edu/~lanius/pres/map/

WolframAlpha is the first step in an ambitious, long-term project to make all systematic knowledge immediately computable by anyone. You enter your question or calculation, and Wolfram|Alpha uses its built-in algorithms and growing collection of data to compute the answer.
Visit http://www.wolframalpha.com/examples/PlacesAndGeography.html to see how this product relates to "Places & Geography" which includes "Maps & Projections".

For example:

draw a map using a specified projection

world Winkel Tripel projection

Fundamentals of Mapping
The Intergovernmental Committee on Surveying and Mapping (ICSM) has designed this site to provide a comprehensive general overview of maps, mapping, cartography and map production. **It is not intended to be a definitive reference, but rather to supply a consolidated summary of mapping concepts, principles and practice.**
Hyperlinks are provided to other sites which offer more detailed information. Also, it is planned that existing pages will be continually up-dated and additional pages added from time-to-time.
http://www.icsm.gov.au/mapping/index.html

WEBSITES

ENTROPA
Something a bit controversial is, **ENTROPA**, a "map" sculpture created by Czech artist David Černý under commission for the Czech Republic. Visit
http://news.bbc.co.uk/1/hi/in_pictures/7827747.stm

Escher and the Droste effect.
This website aims to visualize the mathematical structure behind Escher's Print Gallery. I suggest you run the animation available at
http://escherdroste.math.leidenuniv.nl/
An explanation is also provided at
http://www.education.theage.com.au/pagedetail.asp?intpageid=2217&intsectionid=11

Google Earth now with Google Moon
For those with Google Earth you can now view the moon by using the drop-down menu under the planet icon and tick Moon.

Eyes on the Earth 3D
This NASA site provides an interactive 3D view of satellites orbiting our Earth which provide information on the atmosphere, oceans and land.
http://climate.jpl.nasa.gov/Eyes/eyes.html
Some general topics related to mapping can also be found at:
http://www.nasa.gov/topics/earth/index.html

Map Games
The website http://www.maps.com/FunFacts.aspx has a number of interactive map games designed to enhance geographical knowledge and map use.

BOOKS

Cartography and Art is a new book edited by William Cartwright (RMIT), Georg Gartner (Department of Geoinformation and Cartography, Vienna and Antje. Lehn, Academy of Fine Arts, Austria. "*The contributions in this book address the use of 'different' geo-communication tools that could allow for improved visualization of geography – by incorporating art.*" ISBN: 978-3-540-68567-8 Search keywords: Springer Cartography and Art

The Selected Works of T.S. Spivet
by Reif Larsen

What a completely original and mind-boggling book, with heart, soul - and maps! I defy anyone not to be hooked and beguiled Roger Bratchell, Marketing Director

T.S. Spivet is a 12-year-old genius mapmaker who lives on a ranch in Montana. His father is a tight-lipped cowboy and his mother is a scientist who for the last twenty years has been looking for a mythical species of beetle. His brother has gone, his sister *seems* normal but might not be, and his dog – Verywell – is going mad.

It's odd, but then families are. T.S. makes sense of it all by drawing beautiful, meticulous maps kept in innumerable colour-coded notebooks: maps of the countryside, maps of his family's behaviour, maps of animal and plant life. He is brilliant, and the Smithsonian Institution agrees, though when they telephone with news that he has won a major scientific prize they don't suspect for a minute that he is twelve years old
http://www.randomhouse.co.uk/catalog/book.htm?command=Search&db=main.txt&eqisbndata=184655277X

The Mapmaker's Wife

The Mapmaker's Wife tells the extraordinary story of Isabel Godin, the first woman to travel down the length of the Amazon. Her journey brought an end to the first scientific expedition to the New World, which was led by Charles Marie de La Condamine. The French Academy of Sciences called the mission, which began in 1735, the "greatest expedition the world has ever known."
http://www.themapmakerswife.com/Mapmaker%27s%20Wife/Home.html

Spying with Maps

Mark Monmonier says: "In *Spying with Maps*, I look at the increased use of geographic data, satellite imagery, and location tracking across a wide range of fields such as military intelligence, law enforcement, market research, and traffic engineering. Could these diverse forms of geographic monitoring lead to grave consequences for society? To assess this very real threat, I examine how geospatial technology works, what it can reveal, who uses it, and to what effect."
http://www.markmonmonier.com/work4.htm

Coast Lines - How Mapmakers Frame the World and Chart Environmental Change

Mark Monmonier
Returning to the form of his celebrated *Air Apparent*, Monmonier ably renders the topic of coastal cartography accessible to both general readers and historians of science, technology, and maritime studies. In the post-Katrina era, when the map of entire regions can be redrawn by a single natural event, the issues he raises are more important than ever.
http://www.markmonmonier.com/coast_lines__how_mapmakers_frame_the_world_and_chart_environmental_change_78724.htm

KEY NATIONAL MAPPING ORGANISATIONS

Geoscience Australia
Have you looked at the **Geoscience Australia** website recently? There is a wealth of information on the mapping sciences along with free data downloads. Topics covered include: Geology, Geophysics, Geochemistry, Geochronology, Geohazards, Geodesy, Topography, Digital Elevation Data, Regolith, Environmental, Administrative Boundaries, Graticule/Grid, National Native Title Tribunal, Satellite Imagery & Antarctic Data. Visit
http://www.ga.gov.au/

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MAP PRODUCTS

Virtual Globes Museum
The Department of Cartography and Geoinformatics, Eötvös Loránd University, Budapest, Hungary has created a **Virtual Globes Museum**. Visit
http://terkeptar.elte.hu/vgm/info.php?lang=en

EARTH Atlas
Mr Damien Demaj displayed, and spoke about the production of, **EARTH**, the largest atlas in the world at the AMC / MSIA National conference in March. The hand bound blue leather version is currently in sale for $6000. A profile of this amazing product can be seen at
http://www.mapstop.co.uk/product251_Earth-Atlas---Millennium-House.aspx

The Ultimate Interactive Atlas of the World *(ISNB: 978-1-8456-6522-7)* is an
Australian publication designed and produced by Quarto Children's Books Ltd. The Atlas "*combines a collection of accurate maps of the world, detailed information and interactive features – pop-ups, pull-outs, sliders and flaps – that together aim to make learning about the world a fun experience*" so says the publisher. I purchased the 2008 edition for $12 and I must say it is great value and lives up to the publisher's description. If you want to introduce children to cartography then this is a great book to use. Particularly appealing is the two-dimensional map that converts into a three-dimensional globe just by pulling a tab.

Amazing maps website: http://www.squidoo.com/maps_unlimited

Theban Mapping Project (TMB) – Atlas Project
Valley of the Kings - Comprehensive archaeological database of Thebes
During the last decade, the TMP has concentrated on the Valley of the Kings. Modern surveying techniques were used to measure its tombs. From the data collected, the TMP is preparing 3-D computer models of the tombs.
http://www.thebanmappingproject.com/sites/

MAPPING TOOLS

Bing Maps
Have a look at Microsoft's Bing maps (beta) for an interactive Australia map, driving directions and business listings. The zoomed in large scale maps have different content to other similar products. Click on the 3D tab for an animation of this option.
http://bingmaps.com.au/

Free GIS software – A listing can be found at
http://www.gisdevelopment.net/downloads/gis/

GOOGLE MAP MAKER "allows you to contribute, share and edit map information for certain regions around the world. Once you understand the basics, you can locate, draw, label, describe and moderate local map features. With Google Map Maker, you can help improve the quality of maps and local information in your region." Visit
http://sites.google.com/site/mapmakeruserhelp/

OpenStreetMap is a free editable map of the whole world. OpenStreetMap allows you to view, edit and use geographical data in a collaborative way from anywhere on Earth. Visit
http://www.openstreetmap.org/

INTERNET SOFTWARE & DATABASES

Photosynth
Photosynth can transform regular digital photos into a three-dimensional experience. Visit
http://livelabs.com/photosynth/

SHELDUS is a United States database of spatial hazard events and losses. It is available at http://webra.cas.sc.edu/hvri/products/sheldus.aspx

Sketchup is neat free downloadable software from Google designed for the creation, modification and sharing of 3D models. It is easy to use and a valuable resource for map makers. Visit http://sketchup.google.com/

SPRING Version 4.3.3 is a free GIS/ remote sensing software suite produced by the Brazillian government and available at http://www.dpi.inpe.br/spring/

NEWS ITEMS

Heading in the right direction
Kim Thomas, Guardian
June 11, 2009
Imagine that you have your own personal travel guide. It has satellite navigation, so when you get into your car it can direct you to where you want to go. Before you arrive you will know which of the town car parks have spaces left. And when you've finally parked the car, take your guide with you and it will direct you, on foot, to your final destination.
For anyone who has found themselves stuck in a traffic jam, or has been unable to find a car park in a busy town centre, or has got lost on foot, it sounds too good to be true. Yet the technology to make it happen is already here. So why aren't we all carrying such a device in our pockets? (Go to link)
http://www.theage.com.au/news/digital-life/mobiles--handhelds/articles/in-the-right-direction/2009/06/09/1244313140163.html

US deal puts tech company on map
Bridie Smith
June 15, 2009

Southbank-based Maptel has secured a $600 million contract to digitise data collection for the US census, using its ArcPad software. *Photo: Joe Armao*
A MELBOURNE technology company that designed software used to record the location of properties destroyed in the February bushfires has landed a lucrative deal with the United States Government.

Maptel, a Southbank-based company that specialises in mobile mapping systems, has secured a major slice of a five-year, $600 million contract to digitise data collection for US authorities.

Known as ArcPad, the software will be used in the US census to verify and update the addresses of 145 million households, as well as lock in the GPS co-ordinates for each household before the count next year.

The hand-held devices use GPS technology for data capture, rather than navigation.

"It's more thinking about maps as a geographic database," Mr Slavik said. (Go to link)

http://business.theage.com.au/business/us-deal-puts-tech-company-on-map-20090614-c7fa.html

Amateur spies put North Korea on the map

Asher Moses
June 2, 2009 - 12:24PM

A group of amateur spies has used Google Earth to provide a rare glimpse inside North Korea, one of the world's most secretive countries.

By default the Google Earth map of North Korea is completely bare, with no roads or landmarks labelled.

Over two years, US doctoral student Curtis Melvin and other volunteers pored over news reports, images, accounts, books and maps painstakingly identifying and locating thousands of buildings, monuments, missile-storage facilities, mass graves, secret labour camps, palaces, restaurants, tourist sites, main roads and even the entrance to the country's subterranean nuclear test base.

The result, North Korea Uncovered, is one of the most detailed maps of North Korea available to the public today. The small file, which can be installed on top of Google Earth, has been downloaded more than 47,000 times since an updated version was released last month. (Go to link)

http://www.theage.com.au/news/home/technology/amateur-spies-put-north-korea-on-the-map/2009/06/02/1243708441374.html