Cartouche

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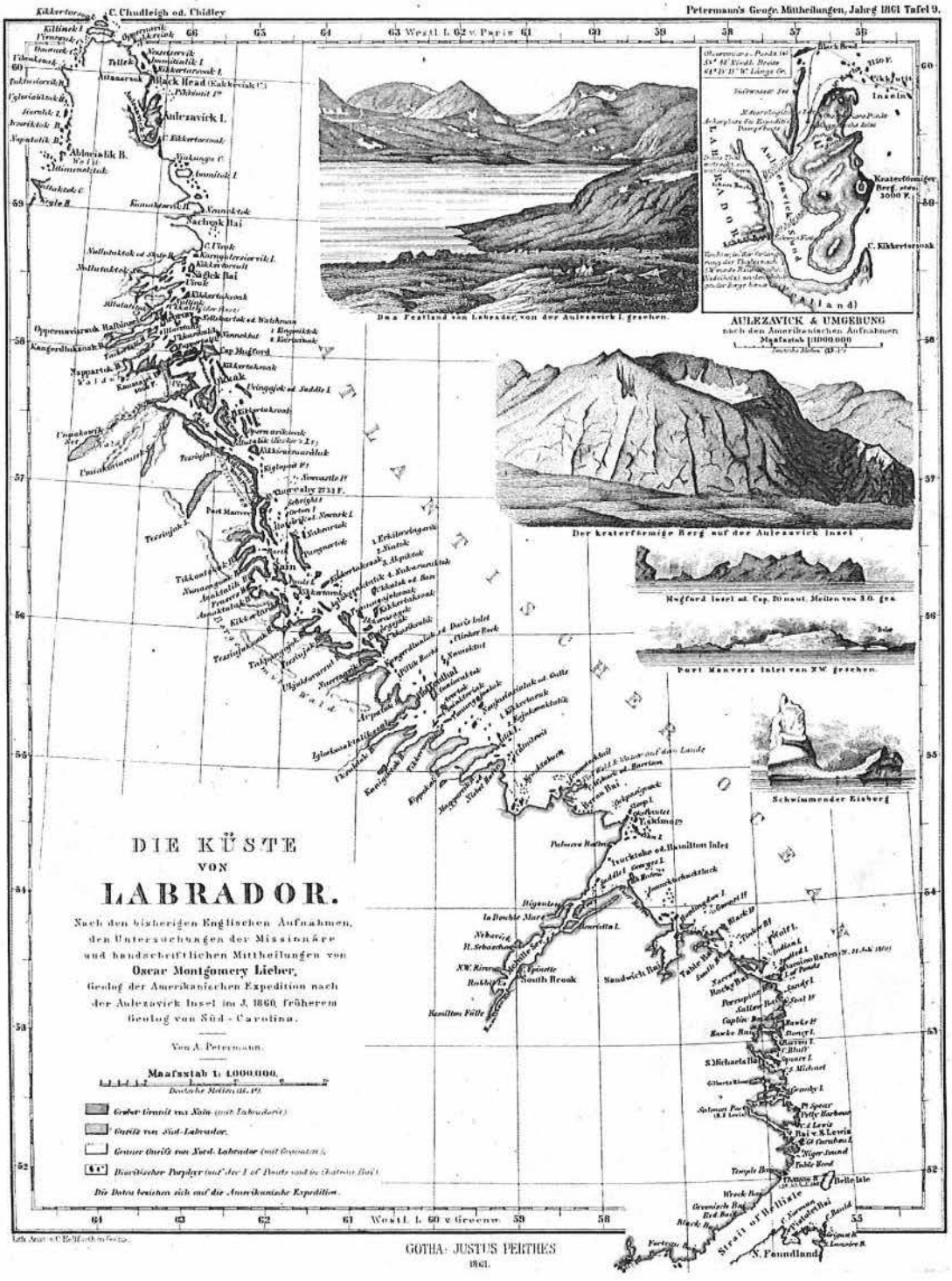

Cartouche is published quarterly by the Canadian Cartographic Association. Members are welcome to submit articles for publication. Articles and notices submitted for publication are subject to editorial approval. Please address your submissions to the editor. All other articles will appear in the language of submission. While every effort is made to ensure accuracy of content, the editor cannot be responsible for errors in compilation, or loss of any item submitted. Opinions expressed in the editorials, submitted articles and letters are not necessarily those of the Canadian Cartographic Association. The Canadian Cartographic Association gratefully acknowledges the financial support given by the Social Sciences and Humanities Research Council of Canada.

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About the cover...

"Die Kuste von Labrador" From Mittheilungen aus Justus Perthes' *Geographischer Anstalt uber Wichtige Neue Erforschungen* auf dem Gesammtgebiete der Geographie von Dr. A. Petermann. Volume 7, 1861. Reproduced from digital on-line copy from the University of Texas at Austin's Perry-Castañeda Library Map Collection: http://www.lib.utexas.edu/maps/index.html This site has a wonderful collection of not copyrighted (public domain) maps.

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Ute Dymon
Kent State University

Mot du Président/
President's Message

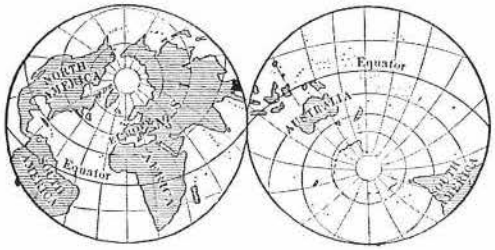
Greetings to you all!

I hope everyone had a successful Fall and is ready for several months of Winter. Members of the CCA also have something else to look ahead to, the CCA/CAG/ACMLA meeting in Victoria from May 27 to June 1, 2003. Please keep this in mind. Also, please remind your students to submit their research papers for the Nicholson Scholarship Award. Information about it can be found on the CCA website. In addition, the CCA presents several mapping awards for student maps produced during the 2002-2003 school year, including the President Price award. Descriptions of the mapping awards and the award categories are also found on the CCA web.

By the end of May, Peter Keller will step down from his position on the Canadian National Committee of the International Cartographic Association. Peter has devoted many years and has spent considerable effort in fulfilling his role on this Committee. For the endless hours of service he performed in this position and for his outstanding leadership, we all owe him a sincere thanks. Most of us enjoyed the successful joint meeting of the ICA with the CCA in Ottawa in 1999, which was not only a success, but for many members a memorable meeting. Thank you, Peter for this outstanding conference and your many years of service to our discipline.

Now we will need to replace Peter. If you are active in the international community and have an interest in the ICA, perhaps you would like to be nominated for this position. Please contact us about your willingness to serve.

Remember: The next ICA meeting will be held from August 10-16 in Durban, South Africa. Looking forward to seeing a contingent of CCA members in attendance.



Andrew Millward
University of Waterloo

Stepping Beyond the Critique of Cartographic Design: What about the underlying data?

As the new chair of the Map Use and Design special interest group I would like to put back into the forefront of our minds the importance of approaching the map content we produce and consume with vigilance. For this, my first contribution as chair of this interest group, I would like to redirect our 'critical gaze' from that of map construction to the more basic issue of the quality of the data we are representing cartographically.

Like any model, a map is a generalization of reality. While we in the cartographic community have always been concerned about our data presentation and its communication effectiveness, we have often neglected the quality of the base data with which we work. Of course, there have been good reasons for this; the most notable being that documentation of data quality is simply not available. As simple as this may sound, it raises some alarming concerns for our discipline.

Consider for a moment the press release that appeared on the European Space Agency (ESA) web site in 2000. The headline read: "Vanishing valleys and misleading maps: why the world is now a different shape?" Apparently maps that have been in use for years, and accepted as 'representative', described a 100 kilometre - long river valley in East Africa that was deeper than the Grand Canyon, a waterfall in the Amazon that was larger in magnitude than Niagara, and a 200 metre high wall bisecting the African desert rivalling that of China's. Are these great world wonders that have gone undocumented? Well, to the relief of the Niagara Falls Tourism Association, these and other geographic peculiarities have recently disappeared from contemporary maps. More accurate data acquisition technologies have provided updated digital elevation information highlighting the folly of these previous cartographic renditions. A point for our consideration is that the original maps documenting these features may have been created to the highest of cartographic standards, but their usefulness was amusing at best.

The cartographic canvas is ripe for creativity; Schultz (1961) recognized correctly that a skilled cartographer could manipulate a map like a musician does an instrument, enhancing desired qualities. Of course when certain qualities are brought forth, in many occasions others must be supplanted. In my early years as a remote sensing student, I was taught that working with digital imagery was both 'a science and an art' (later seeing this definition provided by Lillesand and Kiefer in their 2000 textbook). Consider for a moment the influential paper by Jenks and Caspall (1971) where they address data classification for the purpose of choropleth map generation, "We are certain, however, that many maps result from an almost accidental setting of class limits" (p221). Without access to the original data, or standard statistics describing among other things data distribution, we (map users) have no way of evaluating this aspect of the map.

Unlike the printed word, there is something about the map that communicates 'truth'. Perhaps this stems from the lack of a systematic way to critique map quality insofar as the accuracy of the data it represents. While as cartographers we can smile and say, "sure, our work is truth, after all skilled craftspeople such as ourselves don't make mistakes". Well, this is precisely the point, not all misleading and misrepresentative maps are intentional mistakes, nor do they exhibit cartographic design flaws - in many cases they are produced with imprecise or erroneous inputs. Frequently at meetings of the cartographic community it is pointed out that the ability of unskilled individuals to produce sophisticated 'looking' maps has been greatly enhanced by the digital revolution. This is true, and we as cartographic practitioners have appropriately positioned ourselves to be the 'map police' insofar as this issue is concerned. However, we are not justified in taking the moral high ground when it comes to assessing the functional value of a map that is absent of information documenting characteristics of the original data used in its production.

Since many of us are creating maps with digital data, and frequently use GIS in our work, my comments henceforth will relate to these. One of the biggest misconceptions regarding digital data is that it must be accurate, after all, it emerged from a computer, and aren't computers always accurate (Goodchild in Heuvelink 1998)? All spatial data is inaccurate to some degree, but it is represented by a computer to a high precision giving the illusion of accuracy. For the most part, users of geospatial information have had unrealistic expectations of their data insofar as it being free from error. Data users have not been as vigilant regarding the accuracy of their data, instead being focused on representation of the spatial phenomenon. The realization that error exists demands that users of geospatial data know how imperfect the data representation is, and what ramifications are for their applications and final cartographic output. Wow, wouldn't it be easier to ignore this? Until recently we have. Goodchild et al. (1999) state that uncertainty is endemic in geographic information since recording and documenting the 'true' complexity of processes on the Earth is almost impossible. Traditionally errors have been

summarized in metadata files accompanying datasets, but these are inadequate measures of the spatial uncertainty within a dataset. Nevertheless, despite these concerns, Goodchild et al. (1999) indicate that the pretence of accuracy has been accepted, and tools (i.e., GIS) have been designed to analyse map information at face value, without critically questioning accuracy.

The design and construction of geographic databases is an involved process that often requires input from many people, different measurements, as well as interpretation and manipulation procedures that easily confound the original measurements and their relation to final data output (Heuvelink 1998). Correspondingly, documentation of error has not occurred making the formal analysis of error difficult, if not impossible. Traditionally accuracy of geospatial data has been reported in the form of standard accuracy statistics (global measures of confidence). However, increasingly those who use spatial data require knowledge of how reliable their GIS results are; standard accuracy statistics are inadequate to supply answers because they are not spatially representative. Recall the ESA example identifying 'overlooked' world wonders. It is possible that an acceptable global measure of map accuracy (e.g., Mean Square Error) could have accompanied these maps presuming that validation was conducted at sites other than those that were later identified as suspect. Typically spatial data producers have provided some specifications and summary statistics to report data quality information (often found in accompanying metadata); however, the onus of implementing these statistics to account for spatial uncertainty has lied with the spatial data user.

In general, the accuracy of a spatial database can be described as being related to either position or attribute. Positional accuracy refers to the proximity of locational information to the 'true' position, whereas attribute accuracy is described as the closeness of informational values to their 'true' value. Contemporary GIS packages have been slow at the adoption and integration of error analysis tools. Most geospatial tools (e.g., ESRI's, Idrisi, PCI, ENVI) have provisions to calculate global error statistics (where data is available), but still lack a consistent routine with which to comprehensively identify the spatial arrangement of error in categorical map production and analysis. This situation is confounded when one considers the propagation of error associated with arithmetic operations often performed when modelling within a GIS (Heuvelink 1998). Unfortunately, while users may be aware that error propagates though their GIS models, they have rarely devoted attention to this as an issue.

Over a decade ago, Goodchild and Gopal (1989) stated that it is reasonable to conclude that all data, to varying degrees, stored in a GIS is contaminated with error. Today, we still lack a systematic approach to evaluate how these errors contribute to the accuracy of results output from a GIS, the data which we as cartographers rely on for our map production. Uncertainty modelling has been one approach developed for use with spatial data, but remains difficult to understand and implement for most end users. A recent publication by Goodchild et al. (1999) argues that the producer, not the user, should be responsible for providing adequate measures of spatial data uncertainty. This represents a sound conclusion, and is something that we as cartographers must begin to demand from our geospatial data providers. With this information in standard format, offering an instructive assessment of the spatial distribution of error, we can then request our GIS software manufactures to implement modules that would permit the production of confidence limits associated with the results of an analysis. These could then be incorporated into an *accuracy-aware* map.

Until the next issue, this is Andrew Millward off in search of other unfound world wonders .....

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Lillesand, T. M., and R. W. Kiefer. 2000. *Remote Sensing and Image Interpretation.* New York: John Wiley & Sons, Inc.

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CALL FOR NOMINATIONS

The Nominations Committee has put out a two calls over the CCA list server for nominations.

If you are interested in a leadership role on the CCA executive or know a member who you'd like to nominate for a leadership position please contact them immediately.

The first position, Vice President, is effectively a three year commitment. This leadership position entails a 1 year term in each of the following roles: Vice President, President, and Past President.

Three further positions will be available for 2003-05, each with 2 year terms:

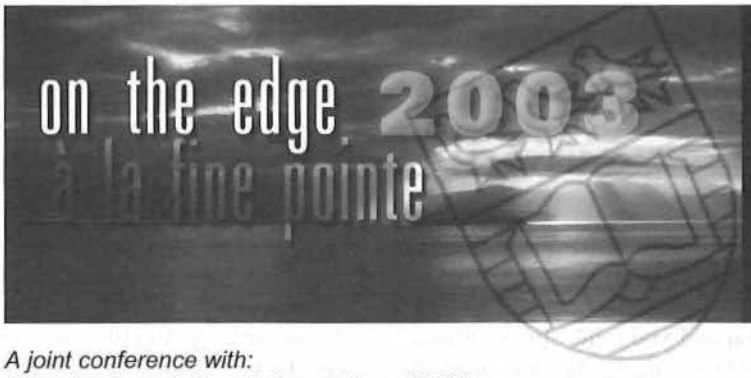
- ❑ Treasurer
- ❑ Chair, Cartographic Education
- ❑ Chair, Map Production Technology

Nominations committee:

Patricia Connor (Chair): connor@uwo.ca

Gary McManus:
gmcmanus@cartodesign.com

Weldon Hiebert:
weldon.hiebert@uwinnipeg.ca



conference details
détails de la conférence

Tuesday, May 27 *to*
Saturday, May 31, 2003
Victoria, British Columbia

Du mardi le 27 mai 2003
au samedi le 31 mai 2003
Victoria, Columbie-Britannique

A joint conference with:
Canadian Association of Geographers (CAG)
Canadian Cartographic Association (CCA)
Association of Canadian Map Libraries and Archives (ACMLA)

hosted by the Department of Geography, University of Victoria

Une conférence commune avec:
Association canadienne des géographes (ACG)
Association canadienne de cartographie (ACC)
Association des cartothèques et archives cartographiques du Canada (ACACC)

organisé par le Département de géographie de l'Université de Victoria

All information is available at: / Toute l'information est disponible sous :

www.geog.uvic.ca/cca2003acc

• Program Overview Vue d'ensemble du programme •
• Abstract Submission Details Détails de soumission d'un résumé •
• Registration Details Détails d'inscription • **Workshop Details** Détails des ateliers •
• Fieldtrip Information Information sur les sorties • **Daycare** Service de garde • **Accommodation** Hébergement •

For questions not answered on the website or for written details please contact:
Pour toutes questions non répondues par le site web ou pour plus de détails, veuillez contacter :

on the edge - á la fine pointe
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Fax: 250 721 6216 phone: 250 721 7326
e-mail: 2003@mail.geog.uvic.ca

Deadlines

Organization of a special session, special illustrated paper session, or panel discussion – **February 1st, 2003**

Submission of a paper, illustrated paper or poster abstract **March 1st, 2003**

Registration · *Starts* **February 1st, 2003**, *early Registration until* **April 21st, 2003**

Accommodation – book as early as possible. Accommodation at the University residences is limited. Victoria is a tourism destination and hotels and B&Bs book up quickly.

Travel Grants? – contact the organizations of which you are a member.

Dates limites

Organisation d'une séance spéciale, séance spéciale de communications illustrées ou panel de discussion – **1er février 2003**

Soumission d'une communication, d'une communication illustrée ou d'un résumé d'affiche **1er mars 2003**

Inscription – *Débute le* **1er février 2003**, *pré-inscription jusqu'au* **21 avril 2003**

Hébergement – réservez le plus tôt possible. L'hébergement aux résidences de l'université est limité. Victoria est une destination touristique et les hôtels et les couettes et café se remplissent rapidement.

Bourse de voyage? – contactez l'organisation dont vous êtes membre.

We look forward to your submission and to welcoming you to Victoria in May, 2003
Nous attendons avec intérêt votre soumission et à vous accueillir à Victoria en mai 2003

University of Victoria

Weldon Hiebert
University of Winnipeg

Animated GIFs Make the World Go Round

Canadians are among the top users of the Internet in the world. An RBC Financial Group/Ipsos Reid poll taken in January of this year showed that Canadian families surveyed spent an average of 1600 hours per year (about 32 hours/week) "surfing the net." It is not surprising then that businesses, governments, charities and anyone wishing to express a viewpoint have created web pages in an effort to reach out to Canadians and their pocketbooks. In order to keep the attention of the viewer, not only should the web page be of interest and relevant, but it should be aesthetically pleasing as well. This is done using such elements as slick graphics, javascript and flash. One of the more popular Web design elements is the animated GIF.

An animated GIF is a series of bitmap images loaded in sequence to give the illusion of movement. Animated GIFs simulate movie clips but have distinct advantages: they are small in size and load quickly; they can be viewed directly in any web browser without the need for a video plug-in: they are easy to produce and do not require any expensive video hardware or software. On the other hand, animated GIFs cannot incorporate sound and they run as a continuous loop which can, at times, be quite annoying.

One of the more common animated GIFs used on the Internet is the spinning globe. Spinning globes are usually found on web sites related to travel, geography, cartography or where the company name starts with "world." Even some web browsers use spinning globes to "bide time" while searching for or opening a web page. Because they are commonly used, many royalty-free clipart web sites offer spinning globes as part of their collection. Web designers never had it so easy. Or have they?

You're a web designer and your client or boss has an idea for a new web page that requires a spinning globe. The idea is passed on to you and you think "piece of cake." You start browsing the web for clipart sites and as your boss is leaving, he turns around and says "by the way I'm not sure if I need a globe with a Sinusoidal or Hatano Assymetrical Equal Area projection, so make one of each and I can decide later which one to use." Okay, what now. It's not likely a spinning globe exists for these types of projections and if so, would you be able to recognize them? Lucky for you, help is just a software package away.

Axion Cartographic Map Projections of the World, produced by Axion Spatial Imaging Ltd., is an educational software package designed to introduce students to some of the various map projections used by cartographers. From Albers Equal Area Conic to Winkel Tripel, over 70 map projections are described both visually and textually. Just click on the name of a map projection and up pops a spinning globe of that particular projection. One of the nice features of this software is that the spinning globe can be stopped at any time and the image saved as a bitmap. This is good news for the aspiring animated GIF designer for now there is a way to produce a series of bitmap images, when loaded in sequence, will produce a spinning globe. Here's how it's done:

1. Launch Axion Cartographic Map Projections of the World and from the main menu select the desired map projection.

2. Click on **View Map Projection**. The next screen should display the selected map projection and it should be spinning.

3. Click on the **Pause Rotation** button (2 vertical bars). Make a note as to where the image stopped spinning. You need to return to this spot to make a complete rotation. Note: When the image stops, the Pause Rotation button changes to the Start Rotation button (right-facing triangle).

4. Click **Save Image to Disk** and save the current image to a file. The image will be saved in BMP format.

5. Click **Start Rotation** button (right-facing triangle) to get the image rotating again. Click the Pause Rotation button again and save the new bitmap. The view will be slightly different than the first bitmap. By using this advanced scientific method of clicking the mouse between pause and rotate, a series of bitmaps will be produced, each with a different perspective of the map projection. The length of time between mouse clicks will determine how many bitmaps will be saved. A quick response between mouse clicks will produce more bitmaps. More bitmaps in an animated GIF will produce a less "jerky" motion but will increase file size and download time. You must determine a balance as to what you need.

6. Continue to "click and save" until you have made one complete rotation.

7. In your preferred paint or pixel manipulation software (mine is Adobe Photoshop) open each bitmap image and convert them to GIFs. It is a good idea to check over each image to ensure that the bitmap dimensions are identical. Depending on your needs, you may also want to change the background color.

These images are now ready to be transformed into an animated GIF. This can be done using an animated GIF editor. A wide variety of these editors are available as shareware on the Internet (http://www.greatfreeware.com and http://www.totalshareware.com are good sites for this).

An example of a spinning globe using the Sinusoidal projection can be viewed on the University of Winnipeg Geography Department web page (http://www.uwinnipeg.ca/~geograph). Here the animated GIF has the word GEOGRAPHY embedded into the image to give the

appearance of the world spinning through the letters. This was done by importing each of the bitmaps from Step 7 into CorelDraw and using the Powerclip option to place each of the bitmaps into a pre-designed, sinusoidal-shaped rendition of the word GEOGRAPHY. Each image was then saved as a GIF and then transformed into animation.

With Axion Cartographic Map Projections of the World you need not fear the McBryde-Thomas Flat Polar Quartic map projection ever again. And if you prefer something a little more extraterrestrial then you can replace the Earth with such celestial bodies as Mars, Venus, the Moon or Jupiter's moon Europa. Axion Cartographic Map Projections of the World is available for a limited time for $20.00 (plus taxes and shipping and handling) from Axion's web site http://www.axionsptial.com/

SSHRC Funds "Adventure for the Mind" Map Project

OTTAWA, Nov. 27 /CNW/ - Mac Harb, MP for Ottawa Centre, on behalf of Allan Rock, minister of industry and minister responsible for the Social Sciences and Humanities Research Council (SSHRC), today announced $2.6 million in funding for a project to make Canada a world leader in cybercartography - the field of study that uses multimedia computer technology to create interactive maps.

"Maps no longer need to be static objects that we use primarily to find street locations or cities," said Mr. Harb. "With new technology, we will be able to convert one billion gigabytes of information into powerful learning tools that help us understand the dynamic relationships between commerce, people and the environment."

Led by Professor Fraser Taylor at Carleton University, the research team will receive the funding through the Social Sciences and Humanities Research Council of Canada's (SSHRC) Initiative on the New Economy (INE).

"Dr. Taylor's project is not simply about creating new high-tech gadgets," said Marc Renaud, president of SSHRC. "It's about strengthening our understanding of the interaction between the user and the computer. It's about combining different sources of information and increasing our understanding of social, economic and environmental trends."

"Just as the paper map was the key to navigation in the age of exploration, the cybermap will be the key to navigation in the information age," Taylor said. "Cybercartography will transform cultural, social, economic and environmental data into an adventure for the mind, using vision, hearing, touch, and eventually smell and taste."

This research will produce two separate cybermaps: one that traces the evolution of Canada's trade with countries around the world, and one that explores the potential impact on Antarctica of several decades of global warming and environmental change. These cyber-atlases represent a new way to deliver complex information to the general public in a format that is both user friendly and scientifically accurate.

Dr. Taylor and his team will work with a number of partners from government, industry and academia, including Natural Resources Canada, Statistics Canada and the Department of Foreign Affairs and International Trade. Research and government agencies from eight countries, including the United States and China, will contribute to the Antarctic Atlas of Canada.

SSHRC is an independent federal government agency that funds university-based research and graduate training in such disciplines as economics, history, business and administrative studies, education, law, fine arts, political science and environmental studies. SSHRC-funded research helps Canadians innovate and compete, maintain their quality of life and understand a rapidly changing world.

The INE represents a five-year, $100 million commitment. It will deepen understanding of the nature of the new economy, and of changes in management skills, educational requirements and lifelong learning, each of which affects our society, economy and culture. The mission of the Initiative is to generate new knowledge and put it to work by contributing to better-informed decision-making on the part of governments, businesses, organizations, communities and individuals. It aims to do this by focusing research on the nature of the new economy, on management and entrepreneurship, and on education, and lifelong learning. http://www.newswire.ca/releases/November2002/27/c6864.html

Calendar/ *calendrier*

March 29 mars - April 2 avril 2003
ACSM - APLS
Phoenix, Arizona
For information / *pour renseignements:*
www.acsm.net

May 27 mai - June 1 juin 2003
CCA 2003 ACC
joint with CAG and ACMLA
University of Victoria
Victoria, British Columbia
For information / *pour renseignements:*
contact Peter Keller at - keller@geography.geog.uvic.ca or www.geog.uvic.ca/cca2003acc/

June 15 - 17 juin 2003
Cambridge, Massachusetts
June 18 - 20 juin 2003
Portland, Maine
ICHC 2003
20th International Conference on the History of Cartography
For information / *pour renseignements:*
www.ichc2003.org

August 10 - 16 août 2003
XXI ICC & 12th General Assembly of the ICA
Durban, South Africa
For information / *pour renseignements:*
www.icc2003.gov.za/

Léa Selley
TELUS Geomatics

Here Be Dragons

On a recent trip I found myself 15 minutes away from boarding a 7-hour flight with nothing to keep me busy. Frantically I purchased a Fantasy novel based on some inspirational cover art. Buckled in, I crack the cover ready to pour over a map for an hour before reading the story. Cringing, I turn my head to protect my delicate Cartographic Senses from the barrage of information thrown on the 'map.' This is the world of Shannara by Terry Brooks.

The biggest problem was the use of fonts – text rotates at every angle, there is no system for using upper case versus lower case, some text following the bend in the river, other text following the bend of a forest boundary. Then there is the placement of geographic features on this fantasy landscape – rivers that appear to defy gravity, and forests that grow both on the windward and leeward sides of mountain ranges. I tried to read the novel but I couldn't stop critiquing the map. It's a Fantasy novel Léa - give it a chance. But I couldn't let it go. My argument being that Fantasy novels are the one vein of fictional literature where the story is dependent on the map. New lands and borders, peoples and landscapes, and how the hero travels across it all. So what makes a good Fantasy map?

Setting the scene of a typical Fantasy novel – your hero travels across mountains, deserts and seas in pursuit of suppressing the Ultimate Evil which will inevitably destroy the world. A story where a character who resembles a typical Medieval peasant travelling from inn to inn tossing back gallons of ale while gathering a rogue team of human and humanoid characters to storm the fortress at the end of the road. Usually a map is the only form of imagery – aside from the cover art – to inspire the reader's imagination. What better than to model this fantastical world based on maps from our real world era of the Dark Ages.

Typically Fantasy base maps reflect European cartography from the mid 1500s to the late 1600s. Hachures and individual trees are clustered together to form mountain ranges and forests. Instead of our modern day 'point' to represent a town or city, like in early cartography, drawings of fortresses, churches and individual houses are used to identify populated areas.

Fantasy maps also borrow Cartographic techniques from the 1700s including elaborate cartouches, maps framed in decorative ornamentations and a compass rose. The thrilling aspect of a Fantasy Map is that the lair of the fantastical beast is known as 'fact' and not simply placed to fill undiscovered landscapes. As Jonathan Swift stated:

> 'So geographers, in Afric-maps,
> With savage-pictures fill their gaps;
> and o'er unhabitable downs, Place
> elephants for want of towns.'

Upon further research, I found that the hobby of creating Fantasy maps has extended into the technical world. Campaign Cartographer 2 – which has a free demo at: http://www.profantasy.com/ this is a drawing software application containing pen & brush controls, color palette controls, and whole host of shape palettes. These shape palettes allow you to stamp symbols on your map including, trees, hachures, swamps, villages, lighthouses and castles. There are hundreds of available elements that users can place on maps, and, to give world builders even more options, ProFantasy has written CC2 to allow users to import their owned scanned images for use in maps – giving map creators even more creative ability.

Over time we have created a more educated society, where people expect to have a believable world presented to them – this is evident from the paranoid half-truths of the X-Files to the applied Law novels of John Grisham. The success behind a novel and movie such as The Lord of the Rings is because the world presented to us is 'believable.' This is due to the dedicated life's work that the author – JRR Tolkein – pursued to create a Fantasy story accompanied by a map, which draws from the linguistics, cultures, and landscapes that are familiar and comparable to the 'real world.'

Tolkien's and other Fantasy writer's map landscapes and inhabited cultures are re thrown away. The half-truths still persist, which Tolkien and other Fantasy writers and map-makers play upon – the lands of the Orcs and Trolls can always be found in the more severe Northern climates, the fair and nimble elves dwell in the safety of the forest canopies... the grouping and landscapes associated with humans and humanoids in Fantasy novels is demographic exercise in itself.

So what is the importance of having good cartography in Fantasy maps? Aside from the fact that I'm sure it would increase book sales – Fantasy maps are a reflection of real-world cartography, so instead of taking steps behind in our field – let's

improve on the fading art of old world Cartography.

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Maps and the Internet: New Developments

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This article is a brief report on the presentations and discussions of the Annual Meeting of the Commission on Maps and the Internet International Cartographic Association), which was held September 24-25, 2002. Over 30 participants from 14 countries attended the group.

Annually, Commission activities culminate in the Commission Meetings, with the intention of bringing together international specialists in the field of Internet Mapping and to disseminate information to a broader audience in new developments and major areas of research. The meeting was chaired by Michael P. Peterson (Chairman of the Commission) and organized mainly by Georg Gartner of Vienna.

Papers were grouped in five sessions. The first session concerned **Theory and Research in Maps and the Internet**. Specifically, the Development of research; Dissemination of census and others statistical data through Web; Maps, modelling the visualization of the Internet -maps and its Post Processing, and; Using the Internet to deliver customisable map-based educational experiences.

The second session was dedicated to **Multimedia, Maps and the Internet**. Papers dealt with New media visualization and visualising geography; Cartography, virtual reality and the Internet, and; Geo-marketing and Internet mapping.

The third session focused on **Atlases**: Swedish Webatlas goes interactive; Conception for an online National Atlas of Germany; Web integrated cartographic system for an ecological network of the lower Danube Green Corridor, and; Making maps is useful but sometimes dangerous: the experience of the *Atlas électronique du Saguenay-Lac-Saint-Jean* in Canada (by Majella-J. Gauthier and Carl Brisson) (www.uqac.ca/atlas).

In the fourth session, on **Meta Data, Techniques and Applications**, the topics were: Grid data analysis in the CommonGIS system: an example in forestry; User-specific spatial soil quality meta-information mapped on the Internet; Interactive topographic Web-Maps using SVG; EDINA Digimap: a virtual map library for the UK tertiary education community; Hearing spatial information - audiovisual maps on the Internet, and; developing Web application at the Geological Survey of Norway and results from the National Geo-Data on the Net Project.

The fifth session included papers on **Mobile Internet**: Maps, multimedia and the mobile Internet; Maps without wires: wireless geo-information in research and education; GiMoDig project: overview and system architecture; Real-time integration and generalization of spatial data for mobile applications, and; Geo-data visualization on Personal Digital Assistant ((PDA).

Additional papers were also presented: GeoInfo.online: geographic information in the Intranet on the city of Hamburg, and; Concepts for user-oriented cartographic presentation on mobile devices: a pedestrian guidance service for TU Vienna.

It is useful to enumerate some points of interest that impressed us. 1- The development of maps on the Internet is increasing. Over the past five years, the number of maps presented on the Web covers a wide range of topics: population, economy, politics, legislation, tourism, environment, news, etc. Maps have never been as easily available to the population as they are now in the Internet era. 2- The time has come to find out more about who the users are and what they do with the information. 3- The Internet makes possible the use of multimedia in cartography and the creation of an interactive medium for maps. 4- Maps on mobile devices (cellular phones) gain ground. There are new challenges linked to the resolution and the size of the screen and the quality of reception. 5- Technical developments are mostly in the hands of engineers and computer scientists.

The Proceedings of the meeting are available using the following information. Maps and the Internet, Edited by Georg GARTNER. Published by the Institute of Cartography and Geomedia Technique in cooperation with the ICA Commission on Maps and the Internet, Geowissenschaftliche Mitteilungen, heft, nr. 60, 2002, 204 pages. Contact Professor Georg GARTNER, Institute of Cartography and Geomedia Technique, Vienna University of Technology, Karlsgasse 11, 1040 Vienna, Austria. Email: georg.gartner@uwien.ac.at. The cost is 20 Euros.

Natural Resources Canada | Ressources naturelles Canada

Mention de reconnaissance 2001-2002 de Ressources naturelles Canada pour deux entreprises canadiennes de géomatique

Ressources naturelles Canada désire souligner, par l'entremise du Centre d'information topographique de Sherbrooke (CIT-S), la performance de deux entreprises canadiennes lors de la production de données géospatiales. Ainsi, nous remercions Géodata Système inc. (de Québec) pour sa contribution à la production de données vectorielles pour la Base nationale de données topographiques aux échelles 1/50 000 et 1/250 000 ainsi que le Groupe Desfor (également de Québec) pour sa contribution à la production d'ortho-images Landsat7. Ces deux entreprises ont montré, tout au long de l'année de production 2001-2002, leur capacité à produire des données numériques surpassant des exigences techniques très strictes. Elles ont également respecté les échéanciers contractuels et établi de solides liens de communication avec les représentants techniques du CIT-S.

Félicitations et merci pour votre bon travail!

2001-2002 Citation of Recognition for Two Canadian Geomatics Companies from Natural Resources Canada

Natural Resources Canada, through the Centre for Topographic Information in Sherbrooke (CTIS), would like to acknowledge the performance of two Canadian companies in producing geospatial data. We thank Geodata System (Québec, Quebec) for producing vector data for the National Topographic Data Base at the 1 : 50 000 and 1 : 250 000 scale and Group Desfor (Québec, Quebec) for producing Landsat 7 orthoimages. Both of these firms have demonstrated in the production year 2001-2002 their ability to produce digital data that surpass strict technical requirements. They also met contract deadlines and established strong communication links with CTIS technical representatives.

Congratulations and thank you for a job well done!

Canada

Fleming College Chooses MAPublisher for Geomatics Labs

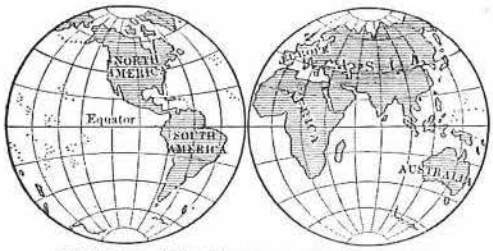
Mississauga, ON, Sept 19, 2002 - Avenza Systems Inc. announces that Fleming College has equipped their Geomatics Institute in Lindsay with 60 licenses of MAPublisher software. This implementation extends the existing usage of MAPublisher in Fleming's Geomatics program. Future plans call for additional MAPublisher seats to be installed in the college's new Institute of Geomatics at Fleming in Fall 2003.

"Having MAPublisher in our labs meets our objective of ensuring that our students have access to the best software tools available for cartographers and GIS professionals," said Hardy Kraft, Project Manager, Geomatics Institute at Fleming, Sir Sandford Fleming College.

"We're pleased that Fleming has selected MAPublisher to play a key role in developing skilled map-makers at this fine institution," said Ted Florence, president of Avenza Systems Inc.

MAPublisher is powerful map production software for creating cartographic-quality maps from GIS data. Developed as a suite of plug-ins for Adobe Illustrator and Macromedia FreeHand, MAPublisher leverages the superior graphics handling capabilities of these software packages. MAPublisher licenses are US$849 and include one year of maintenance. Special academic pricing is available. MAPublisher is sold direct and through an international reseller network. Visit www.avenza.com for full details

Fleming College, with campuses in Peterborough, Lindsay, Haliburton and Cobourg, offers outstanding programs in a variety of disciplines including Geomatics. The Geomatics Institute at Fleming delivers customized training for government and industry and post-secondary education, including Ontario's first Geomatics Technician Diploma program (Fall 2003, pending Ministry approval). The Geomatics Institute at Fleming is funded by a grant of $1.57-million from Ontario's Strategic Skills Investment program through the Ministry of Economic Development and Trade and through the private sector, including in-kind donations. The Institute is part of Fleming's Lindsay-based School of Environmental and Natural Resource Sciences, recognized across North America for the breadth and quality of its programs.



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The CCA was founded in 1975 to promote interest and education in maps and cartographic data, and to provide for the exchange of ideas and information, at the regional, national, and international levels, via meetings and publications. Membership in the Canadian Cartographic Association is open to all individuals, and public and private institutions which have an interest in maps and the aims and objectives of the Association. Membership is available in the following categories at the annual rates listed below ($CND):

Regular	$80
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To cover mailing costs US residents please add $5 CDN and Overseas residents please add $10 CND to the applicable membership category.

Members receive the quarterly journal *Cartographica*, published by the University of Toronto Press and endorsed as the journal of the CCA; four issues of *Cartouche*, the CCA newsletter and the International Cartographic Association Newsletter. The Association also provides an annual conference to promote discourse and access to a range of expertise through the interest groups and regional contacts.

For further information about membership qualifications and benefits contact the membership coordinator or any executive member or visit www.geog.ubc.ca/cca

L'ACC a été créé en 1975 pour promouvoir les intérêts et l'enseignement des cartes et de la cartographie ainsi que pour permettre l'échange d'idées, d'informations tant sur les plans régionaux que nationaux et ce via des bulletins et des conférences. L'adhésion à l'association est ouverte à tous les individus et institutions (privées et publiques) qui sont intéresés par les cartes et par les buts et objectifs de l'association. Vous pouvez adhérer dans les catégories suivantes selon les taux indiqués (cdn$) dans la liste ci-dessous:

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Les membres recoivent la monographie trimestrielle Cartographica, publiée par le University Toronto Press; 4 numéros du bulletin de nouvelle Cartouche et le bulletin de nouvelle de l'Association cartographique internationale (ACI). L'Association organise également une rencontre annuelle avec des conférences qui donne accès à l'expertise issue des groupes d'intérêts et des diverses régions du pays.

Pour plus d'information concernant l'adhésion et les bénéfices de l'association, contactez le coordonnateur des adhésions ou l'un des membres de l'exécutif ou encore, visitez notre site Internet *www.geog.ubc.ca/cca*.