Cartouche

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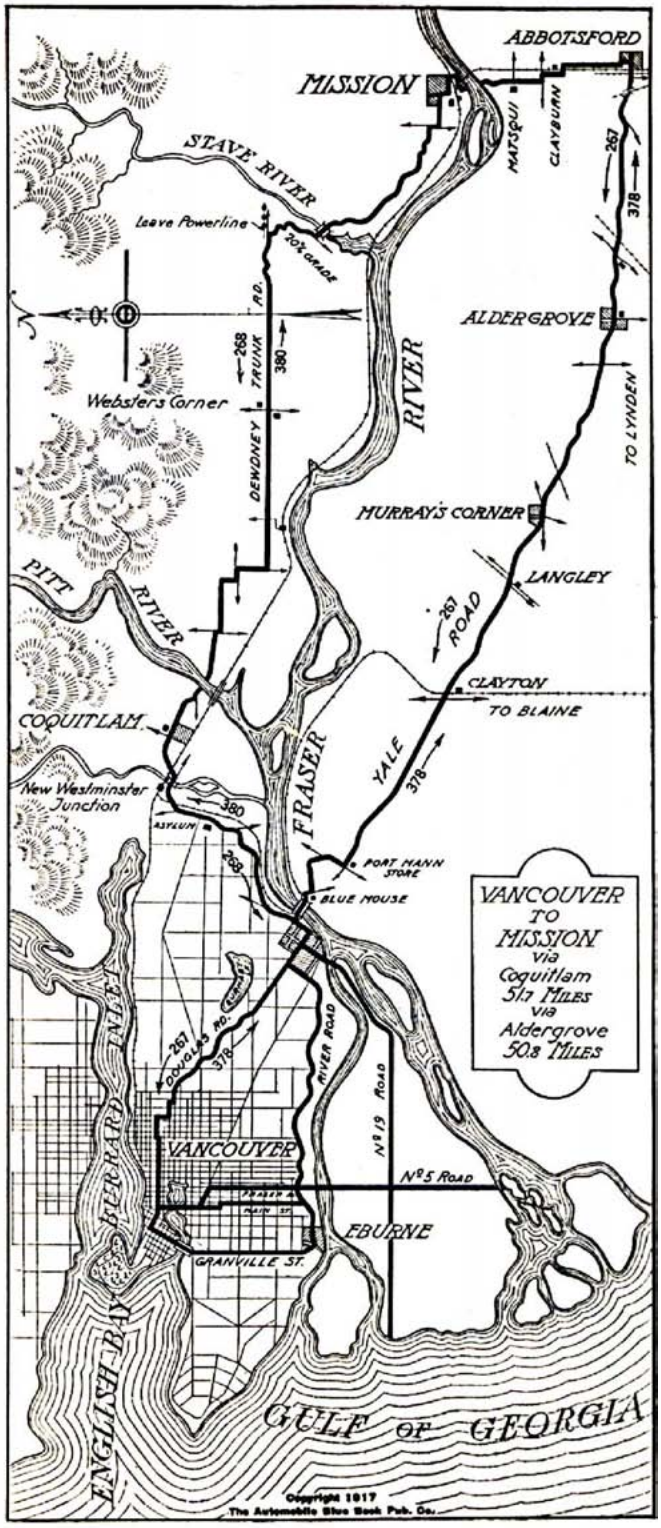

Cartouche is published quarterly by the Canadian Cartographic Association. Members are welcome to submit articles for publication. Articles and notices submitted for publication are subject to editorial approval. Please address your submissions to the editor. All other articles will appear in the language 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...

Two routes for the traveller between Mission and Vancouver, British Columbia. This strip map was published in 1917 by Automobile Blue Books, Inc. This company designed and published touring guides for many areas in North America at the at the beginning of the automotive age. (Courtesy of the University of Texas Libraries, The University of Texas at Austin.)

Editor Wanted

We are seeking a new editor for *Cartouche*. Gary McManus has done a wonderful job of editing *Cartouche* for five full years and we are greatly indebted to him for this service. His first issue was #35 in the Fall of 1999 and so he has produced twenty-one issues of our newsletter. He now feels he can no longer devote the time to *Cartouche* and that it is the moment to move on. We are looking for someone to take over beginning with the first issue of 2005. The editor is responsible for the design and layout, and for printing and mailing of each issue. It represents a commitment of approximately 40 hours per issue, or 3 hours a week.

If you are ready for an interesting challenge and would like to get more involved with the CCA, the position of editor may be perfect for you. Please get in touch with me if interested.

Christine Earl, Presdent

Inside this issue / *Sommaire....*

Reports /Reprotage

CCA Business/ACC Affaries

CCA AWARDS

The Canadian Cartographic Association presents several awards each year to deserving members of the cartographic community which it serves. These awards are meant to recognize and encourage the achievements of outstanding individuals in the field.

- **President's Prize Student Map Competition**
- **Norman Nicholson Memorial Scholarship in Cartography**
- **Awards of Distinction**

For information about eligibility and how to apply or nominate individuals for these awards, see the CCA web site: *www.cca-acc.org* or contact any member of the executive.

Prix de l'ACC

L'Association canadienne de cartographie présente, à chaque année, plusieurs prix à ses membres méritants. L'attribution de ces prix a pour but de reconnaître et d'encourager l'accomplissement exceptionnel d'individus dans le milieu cartographique.

- **Le prix du Président pour la compétition des étudiants**
- **Bourse Norman Nicholson**
- **Prix de distinction**

Pour de plus amples renseignements concernant l'éligibilité, comment postuler ou proposer un candidat pour ces prix, s'il vous plaît, veuillez visitez le site web de l'ACC à l'adresse URL suivante: *www.cca-acc.org*, ou veuillez contacter un membre du comité exécutif.

Christine Earl
Carleton University

Swimming With Scrooge McDuck

On October 28th, I had the good fortune to have a rap session with two visiting cartographic colleagues: Dr. William Cartwright, Associate Professor of Cartography & Geographical Visualization in the Department of Mathematical and Geospatial Sciences, Royal Melbourne Institute of Technology, Australia, and Dr. Georg Gartner, Department of Geoinformation and Cartography, School of Mathematics and Geosciences, Vienna University of Technology, Austria. We talked about cartography and cartographers and our place in the GIScience enterprise. I thought CCA members would be interested to hear the conversation and in this issue of Cartouche, I present edited excerpts from our conversation which touch on the definition and scope of cartography:

WC: There was a paper written a number of years ago and presented at the ICA Conference by the former Secretary-General, Jean-Philippe Grelot, and in that paper he said there were waves and when the technology is new, there's a rush towards the technology; when it stabilizes, we see that the technology's just a tool and we go back and look at how we use it; and then another new technology comes in and there's a rush towards that.

I think that GIS technology has now stabilized and it is recognized that GIS technology just happens to be a tool. Now when computers were new, we used the terms "automated cartography" or "computer-assisted cartography". They're not used anymore. And a term I use a lot, "Multi-media cartography" – that's no longer relevant either. Maybe there'll be a re-evaluation of what's important and, I hope, a look at art. It's the interpretation of geography that is important – the tools we use to interpret it can be computers but they can also be art. Maybe in the rush towards technology, we've forgotten about the art. I think it's important to look at it again because there are other people doing cartography but they aren't doing it the way we're doing it. They're doing interpretations of space and place but they've got a different approach. I think we should not just be talking to the surveyors and GIS people, but also to these other people who are interested in depicting the landscape.

Who are these other people?

WC: I made an appeal for any interested art people to be involved in a project I've been trying to get off the ground called "Geographical Story-telling". Of the people who are interested, there are two people who are installation artists and they build installations that make comment about the space they're working in. I've got a number of multi-media producers who don't come from cartography. I've got two writers that write hypertext, they're authors, they're interested. I received an email from a musician who composes music and his compositions are based on geography. He wants to be involved as well. So, there's this other cartography out there but cartographers haven't yet embraced art in the same way they've embraced technology.

GG: Of course, but you can't discuss with mathematicians the issue that the art part, discussion of the art part, the aesthetic part, the pleasure part, or whatever we call this, is a science or a scientific topic. They would say that's fine but in order to solve a problem scientifically, we need just the numbers. And that's what the GIS community's already provided so what do we need the cartographer for? That's the basic question we need to respond to.

We have been quite successful in my university in teaching the technology – people have been getting the GIS courses and they know how to use ArcView, ArcGIS or whatever GIS system, and then they come to cartography and they have the same question: Why should I learn cartography if I can use ArcView? To me, there is an answer. The answer is that you can look at the products they are making, the outcomes of the GIS programs. And I think, when you look at it, that as a GIS person you are really trying to model the data and that's it. You don't really want to communicate this information because it's not in the scope of your work. For me, this term communication is the most important – communication not just of data, but of information, which means I want to communicate in a way that **you** can feel comfortable with, not the computer. That's the difference to me and it's a big difference.

My metaphor for this is the making of a newspaper. I always say to my students: if you want to make a newspaper, what is needed to make a newspaper? Is it enough to have a machine where all the news from the press agencies comes in and that's it? Or do you have to have a person who says: well, this is important, this is not important, I will shorten this, I will add a comment to that, I will put all this information together in such a way that it will make a newspaper that you can read, that you can make sense of? And for me, that's the difference between GIS and cartography. GIS brings the news, it models it and it's perfect – for the machine. But for the user, for the human being, somebody has to do something with all these data, and that's what I believe is cartography's role. Cartographers are trying to select, to bring out the most important things, to maybe modify the data, do what we call generalization, modelling, cartographic modelling, to make a sensible product out of it. Not for the **computer** – for the **person** who looks at it, so that they can make sense of it.

So this is my picture of cartography and I would say this is a very modern statement. There is so much information out there, so much data, on the web, everywhere, permanently. It needs more intelligent cartographers to do something with these data, to really make the data understandable. So to me, cartography's really going to be relevant in the future.

WC: I visualize Scrooge McDuck. $crooge McDuck was diving into a swimming pool full of money but here the swimming pool is full of technology and we're diving in, and when you jump in and you're splashing around, the water splashes out and the pool level drops down and every now and then you've got to top it up and you've got to think: well do I top it up with more technology or do I top it up with a bit of art now, a bit of design, to make it work ... so more people can dive in and splash around?

GG: But if you're honest, you have to say that we're still technology-driven. Nobody's really dealing with, say, methods, methodology, which is really the way away from technology.

WC: The same arguments go on in the computer science industry that on one side of the auditorium you've got the computer programmers and software engineers and they say that without us, it won't work. And on the other side, you have interface designers and information designers and they say yes, without you it won't work, but without us, it's unusable.

GG: Yes, that's exactly what cartography is doing.

But then maybe the next step would be to think about it in a wider sense than cartographers have thought about it in the past. What is a good map, or what is a good communication? This is a question we have to face. What does it mean, a good map? Does it mean it's aesthetically pleasing to my eye? Or does it mean that maybe I have a map which just shows me a red dot because that's the location of whatever place I would like to go to and that's enough information for me and that could be a good map also? I think with modern technologies and especially with interactivity and multi-media, cartographers will have to open their minds also, in a way, to what it means to communicate information effectively. It's not only that we think about it graphically. With the location-based stuff we are doing in our projects, we really have to have new ways of thinking because when you're out there with a mobile device, you don't want to wait for two minutes sitting in a car for a beautiful map to come up. You want to have the information there, right now. And the goal of cartography here is to communicate this information effectively. That's the goal of cartography. And the goal of the underlying GIS is to model the data, I would say, to model the data so that the cartographer can use it.

Cartwright (excellent name for a cartographer) and Gartner are both active internationally – Bill Cartwright is a Vice-President of the ICA – and they will appear in print as contributors to a forthcoming book entitled *Cybercartography: Theory and Practice*, D.R.F. Taylor (ed.), Elsevier. I shall hope to share more of our conversation in a future issue of Cartouche.

Today's Smile...

Are cartographers secretly taking advantage of the public, in still trying to ply their trade?

Apparently, someone I met recently thought so. Upon hearing that I was a cartographer, the person's brow immediately furrowed as they commented with some scepticism:

You're a cartographer? Haven't all the maps been made?

Patricia Connor

Rick Gray
Ridgetown College

Greetings From the VP.

In my first piece in Cartouche, let me start by thanking those generous souls who had enough confidence in me to ask me to stand for vice president. I hope I can live up to your expectations. My primary interest in running for the position of VP was to take a lead role in membership building. Why would I want to do this? Because the CCA is "family" and I want to see it prosper.

I first joined the CCA in 1994, and attended my first conference in Calgary that year to display a poster from my first GIS course at the University of Guelph. Janet Mersey was the CCA vice-president that year, and my GIS instructor. She was very proactive in recruiting her students to join the CCA and several of us are still members a decade later.

That conference, to me, was pivotal in my association with the CCA. As a student, I was made to feel like someone special. I was rubbing shoulders (and having drinks) with professors, with potential employers in industry, and with other students who shared my passion for maps. It was like one, big, happy family where the people enjoyed each other's company for their common interests rather than for the sales they might make. It was really quite refreshing.

When the conference was over, I went back to school but did not forget the great time I had had in Calgary. I also could hardly wait to go to Newfoundland the next year, and after that to London. What a great opportunity to see Canada while networking, playing (especially orienteering) and learning. All this for the meager $40 student membership fee.

Now, several years later, with a couple of degrees under my belt and being gainfully employed, I find myself as vice president in an association that still provides all the benefits it did when I joined. Although my membership fee has doubled, it is still less than a single ticket to a Bare Naked Ladies concert and still quite a bargain. However, one thing seems to have changed in recent years… the membership seems (without statistical evidence to back up the perception) to be getting older and smaller.

If the CCA is to remain a vital organization, we, as the active members, need to take it upon ourselves to keep it alive and interesting and to encourage new members to join. This is where I am asking for your help. I have lots of ideas on how to grow our membership, but they require ACTIVE participation from you. You are the key to our association's success. Without your help, I cannot do my job.

Here are a couple of the ideas I have been toying with. Please drop me an email to tell me if I am on-track, if you think my ideas will work, or if not why not and what we can do instead. This is my challenge to you to make a difference.

Faculty/staff at educational institutions

Mentor students into the association.

- Actively encourage them to join / participate
- Explain the benefits – travel, networking opportunities, prizes
- Follow up the next year with a simple email to say you are looking forward to seeing them at the next conference. You'd be surprised how much influence you can have on a student. A simple word of encouragement from you can make them feel like they are an important part of the CCA family. I believe this simple act alone could help retain student memberships at a very high level.

Industry

Develop promotional packages through your company to sponsor students, e.g.

- the (*your company name)* Award for Cartographic Excellence or
- the (*your company name)* CCA travel scholarship

It will

- get your name circulating in universities and colleges
- make you a "benefactor" rather than a "pushy salesperson"
- give your company a tax deduction,
- help a starving student get to the conference and, most importantly
- will help keep the CCA growing

I have other ideas, too. Ideas like incentive packages to encourage you to bring in (and sustain) new memberships, promotional packages for target sectors, and more. But what I need more than anything right now is your help.

If you consider yourself an ideas person and would like to get in on the ground floor of revitalizing the CCA, drop me an email or give me a phone call and we'll talk. I would like to form a small, ad-hoc committee to bounce ideas back and forth with and I'd like you to help me with it. Together we can make the CCA prosper.

Jean McKendry
University of Idaho

Web-based Data Sources and Online Mapping

Introduction

During the last decade, we have witnessed impressive growth and maturation in GIScience research, development, and applications. On a parallel track, the World Wide Web has become an indispensable tool for information dissemination and commerce (not to mention a "darker side" of propagating viruses and spyware). For cartographers, the web now provides an abundance of portals through which digital data can be accessed and downloaded to create maps using GIS and related applications.

Individual government agencies as well as multi-agency "data committees" provide the means, structure, and direction for accessing geopatial data. GeoConnections (Canadian Geospatial Data Infrastructure, http://cgdi.gc.ca/CGDI.cfm) is a national project to make Canada's geospatial databases accessible on the internet. In the US, the Federal Geographic Data Committee (http://www.fgdc.gov) is responsible for developing the National Spatial Data Infrastructure (NSDI). In addition, many government data providers are providing online tools that provide users/citizens with the capacity to explore geographic data and create maps over the web. Such a service may be in addition to or in lieu of serving data files.

Tracking available online data sources — or "data warehouses"— to assist in map compilation is something that is often of interest to many cartographers (e.g., at the most recent CCA meeting in Lindsay, several presenters described http://geobase.ca as a source for Canadian boundary files). The purpose of this article is to describe select examples of web-based data sources and/or portals and interactive mapping sites. Of course, the examples below are but a small subset of what is available.

Average Wage Per Job Shapefile: bea34bp020.tar.gz	Average Wage Per Job Information	Shapefile: 4,968,405/19,637,248	March 2004
SDTS: be4p.tar.gz		SDTS: 4,445,829/14,643,200	March 2004
Breeding Bird Survey Routes of North America Shapefile: bbsrtsl020.tar.gz	Breeding Bird Routes Information	Shapefile: 10,177,380/13,698,048	June 2001
SDTS: bbrl.tar.gz		SDTS: 6,029,687/9,902,592	June 2001
Butterflies DBF File: butflyt.tar.gz	Butterflies Information	DBF File: 180,118/2,587,136	February 2002
Cancer Mortality Shapefile: cancerp020.tar.gz	Cancer Mortality Information	Shapefile: 6,934,668/31,592,960	February 2002
SDTS: canp.tar.gz		SDTS: 6,347,121/26,322,944	February 2002

Figure 1. Selected Datasets from National Atlas of the United States FTP site

Government-Sponsored Data Sources

I have become aware of specific government data warehouses (through a project to develop a series of socioeconomic atlases for regions around US national parks (see *Cartouche 53*) and would like begin with several familiar examples. To access demographic and other statistical information and US boundary files relevant to the atlas project, one obvious source was the US Census Bureau. The US Census Bureau reports data from the Decennial US Census, the Census of Governments, the Economic Census, and other efforts. The American FactFinder (http://factfinder.census.gov) section of the US Census Bureau website (http://www.census.gov) is particularly useful for downloading decennial census data. It is possible to download detailed datasets directly via FTP that represent responses to specific Census questions, or use a menu-driven interface to select a specific dataset, region, and scale of analysis, such as state, county, or census tract, etc. Another section of the US Census Bureau website provides boundary files (http://www.census.gov/geo/www/cob/bdy_files.html), ranging from Alaska Native Regional Corporations to voting districts.

Another useful data warehouse in the US is the National Atlas of the United States website, a service of the US Geological Survey, in partnership with ESRI. The National Atlas (http://www.nationalatlas.gov) "is designed to provide a reliable summary of national-scale geographical information." A diverse collection of data from US government agencies is available through this site, from cancer mortality data to county boundaries, from hydrologic unit boundaries to crime statistics. These files are available for downloading directly via FTP and include detailed metadata. See Figure 1.

Several portals are available through which the availability of US geospatial data can be explored. For example, Geospatial One-Stop (http://www.geo-one-stop.gov/) provides a portal (http://www.geodata.gov) to federal, state, and local data. See Figure 2. FedStats (http://www.fedstats.gov) is a "gateway" to statistical data and to statistical agencies. In Canada, GeoConnections provides links to sites for Canadian geospatial data, including GeoGratis (http://geogratis.cgdi.gc.ca/) and GeoBase (http://geobase.ca). See Figure 3.

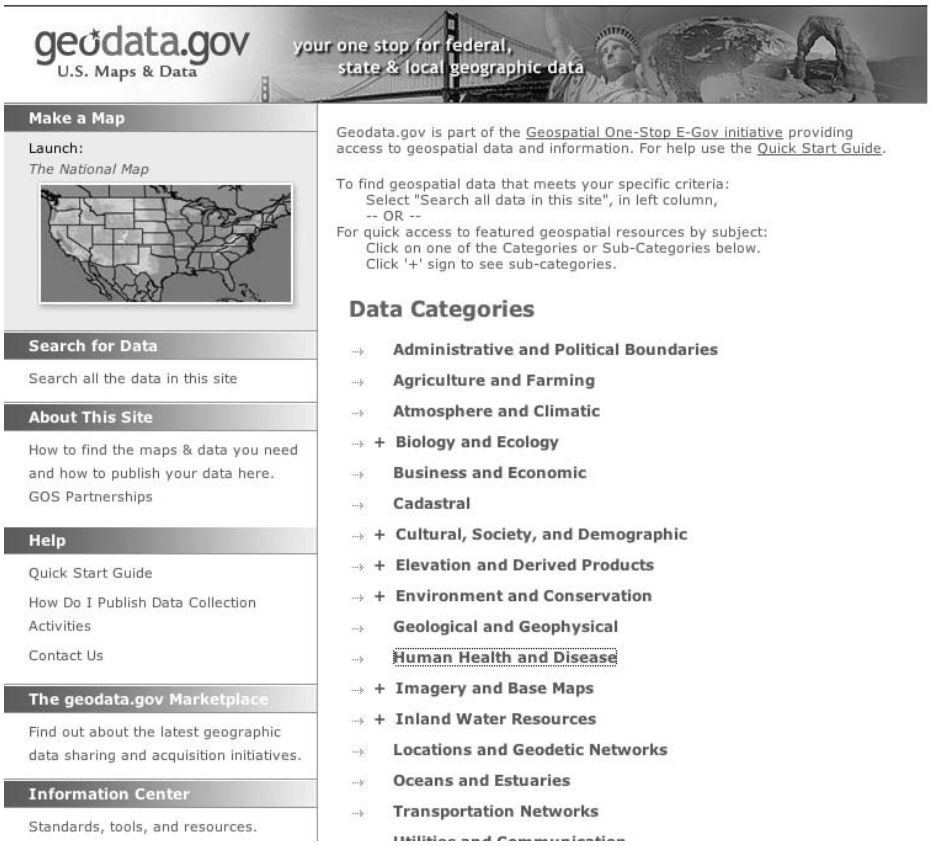

Figure 2. GeoData Portal

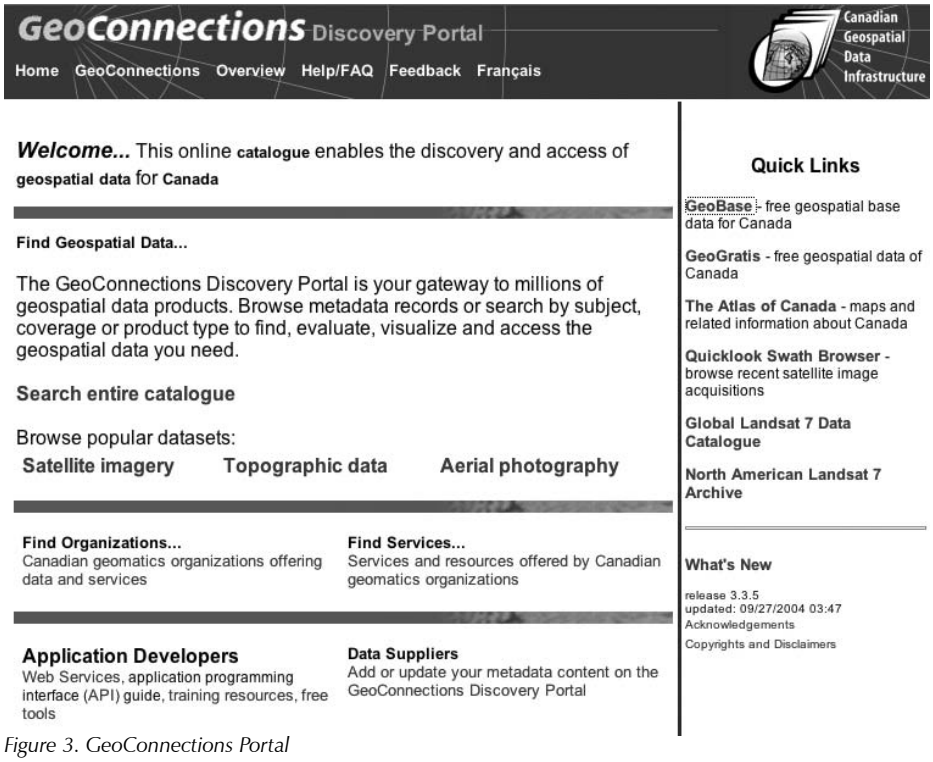

Figure 3. GeoConnections Portal

From Data Downloads to Online Mapping

Many government sites that specialized in delivering geospatial data also provide a companion online mapping tool. Such tools enable visitors to a site to prepare and print maps entirely over the web and empower them to explore visually an abundance of information on their own. For example, the US Census Bureau website provides tools for thematic mapping. Specific datasets and regions can be selected. The zoom function makes certain layers visible or not visible, and the classification and colour schemes are pre-set (See Figure 4). The Atlas of Canada provides maps by themes, also with a

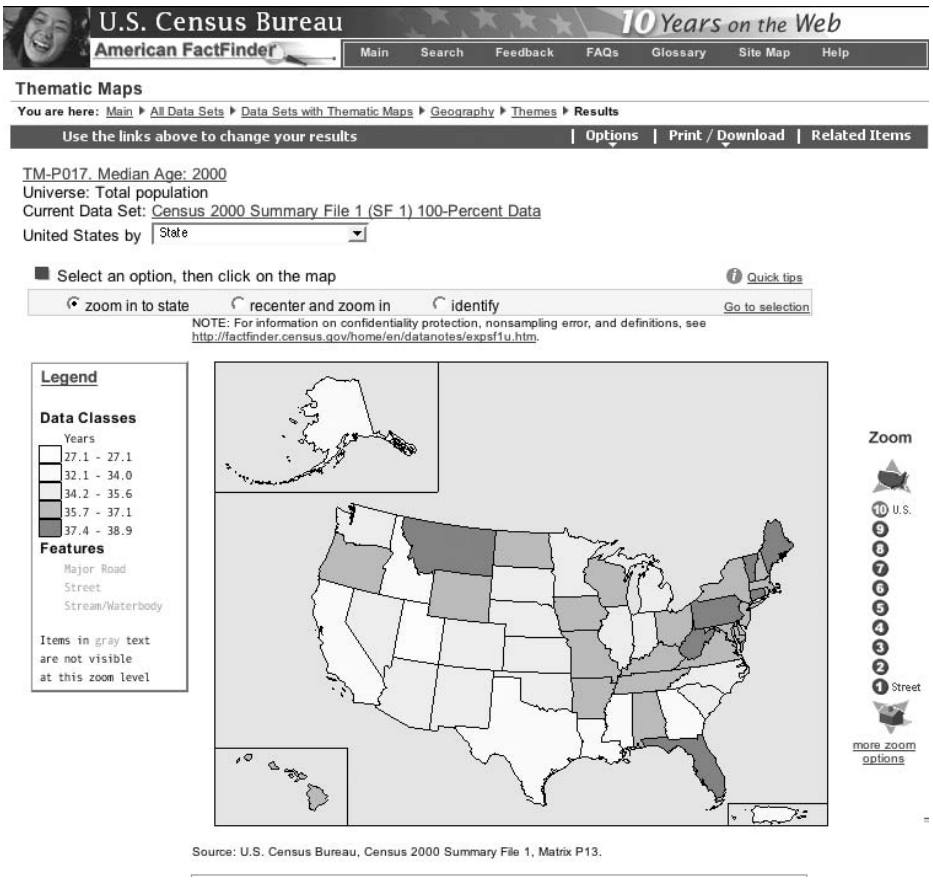

Figure 4. American FactFinder Online Mapping Option

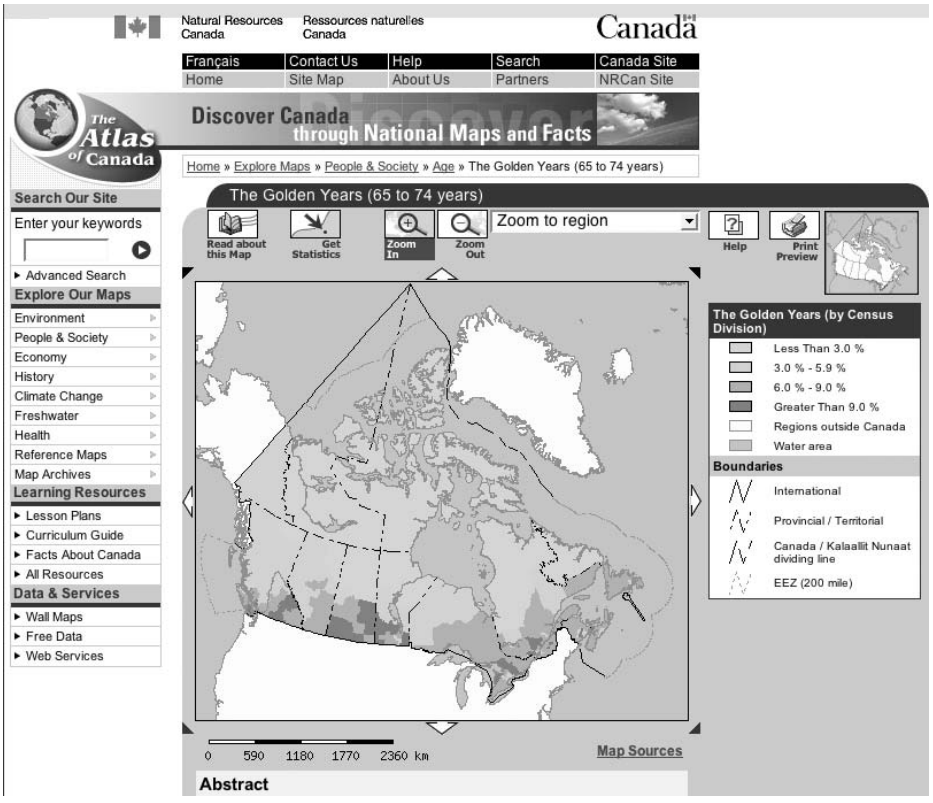

Figure 5. Atlas of Canada of Online Mapping Option

zoom function that provides for different levels of detail. Textual information, and pop-up data tables are also available, if desired (See Figure 5). The National Atlas of the United States provides a range of choices for data layers and zoom levels to turn on or off. (See Figure 6). Recreation.gov (http://www.recreation.gov) is a centralized source to get information about recreation opportunities across the US. It provides a mapping tool that searches by location and / or by type of recreation activity desired. (See Figure 7).

Conclusion

The growing availability of government warehouses for geospatial data is helpful for map compilation in a digital environment. Private and commercial data sources also have an important role to play. While such efforts will not meet the need of every mapping project due to specific scale, thematic, and other issues, data warehouses do reduce redundancy and can save time.

It is useful for cartographers to visit government sites and commercial sites (such as http://mapmachine.nationageographic.com) to explore differences in how online mapping is implemented. Perhaps even more interesting, is the possibility of observing an emerging web cartographic design aesthetic. While many of these sites offer great flexibility in building a custom map by choices of data layers, the user often has little control over design elements (font, colour, placement, etc.). By using these online mapping tools, what are users of these sites potentially learning, not only about geography, but — directly or indirectly — about cartographic design?

Author Note: Figures are "screen shots'" captured a low resolution. Figures were originally in colour.

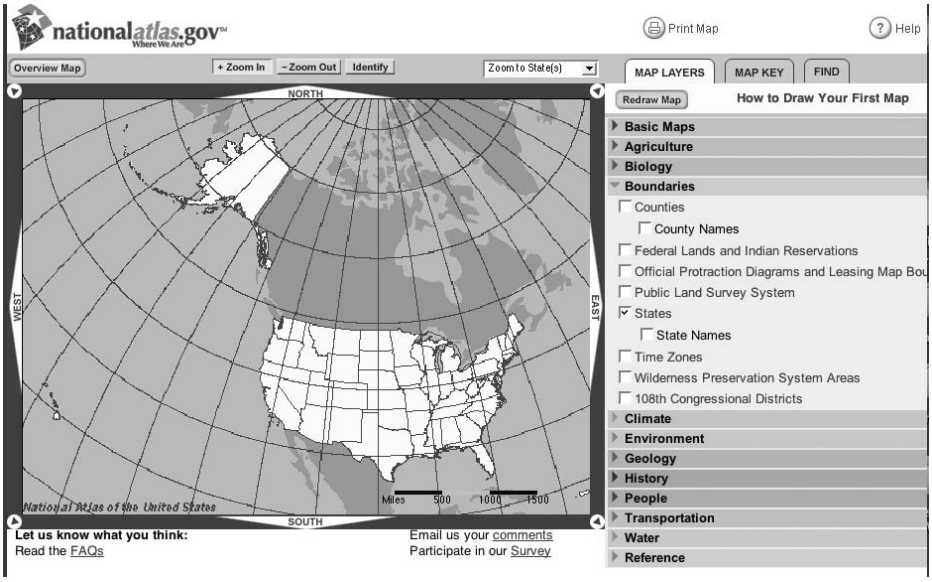

Figure 6. National Atlas of the United States Online Mapping Option

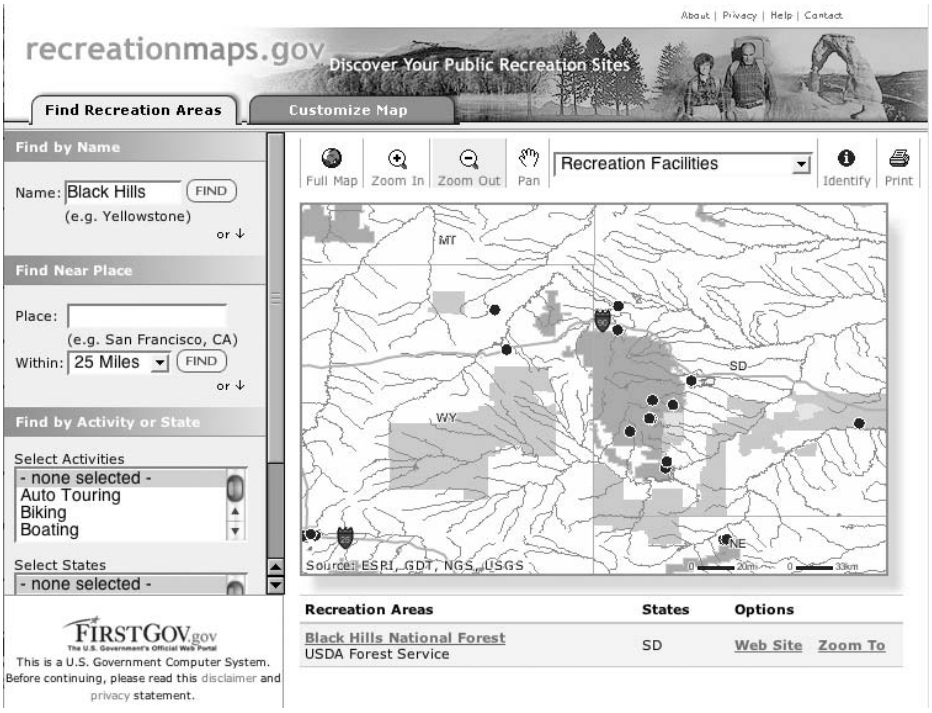

Figure 7. Recreation.gov Online Mapping Option

Perly's Maps acquired by Rand McNally Canada

On November 18, Rand McNally Canada announced that they have acquired Perly's Maps. Perly's Maps is a third-generation family business based in the Toronto area and a very well-recognized name in the retail mapping market in Ontario. Established in 1949, Perly's has kept pace with changing technology and customer needs and has continued to be profitable. It has provided an invaluable product to businesses, emergency services, police, residents, and visitors.

Rand McNally will retain the Perly's brand and develop and enhance the Perly's products and their distribution. James Perly, who inherited the company from his father, Gary, in 1997, will work with Rand McNally during the transition and the development of plans for the Perly's brand, and will ensure that employees not continuing with Rand McNally find other jobs.

Christine Earl

Calendar/ *calendrier*

March 7 - 11 mars, 2005
ASPRS
Annual Conference
Baltimore, Maryland
For information / *pour renseignements: www.asprs.org/baltimore2005*

March 18-23 mars, 2005
Auto-Carto 2005
Riviera Hotel, Las Vegas, Nevada
For information / *pour renseignements:* http://acsm.net/cagis/carto2005/

May 17 - 19 mai, 2005
8th Internatioal Conference of Remote Sensing for Marine and Coastal Environments
Halifax, Nova Scotia
For information / *pour renseignements: www.waterobserver.org/event-2005-05*

July 9 - 16 juillet, 2005
22nd Internatioal Cartographic Conference
A coruna, Spain
For information / *pour renseignements:* www.icc2005.org

July 26-29 juillet, 2005
CARTO 2005
Joint CCA/ACMLA
St. John's, Newfoundland and Labrador

Obituaries

Arthur H. Robinson, (1915-2004)

Arthur Robinson was born in Montreal, Canada, on Jan. 5, 1915. He obtained a bachelor of arts degree from Miami University, Oxford, Ohio; an M.A. at the University of Wisconsin, Madison; and a Ph.D. at Ohio State University. During WWII he joined the Office of Strategic Services (OSS) in Washington, DC and soon became the chief of the Map Division there where he remained until 1946. During the war he was commissioned in the Army with the initial rank of captain, and was later promoted to major. For his distinguished service in the OSS he received the Legion of Merit.

In 1946 Robinson took a faculty position with the Department of Geography at University of Wisconsin at Madison. He quickly obtained the rank of full professor and retired in 1980 with the rank of professor emeritus. During his long career he produced 15 books and monographs and countless academic papers. His work the *Elements of Cartography*, became the preeminent textbook in cartography and went through six editions.

Dr. Robinson is perhaps best known for the Robinson Projection, which was adopted in 1988 by the National Geographic Society as its standard map projection for producing world maps. Robinson was recognized as a world wide as a leader and scholar in Cartographic thought. A few of his most notable honours include: honorary degrees from Miami University (Ohio) and from Ohio State University, the Distinguished Service Award and the Helen Culver Gold Medal from the Geographic Society of Chicago, the Carl Mannerfelt Medal of the International Cartographic Association, the Silver Medal of the British Cartographic Society, and the John Oliver LaGorce Medal of the National Geographic Society. He served as president of the International Cartographic Association, and as vice president and president of the Association of American Geographers.

Arthur Robinson was a long standing member of the Canadian Cartographic Association and in 1998 was presented the CCA Award of Distinction for Exceptional Scholarly Contributions to the Practice of Cartography.

Hal Shelton, (1916-2004)

Hal Shelton renowned for his shaded relief depictions passed away November 11, 2004 at Golden, Colorado, at the age of 88. Shelton was born in 1916 in New York State but lived most of his life in western United States. He obtained a degree in scientific illustration and a Masters of Arts degree in education. During WWII he found himself employed by the USGS making topographic maps. This experience convinced him that topographic standards of the time should be improved and that more legible topographic maps needed to be produced. During his time with the USGS he was appointed to the position of Chief Cartographic Engineer to the Shaded Relief Map Program. In the early 1950s he worked on contract for Elry Jeppeson and produced more that 30 maps in what has become known as the Jeppesen Natural-Colour Map Series.

In his latter life Sheldon turned his attention away from mapping and the his scientific endeavours and applied his talent to painting landscapes of mountains and nature he loved. He was a founding member of the Foothills Art Centre established in 1968. Sheldon was honoured both locally and Nationally. The Hal and Mary Shelton Elementary school in Golden was named for Hal and his wife Mary. The Library of Congress named Shelton as one of the foremost cartographic artists of the century and holds 33 of his early maps and one painting in their collection.

Fabian O'Dea (1918-2004)

The map history community in Canada lost one of its active members in the past week. Fabian O'Dea of St. John's, Newfoundland, died on December 12th, aged 86 years. At the time of his death, he was engaged in the final revisions for his book, "Cartographica Terra Nova: Mapping the Island of Newfoundland, 1500-1800," which had been accepted for publication this past summer by a major Canadian university press.

Building on the foundation laid by such renowned scholars as Henry Harrisse and G.R.F. Porwse, Fabian O'Dea's work is the first critical study in seventy years of the rich trove of cartographical material that was produced over a period of three hundred years during the European exploration and the early occupation and settlement of the island of Newfoundland. For the earliest period, no other portion of North America was documented as extensively in maps and charts.

Fabian O'Dea's unequaled knowledge of these early maps and his generosity in sharing his information with others will be sorely missed.

Ed Dahl

New Intellectual Property Licensing Guidelines for NTS Maps

Procedures for granting permission to reproduce NTS maps have been simplified, and a web site with guidelines, instructions and licence agreements in electronic format are now available. http://maps.NRCan.gc.ca/permission/index_e.php

There are two choices of on-line a permission: without fee form, or a licence with fee form. These requests do not necessary give permission to reproduce NTS maps "as is".

At this time, the IP guidelines cover only paper outputs from NTS maps, with other CTIO products (air photos and geographical names) to be addressed shortly.

Claire Gosson
GeoAccess Division, NRCan

A Word From the Past-President

Dear CCA members:

Since the last issue of Cartouche, life after our Lindsay meeting has more or less returned to normal - Fall has returned, the Academic year is well under way, everyone is back to his or her regular routine at work.

I had the great pleasure during the first week of November to visit Memorial University of Newfoundland on Atlas of Canada business. I received a very warm welcome from the University and the staff at both the Geography department and the Map library. Professor Keith Storey, the Chair of the Geography department gave me a grand tour of the department and for an added bonus Alberta Wood and the staff from the map library showed me map library. I also spent some time with fellow CCA folks, Cliff Wood, Charles Conway and David Merser and ACMLA members Alberta Wood and Dan Duda.

As you all know, in 2005, the CCA and ACMLA will hold its joint conference at Memorial University. If the warm welcome that I received in November while at Memorial is an indication of Newfoundland hospitality, then this is a conference not to miss. The organizing committee have already started planning and it promises to be a impressive event. Professor Storey of the Geography department assured me the climatologists of the geography department are working on ensuring good weather during the conference.

At this time, I would like all CCA members to give some thought to our members that are worthy of recognition from the Association. I am now asking for nomination or suggestions from our membership for Awards of Distinction recipients for 2005. A list of the past recipients of the Award of Distinction is available on the CCA web site http: / / www.cca-acc.org

The Canadian Cartographic Association introduced the Award of Distinction in 1997 to recognize individuals who have made exceptional contributions to the Association or to cartography in general. The Award of Distinction Acknowledges and individual or groups in one of three categories:

1. Exceptional professional contributions to the practice of cartography.
2. Exceptional scholarly contributions to cartography.
3. Exceptional contributions to the Canadian Cartographic Association.

Please take time to reflect on whom you deem worthy of being recognized by the Association in one of the categories listed above and, if you have a person or a group of individuals that you wish to out forward, please send me a note (claire.gosson@ccrs.nrcan.gc.ca) along with a brief description as to why this person or group should be recognized by the Association. The selection committee will consider all candidates put forward by the membership.

The Awards of Distinction are important to our organization and most of all, for the individuals who will receive this Award. It recognizes their achievements and in doing so, makes our organization stronger and shows a level of respect and value that is necessary in any organization. All members of the CCA should have an input in recognizing the people that make our organization what it is today – a group of remarkable Cartographers that have the benefit of our organization and Cartography as their highest priorities.

Also in the New Year, a nomination committee will be formed to select a new Board Of Directors that will be responsible to run the business of the Canadian Cartographic Association next 3 years - first as Vice-president, then as President and finally as Past-President. I would encourage everyone to think about serving on the Board in some capacity. The positions available are printed in every issue of Cartouche. At this time we are also looking for candidates for Vice-President for the Board of Directors.

We are also looking for nominations for some Special Interest Group Chairs (SGC). This Special Interest Groups caters to those with interests in particular branches of cartography and serve as group chair for 2 years. These are listed below and are also found on our web site. Not all positions are open this year since the changes are staggered from year to year to make certain that not all SIG chairs turn over in the same year The SIG chairs are frequently called upon serve as the focus for special sessions at the annual conference and to prepare article of interest for their group of interest for Cartouche and the annual conference.

The CCA has 5 Interest Group Chairs:

1. Analytical Cartography and GIS
2. Cartographic Education
3. History of Cartography (New)
4. Map Use and Design
5. Map Production Technology

Special Group Chair contributes significantly to our organization. There are many benefits to becoming a group chair - you will get to meet many CCA members with like interest, form many long-lasting friendships through our annual conferences and become part of great cartographic network. Most of all, you will acquire experience that will last a lifetime. The nominations for SGC and the positions available will be announced in a later issue of Cartouche, so please take the time to look at these and consider contributing to the Association by becoming A Special Group Chair.

Students are most welcomed to participate on the Board of the CCA. There is a position for a Student representative available on the Board. If you are a student consider joining the Board and in the same token, professors and other CCA members, please encourage students and young co-worker to become members. Our students and young colleagues are the future of the Association and we must support and encourage them in every way to join us.

The Canadian Cartographic Association also has a number of awards for our students. The CCA sponsors the long-standing 'President's Prize

Competition', for student map-making. There is also the 'Best Student Paper' (under-graduate and graduate) presented at our annual conference by a student. For those students that are interested in pursuing their cartographic education, there is also the 'Norman Nicholson Memorial Scholarship'. I would like to see Professors support their student and encourage them to apply for this Award. The CCA web site has all of the information on this award.. The Awards to students are given out during our awards ceremony at our banquet at our annual conference.

I have been the Chair of the Canadian Cartographic Exhibit Committee for the International Cartographic Association (ICA) for many years now. This event happens every 2 years and this year, it will take place in Spain in July. The Committee will be sending out e-mails and letters requesting submissions soon for all Cartographers to submit their work. This year, we plan to bring all of the maps submitted and have them on display at the joint CCA / ACMLA conference in 2005 at Memorial University.

The Committee has noticed that over the past few years, we have been getting less and less submissions from the Canadian Cartographic Community. Canada is a leader in the field of cartography and we must continue to show the World what we can do. We would like to see more CCA members, as well as students send in the maps they have produces over the past 2 years. The Exhibit not only includes maps, but also Journals, multi-media presentations, remote sensing images etc. The full details for the ICA 2005 Cartographic Exhibit will be outlined in the letter that will follow soon to the Cartographic Community. We look forward to receiving your best work. As the Canadian Cartographic Association, we should be able to fill the Canadian display with excellent maps.

Lastly, I would like to wish all of you a very Happy Holiday Season and prosperous New Year.

Position Available

University of Regina
DEPARTMENT OF GEOGRAPHY

The Department of Geography at the University of Regina invites applications for a two-year term appointment at the rank of Assistant Professor, commencing July 1, 2005.

The Department of Geography seeks a two-year term faculty member with expertise in Cartography and Geographic Information Science, to strengthen the department's existing strength in this area. Candidates from a broad range of theoretical and analytical perspectives will be considered, with research interests in either human or physical geography; but there is particular interest in hiring in the areas of resource management and/or environmental health. Methodological skills appropriate to the pursuit of these interests within a Cartographic and/or GIScience framework are required. Candidates who can further complement the Department's capabilities and whose interests augment and support the strategic research themes of the University and the department will be advantaged.

We seek an outstanding individual with demonstrated commitment to excellence in teaching and research. The successful candidate must have a Ph.D. (or be close to completion), a record of scholarly publication, evidence of excellence in teaching, and show the potential to develop an independent research agenda. The Department is committed to a balanced program of teaching, research, and service to the community.

Closing date for applications
February 15, 2005.

Applications sent to: Dr. Robin Fisher, Dean Faculty of Arts University of Regina, Regina, Saskatchewan, Canada, S4S 0A2 Fax: (306) 585-5368

Academic inquiries about this position may be addressed to: Dr. Ben Cecil, Head Department of Geography Phone: (306) 585-4034 E-mail: ben.cecil@uregina.ca

Andrew Millward
University of Waterloo

The Resurgence of the cartogram: (Re)Covering an Election

While common map projections provide mediums of familiarity, they are often guilty of producing intrinsic distortion of the rendered data. What does Mercator's projection provide us with when considering election results? Yes we do wish to 'navigate' election results, but we're not talking literally. At best, the use of Mercator's projection represents a confusing sound bite, and at worst it is a tool for the trivialization of voter motivations and demographics. In short, it may serve to entrench the view [especially outside of the US] that nothing has changed.

Most coverage of the US presidential election has been saturated with comments that describe results aided by the 'familiar' map [Mercator projection]. Remarks like, 'the map looks just like it did in 2000' are ubiquitous. True, if we are satisfied with this projection of geographic boundaries. We shouldn't be though. It tells us nothing significant about population densities or voter demographics. Elections are not won on geographic area [anyway, the Mercator projection distorts area], so it is reasonable to demand cartographic representation that better visualizes electoral votes and population density. At a minimum the mainstream media should provide access to such depictions, assuming that they are available. They have not been historically due to the complexities involved in their creation [remember mapping by hand].

Contemporary datasets are often characterized by volume and complexity. Involve a geographer and they might contribute to this by advocating for the addition of a spatial component [admittedly an enhancement to many databases]. Mapping quantitative data in two dimensions, in a way that is informative and 'mindful of biases', continues to challenge cartographers [there is need for good map makers and the continued investment in cartographic science]. With the recent US election there has been a resurgence of interest in the cartogram as one tool to visualize the spatial distribution of voting behavior. Cartograms are created by spatially transforming map regions relative to a data theme; they emphasize data distribution instead of territorial size [but have been known to morph recognizable geographic boundaries with great liberty].

In a cartogram, the size of a map region depends on the data under study, not raw land area. This is relevant to visual data mining using maps. While the different perspectives cartograms may reveal can alter the way we imagine the processes behind observed patterns, sometimes they simply contribute to interpretive confusion. In fact, in the words of a physicist, "previous methods didn't produce very good maps", and "distortion was so great that you couldn't recognize geographic areas, and sometimes areas were forced to overlap" (Newman and Gastner, 2004). The challenge when constructing cartograms automatically is to preserve the shapes of the input map (individual regions as well as the overall map) while making each region's area close to its statistical target and not changing the connectivity between regions [assuming a contiguous map surface is desirable].

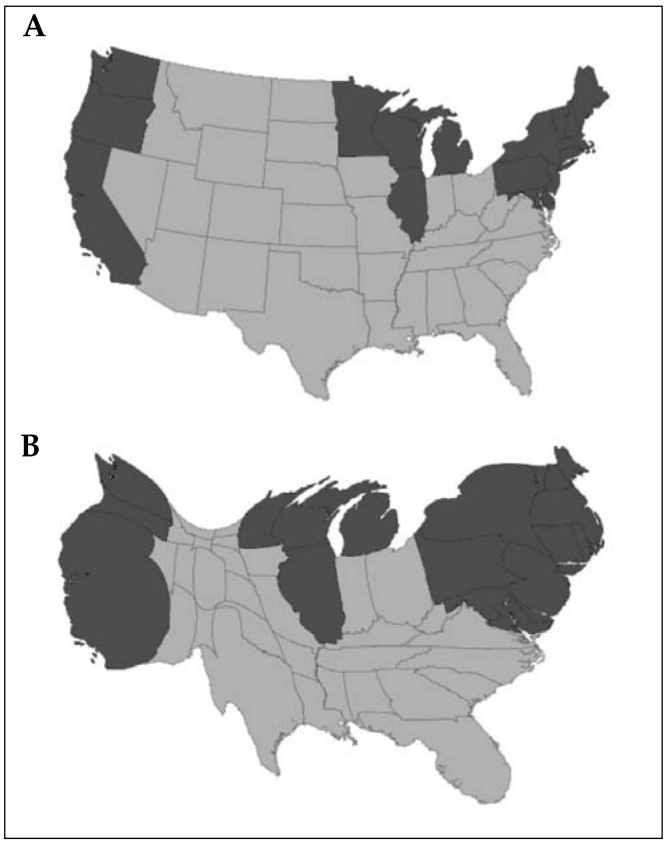

Figure 1: A) Mercator projection of contiguous 48 states tinted dark or light to indicate whether a majority of their voters voted for the Republicans or Democrats respectively. B) Newman and Gastner's (2004) population cartogram represents the same election results using the same color scheme. (Maps are licensed under a Creative Commons

Science News (Peterson, 2004) has reported that two

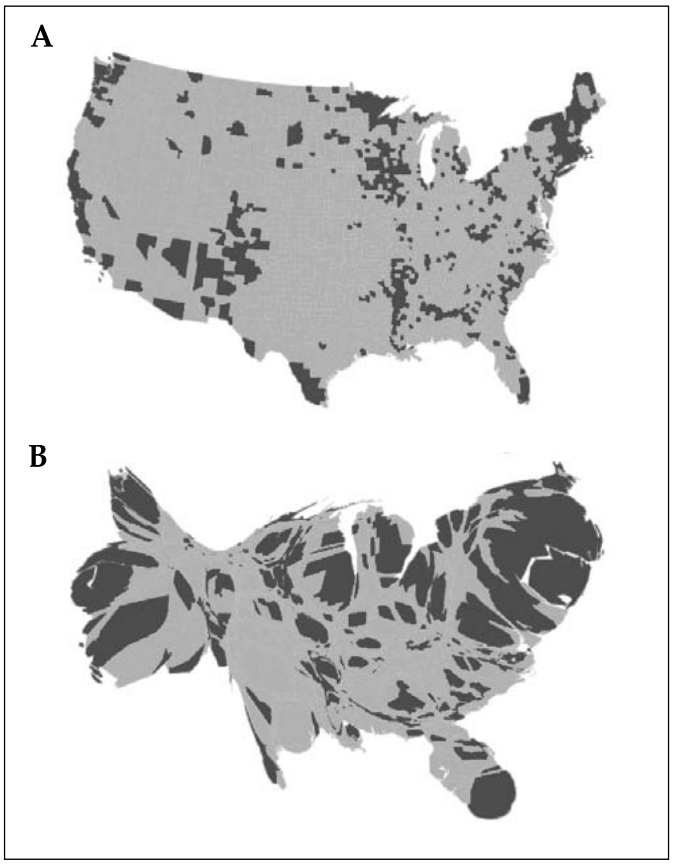

Figure 2: A) Mercator projection of contiguous 48 counties tinted dark or light to indicate whether a majority of their voters voted for the Republicans or Democrats respectively. B) Newman and Gastner's (2004) population cartogram represents the same election results using the same color scheme. (Maps are licensed under a Creative Commons License and my be freely distributed.)

physicists at the University of Michigan have dabbled with the cartogram problem of presenting maps that show geographic regions in proportion to their population. Newman and Gastner (2004) describe their approach to the creation of a cartogram as similar to the notion of gas spreading to fill available space with uniform density, stretching and shrinking geographic boundaries accordingly. They apply their technique to US election results based upon state population densities (Figure 1a & b). An algorithm for the generation of this cartogram (using ESRI software) is freely available by contacting Dr. Michael Gastner (mgastner@umich.edu).

How does one evaluate the success of a cartogram's ability to communicate? Most would agree that it must retain significant shape cues to enable their recognition [they must remind their consumer of the 'familiar' map]. A successful cartogram must adjust region sizes while retaining [more or less] region shapes. An important motivation for cartograms as a general information visualization technique is to have a method for trading off shape and area adjustments. For a cartogram to be effective, an observer must be able to rapidly understand the displayed data and relate it to the original geographical model. Recognition depends on preserving 'broadly known' properties, such as shape, orientation, and contiguity. In a contiguous cartogram, topology is maintained causing objects to remain connected to each other. However, this causes distortions in shape that are magnified as the edges of the 'known map' increase in complexity (Figure 2a & b).

Mercator's map projection was not designed for visualization (Tobler, 1974). Cartograms are used to simplify the solution to analytical problems on a sphere and are, therefore, an appropriate tool for communicating election results. Newman and Gastner (2004) make an important contribution to the development of cartographic science with their diffusion-based cartograms. However, while performing well with minimal shape complexity (Figure 1b) their work tends toward obscurity with increasing complexity of 'pretransformed' shapes (Figure 2b). Cartographic enhancement in the form of a transparent overlay of 'known shapes' and/or symbolization may add an interpretive element that is lacking. Physicists, after all, do not commonly communicate their science through the medium of art.

References

Gastner, M.T. and M.E.J. Newman. 2004. Diffusion-based methods for producing density-equalizing maps. Proceedings of the National Academy of Sciences. 101(20): 7499-7504.

Peterson, I. 2004. A better distorted view: the physics of diffusion offers a new way of generating maps. Science News. 166(9): 136-137.

Tobler, W. 1974. Cartogram programs. Cartography Laboratory Report # 3. University of Michigan, Ann Arbor. 110 pp.

Student Volunteers Needed!

AutoCarto 2005

March 18 - 23, 2005

Riviera Hotel and Casino Las Vegas, Nevada

Student Volunteers are needed to assist in monitoring sessions and workshops, exhibit hall activities, and the social event. In return, student volunteers will receive complimentary registration, lunch, and parking.

For more information about volunteering, please contact the volunteer coordinator: Kristin Eickhorst, 348 Boardman Hall, Orono, ME 04469-5711. Tel: 207-581-3948 Fax: 207-581-2206 E-mail: snoox@umit.maine.edu

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L'Association canadienne de cartographie

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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
Student	$40
Institutional	$100
Corporate	$200
Family	$95
Retired	$40
Associate	$40

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.cca-acc.org

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:

Régulier	$80
Étudiant	$40
Institutionnel	$100
Société	$200
Famille	$95
à la retraite	$40
Associé	$40

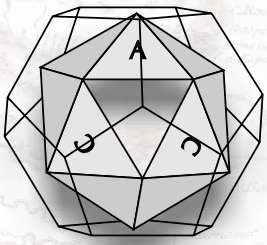
Un montant de 5$ (cdn$) est ajouté pour couvrir les frais postaux aux membres américains (É-U) et de 10$ (cdn$) pour les membres outremers.

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.cca-acc.org*

MARK YOUR CALENDARS!

The CARTO 2005 Committee would like to invite everyone to St. John's Newfoundland next year for the joint CCA/ACMLA conference. The dates for the conference are July 26-29, 2005 and plans are well underway to provide stimulating presentations plus a good helping of local culture and fun! More details will follow soon and watch for our website to appear early in the fall.



See you all in St. John's in 2005!

Carto 2005 Organizing Committee
Dan Duda, Alberta Auringer-Wood
David Mercer, Suanne Reid
Joanne Costello