SOLSTICE:
An Electronic Journal of Geography and Mathematics

Persistent URL:
http://deepblue.lib.umich.edu/handle/2027.42/58219

Deep Blue IMaGe Home Solstice Home

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Final version of IMaGe logo created by Allen K. Philbrick from original artwork from the Founder.

VOLUME XXIII, NUMBER 1;
June, 2012

Visual Abstracts: Institute of Mathematical Geography

Sandra L. Arlinghaus

Introduction

Word clouds are images that portray word frequency in a document according to the size of the word in the cloud. The words may be arranged in patterns designed to pique interest. They are a sort of abstract, or visual, abstract of a book or article. Word clouds are abstract art representing document content. At a glance, the reader can see what are the important concepts simply by word size in the image. They unify conventional journal "abstracts," "key words," and "word frequency counts."

This new form of abstract is used to create abstracts for the holdings of the Institute of Mathematical Geography from its beginning in 1985 to date. Not all documents can be captured equallly in this manner. Scanned images and other images are excluded. Some files produce denser clouds than do others; as in the real world, there are different kinds of clouds! Formats that are easiest to work with are word-based formats: .html, .pdf, .doc, .dox, and .TeX. PowerPoint displays can be opened in PowerPoint and saved as Rich Text Format and then worked with to form a cloud but these clouds are typically quite sparse in content in relation to the original file. Google Earth files, saved in .kml format, can be opened in WordPad or some such and then converted to cloud form. However, many of the most common words will be computer code words; the same situation holds for TeX files. If these files of code are too large, then a truncated version of them, hopefully representative of broad content, was used. A partial idea of the content seem to come through. Animations, applets, movies, and music are other examples of formats that cannot, or cannot readily, be captured in word cloud format. Perhaps that is not particularly a limitation; they have great visual interest already. In the catalogue below, the original file format is noted if it is not .html. That way, the reader will have an idea of the limitations associated with the word pattern in the resulting cloud.

Catalogue of IMaGe Word Clouds

The software used to create the clouds is available online: http://www.wordle.com/ In using this package to create word clouds, a maximum word count of 150 was selected and random design and color patterns were chosen, largely as a time-saving

device. Common words were omitted ("the", "and", etc.). So too were figure captions, section headers (when extensive), article titles, and references and other word elements that give, in themselves, a summary of meaning. The words "Figure" and "Figures" will no doubt appear prominently in most clouds as in-text references to images (Figure 1, for example) were not deleted. The rest of the words in the cloud will carry most of the meaning, although of course when "Figure" or "Figures" are prominent in the cloud they suggest that the article has many images in support of the words. To integrate word clouds within a given year, alll backgrounds from a single year are the same color; for example, all word clouds from 2010 have a white background. Clouds from 1990 to 1996 represent a full journal; after 1996, clouds represent a single article.

The material below presents a fairly complete catalogue of word clouds for *Solstice*. Look for word clouds to continue to be integrated throughout the entire IMaGe site!

Solstice: An Electronic Journal of Geography and Mathematics

2011

Volume XXII, Number 1.

Institute of Mathematical Geography
Quick Response Code (QR Code) Archive
Sandra L. Arlinghaus

Volume XXII, Number 2.

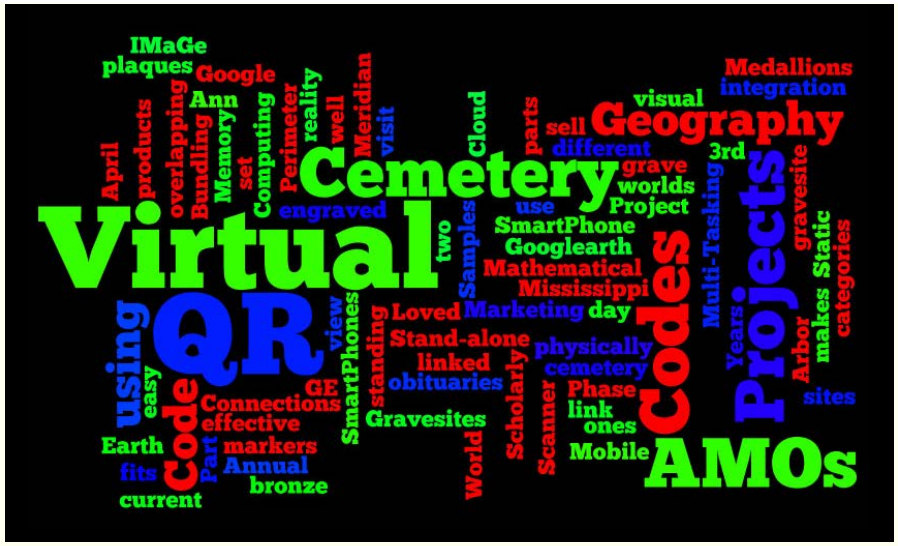
Contemporary Views Along the First Transcontinental Railroad (Available as .pptx)
Richard Koenig

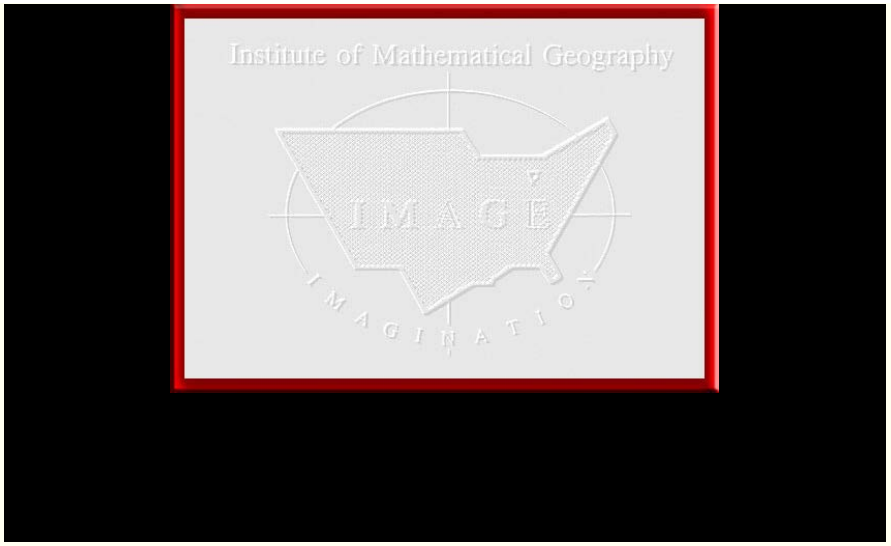
3D and 2D Mapping (available only as a .pptx file)
Matthew Naud, Environmental Coordinator City of Ann Arbor, with Systems Planning Staff

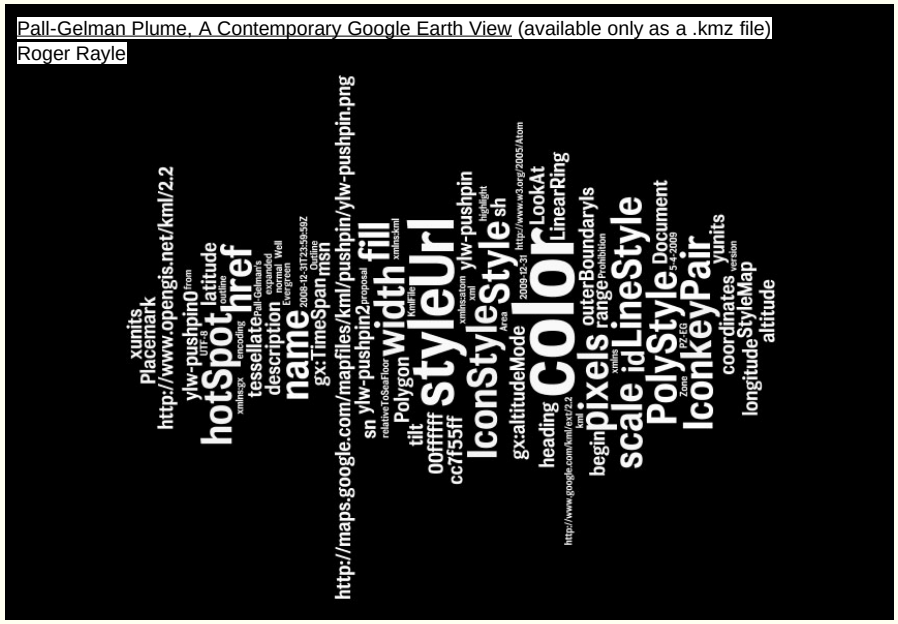
The Perimeter Project, Part 6.
Connections: Scholarly Multi-tasking in a Mobile Virtual World, Part 3. (Available as .pptx)
Sandra L. Arlinghaus and William E. Arlinghaus

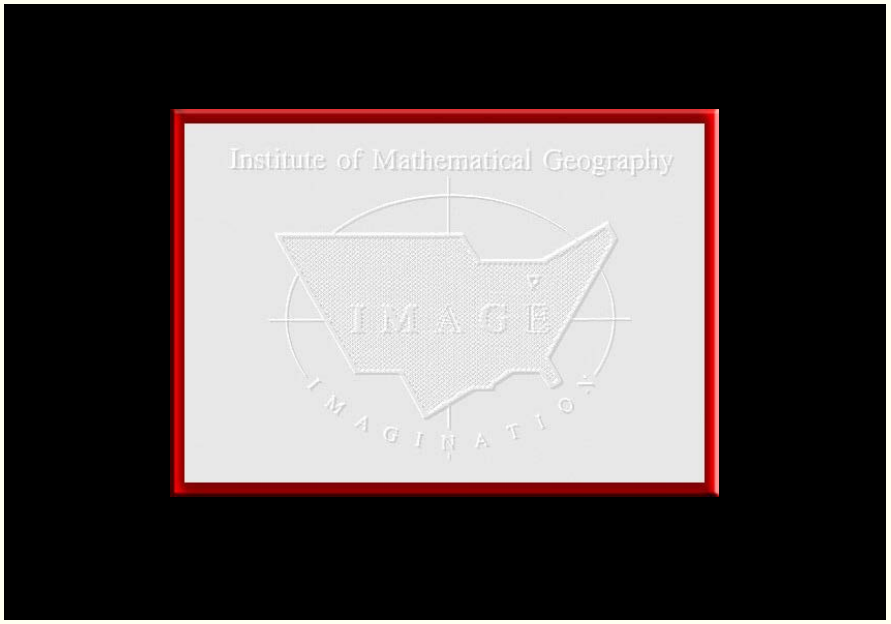
Ann Arbor, Downtown Historical Marker Survey (available only as a .kmz file)
Sandra L. Arlinghaus

The Perimeter Project, Part 5.
Connections: Scholarly Multi-tasking in a Mobile Virtual World, Part 2 (available only as .pptx file)
Sandra L. Arlinghaus and William E. Arlinghaus









2010

Volume XXI, Number 1

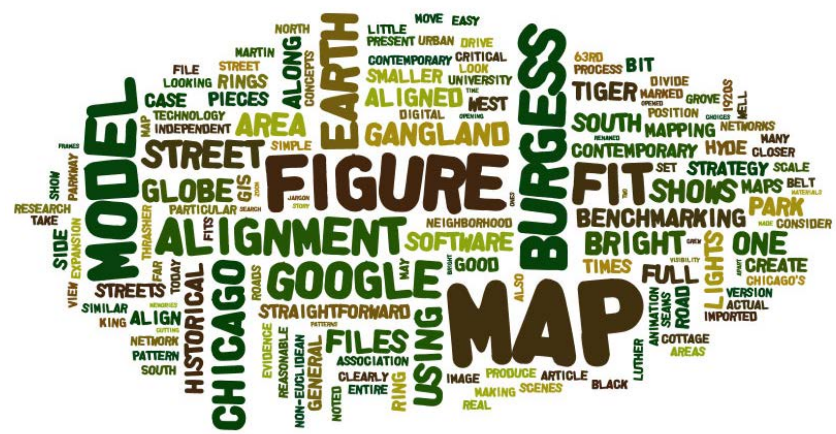
MatheMaPics
Sandra L. Arlinghaus and Joseph J. Kerski

Volume XXI, Number 2.

Patterns, Maps, and Fractals: The Case of United Kingdom Historical Data Sets
Sandra L. Arlinghaus and Michael Batty

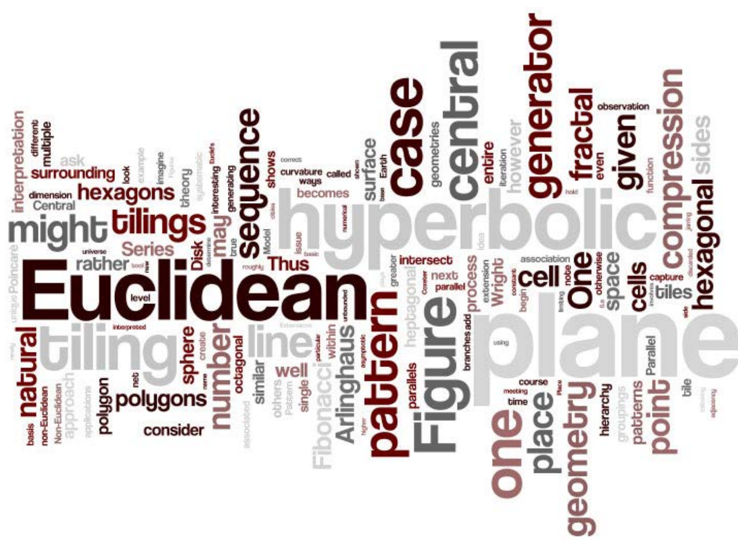
The Perimeter Project, Part 3.
[Fragile Lands Protection Using Cemetery Zoning](#) (available as .pptx)
Sandra L. Arlinghaus and William E. Arlinghaus

[Mapping It Out! A Contemporary View of Burgess's Concentric Ring Model of Urban Growth](#)
Sandra L. Arlinghaus and Daniel A. Griffith



[Zipf's Hyperboloid--Revisited: Compression and Navigation--Canonical Form](#)
Sandra L. Arlinghaus, with input from an [earlier article](#) as part of an ongoing collaboration with Michael Batty.

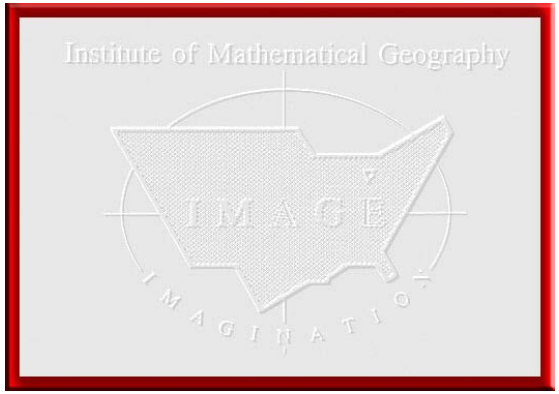
[The Quest to Save Honey: Tracking Bee Pests Using Mobile Technology](#)
Diana Sammataro and Sandra L. Arlinghaus



[Fractals Take A Non-Euclidean Central Place](#)
Sandra L. Arlinghaus

[Google Earth: A Platform for Open Data](#)
Roger Rayle

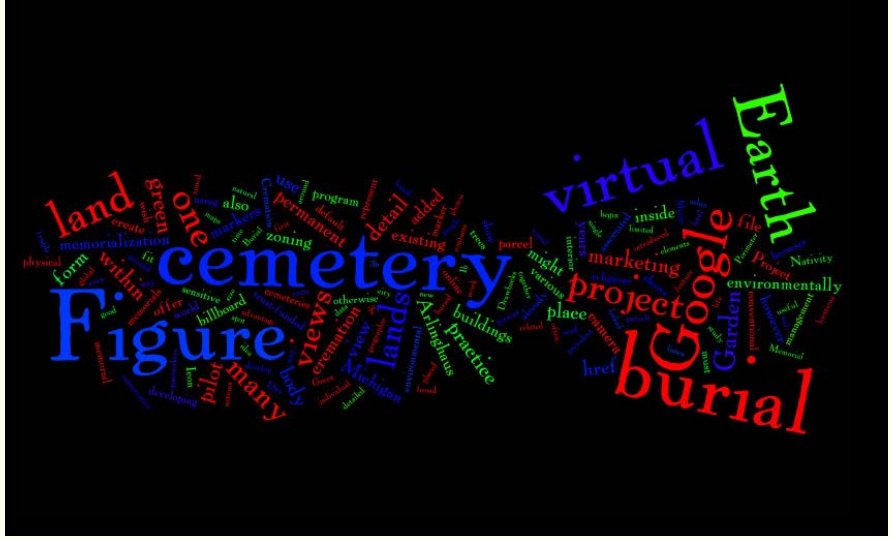
The Perimeter Project, Part 4.
[Connections: Scholarly Multi-tasking in a Mobile Virtual World](#) (available in .pptx)
Sandra L. Arlinghaus and William E. Arlinghaus



2009

Volume XX, Number 1

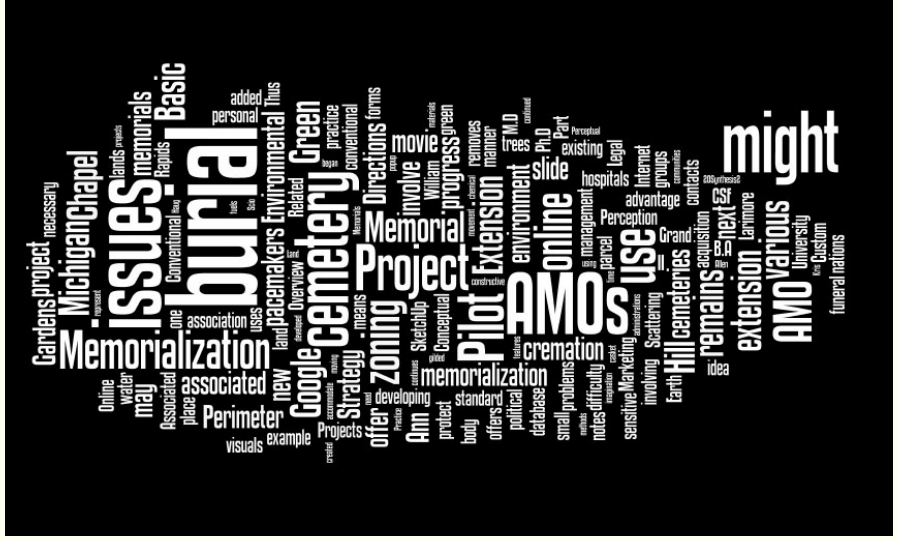
The Perimeter Project: Fragile Lands Protection Using Cemetery Zoning
Sandra L. Arlinghaus and William E. Arlinghaus



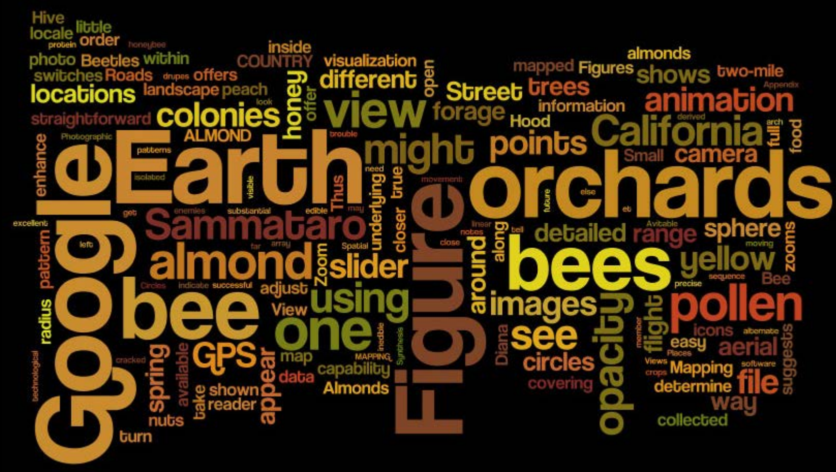
Bee Ranges and Almond Orchard Locations: Contemporary Visualization
Sandra L. Arlinghaus and Diana Sammataro

Volume XX, Number 2

The Perimeter Project, Part 2.
Fragile Lands Protection Using Cemetery Zoning
Sandra L. Arlinghaus and William E. Arlinghaus



Southeast Asia: Historical Place Names Visualized in Google Earth
Sandra Lach Arlinghaus and Robert F. Austin
Revised eBook Supplement, *A Historical Gazetteer of Southeast Asia*, 1986.
Robert F. Austin

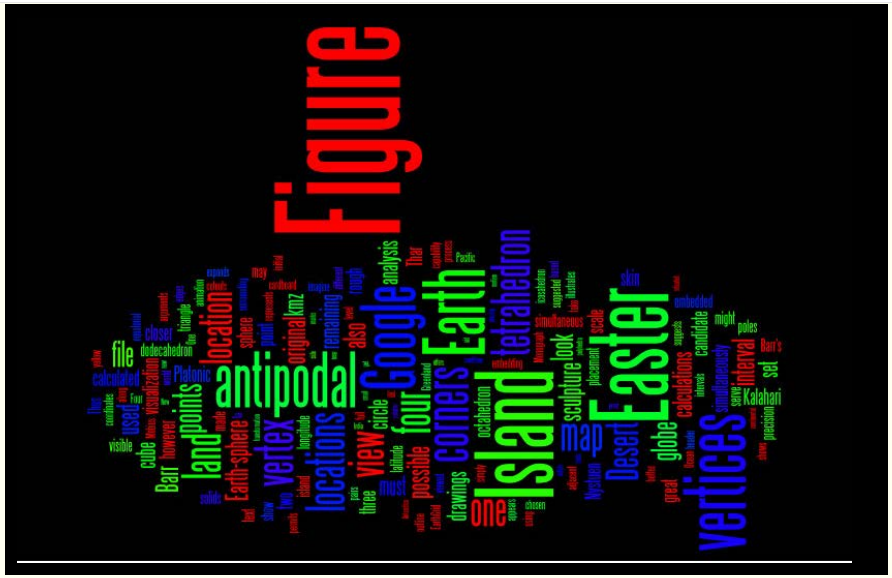


[Air Pollution Changes in the Detroit Metro Area from 1988-2004](#)
Kerry Ard

[Essays on Mathematical Geography: Contemporary Visualizations](#)
Revised eBook Supplement, [*Essays on Mathematical Geography*](#)**, 1986.**
Sandra L. Arlinghaus

IMaGe Monograph #1:
Sandra L. Arlinghaus and John D. Nystuen, 1986.
Mathematical Geography and Global Art:
the Mathematics of David Barr's `Four Corners Project'.
[Link to original](#) [Link to supplementary material](#) Word cloud of supplementary material.

[Emergency Phones: A Google Earth Approach](#)
Sandra L. Arlinghaus



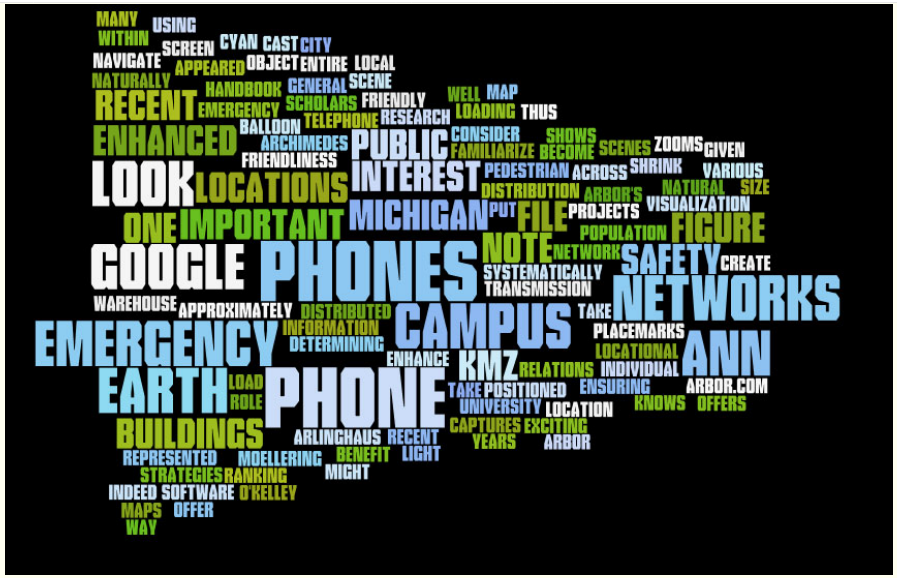
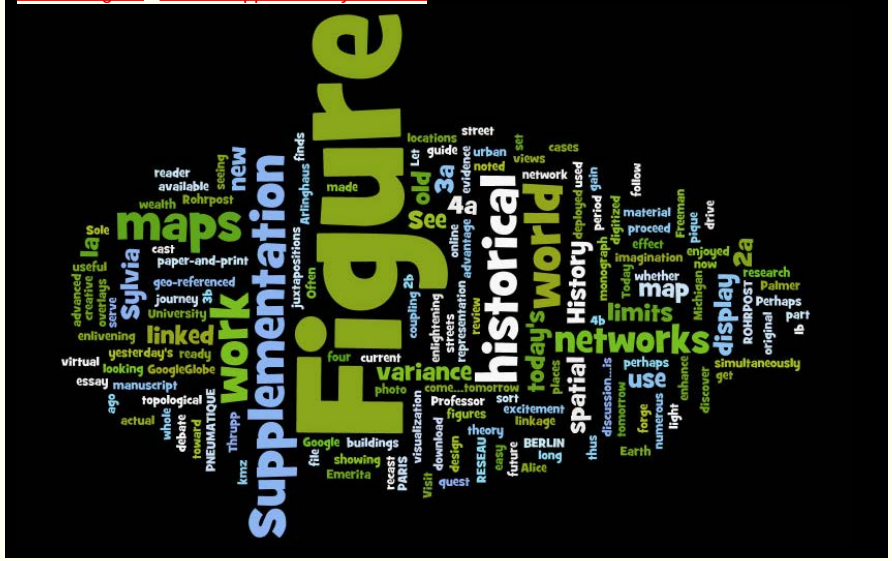
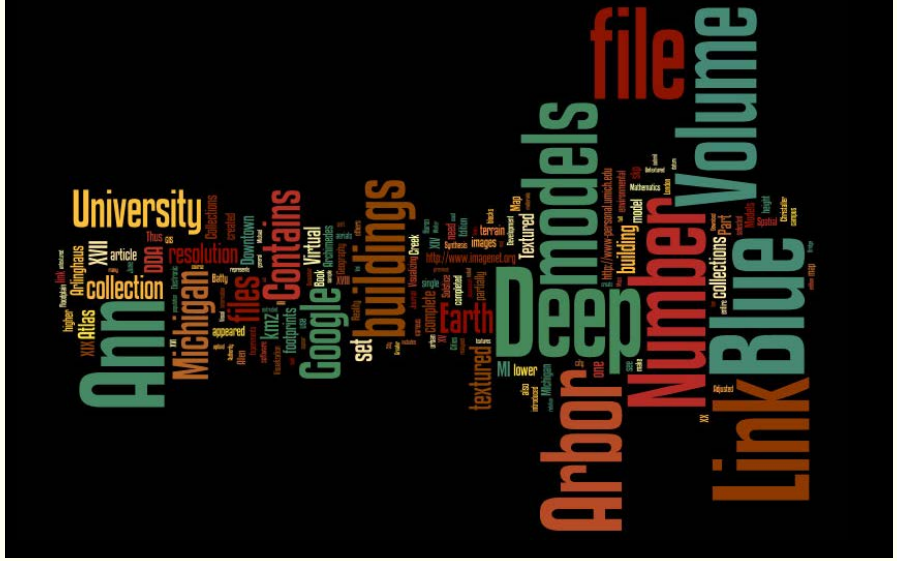


IMaGe Monograph #2:
Sandra L. Arlinghaus, 1986.
Down the Mail Tubes: the Pressured Postal Era, 1853-1984.
Link to original Link to supplementary material



3D Annotated Archive
Sandra L. Arlinghaus



2008

Volume XIX, Number 1

Google Earth Applications in a Community Information System: Scio Residents for Safe Water
Roger Rayle

Volume XIX, Number 2

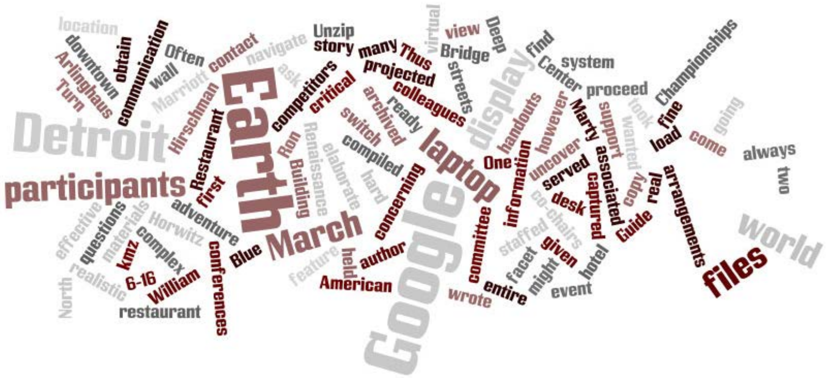
Electronic Journals: Then and Now...A Fifteen Year Retrospective
Sandra Lach Arlinghaus and Richard H. Zander

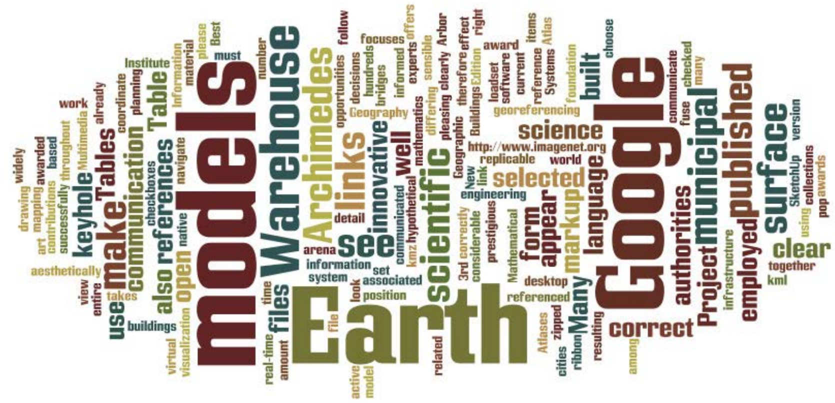
Huron River Tour, Ann Arbor
Matthew Naud

Charting the Past: Population-Environment Dynamics
Sandra Arlinghaus and Michael Batty

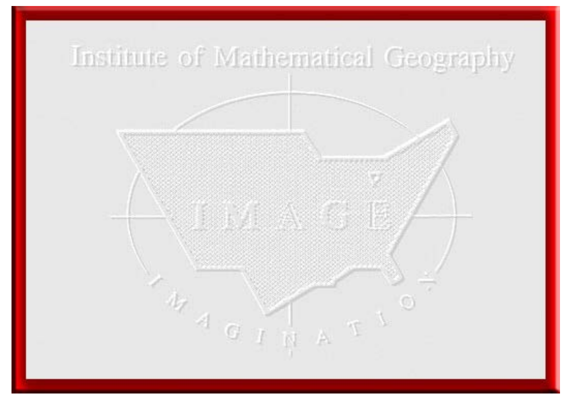
Detroit North American Bridge Championship: the Google Earth Display
Sandra Lach Arlinghaus

Project Archimedes: Google Earth Experiments in Innovative Scientific Communications
Sandra Lach Arlinghaus

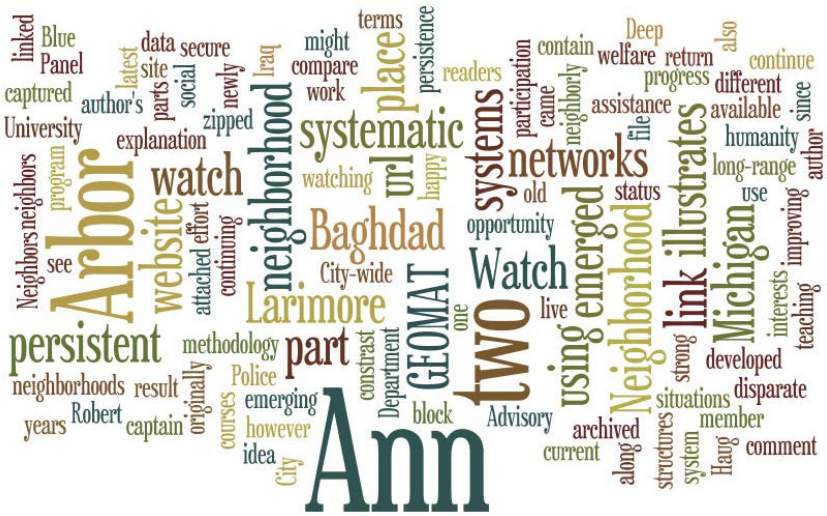




[Unit 174. American Contract Bridge League Bridge Clubs: Greater Houston](#)
Bert Onstott

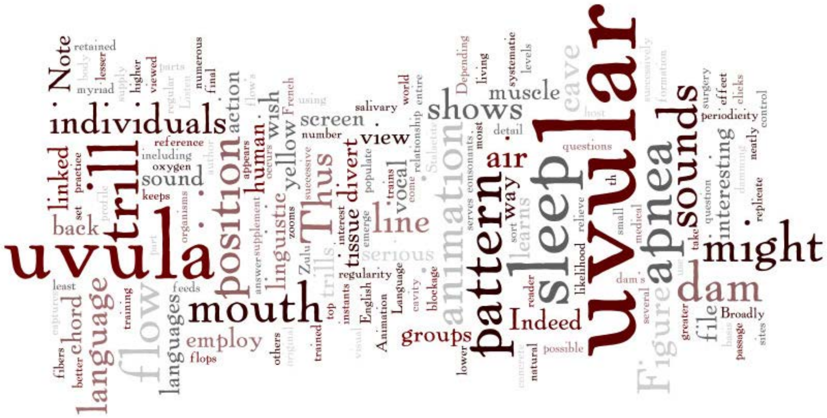


[Another Tale of Two Cities: Neighborhood Watch from Ann Arbor to Baghdad](#)
Sandra Lach Arlinghaus



Real-time Animation Scripts for Google Earth
Lars Schumann

Mouth Geography...Or, Sleep Apnea and Linguistics?
William E. Arlinghaus



[Deep Blue: IMaGe Author Applets](#)
Sandra Lach Arlinghaus

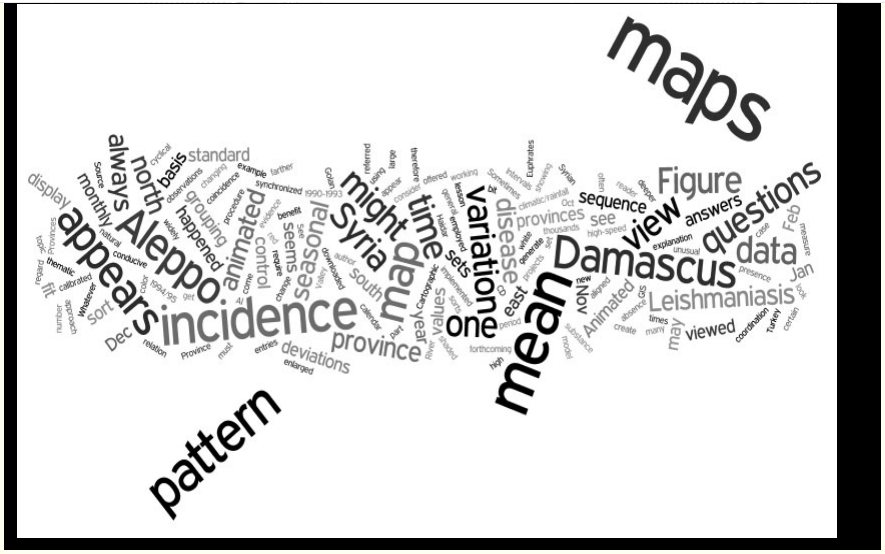
2007

[Volume XVIII, Number 1](#)

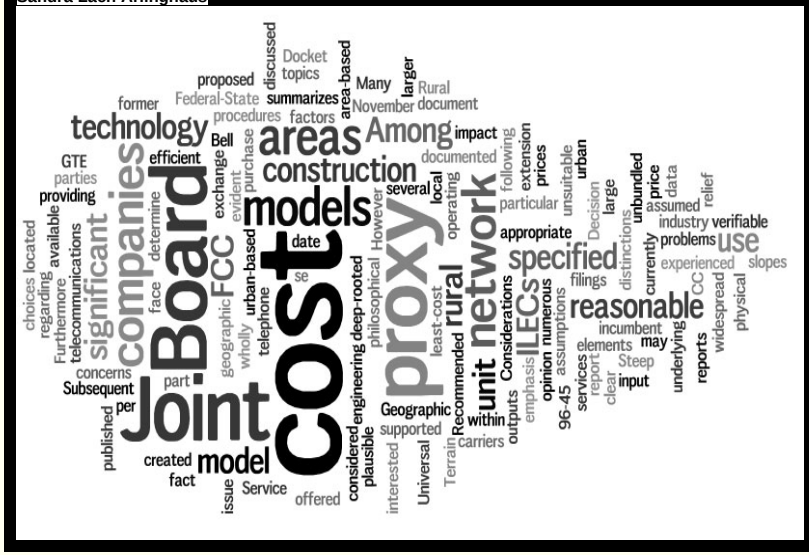
[Spatial Analysis through the Looking Glass](#)
Peter Martin

[Volume XVIII, Number 2](#)

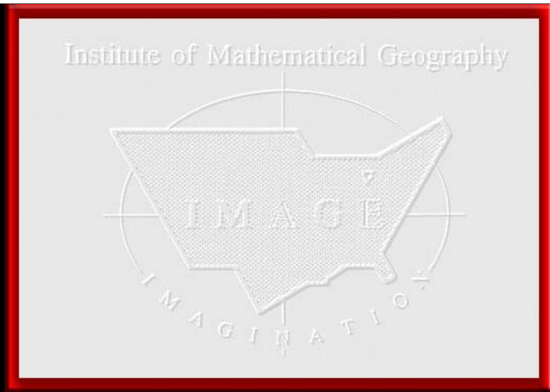
[Geometry/Geography--Visual Unity](#)
Sandra Lach Arlinghaus

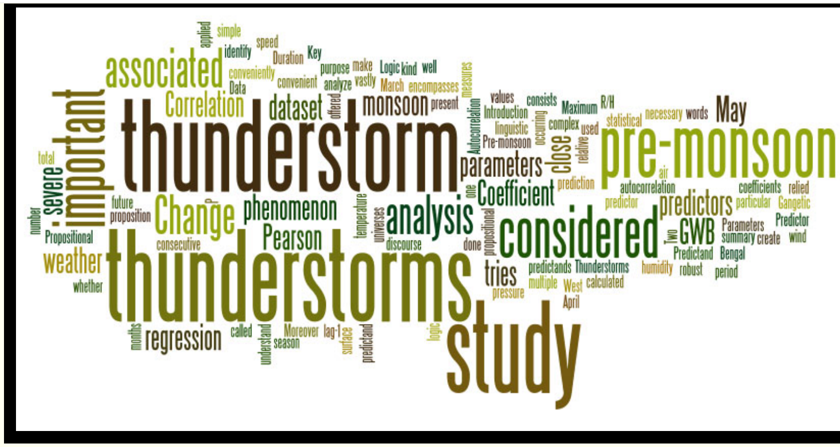


The Animated Pascal
Sandra Lach Arlinghaus



Desargues's Two-Triangle Theorem
Sandra Lach Arlinghaus





2006

Volume XVII, Number 1

Looking at Some Data from Isard
Waldo Tobler

Maps and Decisions
Part II--Ambiguity
Sandra L. Arlinghaus and William C. Arlinghaus

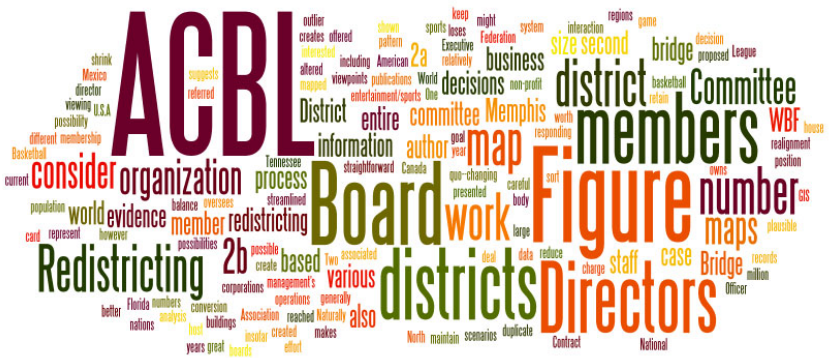
Volume XVII, Number 2

Introduction to the Special Issue on Internet Geometry and Geography
Sandra Arlinghaus

Visualizing Rank and Size of Cities and Towns
Part I: England, Scotland, and Wales, 1901-2001
Sandra Arlinghaus and Michael Batty

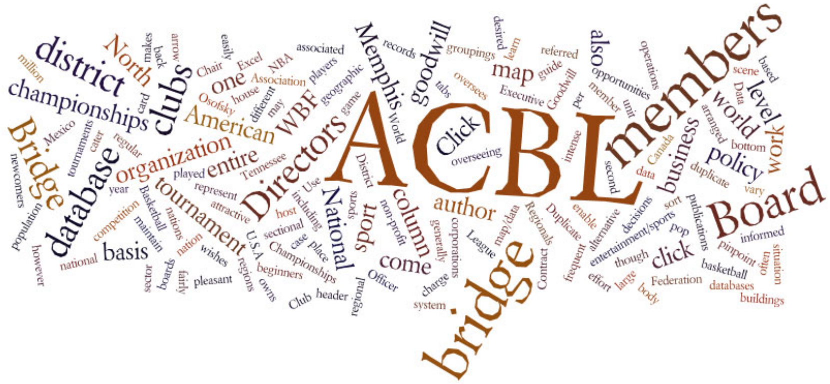
Maps and Decisions
Part III--Redistricting
Sandra L. Arlinghaus and William C. Arlinghaus

Visualizing Rank and Size of Cities and Towns
Part II: Greater London, 1901-2001
Sandra Arlinghaus and Michael Batty



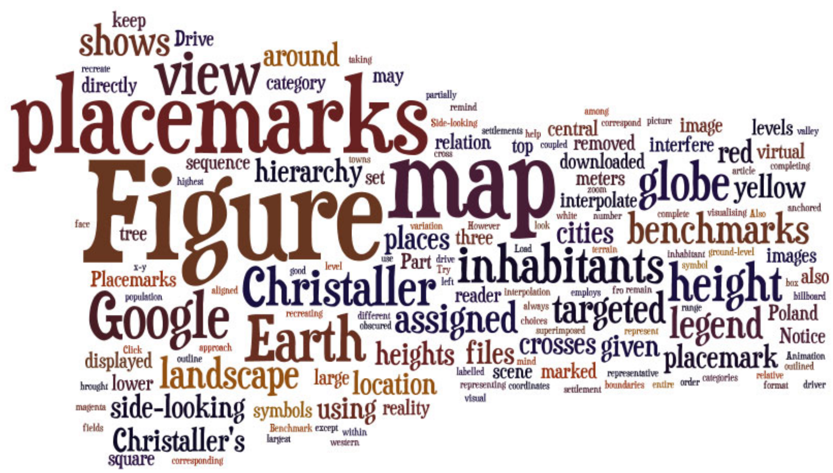
Maps and Decisions
Part IV--Club Data
Sandra L. Arlinghaus and William C. Arlinghaus

Visualizing a Map of Walter Christaller, Poland 1941
Part I: Benchmarking the Map
Sandra Lach Arlinghaus



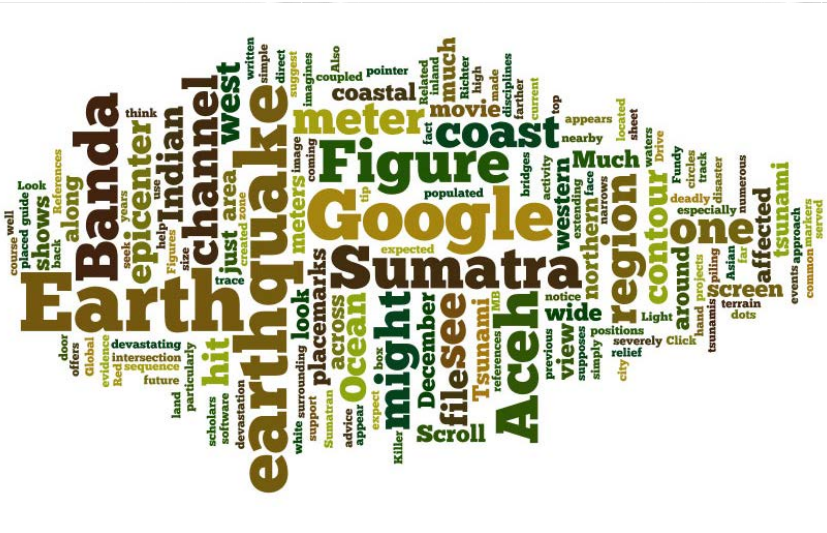
3D Atlas of Ann Arbor: The Google Earth Approach
[Part I]
Sandra Lach Arlinghaus

Visualizing a Map of Walter Christaller, Poland 1941
[Part II: Interpolation of the Benchmarked Map]
Sandra Lach Arlinghaus



3D Atlas of Ann Arbor: The Google Earth Approach
[Part II]
Sandra Lach Arlinghaus

[Banda Aceh: A View on the Globe]
Sandra Lach Arlinghaus



Zipf's Hyperboloid?
Sandra L. Arlinghaus and Michael Batty

geometry
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Arlinghaus
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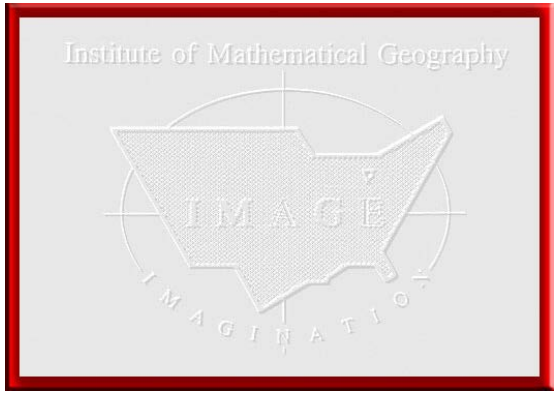
PseudoCoup: A Psubtle Puzzle
William C. Arlinghaus

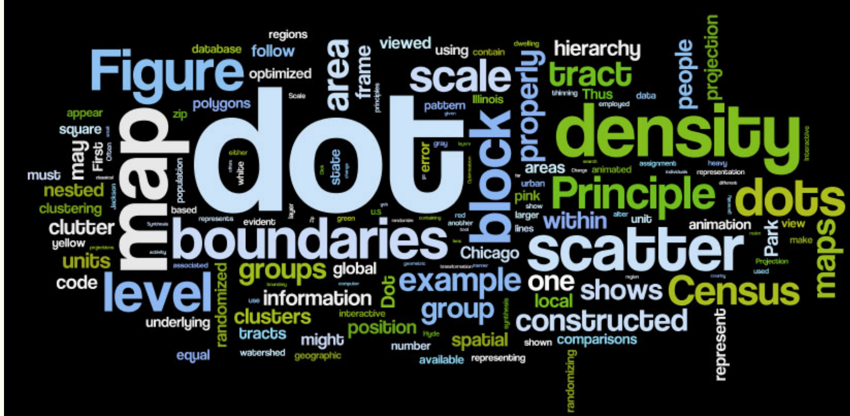


PseudoCoup: A Psubtle Puzzle
Solution
William C. Arlinghaus

2005

Volume XVI, Number 1

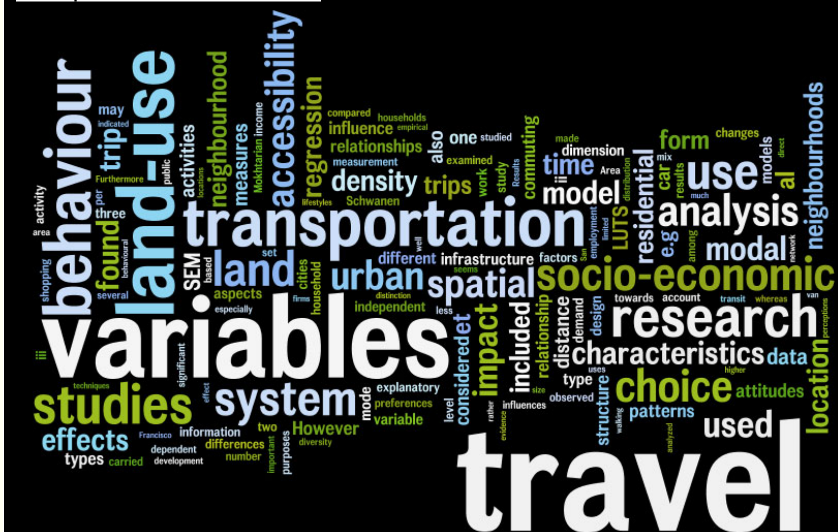
Spatial Synthesis.
The Evidence of Cartographic Example: Hierarchy and Centrality
Sandra Lach Arlinghaus



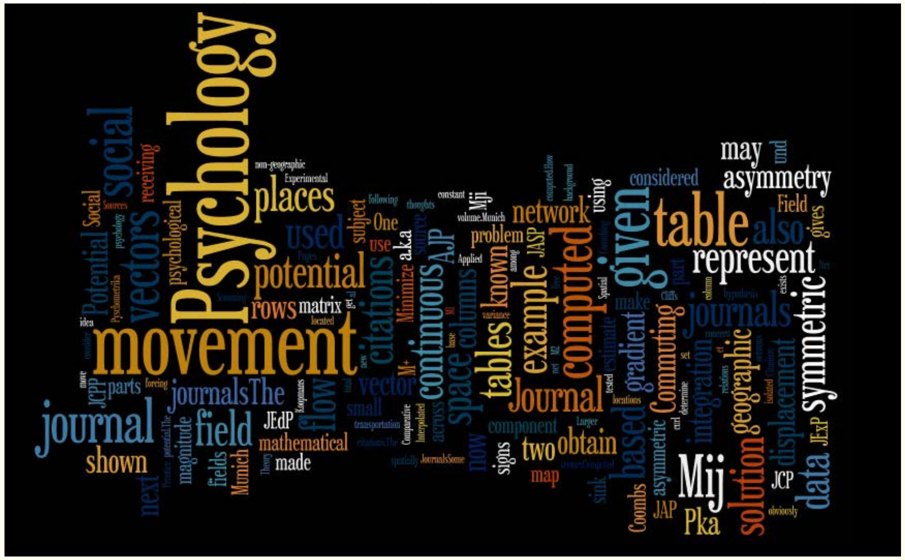
Kioskland: A Strategy for Linking Hierarchical Levels of Virtual Reality Maps
S. Arlinghaus et al.

Volume XVI, Number 2

Exploring the Relationships between Land-use System and Travel Behaviour Concepts: Some First Findings
Veronique Van Acker and Frank Witlox



Using Asymmetry to Estimate Potential
Waldo Tobler

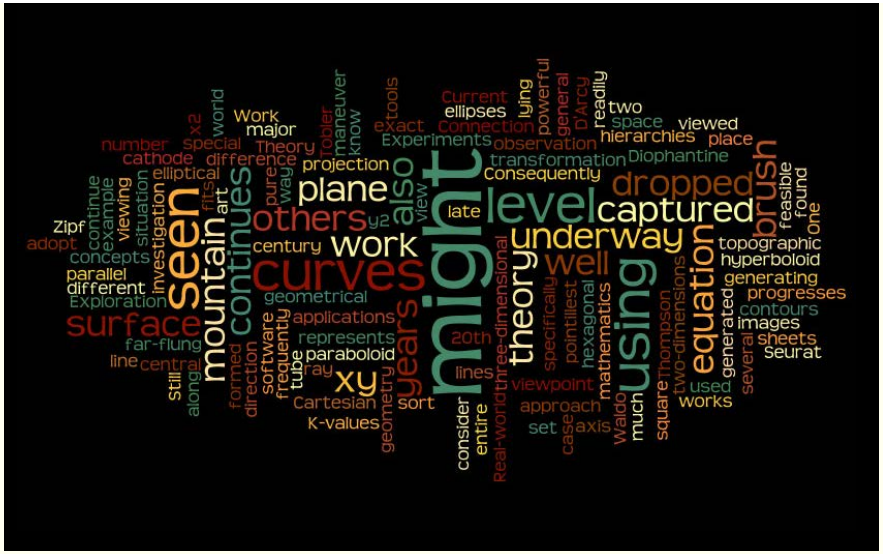


[A Methodology for Historical Geography: Internet Implementation](#)
Ann Evans Larimore with Sandra Lach Arlinghaus and Robert Haug

[Photo Essay: The Emerald Ash Borer](#)
John D. Nystuen

[Spatial Synthesis: Investigations in Progress](#)
Sandra Lach Arlinghaus

[Beyond the Shadow](#)
Sandra L. Arlinghaus and William C. Arlinghaus



Figure
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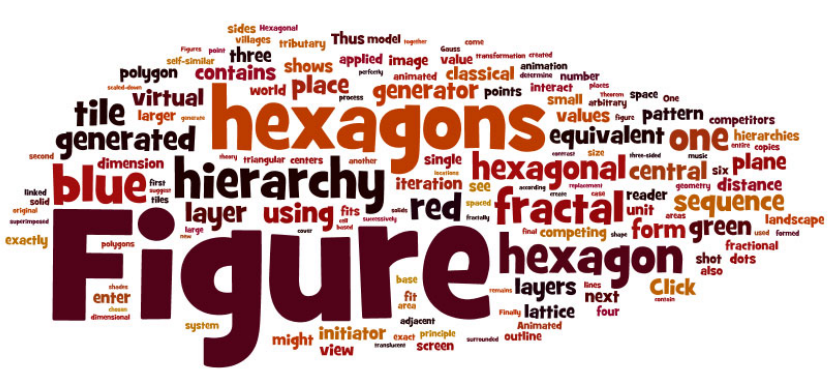
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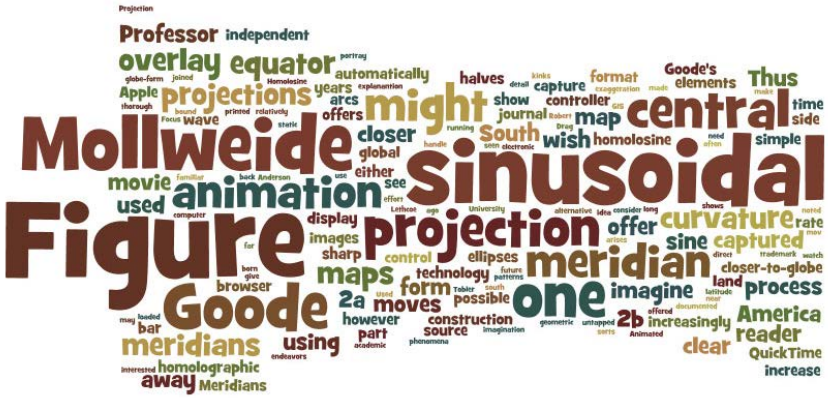


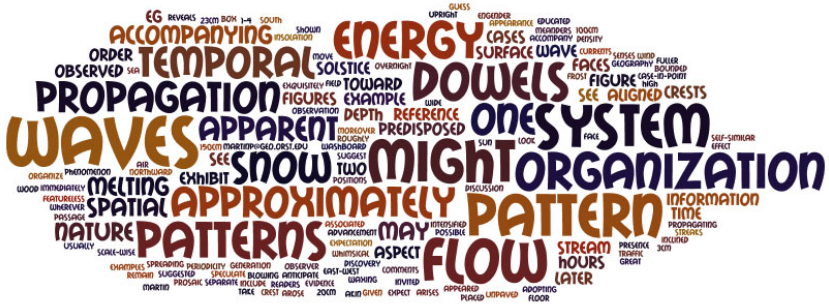
The View from the Top: Visualizing Downtown Ann Arbor in Three Dimensions
Sandra L. Arlinghaus, Fred J. Beal, and Douglas S. Kelbaugh

Continental USA Travel Tracks
Gottfried Hogh

Visualizing Accessibility II: Access to Food
Marc Schlossberg

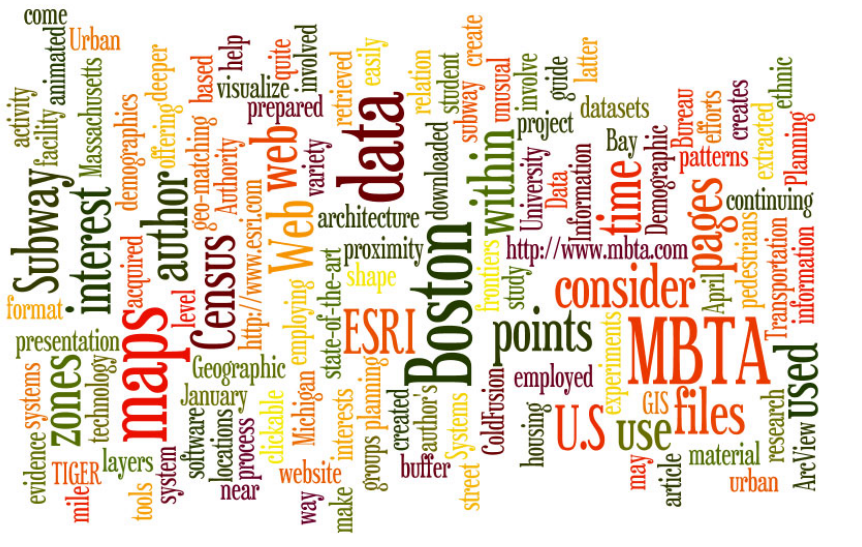
Two Rivers Ridge: Capturing Art
Sandra Arlinghaus and Braxton Blake

Energy Flow: Spatial and Temporal Patterns
Peter A. Martin

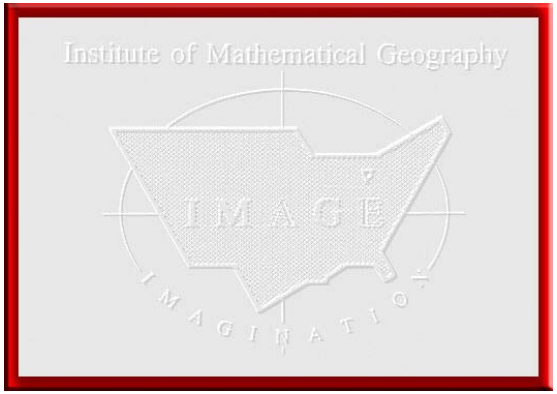


Winter Windows: Ice Largo
Alma S. Lach

Spatial Analysis of Subway Zones in Boston, Massachusetts
Seung-Hoon Han



A Golfer's Resource: Huron Hills Golf Course, Ann Arbor, Michigan
Andrew Walton



Visualization of Geographic Information with VRML
Thana Chirapiwat

2003

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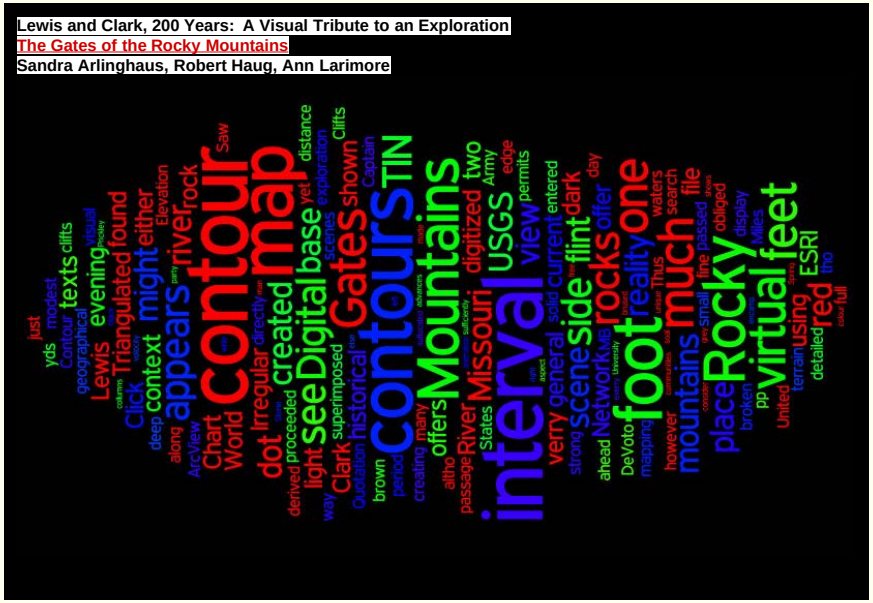

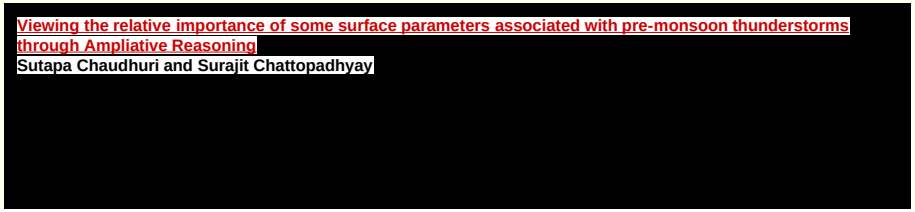

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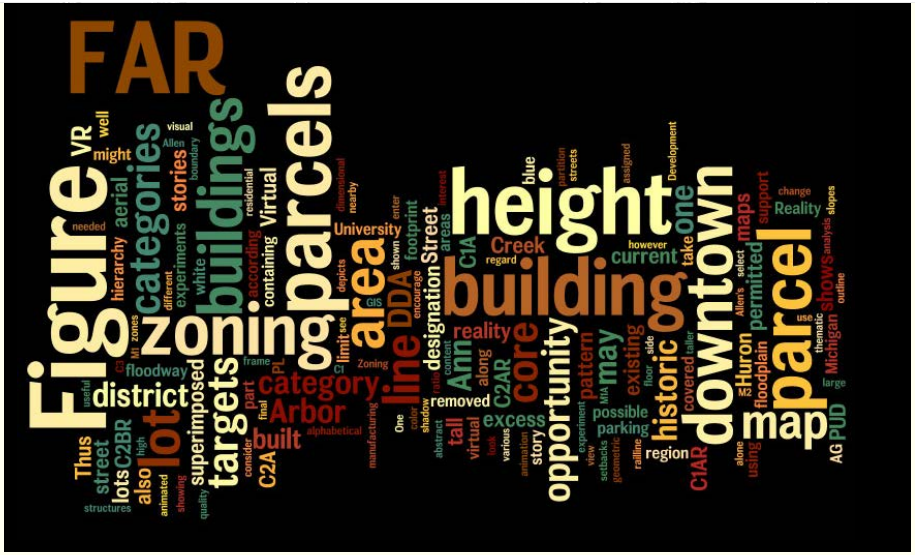
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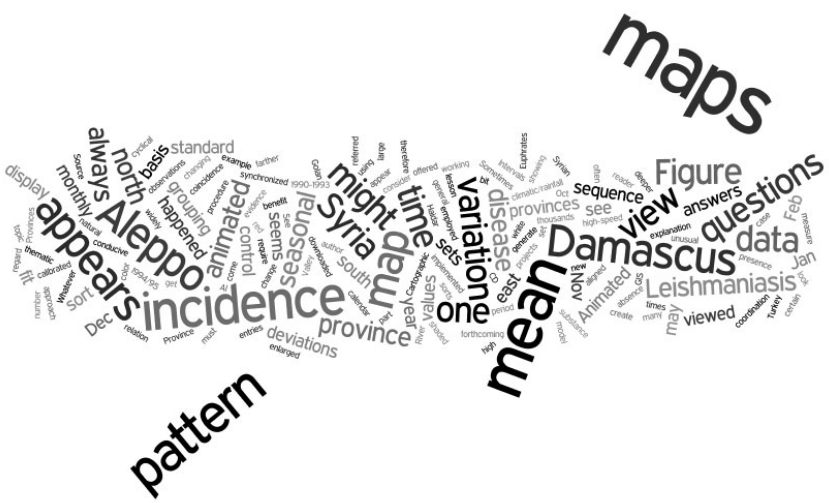
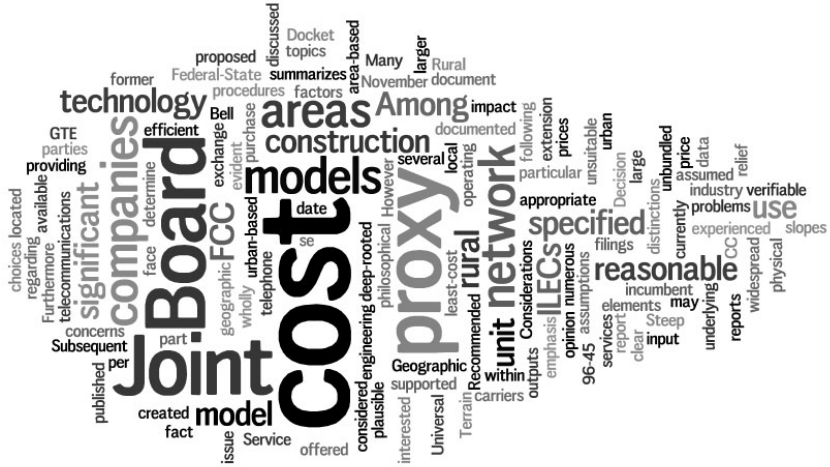


Classification Techniques in Complex Databases: Assessment of Vagueness and Sparsity in a Network of World Cities
B. Derudder and F. Witlox

Cost Proxy Models in Rural Telephone Companies
Robert F. Austin



The Thunen Society, North American Division
John D. Nystuen

Predicting Pre-monsoon Thunderstorms--A Statistical View through Propositional Logic
Surajit Chattopadhyay

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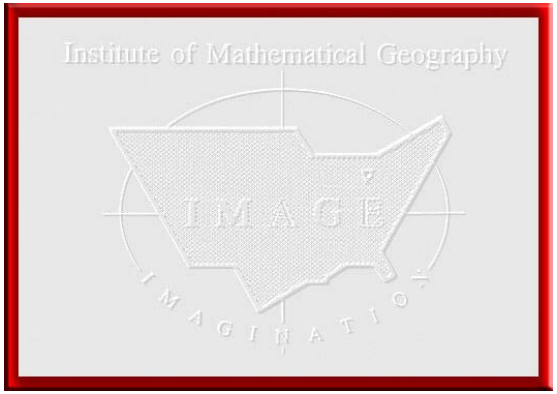
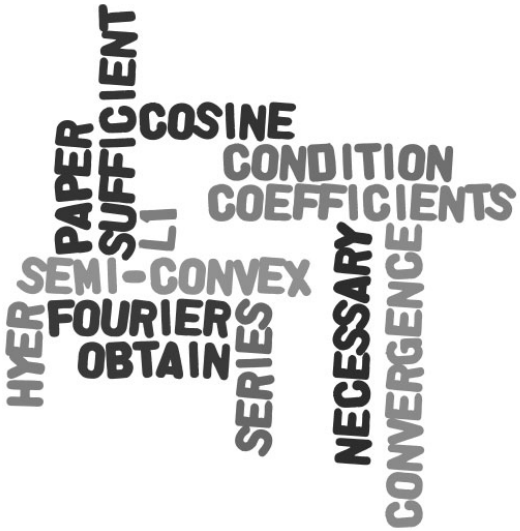
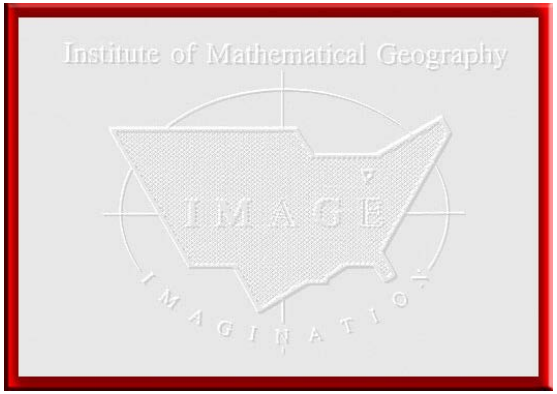
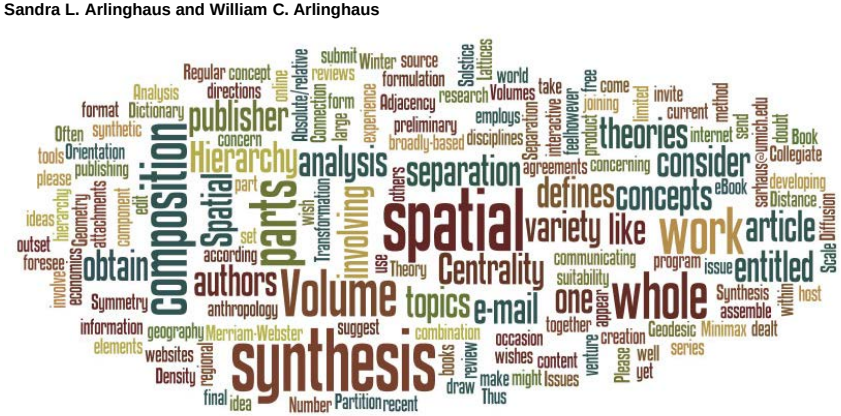






Spatial Synthesis: A Research Program
Sandra L. Arlinghaus and William C. Arlinghaus



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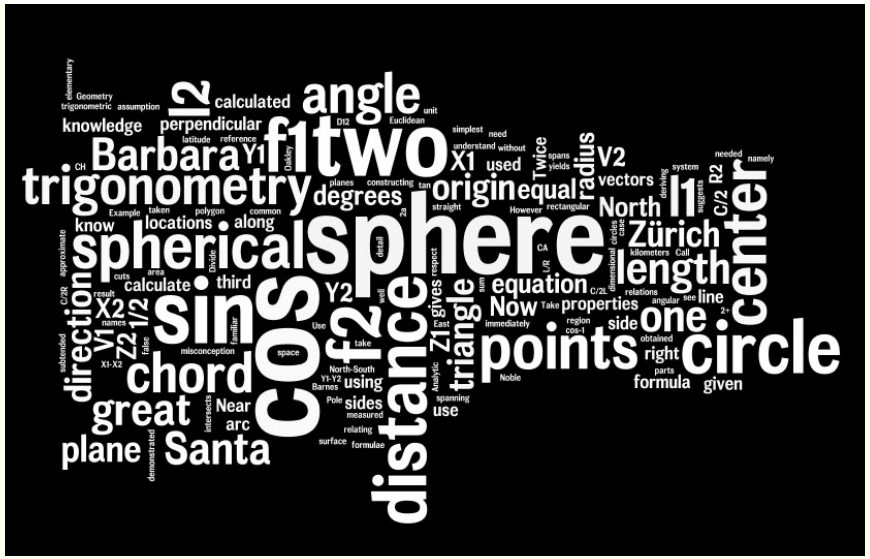
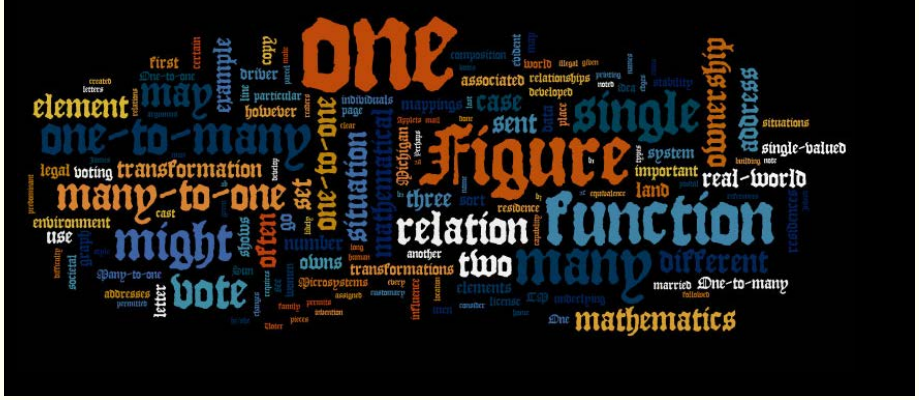
Water Rustlers?
John D. Nystuen

Volume XII, Number 2

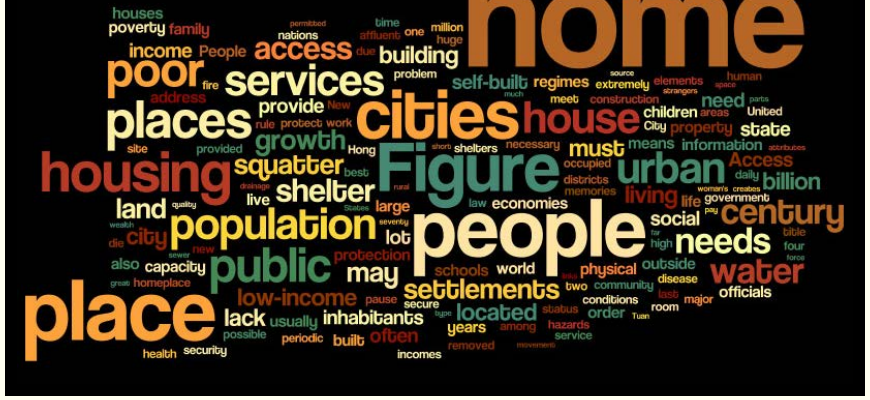
Spherical Measures without Spherical Trigonometry
Waldo Tobler



The Neglected Relation
Sandra L. Arlinghaus and William C. Arlinghaus



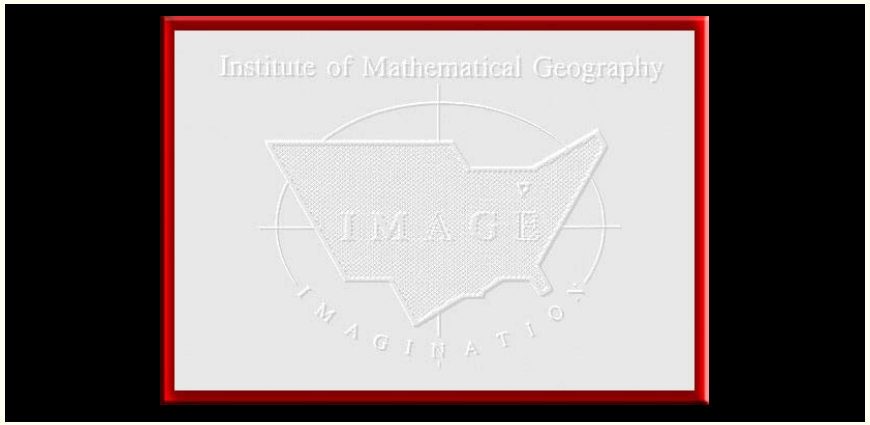
What's At Home? Shelter for the Poor in Low Income Cities
John D. Nystuen



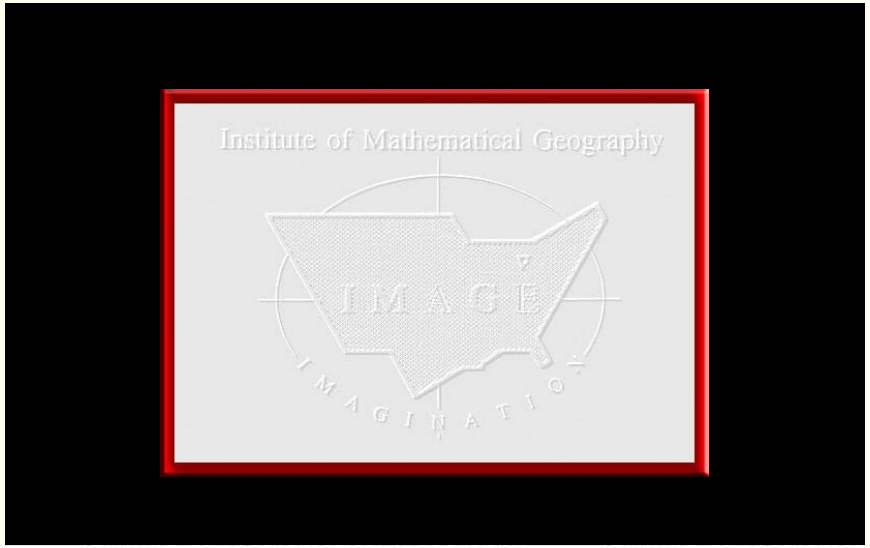
Maps and Decisions: Allen's Creek Floodplain, Opportunity or Disaster?
Sandra Lach Arlinghaus

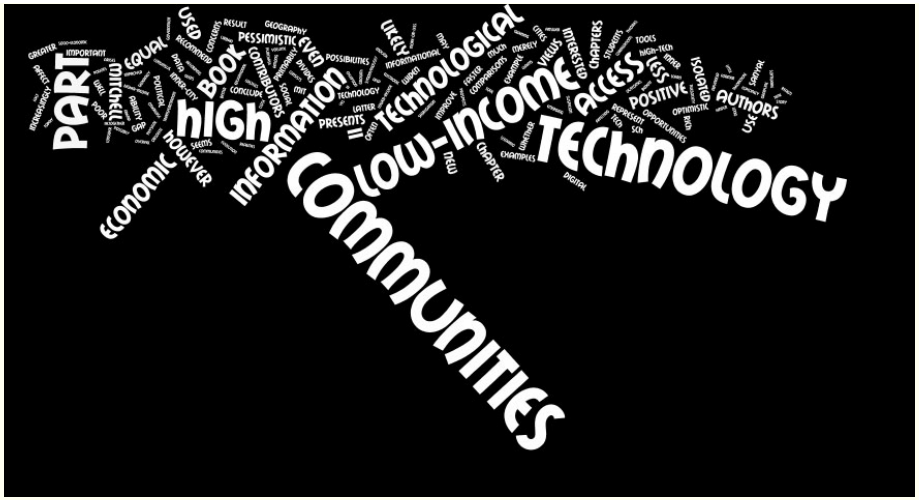
Base Maps, Buffers, and Bisectors
Sandra Lach Arlinghaus

Fast Food Nation: The Dark Side of the All-American Meal, by Eric Schlosser
Kameshwari Pothukuchi, Book Reviewer



High Technology and Low-Income Communities: Prospects for the Positive Use of Advanced Information Technology, Donald A. Schon, Bish Sanyal, William J. Mitchell
Richard R. Wallace, Book Reviewer





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Set in Stone: An Analemma in Northern Italy
John D. Nystuen

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Richard Wallace

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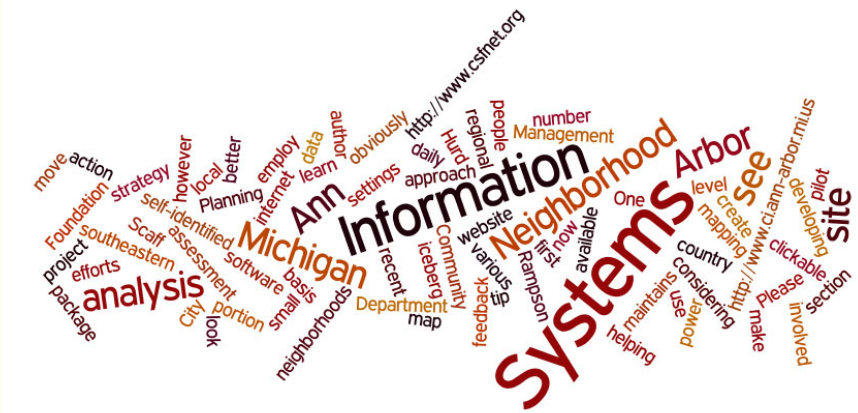
John D. Nystuen

A Neighborhood Information System within Ann Arbor, Michigan
Sandra L. Arlinghaus and Lloyd R. Phillips



Animaps, IV: Of Time and Place
Sandra Lach Arlinghaus

Animaps, Again
Courtney Gober

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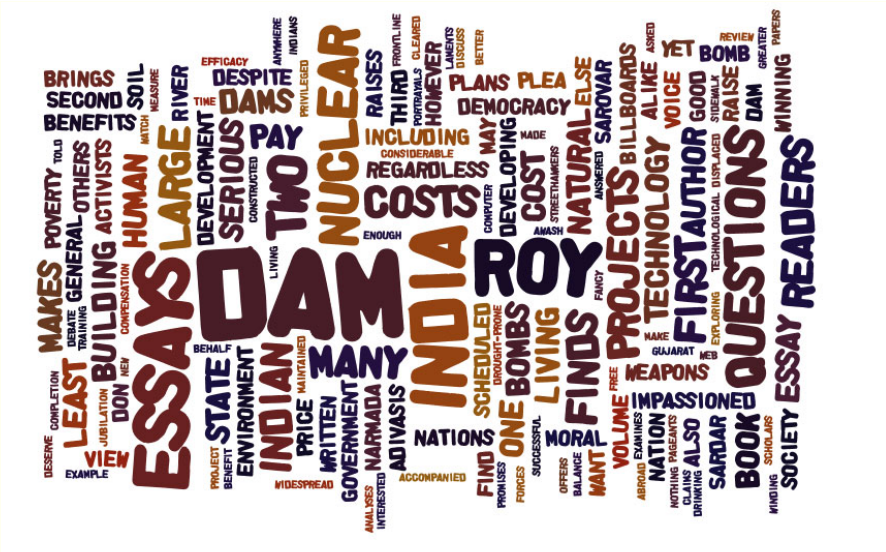

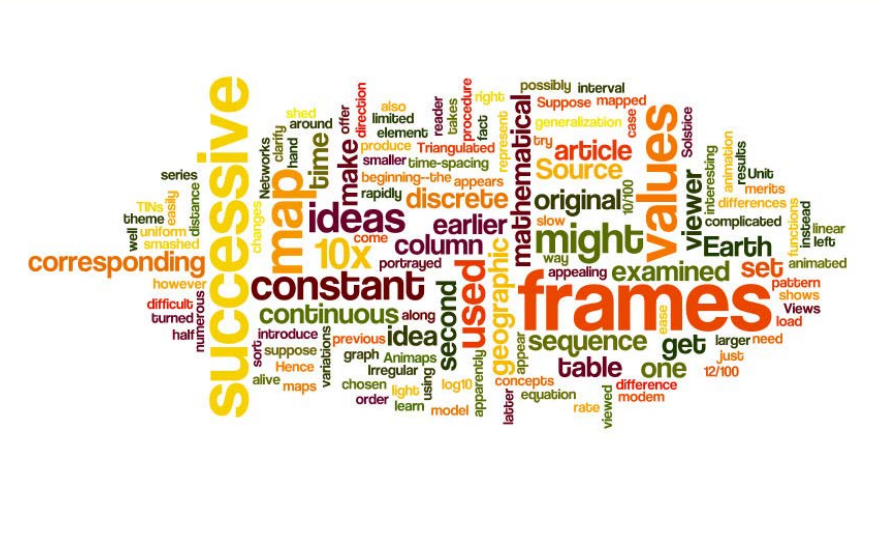
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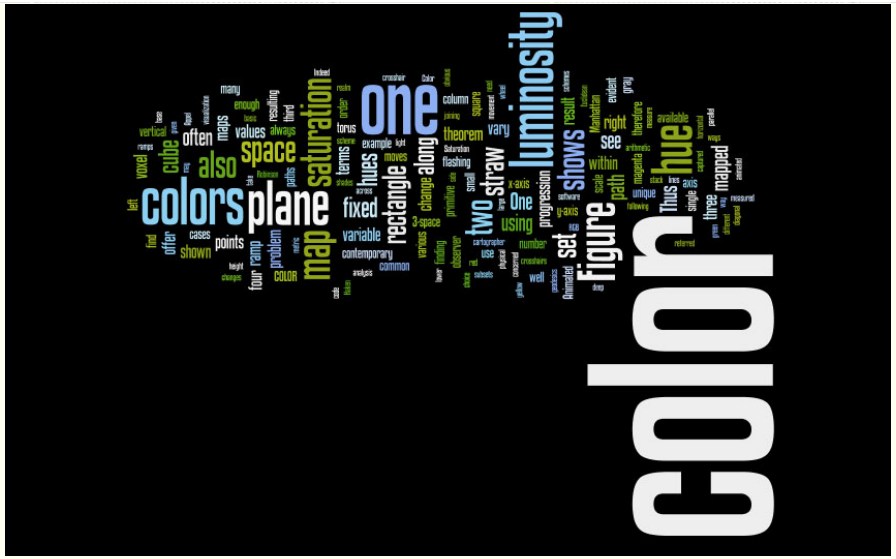
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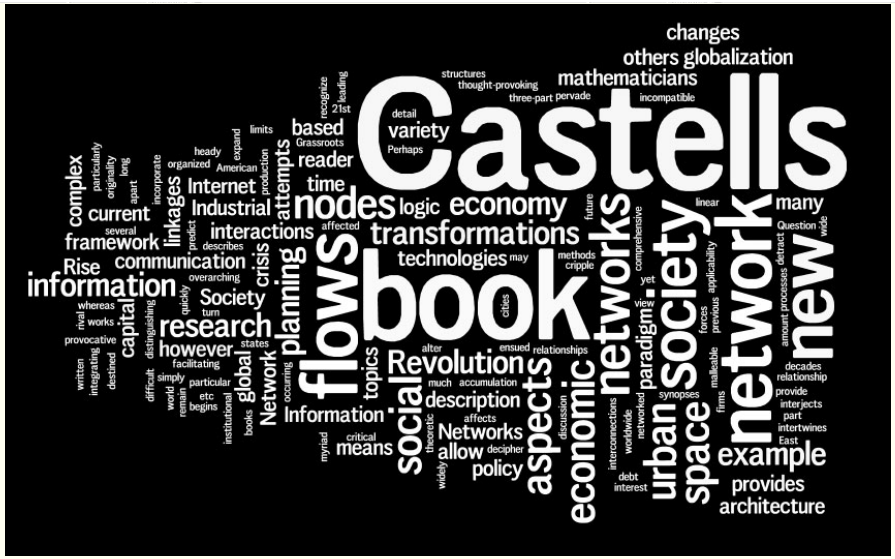

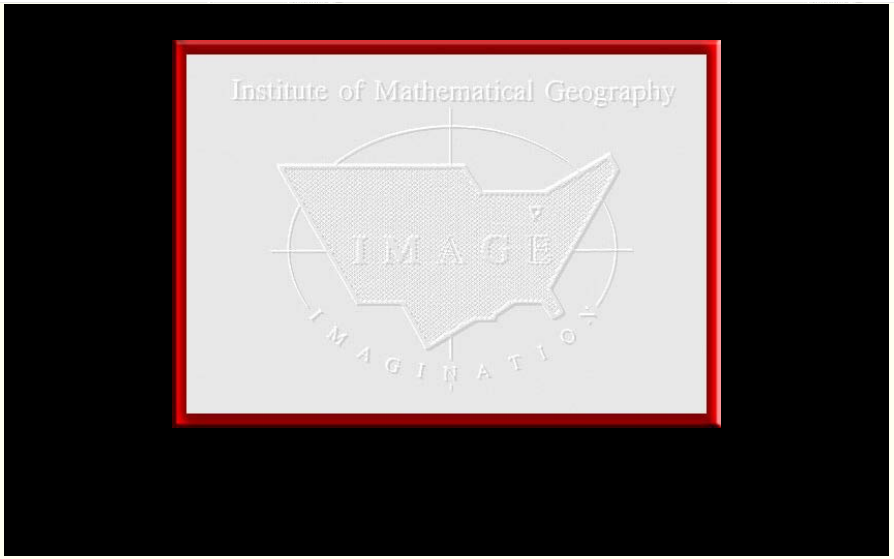

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Animaps
Sandra L. Arlinghaus, William D. Drake, and John D. Nystuen with data and other input from Audra Laug, Kris S. Oswalt, and Diana Sammataro

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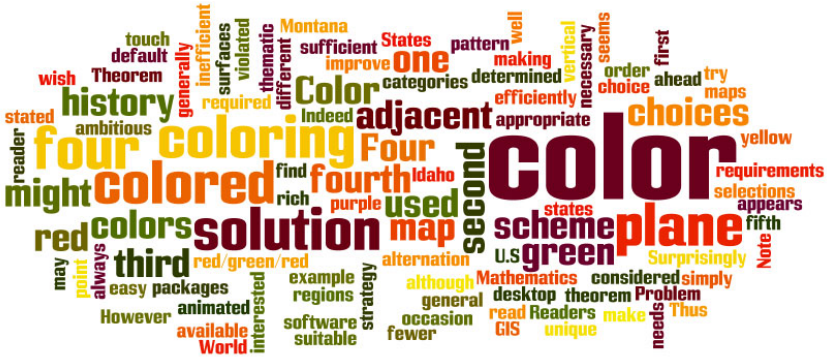
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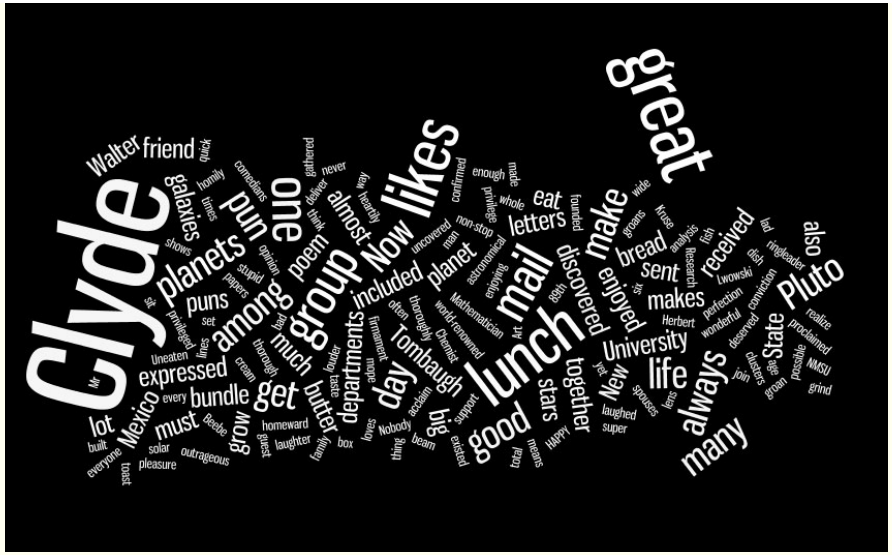

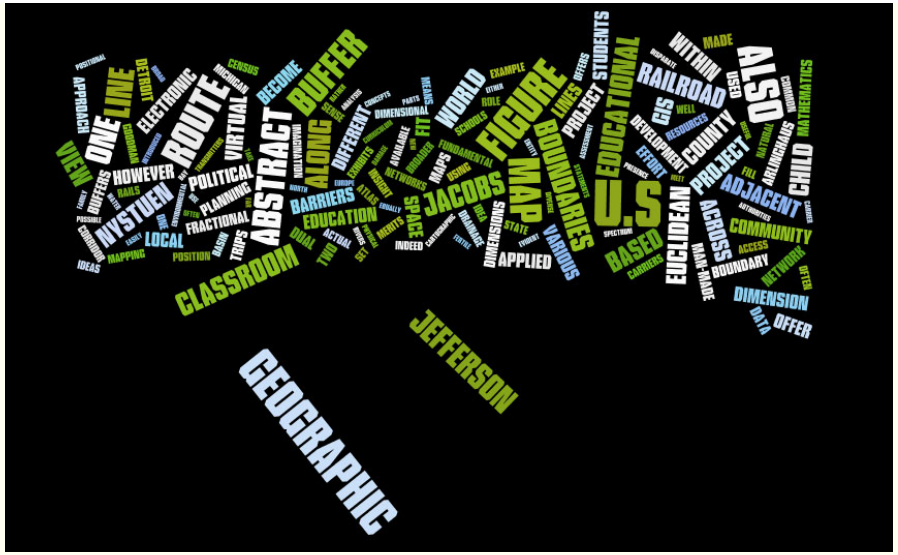

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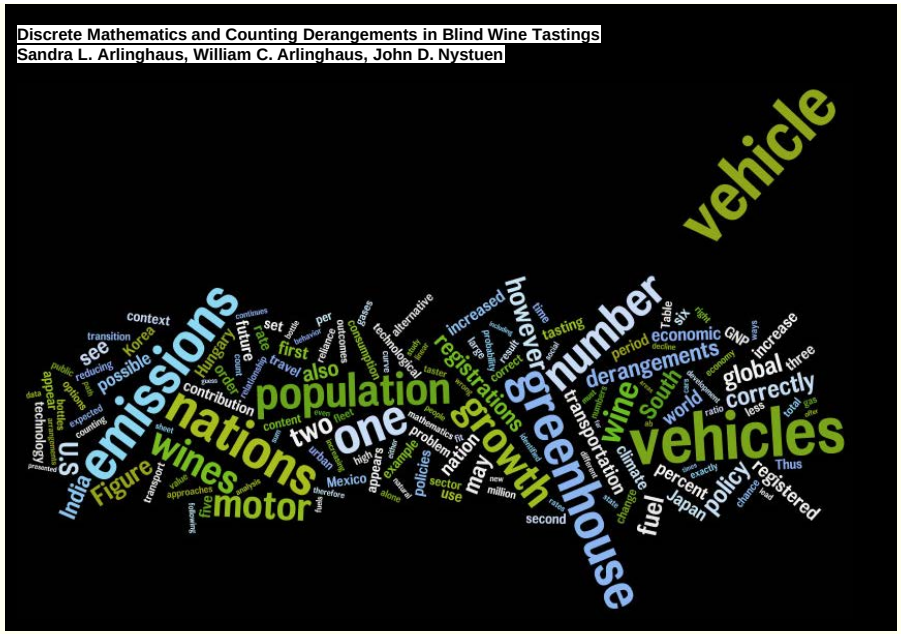

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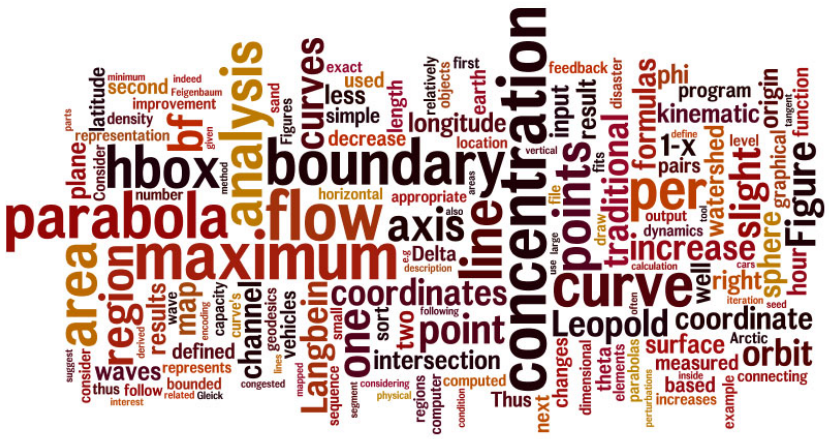

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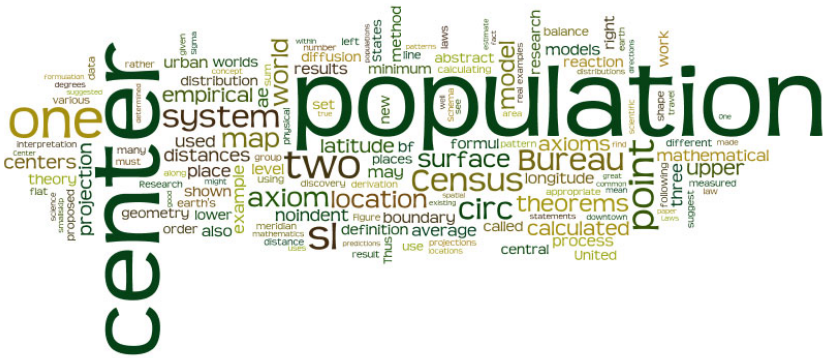

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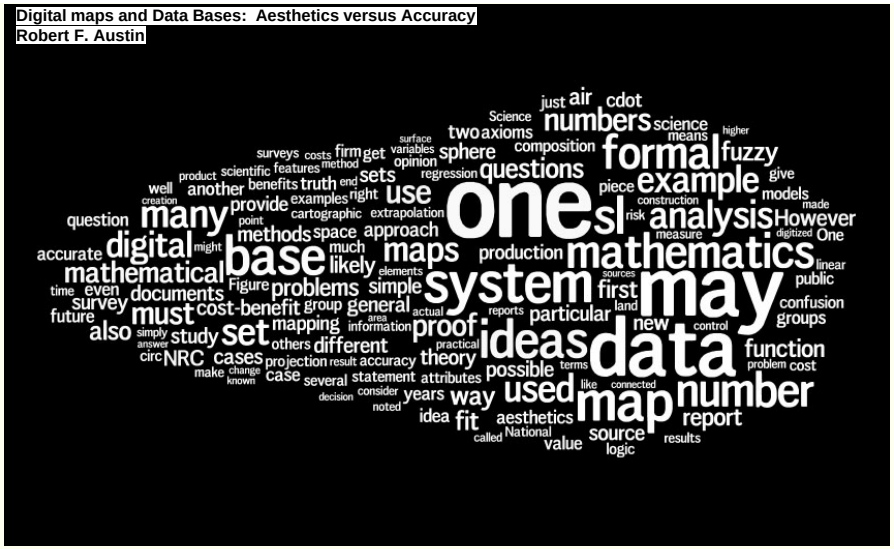

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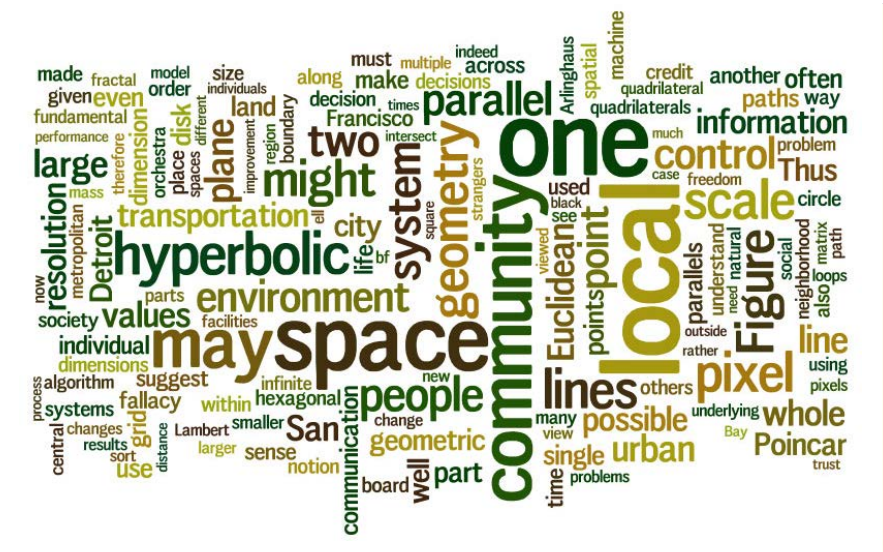

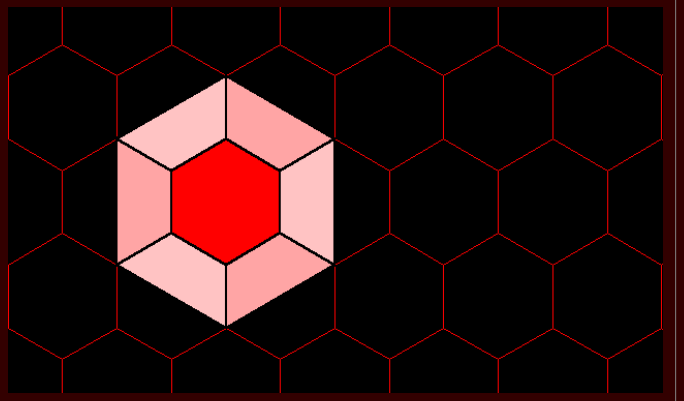

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Congratulations to all *Solstice* contributors.

Remembering those who are gone now but who contributed in various ways to *Solstice* or to IMaGe projects, directly or indirectly, during the first 25 years of IMaGe:

Allen K. Philbrick | Donald F. Lach | Frank Harary | William D. Drake | H. S. M. Coxeter | Saunders Mac Lane | Chauncy D. Harris | Norton S. Ginsburg | Sylvia L. Thrupp | Arthur L. Loeb | George Kish |

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