Lecture 8: Toponymy, typography and map text
Dealing with text

• What text and language?
• What component: map, legend, reference frame, metadata
• What design elements: font, variation, color, spacing
• What text: selection
• Where: placement and design
• Where: rules of precedence and overlap
• Text as symbol
toponymy

- The study and practice of placing of place names on maps especially those derived from topographical features
- **Gazetteer**: A dictionary, listing, or index of geographic names
- **Board on Geographic Names**: a Federal body created in 1890 and established in its present form by Public Law in 1947 to maintain uniform geographic name usage throughout the Federal Government
- **GNIS**: USGS BGN data base containing all US domestic place names
- **GEOnet Names Server (GNS)** provides access to the National Geospatial-Intelligence Agency's (NGA) and the U.S. Board on Geographic Names' (BGN) database of foreign geographic feature names.
Place names matter

What's In A (Place) Name? The Gulf Controversy

Submitted by Martin W. Lewis on January 20, 2010 – 7:06 pm

In mid-January 2010, the Islamic Solidarity Games—scheduled to take place in Tehran in April—were cancelled over a toponymic dispute. The Iranian organizers of the athletic competition insisted on labeling the body of water located between Iran and the Arabian Peninsula the “Persian Gulf” in their promotional materials. The event’s organizing committee, based in Saudi Arabia, refused to tolerate such effrontery, and called off the competition. Officials in Saudi Arabia, like those in many other Arabic-speaking countries, regard the term “Persian Gulf” as a form of Iranian cartographic imperialism. They prefer Arabian Gulf, and if that name cannot be used, they insist on a neutral term such as The “Arab-Persian Gulf” or simply “The Gulf.”

This controversy reveals the deep cultural cleavage between Iran and the Arabic speaking realm. Most other bodies of water named for particular places do not inspire much animosity. The United States lodges no protests over the Gulf of Mexico; India does not object to the Arabian Sea; Malaysia has no problem with the South China Sea; Taiwan and Japan do not worry about the
GEOnet Names Server: NGA

• The GNS is the official repository of standard spellings of all foreign geographic names, sanctioned by the United States Board on Geographic Names (US BGN).

• The database also contains variant spellings (cross-references), which are useful for finding purposes, as well as non-Roman script spellings of many of these names.

• All the geographic features in the database contain information about location, administrative division, and quality.

• The database can be used for a variety of purposes, including establishing official spellings of foreign place names, cartography, GIS, GEOINT, and finding places.
Language
Map components: Text and toponyms
Text design
Selection
Placement and design
Precedence
Text as symbol
Placement tools
Alignment and centering

A  
Horizontal Alignment and Centering of Vertically Distributed Features

- Black Mountain
  - Horizontally aligned to right
  - Horizontally centered
  - Horizontally aligned to left

B  
Vertical Alignment and Centering of Horizontally Distributed Features

- Black Mountain
  - Vertically aligned to bottom
  - Vertically centered
  - Vertically aligned to top
Text and Map Layout
Borders and neat lines

Map A: Neatline No Border

Map B: Neatline and Border

Map C: Border No Neatline

Neatlines and Borders:
A neatline delineates the extent of the data.
A border frames the map graphic.

Fran Evansko
July 12, 2004
Source, title, legend
Framing and placement
Insets: 2 types, plus location map
Location maps

State of Idaho With MoscowInset
Wording: Subheaders

A

Long Term Debt
AVERAGE AGE, 2001
Museums of Modern Art

B

Population Density
New Hampshire, 2010
Number of Chickens
Harper County

BIRTH RATE INCREASE
1950 - 2000

Subtitle horizontally centered below title
Legend complexities

Legend

- Redevelopment Zone
- Targeted Properties
- Escrow Properties
- Acquired Properties
- Bus Route
- Express Bus Route
Splits

Poverty as Shown by Per Capita Income
South America 2015

Poverty
as Shown by Per Capita Income
South America
2015

Source: U.S. Department of Commerce,
National Trade Data Bank, May 6, 1999.
Space and layout
Creating label space
North Arrow or cartojunk?
Credits/Sources


Source: United States Central Intelligence Agency.
Map File #505103 (547149) 2-82.

Data Source: National Atlas of the United States,


Source: Field Survey by Nigel Tufnel and David St. Hubbins, December, 2008.

Multiple lines are horizontally centered
## Fonts

<table>
<thead>
<tr>
<th>A</th>
<th>Type Family</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Palatino</td>
</tr>
<tr>
<td></td>
<td>Helvetica</td>
</tr>
<tr>
<td></td>
<td>Bookman</td>
</tr>
<tr>
<td></td>
<td>Gill Sans</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>B</th>
<th>Type Style</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Based on Palatino)</td>
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<tr>
<td></td>
<td>Roman</td>
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<tr>
<td></td>
<td><strong>Bold</strong></td>
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<tr>
<td></td>
<td><strong>Italic</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
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<th>Typeface</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Palatino Roman</td>
</tr>
<tr>
<td></td>
<td><strong>Helvetica Bold</strong></td>
</tr>
<tr>
<td></td>
<td>Bookman <strong>Italic</strong></td>
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<tr>
<td></td>
<td>Gill Sans Condensed</td>
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<table>
<thead>
<tr>
<th>D</th>
<th>Type Size</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>(Based on Palatino Roman)</td>
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<tr>
<td></td>
<td>Six point</td>
</tr>
<tr>
<td></td>
<td>Ten point</td>
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<tr>
<td></td>
<td><strong>Fourteen point</strong></td>
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</tbody>
</table>
Cheltenham provides an old-fashioned look.

Courier looks like a typewriter.

Times New Roman looks like a modern textbook.

Bookman looks like a primary school book as it is larger.
Serifs

<table>
<thead>
<tr>
<th>A</th>
<th>UPPERCASE</th>
<th>lowercase</th>
</tr>
</thead>
<tbody>
<tr>
<td>First letter of every word is uppercase</td>
<td><strong>Title Case</strong></td>
<td>First letter of sentence is uppercase</td>
</tr>
<tr>
<td>Except for words like in, on, or, of, per, by, for, with, the, and, over, etc.</td>
<td><strong>Sentence case</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B</th>
<th>Palatino</th>
<th>Helvetica</th>
<th>Bookman</th>
<th>Gill Sans</th>
</tr>
</thead>
<tbody>
<tr>
<td>is serifed</td>
<td>is sans serif</td>
<td>is serifed</td>
<td>is sans serif</td>
<td></td>
</tr>
</tbody>
</table>

Serifs are circled
Kerning

A

T

AT

OATS

OATS

OATS

OATS

none

optical

metrics

manual
Right

Down, rotated

Some text warped to a curve.
Placename size
Points, lines, areas
Label highlights

A

Wilson Capital City Vernal

B

Seasonal Commute Mikkerton

C

Thule Park
Line labels

A. Huntington Way
   -----------------
   Stratford Railroad

B. TRIMBLE COUNTY
   GRANT COUNTY

C. All American River

D. Long Creek
   Long Creek
Curved labels

Curved labels show how to use Inkscape's text object and paths tools to create curved text appropriate for geographic labels.

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Label extent
Summary

• Text makes a huge difference in a map’s perceived quality
• Multiple components
• Many design aspects
• Selection, placement and design of labels
• Rules of precedence and overlap
• Text is a symbol
• Keep numbers of fonts, colors and variants to a minimum