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

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
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-referenced), 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.
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

A

Edge of page
Frame line

B

Edge of page
Frame line
Neat line

C

Edge of page
Frame line acting as neat line

D

Edge of page

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Borders and neat lines
Source, title, legend
Framing and placement
Insets: 2 types, plus location map
Location maps

State of Idaho
With Moscow Inset
### 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

Targeted Property
Escrow Property
Acquired Property
Bus Route
Express Bus Route
Redevelopment Zone
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>Type Family</th>
<th>Type Style (Based on Palatino)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palatino</td>
<td>Roman</td>
</tr>
<tr>
<td>Helvetica</td>
<td>Bold</td>
</tr>
<tr>
<td>Bookman</td>
<td>Italic</td>
</tr>
<tr>
<td>Gill Sans</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Typeface</th>
<th>Type Size (Based on Palatino Roman)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palatino Roman</td>
<td>Six point</td>
</tr>
<tr>
<td>Helvetica Bold</td>
<td>Ten point</td>
</tr>
<tr>
<td>Bookman Italic</td>
<td>Fourteen point</td>
</tr>
<tr>
<td>Gill Sans Condensed</td>
<td></td>
</tr>
</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.

FORMAL: Times New Roman
INFORMAL: Kristen ITC
LIGHT: Bigmouth
DRAMATIC: SHOWCARD GOTHIC
MODERN: Tahoma
TRADITIONAL: Goudy Old Style
WARM: Script MT Bold
COOL: CASTELLAR
Serifs

A

First letter of every word is uppercase
Except for words like in, on, or, of, per, by, for, with, the, and, over, etc.

UPPERCASE lowercase
Title Case
Sentence case

First letter of sentence is uppercase

B

Palatino is serifed
Helvetica is sans serif
Bookman is serifed
Gill Sans is sans serif

Serifs are circled
Kerning

A

T

AT

OATS
OATS
OATS
OATS

none
optical
metrics
manual
Text path

• Right

Down

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

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Curved labels

shows how to use Inkscape's text object and path tools to create curved text appropriate for geographic labels.
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