Geography 240:
Virtual Tour of the GIS Research & Map Collection
Maps are everywhere!
THE WAY IT SHOULD BE...

NO MICHIGAN.
THE AMERICAN

THE BIG EAST

AMERICAN
ATHLETIC CONFERENCE

HOME COURT
OF COLLEGE HOOPS

BIG EAST
CONFERENCE
Topographic Maps:

• Each map—called a quadrangle—covers an area bounded by meridians of longitude and parallels of latitude.

• The most common scale used to create these maps is the 7.5-minute scale or 1:24,000 (1 inch = 2000 feet).

• Much detail can be shown on this scale, and the map is usually named after the most prominent feature in the quadrangle.
Topographic Maps: Features

- The features shown on quadrangle maps are divided into three general classes, each printed in a different color:
  1) *Relief* features are printed in brown.
  2) *Water* features are printed in blue.
  3) *Cultural* features (manmade objects) are shown in black.
The contour lines are distinct at the *The Windows* rock formations section of the Arches National Park on this Utah topographic map. Also note the varying elevations. (*The Windows Section, UT 1996 USGS quadrangle, GRMC, Ball State University Libraries*).
The Windows rock formation section of the Arches National Park:
The contour lines of the Grand Canyon reveal that the elevation near the Colorado River is at 2369 feet. Near the overlook of the canyon the elevation is 6799 feet. The contour interval on this topographic map is 40 feet. (Grand Canyon, AZ 1988 USGS quadrangle, GRMC, Ball State University Libraries).
View of the Colorado River at the Grand Canyon:
• The contour lines grow narrow at the opening of the Mount St. Helens volcano in Washington. *(Mt. St. Helens, WA 1983 USGS quadrangle, GRMC, Ball State University Libraries).*
Mount Saint Helens, Washington:
Topographic Maps: Features—Water

• Water features on topographic maps are usually shown in blue.

• This would include seas, lakes, natural and manmade ponds, rivers, canals, ditches, swamps, and other streams.

• Perennial features contain water throughout the year and are shown with solid lines. Intermittent features contain water only part of the year and are indicated by broken lines.
The west side of Crater Lake in Oregon is shown in blue on this topographic map. The names of bays and channels inside the lake are also printed in blue. (Crater Lake West, OR 1997 USGS quadrangle, GRMC, Ball State University Libraries).
• This map shows the Mississippi River crossing near the Super Dome in New Orleans with several canals and the inter-coastal waterway also shown in blue. (New Orleans East, LA 1998 USGS quadrangle, GRMC, Ball State University Libraries).
New Orleans, Louisiana
Topographic Maps: Features—Culture

• Cultural features of prominence on topographic maps include any works that are manmade.
• Towns, cities, roads, railroads, cemeteries, buildings, telephone lines, radio and cell phone towers, and civil boundaries are all cultural features.
• Cultural features are shown in black on the map.
• Native American burial mounds are marked with black circles on this map. *(Sinking Spring, OH 1974 USGS quadrangle, GRMC, Ball State University Libraries).*
SERPENT MOUND STATE MEMORIAL

Indian Mounds
Serpent Mound State Memorial, Ohio:
The Pentagon:
• Cables and buildings on Alcatraz Island are marked in black in the San Francisco Bay. (*San Francisco North, CA 1995 USGS quadrangle, GRMC, Ball State University Libraries*).
Lombard Street, San Francisco, California:
Lombard Street, San Francisco, California:
Topographic Maps: Other Colors—Green

- The color green on a topographic map represents some form of vegetation—forests, brush, vineyards, orchards, wooded marsh, and scrub.
- The green areas on a map distinguish vegetation from open areas of white, which represents grass, sand, or some other surface.
This topographic map of Manhattan displays the green area of Central Park in the middle of urban development. (Central Park, NY-NJ 1995 USGS quadrangle, GRMC, Ball State University Libraries).
Tiny green circles mark the location of vineyards on this topographic map of California’s Napa Valley. Slightly larger green circles just south and northwest of the city identify orchards. (Calistoga, CA 1997 USGS quadrangle, GRMC, Ball State University Libraries).
Thematic Maps:

• Folded and flat maps of cities, counties, states, countries all over the world, and even the solar system...
The campus covers seventy acres in the northwestern portion of Muncie, Indiana. Besides the six buildings and the central heating plant on this land, the college property includes the Burbis School, a demonstration-training school. Ball Memorial Hospital is situated near the campus.
Countries invaded by England:
At 6:53 a.m. the destroyer *Helm* reported, "we have attacked all upon and dropped depth charges upon submarine operating* diving sea area" — the firstersonic shots of World War II.

By 7:10, two fighter operators reported a large number of planes approaching Oahu from the northwest, but the report wasiseum the expected arrival of American forces.

**The First Wave**

A violent explosion rocks the light cruiser *Helm*, crippling her and the minelayer *Oglala* beside her. The old target ship, *Utah*, is slammed by two torpedoes, listing heavily, and begins to capsize. *Oklahoma* takes the first of nine torpedoes and the big battleship begins its death roll. *California* receives two torpedoes in rapid succession and lists to port. *West Virginia* is hit, but she counter-attacks...
Public Enemies: Robberies of the John Dillinger Gang
The Travels of Secretary of State
Hillary Clinton, 2009-2012
Secretary Clinton visited 112 countries (labeled) and travelled nearly one million miles.
Nowhere do women have equal representation with men in government. But the presence of women in government is important for the rights of women and the nature of governance itself. Recent studies suggest that women introduce different perceptions of the norms of appropriate governance.

Elisabeth Domitien became the first Black woman prime minister of an independent state in the Central African Republic in 1975.

In 1960 Sirimavo Bandaranaike became the first woman prime minister in the world as the elected leader of Sri Lanka.
Black Diamonds:
Negro League Baseball Teams, 1920-1949

Akron Blue Birds
Atlanta Black Crackers
Atlantic City Buckaneers Giants
Baltimore Black Sox, Elite Giants
Birmingham Black Barons
Brooklyn Eagles, Royal Giants
Chattanooga Black Lookouts
Chicago American Giants, Columbus Giants, Giants
Cincinnati Crawlers, Cuban Stars, Tigers, Ethington Buckeyes
Cleveland Bears, Bluebirds, Browns, Buckeyes, Cuba, Elite Giants, Hornets, Red Sox, Stars, Tate Stars, Tigers
Columbus Blue Birds, Buckeyes, Elite Giants, Redbirds, Eagles
DaytonMaroons
Detroit Elites, Stars, Wolves
Hartford Giants
Homestead Grays (Pittsburgh)
Indianapolis ABC's, American Giants, Atlantics, Crawlers, Crusaders, Cuban Stars
Jacksonville Red Caps
Kansas City Monarchs
Kansas City Giants
Louisville Red Caps, White Sox
Memphis Red Sox
Milwaukee Bears
Montreal Monarchs
Montgomery Grey Sox
Nashville Elite Giants, Elites
New Orleans Crescent Stars, Stars
New York Buckaneers Giants, Black Yankees, Cuban Stars, Cuban Stars, Cradates, Elites, Barbers, Lincoln Giants
Newark Bears, Dodgers, Eagles, Stars
Philadelphia Hilldale Dodgers, Hilldale Stars
Pittsburgh Crawfords, Neptune
St. Louis Giants, Stars
Toledo Crawford, Tigers
Washington Black Senators, Elite Giants, Homestead Grays, Pilots, Potomocs
Wilmingnton Potomocs
Horsepower to Hysteria: Indiana Sports History
There are more people living inside this circle than outside of it.
Countries (and former countries) with McDonald’s:
International beauty contests promote and export a white, Western standard of beauty. Globalization is accelerating the adoption of these standards around the world. As new governments seek global economic integration, they often signal this by jumping on the Western beauty bandwagon. The proliferation of beauty contests in the former Soviet bloc countries is particularly striking.

Miss Universe began in 1952 and was won by a contestant from Finland.

The pageant had only 26 contestants in 1953 but 89 contestants in 2011 and 2012. The youngest Miss Universe winner was 17, and the oldest was 26.
Area Codes In Which Ludacris Claims to Have Hoes

Based on his 2001 single, "Area Codes"

The Hawaiian, Midway, and Wake Islands are not pictured. (808)
Atlases:

- Atlases of cities, counties, states, countries all over the world, and topics like art, disease, women’s issues, education, endangered species, and even surfing
In 2007, 31 million adults in the world were living with HIV; half of them are women.

Living with HIV / AIDS

Number of adults with HIV / AIDS 2006–07

- 50,000 women living with HIV
- 50,000 men living with HIV
HEART ATTACKS
Number of deaths a year from coronary heart disease per 100,000 population 2002
- 400 or more
- 200 – 399
- 100 – 199
- fewer than 100
- no data

Top 3: highest number of deaths from coronary heart disease

MENTAL HEALTH

Suicides rates are increasing, particularly among young men.

SUICIDE RATES
Number of suicides per 100,000 people 2005 or latest available data
- 40 or more
- 20.0 – 39.9
- 10.0 – 19.9
- 5.0 – 9.9
- fewer than 5.0
- no data
Geographic Information System (GIS): Integrating hardware, software, and data to manage and interpret patterns and trends in the form of maps or charts.
GIS Around the World

- Tracking elephants in Limpopo National Park, Africa
- Yearly tornado density
- Tsunami water levels in Indonesia
Producing Thanksgiving Dinner
The Ring of Fire

Volcanoes and Earthquakes around the Pacific Rim

The Ring of Fire is a zone of frequent earthquakes and volcanic eruptions that encircles the basin of the Pacific Ocean. About 90% of the world’s earthquakes and 85% of the world’s largest earthquakes occur along the Ring of Fire.

The western edge of the North American continent falls along the Ring of Fire. Here, earthquakes are primarily located along the shifting edge between two of the world’s largest plates, the North American and Pacific plates.

However, there have been no “big” earthquakes in Oregon’s brief history.

Earthquakes in Oregon
1840-1950

The amount of earthquake damage at any given spot depends on its distance from the epicenter, local soil conditions, and type of construction.
Public School Shootings, 1999-2008
HOOKED ON COLLEGE HOOPS
Who Watches College Basketball on TV?

Market Potential Index for College Basketball Viewership by ZIP Code
100 = National Average

- Very High (Greater than 111)
- High (102 to 111)
- Average (92 to 101)
- Low (81 to 91)
- Very Low (Less than 81)

Sources:
- Esri Market Potential Data (2010)
- GfK MRI

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Sanborn Fire Insurance Maps:

- Sanborn maps are an ideal source of information about the structure and use of buildings.
- The maps were created beginning after the Civil War to assess degrees of fire hazard for a particular property.
- The maps consist of a uniform series of large-scale (one inch=50 feet), detailed maps depicting the commercial, industrial, and residential sections of cities.
- Check in the GRMC for a list of all the cities covered by Sanborn maps. Muncie is available on the Digital Media Repository.
Access digital copies of Sanborn Fire Insurance maps from Indiana University at http://www.indiana.edu/~gisdata/
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