Geog 126: Maps in Science and Society

Mapping the Pacific: The South Sea Bubble and Terra Australis
The Myth of Treasure Island
Islands to Ptolemy

Map of the British Isles and Oceanus Germanicus (the North Sea) 1490
Islands and Exploration

- Islands within the Mediterranean known since Ptolemy’s time (but, Thule, etc)
- 0 deg longitude placed at Canary Islands (then forgotten)
- Early expansion from Spain and Portugal involved “discovering” islands
- Vivaldi brothers of Genoa in 1291 set out for India, died, but inspired voyages
- Canaries island Lanzarote named for Genoan Lancelotto Malocello by 1339
- In one month (April) in 1342, four voyages licensed from Majorca to the Canary Islands “cogs”
- Islands quickly become the launch platform for discovery
Catalonia
Mediterranean Islands
Kingdom of Majorca (1276-1343)

- James I, the Conqueror, king of Aragon and count of Barcelona, founded the Kingdom of Majorca in 1276
- Perpignan became the capital of the mainland territories of the new state
- Conquered Sardinia and Corsica
- 1344 Peter IV of Aragon annexed the Kingdom
- Majorca traded both with Europe and the Moors, led to interest in Africa
- Beginning of missionaries
Catalan Atlas

- Attributed to Abraham Cresques, a Catalan Jew of Majorca who was mapmaker to King Peter of Aragon.
- Commissioned by Charles V of France, whose envoy requested a set of world maps from King Peter, as Catalan maps were held in high esteem.
- “State of the art” of geographic knowledge at the end of 14th century
- Details from Marco Polo's narratives of Asia
- End of mapmaking conventions of the Middle Ages.
Catalan Atlas 1375
Jacme Ferrer: The River of Gold

“The ship appears to be a galley, the ship type commonly found in the Mediterranean trade. The banner on the ship reflects the gold and red colors of the kingdom of Aragon, which included the areas of Majorca and Catalonia. The text accompanying the image of the ship states that Jacme Ferrer’s ship set sail on St. Laurence Day, the 10th August 1346, bound for the Rio d’Oro. Little is known of this voyage. It was one of several documented voyages of the time that failed to return to port. The ship evidently reached Cape Bojalar (Bojador) but its ultimate fate remained a mystery.”

Canary Islands

- Dyes from lichen and “dragon’s blood” tree
- Possibly pre-Berber residents of Mahgreb
- “The Canaries were important not chiefly, at first, for their own sake, but because the winds and currents led there from Iberia. They were of value as a staging post for explorers engaged in a remoter quest: the search for the sources of the Sahara gold trade.” (Fernandez-Armesto)
Gran Canaria

- Possibly Gran Canaria was already populated at around 500 B.C.
- Gran Canaria’s natives, known as Guanches, originally came from North Africa and were descendants of the Berbers.
- Stone tools and primitive pottery.
- Early 14th Century, 30,000 Guanches on the island of Gran Canaria.
- Throughout the 14th century the Italians, Portuguese and Catalans sent their ships to the islands to bring back slaves and furs to their countries.
- 15th century the rapid conquest of the islands began.
- On Gran Canaria, the Guanches fiercely resisted the Spanish invasion (another revolt in 1778-1783).
- 1483 Pedro de Vera completed the conquest that Juan Réjon had started five years earlier.
- Guanches were killed or committed suicide rather than surrender to the Spanish.
- Survivors were forced into slavery and converted to Christianity.
Enter Portugal and Spain

• Royal interest after 1345
• Luis de la Cerdia given permission to conquer “Principality of Fortunia” (Canaries plus Jalita)
• Alfonso XI of Castile asserts rights
• By 1380s, Canaries and some of the Azores appear on maps
• 1393 Fernan Peraza “how those islands were easy to conquer”
• Ships sailed west to catch the westerlies for the return trip
• Gadifer de la Salle 1402 maps source of wonder “River of Gold”
• By 1430s Portuguese way stations with sheep and crops in Azores
• Spanish conquest and funding move to Seville and Castile
Western Nile (Senegal-Niger River) according to Muhammad al-Idrisi (1154)
Surrender of the Guanches Kings
The role of mythology

- *Tirant lo Blanch*
- A romance written by the Valencian knight Joanat Martorell published in Valencia in 1490
- "Tirant the White" name of the main character
- Among the best known medieval works of literature in Catalan
- Played an important role in the evolution of the Western novel through its influence on Miguel de Cervantes
Don Quixote: The Quest

*The Ingenious Gentleman Don Quixote of La Mancha* written by Miguel de Cervantes.

Published in two volumes a decade apart, in 1605 and 1615

Considered the most influential work of literature from the Spanish Golden Age and the entire Spanish literary canon.
Islands
Thomson 1814
Another Myth: The Great Southern Continent
Ptolemy: Terra Incognita
Monstrous Races

In the fifth century BC, the Greek physician Ctesias wrote of dog headed people in India:

Atomi (Apple-Smellers) - People without mouths and hairy bodies, although they usually wear garments made from tree leaves. They cannot eat, but instead live by smell, particularly apples. A bad smell will cause death.

Blemmyae - People who have neither heads nor necks, but have faces upon their chests beneath their shoulders.

Brahman (Bragmanni) - Wise people who live in caves or the forest. They are unclothed and live the extreme, moralistic life of an ascetic.

Cyclopes - Giants with only one eye. Although the most famous occurred in Homer's Odyssey, one-eyed giants were reputed to be found in India as well.
Anubis and Brahmin Caste
Theatrum Orbis Terrarum. Antwerp: 1608
Hemisferio publicado en Amsterdam en 1612, en que está delineada la Terra Australis Incógnita. Una inscripción del mapa atribuye a Pedro Fernández de Quirós haber avistado el continente austral.
Australia begins...
After Cook
James Cook

- Took command of the *Endeavour* in 1768 on its voyage to the islands of Tahiti, two voyages of discovery in 1772–75 and in 1776.
- Voyage in 1768 was to be the first of the great scientific expeditions
- Carry Royal Society observers to Tahiti to watch the transit of Venus across the Sun
- Objective also was to discover the southern continent, Terra Australis
- Found and mapped New Zealand, sighted the southeast coast of Australia on 19 April, 1770
- Continued up the east coast of Australia successfully navigating the Great Barrier Reef
- Second expedition (1772–75) to the South Seas in the *Resolution* and the *Adventure* in which he circumnavigated the high latitudes and traveled as far south as latitude 72°.
- Discovered New Caledonia and the South Sandwich Islands, but found no trace of the ‘great southern continent’
- Second voyage used a chronometer as standard issue
- On his return he was made a fellow of the Royal Society, awarded Copley medal for his paper on scurvy and its prevention
- Cook's third voyage (1776), again in the *Resolution*
- Cook was attacked and killed by the natives on the beach of Kealakekua Bay
Cook in the Pacific
Flinders expedition 1802
Antarctica forms
Antarctica discovered

• In 1820, several expeditions claimed to have been the first to have sighted Antarctica, with the very first being the Russian expedition led by Faddey Bellingshausen and Mikhail Lazarev.
• The first landing was probably just over a year later when American Captain John Davis, a sealer, set foot on the ice.
• American naval officer Charles Wilkes claimed (correctly) that Antarctica was a new continent based on his exploration in 1839–40
• James Clark Ross, in his expedition of 1839–43, hoped that he might be able to sail all the way to the South Pole
The Race to the Pole

• Robert Falcon Scott on the Discovery Expedition of 1901–04.
• Scott, accompanied by Ernest Shackleton and Edward Wilson set out with the aim of travelling as far south as possible
• 31 December 1902, reached 82°16′ S
• Shackleton later returned to Antarctica as leader of the British Antarctic Expedition (Nimrod Expedition) in a bid to reach the Pole.
• On 9 January 1909, with three companions, he reached 88°23′ S – 112 statute miles from the Pole – before being forced to turn back
Beaten to the pole

• Pole reached by Norwegian Roald Amundsen and his party on December 14, 1911
• Scott had also returned to Antarctica with his second expedition, the Terra Nova Expedition, in a race against Amundsen to the Pole.
• Scott and four other men reached the South Pole on January 17, 1912, thirty-four days after Amundsen, found articles left there
• On the return trip, Scott and his four companions all died of starvation and extreme cold.
Amundsen
Scott 1910-13

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"...the end has come and the end cannot be far..."

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"Robert Last Entry For God's Sake look after von people"
Claims
The South Sea Bubble

- War of the Spanish Succession (1701–14)
- Started in 1711, when the war left Britain in debt by 10 million pounds
- Britain proposed a deal to a financial institution, the South Sea Company
- Britain’s debt would be financed in return for 6% interest in exchange for exclusive trading rights in the South Seas
- Proximity to wealthy South American colonies attractive
- Slave trade involved
The South Sea Bubble

- Thought that the Mexicans and South Americans would eagerly trade their gold and jewels for British wool
- The South Sea Company issued stock to finance operations and gain investors
- Stock was rapidly consumed by the voracious appetite of the investors, enamored by the lavish corporate offices
- Became extremely fashionable to own South Sea Company shares
- Rumors that the South Sea Company had been granted full use of Latin American ports, by Spain (Actually, only allowed 3 ships per year)
South Sea House
A New & Exact Map of the Coast, Countries and Islands within ye Limits of ye South Sea Company Herman(n) Moll 1715

Below: Moll's Map for Robinson Crusoe
July 1720: The Bubble Bursts

Figure 17.1
Daily South Sea Share Prices, 1720. Data courtesy of Larry Neal.
The Bubble Bursts

- Other companies proclaimed everything from building floating mansions to distilling sunshine from vegetables.
- Isaac Newton, the scientist, had foreseen a coming stock market crash and sold his shares early with a profit of 7,000 pounds, but then bought in again.
- In 1718, Britain and Spain went to war again, stopping all trade but investors kept buying.
- Company decided to sell while other investors were still unaware that the company was profitless.
- Panic selling Newton lost over 20,000 pounds of his fortune.
- Jonathan Swift, who also lost a fortune, was inspired to write *Gulliver’s Travels* a satire about British society.
- The government worked to stabilize the banking industry.
- The economy didn’t fully recover until a century later.
Bubble cards

The Headlong Fools Plunge into South Sea Water. But the Sly Long-heads Wade with Caution atler. The First are Drowning but the Wise Last. Venture no Deeper than the knees or Waist.
The Compagnie de la Louisiane ou d'Occident was established in August 1717 by John Law, a Scottish financial genius. The Compagnie was granted control of Louisiana, and planned to exploit the resources of the region.
Where are the Subprime Mortgages in U.S.

Subprime mortgages as a percentage of all mortgages:
- less than 30 percent
- 30 to 40 percent
- 40 to 50 percent
- more than 50 percent
Discovery

• By about 1850 world map pretty much complete
• Railroads and national surveys removing effect of distance and ignorance
• Gold rush lessons: Trade more important but bubble prone
• Deception, errors and intrigue remain
• Political competition continues into the age of empires