

Plains and Prairie in Central Nebraska



Plains and Prairies

- What's the difference?
- The terms are juxtaposed so often that many people think they are synonymous.
- **Plains** is a topographic term signifying expansive and relatively flat land.
- **Prairies** is a vegetation that refers to a variety of grasses.
- The vast majority of the Great Plains was originally covered by prairie, hence the association of the two terms.



The Great Plains and Prairies

The Great Plains and Prairies: Things to remember

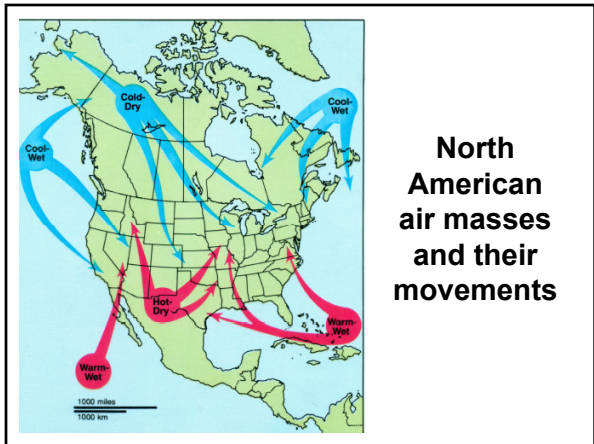
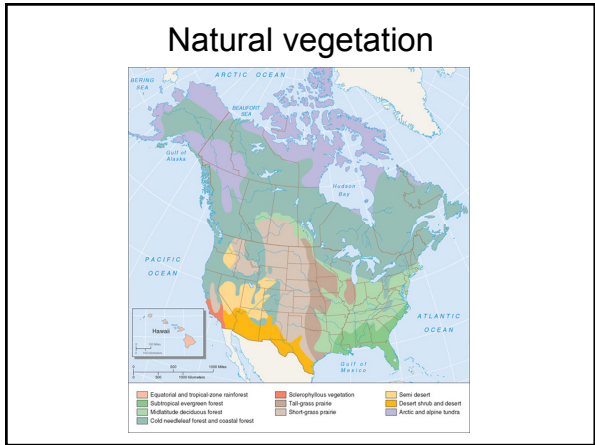
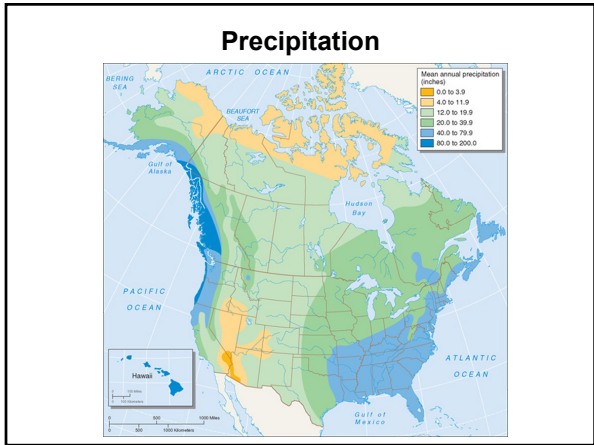
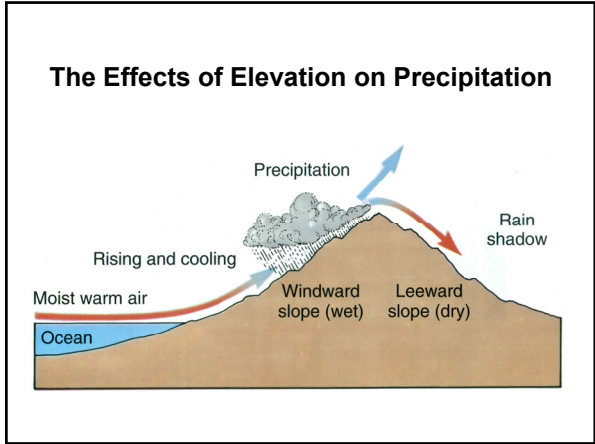
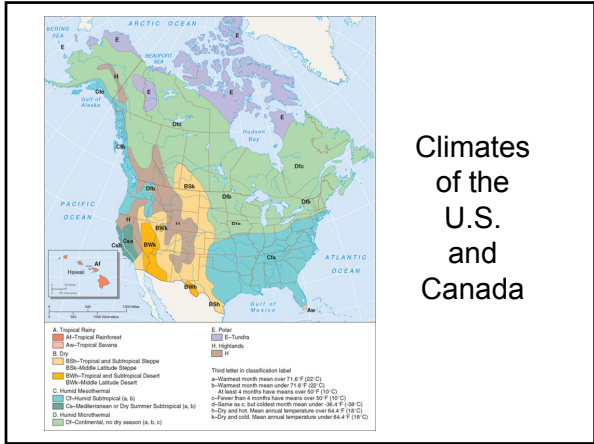
- Minimal topographic variation
- East-to-west decrease in precipitation
- Occasional violent weather
- An historic source of abundant food (from hunting to grazing to agriculture)
- Farm consolidation and depopulation
- Farm management and mismanagement (from the Dust Bowl to center pivot irrigation)
- The Ogallala Aquifer
- A future Buffalo Commons?

Grand Teton National Park, Wyoming



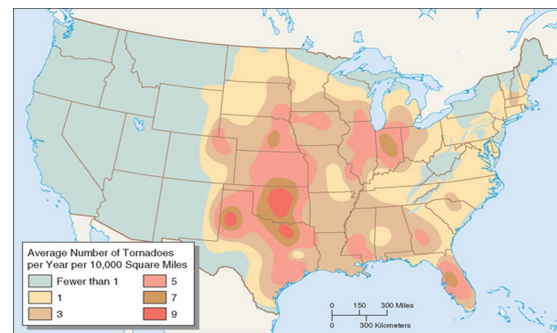
(c) Florida Stock - Schwabacher Landing, Grand Teton National Park



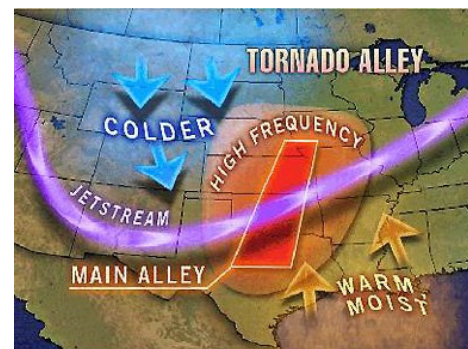




Tornado frequency



“Tornado Alley” is a vernacular region that refers to parts of the United States where tornadoes are most frequent.



Greensburg, Kansas

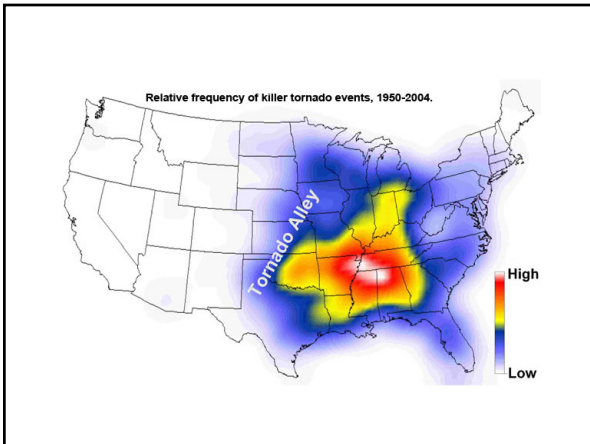


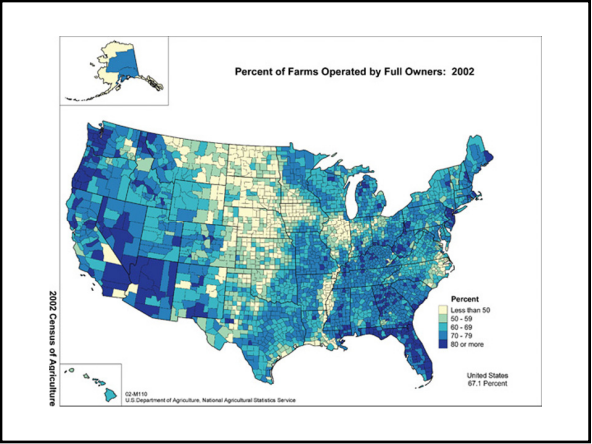
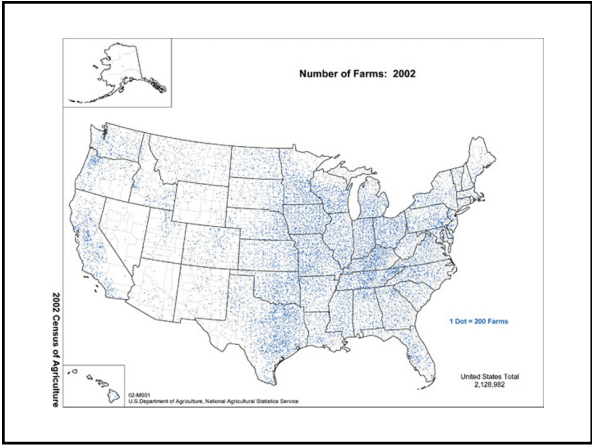
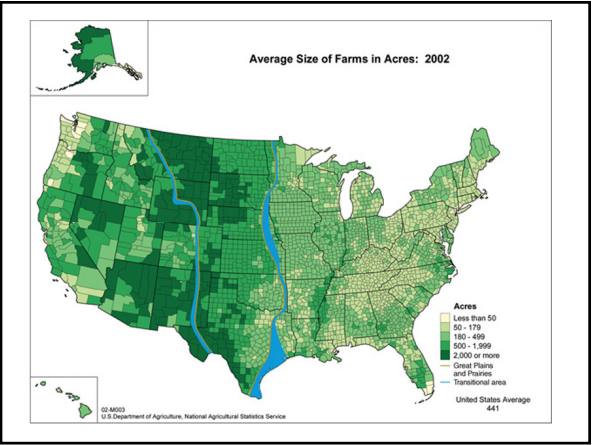
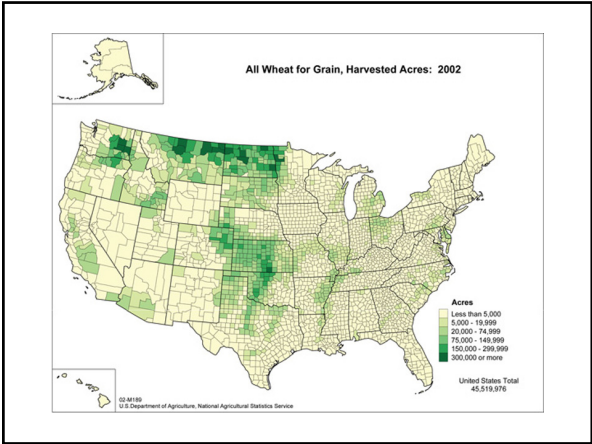
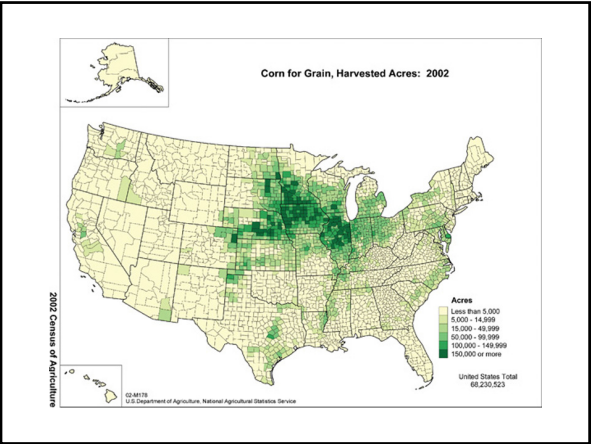
Woodward, Iowa

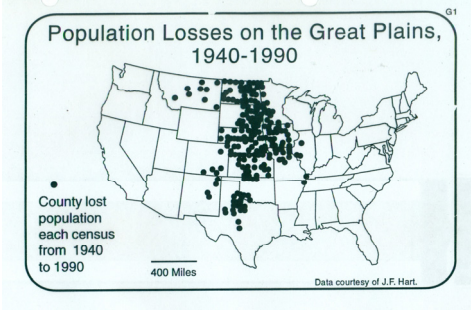
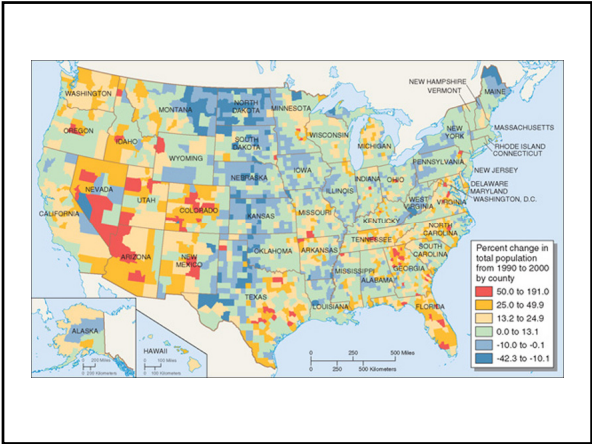




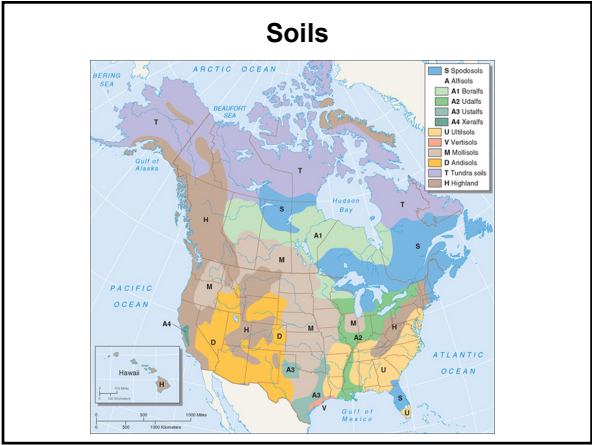
Tornado tourism is gaining in popularity



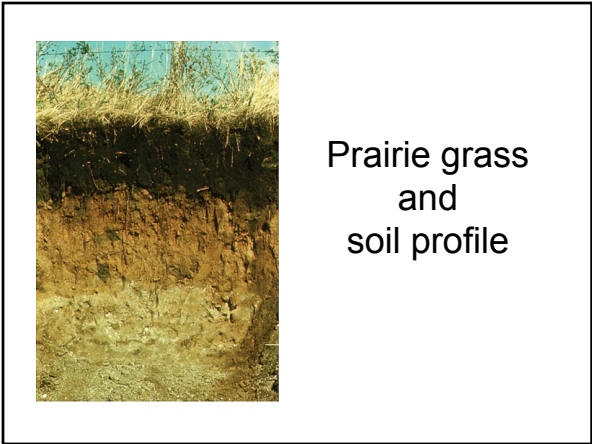




Cartography by Phil Gersmehl



Prairie grass and soil profile



Prairie grass and soil profile



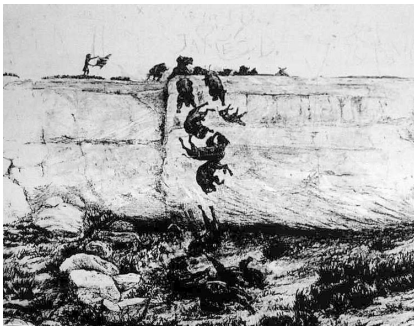
Buffalo hunt
(painting by George Catlin)



Painting by Frederick Remington



Buffalo jump sketch
(artist and date unknown)



Head-smashed-in Buffalo Jump
(near Fort MacLeod, Alberta)

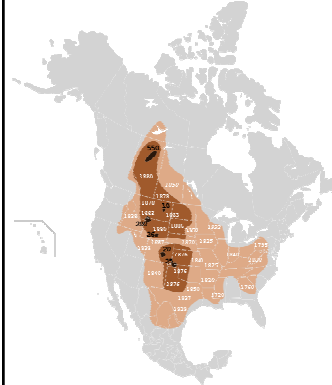


“Buffalo Hunt”
by William R. Leigh



Buffalo population geography showing:

Original Range, Range in 1870, and Range in 1889



Dark numbers indicate buffalo population in remaining areas as of January, 1889.

Bison skull pile, ca. 1870



Sequent occupancy is the notion that over time a given area will be occupied by peoples with different cultures, each of whom will use the area differently, and perhaps leave their own distinctive imprint on the landscape.

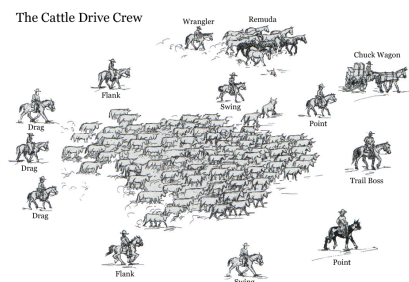
Cattle Drive

(photo taken ca. 1902)

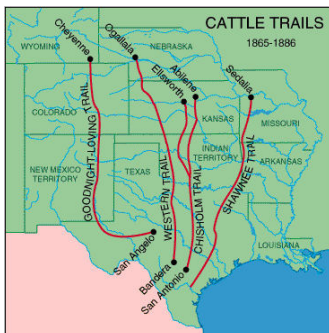


- The movement of cattle on hoof from one place to another by cowboys on horseback.
- A major economic activity in the American West between 1866-86, when about 20 million cattle per year were "driven" from Texas north to railhead "cow towns."
- Established the cowboy as an iconic American figure.

Typical Cattle Drive Organization

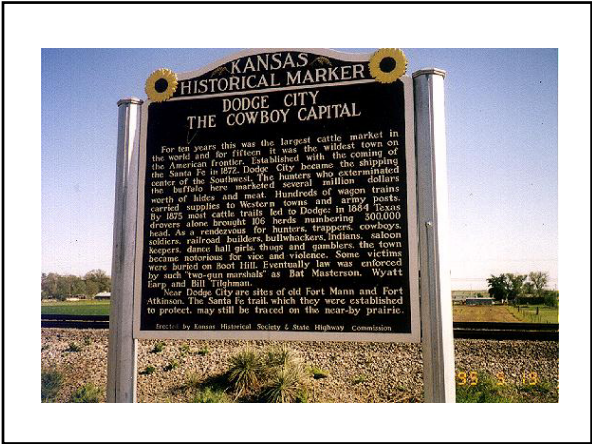


Cattle Drive Trails Map

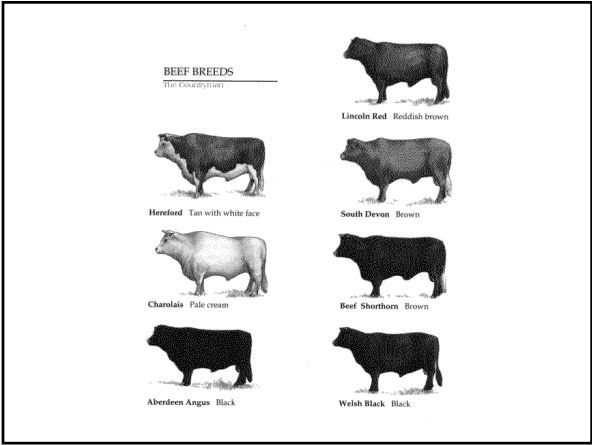


The most famous "wild west" cow town?





Longhorn cattle



Angus cattle



Hereford Beef Cattle



Open Range Ranching



Beef cattle feed lot



Pioneer Sod House





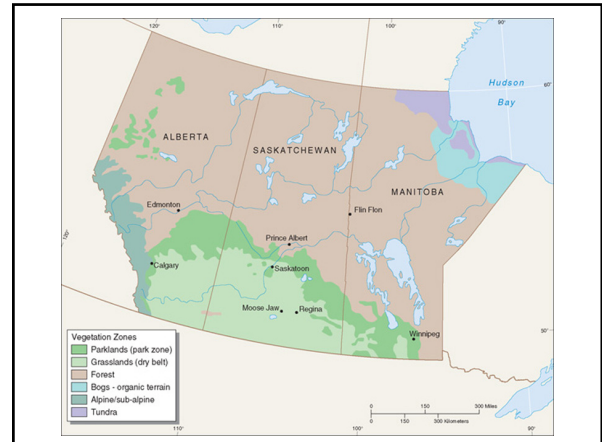
Wheat



Wheat Harvesting on the High Plains



Wheat farm on the plains of Saskatchewan, Canada



The “Dust Bowl” was an area on the southern High Plains that during the 1930’s suffered severe and ruinous “dust storms” (actually, soil particles) that resulted from:

- Locally inappropriate deep-plowing techniques that had the effect of drying out the topsoil;
- The false belief that “rain follows the plow;”
- Several droughty years that contributed to a drying of the exposed topsoil; and
- Occasional high winds that picked up the dried soil and carried it away, creating “dust storms.”
- Immortalized by “The Grapes of Wrath.”

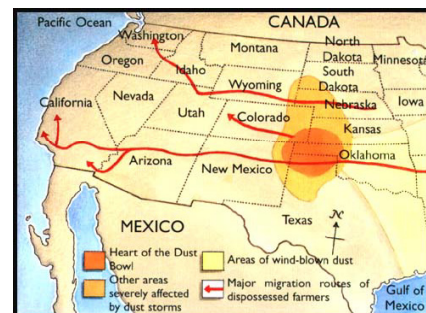
An Approaching “Dust Storm”

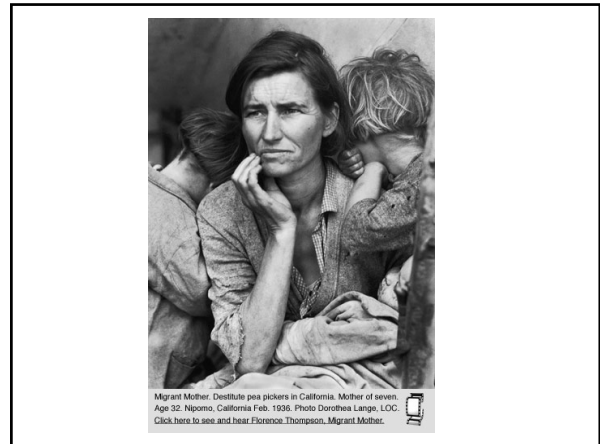


The Results of a “Dust Storm”



Location of the Dust Bowl





Center Pivot Irrigation

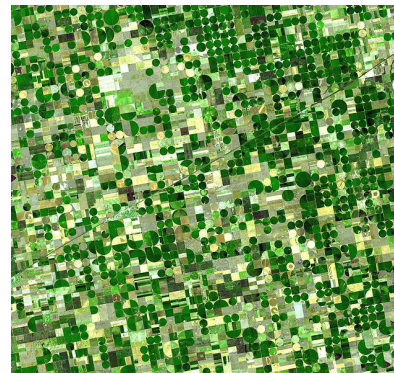


Robert B. Daugherty (1922-2010)



- Omaha businessman who headed Valmont Industries, a major manufacturing firm.
- In 1953 he brought the rights to what would become "center pivot irrigation" and popularized the idea.
- Transformed The Great Plains (and elsewhere) to huge irrigated circles.

Center pivot irrigation (Eastern Colorado)



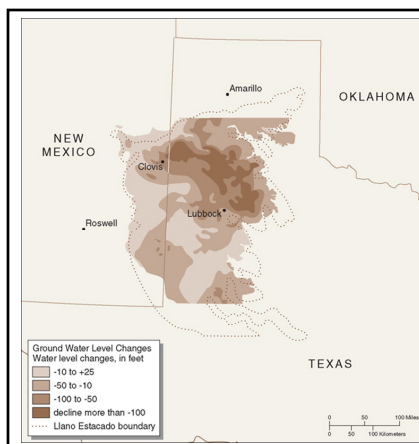
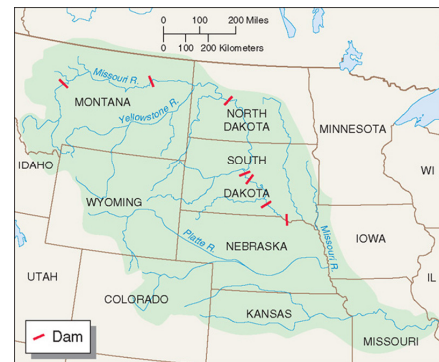


An **aquifer** is any sub-surface geological formation containing water – especially one that supplies water for wells and springs.

Location of the Ogallala Aquifer



Missouri River Watershed



Aquifer depletion in a portion of the High Plains

Buffalo Commons – a conceptual proposal to convert a vast area of the drier High Plains to a nature preserve by reintroducing native prairie grasses and the bison.