

Regional Landscapes of the
United States and Canada

**The American Heartland:
Overlapping Areas of
Agriculture and Manufacturing**

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Chapters 7, 8, 13 of American Landscape

What is a Heartland?

- ❖ **Central area that is essential to the viability and survival of the whole.**
 - Coined in 1904 as part of Mackinder's **Heartland Theory** of global domination – control of the core of Eurasia would lead to world dominance. (Can be applied elsewhere.) Influential through the 1930s.
 - Countered by the **Rimland Theory** (1944) which proposed that who controls the seaward margins of the continents would control the interior and ultimately the world.
 - Both waned after the 1940s with the advent of aircraft, missiles and satellites that could see and reach isolated areas.

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Heartland Today

- ❖ The central area of a nation that is very important culturally, politically and economically.
- ❖ An area containing essential resources that allows a nation to be self-reliant.
- ❖ The area that is considered mainstream and having traditional values.
 - One that epitomizes a nation and its people.
 - One where the "pulse" of a nation is measured.

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American Heartland

HEARTLAND
overlap area of the
AGRICULTURAL
and
INDUSTRIAL CORES

Agricultural Core stretches from Lake Ontario to the Missouri River Valley and between the Northlands and the South in the area of temperate climate.

Manufacturing Core stretches from the Atlantic Ocean to the Mississippi R. and between the Great Lakes and the Ohio River Valley.

Includes parts of Megalopolis, the Canadian National Core and Appalachia

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American Heartland

When you think about this region, what images come into your mind?

Goodyear Rubber factory, Akron, OH

ILLINOIS
LAND OF LINCOLN

Wisconsin

1915 steel mill

Midwest
Farms
Factories
Beer
Rust Belt
Corn Belt
Pollution
Urban problems
Patriotism
County fairs
Cheese
Iowa/Ohio

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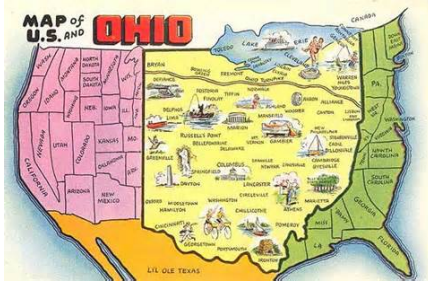
American Heartland: Overlapping Areas of Agriculture and Manufacturing

- The U.S. Heartland was once in the Northeast (A on map). New England and NYC provided the manufactured products and New York, New Jersey and Pennsylvania provided the food.
- Canada's National Core is the original and current heartland (B on map).
 - The movement of the US heartland west and its merging with the Canadian National Core has created the **North American Heartland**.
- ❖ Today the "heart" of the Heartland contains the most extensive tracts of mixed farmland in North America as well as its industrial core and a high population density.

Original heartland but the "quality of location" changes with time.

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The U.S. Heartland?



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DEFINITIONS

❖ **AGRICULTURE (commercial):** A system of farming geared to produce crops and livestock for sale (primary sector of economy) by using field practices, transportation methods and marketing that together increase the volume of production, reduce spoilage/waste and lower the cost of the product (economies of scale; use of technology).

➤ As opposed to **subsistence agriculture** which provides for family and local needs.

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DEFINITIONS

❖ **MANUFACTURING:**

The large-scale transformation of raw materials (from the primary sector of economy) into finished goods that have higher value (secondary sector of the economy).

It uses machines, tools, labor and a power source to create products.

Its workers, as well as its operations, need the support of service providers (tertiary sector of the economy) and increasingly rely on information to assess its products and people's opinions of them (quaternary sector).

➤ As opposed to home crafts and making items to sell or barter.

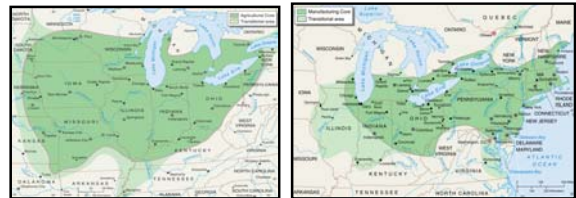
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American Heartland: Overlapping Areas

How did the landscapes of agriculture and manufacturing get to locate in the same area?

What are some unifying location factors?

Are they mutually exclusive or do they complement each other?



- | | |
|------------------------------|-----------------------------|
| 1. Access to raw materials. | 5. Access to markets. |
| 2. Access to water. | 6. Access to skilled labor. |
| 3. Access to fuel. | 7. Room for expansion. |
| 4. Access to transportation. | 8. Favorable climate. |

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Physical Geography: Climate

1. **Transition zone** between the Humid Subtropical (Cfa) and Humid Continental (Dfa) climates with a great seasonal range of temperature.
2. **Ample precipitation:** c.30 in., most during the growing season, with little risk of drought.
3. **Long growing season:** Apr-Oct
4. **But subject to severe weather:** blizzards, heat waves, thunderstorms, ice storms and tornadoes.

Line marks the approximate location where a moisture deficiency kicks in for corn.



Temperature and moisture statistics are ideal for corn.
Too cold to the north.
Too warm to the south.
Too dry to the west.

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Phys. Geog.: Landforms



1. **Part of the interior lowlands**
 - Gently rolling land with **excellent soils**.
 - Good drainage.
 - Suitable for farm machinery.
2. **Most of the area was glaciated**
 - Glacial till covers the area; variety of minerals.
 - Responsible for the rolling landscape.
3. **Bluegrass Plain (Kentucky)**
 - A topographic basin underlain by limestone.
 - Limestone layers have been eroded by groundwater.
 - Area of **karst** topography created as water dissolves limestone. Caves, sinkholes result. Bat habitat.

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U.S. Westward Expansion

Post-1783

Each former colony, now state, claimed land west of the Appalachians.

For the "good of the nation" each state ceded its western claims to the new Federal government.

States with western land claims were asked to put the good of the country above their own interests. Virginia was first to give up its claims. By 1802 all states had ceded their western lands to the United States.

Increasing numbers of Americans settled west of the Appalachians. Kentucky and Tennessee became states. Britain and Spain ceded areas of land added to the United States in 1783.

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Northwest Territories

Land **west** of Pennsylvania and Virginia, **north** of the Ohio R., but east of the Mississippi River. (The states of Ohio, Indiana, Illinois, Michigan and Wisconsin were created.)

➤ Settlement began **after** the US Congress enacted the **Land Ordinance of 1785** to divide and **sell** the land in an orderly manner to pay for war debt.

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See pages 29-30 in historical atlas

Landscape Characteristic: Square Fields

Then

Now

WHY?

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Land Ordinance of 1785

Township and Range Survey System

- ✓ Congress' answer to the problematic **Metes and Bounds** system.
 - First applied to The Northwest Territories, extended to all new U.S. lands.
- ✓ **East-west base lines** and **north-south principal meridians** create a grid of townships and ranges.
 - **Regular, square plots.**
 - Surveyed **before** settlement.
 - Grid units can be a problem in some areas.

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Township and Range Survey System

Each township is 6 miles square.

Each township is divided into 36 sections.

Each section consisted of 640 acres. Land could be purchased in multiple acres.

Section 16 of every township was set aside to support education. Money from sale or rent was used to fund public schools. Land was used to build schools that were evenly spaced.

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Township and Range Landscapes

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Area Settlement

- **One of North America's longest continually used farming area.**
 - There was a land rush from the east coast states into the Northwest Territories in 1785 (Ohio first).
- **European immigrants moved into the territory.**
 - Original migrants were farmers from NW Europe: Germany, Netherlands, British Isles, and Scandinavia
 - Later migrants from southern and eastern Europe settled in the manufacturing cities.
- **Rural areas became the new "Americana."**
 - Stability
 - Resistant to change
 - Isolated from change-producing forces of East

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Agricultural Development

Early settlers farmed crops and raised livestock.

New England hearth farmers favored wheat and dairy cows.

Pennsylvania hearth farmers favored corn, wheat and grain-fed animals for meat production.

Wheat

- High-value crop with reliable market.
- But its hard on soils, therefore shifted west with settlement.
- Shipping dependent on water transport.
- Flour milling at collection points (as Cincinnati, Buffalo).

Meat from domestic livestock

- Hogs and cattle.
- Raising grain to feed livestock.
- Rise of Cincinnati as "**Porkopolis**" (Hogs give the most return of grain-to-meat ratio of all livestock.)

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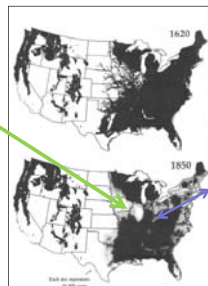
Change in Forested Land

1620-1850

Can you locate the Agricultural Core?

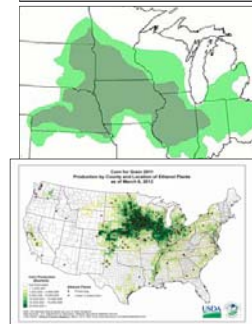
With westward expansion, settlers cut down trees to create farmland and use the wood for building, manufacturing, and fuel.

Can also see the Manufacturing Core.



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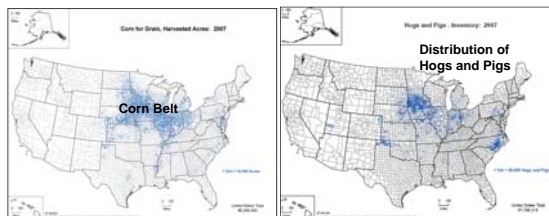
Corn Takes Over



- "Corn Belt" is a sub-region where corn has been the dominant **since the 1850s**.
- Better than wheat for local soil and climate characteristics.
- Now most of it is used as feed for livestock, especially hogs and chickens.
- U.S. produces about 40% of world corn crop.
- Increasingly complemented by and rotated with **soybeans** which are even better for the soil.
- Growing use of corn for ethanol.

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Corn-Hogs Correlation



Hog: mature domesticated swine
Pig: unweaned domesticated swine

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Soybeans

Commercial planting started in the early 1900s.

The area planted in soybean has greatly increased over the last 100 years.

Reasons for increased production:

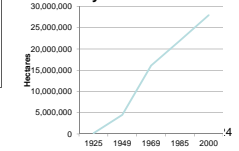
It's a *legume* (a plant that adds nitrogen to soil).

Few climate demands.

Many uses.



Soybean Area



Today more than Corn, Hogs and Soybeans

Fruit

- Lake Michigan, Lake Erie shorelines
- Moderating effect of lakes: late springs, long autumns

Dairying

- North of Corn Belt where it is too cold for corn
- Area of German, Scandinavian immigrants
- Surplus milk: cheese, butter, dairy products

ALSO:

- Poultry and eggs
- Other grains: oats, wheat, alfalfa
- Beans, peas, lentils
- Floriculture (flowers, sod and ornamental plants)

<http://nass.usda.gov/index.asp> for U.S. and state agricultural statistics.

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Good Location - Pull factor

• Advantages

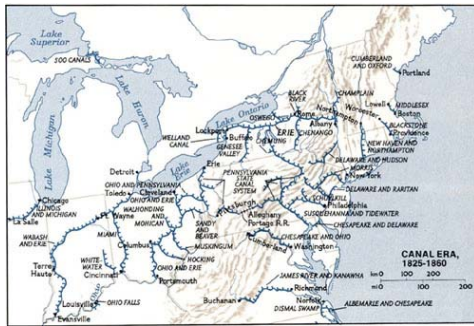
- Settlers had easy access into the region by land and water.
- **National Road** is the first US highway – Cumberland, MD to St. Louis, MO.
- Farm goods could be easily shipped to market.
- Ideal setting for agriculture: long warm summers, ample precipitation, gentle rolling terrain with fertile, well-drained soils.

• Pattern of waterways

- (major form of transportation in 1800s)
- Most rivers were navigable by boats and barges. Canals were built.
- Access to NYC via the Erie Canal and New Orleans via the Mississippi River. **River boats** carried people and merchandise.



Canals of the Heartland



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Urban Landscape Develops

- **Cities grew at strategic locations:** Usually river junctions and portage points as collecting points and market towns where farmers brought their produce to sell or trade.
- **Cities became the focus of industry:** Processing foodstuffs and manufacturing products, as farm machinery.
- **Cities lured workers** from other parts of the country (East Coast and South) and from abroad.
- **Cities grew** in size and complexity.

- Buffalo
- Erie
- Pittsburgh
- Cleveland
- Columbus
- Cincinnati
- Indianapolis
- Detroit
- Chicago
- Milwaukee
- Minneapolis
- St. Paul
- Des Moines
- St. Louis

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Cultural Landscape

- Rural agrarian with homesteads (clustered buildings) far from each other.
- Land pattern characterized by the **Township and Range** grid.
- **Many small towns:** support a farm-based economy (collection and distribution).
- **Immigrant heritage:** central and northern European ethnic enclaves.
- **Excellent transportation system.**
- **Area of large, corporate farms:** small family-run farms disappearing
- **Agricultural activities entrenched** despite of competition from urbanization and manufacturing.



Landscapes of the Agricultural Core

Illinois corn farm



Iowa hog farm



Kentucky horse farm



Wisconsin dairy farm



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Landscapes of the Agricultural Core



Ohio corn granary



Iowa farm



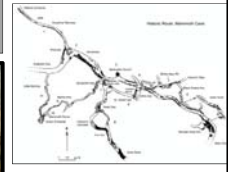
Indiana corn maze



Michigan apple orchard

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Mammoth Cave NP Kentucky



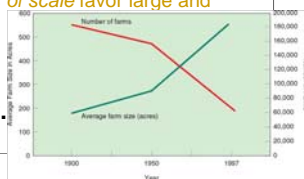
World's longest cave system.
<http://www.nps.gov/macal/index.htm>



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Mechanization and Farm Size

- Midwest farms have become increasingly corporate in organization and less family-owned and operated.
- Farm size:** individual farms have increased in size while the number of farms has decreased in number. *Economies of scale* favor large and medium-sized farms
- Increasing use of expensive machinery and technology.**



Plowing



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Farming Techniques

Strip cropping:

Practice of **growing different crops in alternate bands** (as corn, oats, wheat and hay), especially on sloped areas.

Protects the soil from erosion.
 Facilitates crop rotation to preserve soil fertility.



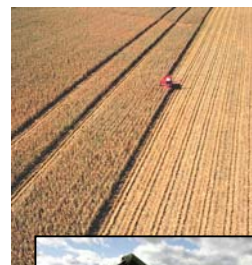
Contour plowing:

Plowing the land at right angles to the slope; retards soil erosion.



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Corn Harvesting



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EXAM INFORMATION

❖ **Exam Two will be Monday, April 20.**

- Format same as Exam 1.
- Multiple choice short answer plus choice of essay topics.
- **See Study Guide.**

➤ Missed exam make-up is all essay format .

➤ **The Extra Credit for Exam Two is due no later than the start of the exam on April 20.**

- ✓ Remember to provide examples from all 4 choices for max extra points.
- ✓ All other extra credit is by the end of the semester.

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