
AGRICULTURE

Introduction to Human Geography
California State University,
Northridge

Geography



Introduction

- Effective agricultural practice is the taproot of civilization.
- Without agricultural surplus, urbanization and industrialization is not possible.
- Political and military power is often rooted in the ability to produce agricultural surpluses.

Subsistence Farming

- Most of the world's farmers plant only enough for themselves and their family.
- Many of these subsistence systems are sustainable.
- Some are not.
- In some parts of Asia and Africa 80% of the people are subsistence farmers.
- What percent of US workers are farming?

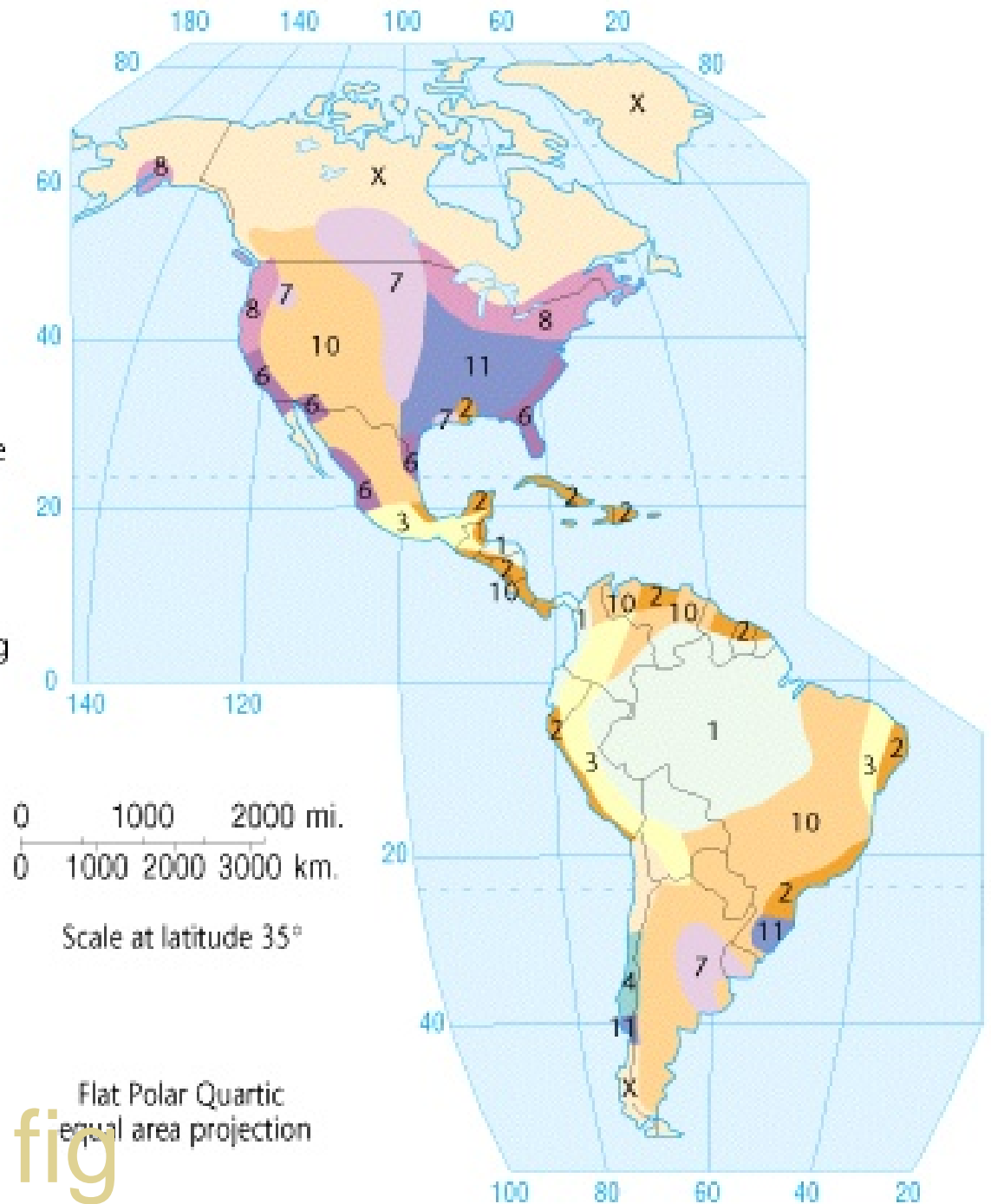
Agricultural Regions

- Defined by the type of crops grown, the style of labor and the use of land.

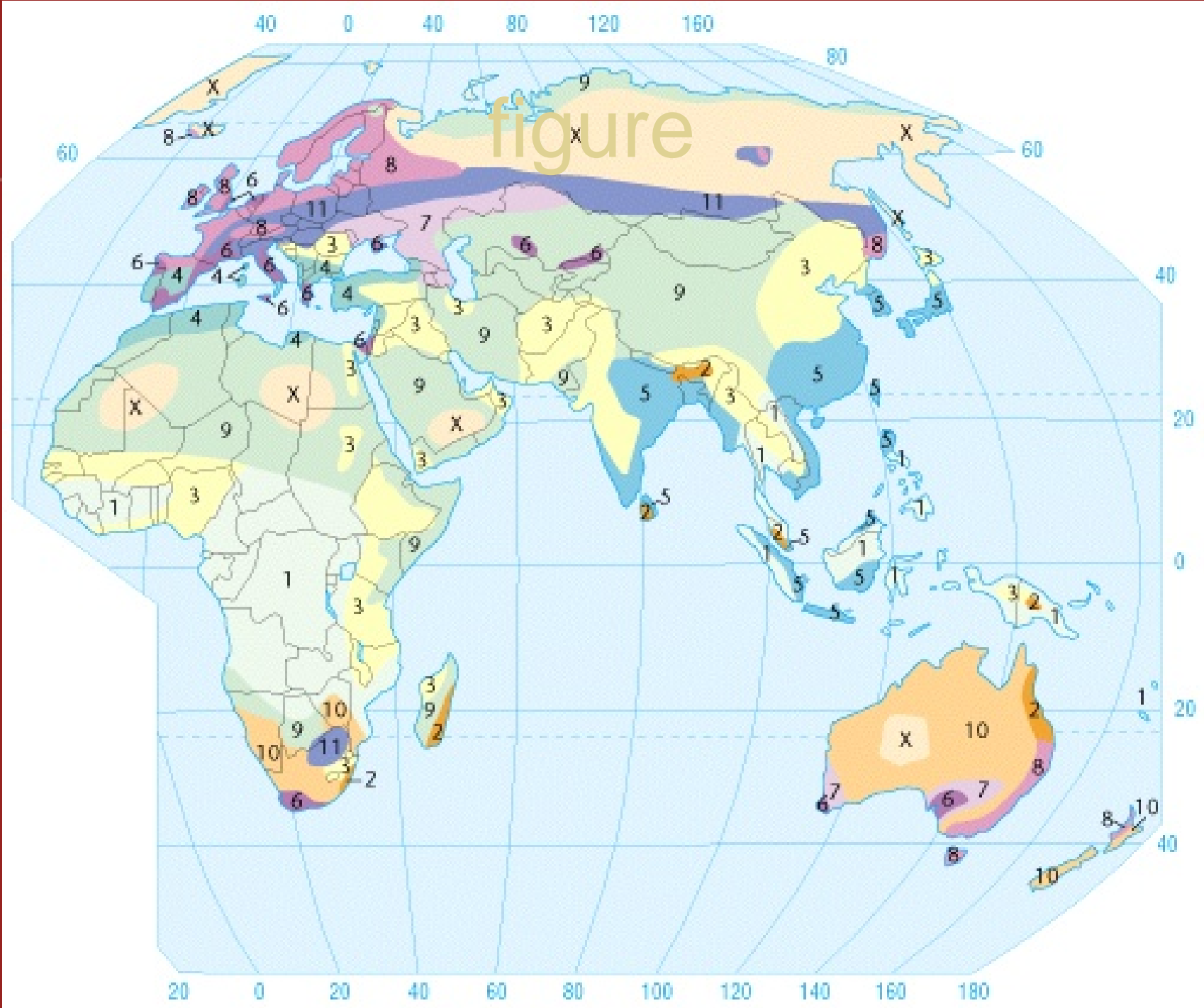


Types of Agriculture

- X Nonagricultural, usually hunting and gathering
- 1 Shifting cultivation
- 2 Plantation agriculture
- 3 Peasant grain, root, and livestock farming
- 4 Mediterranean agriculture
- 5 Paddy rice farming
- 6 Market gardening
- 7 Commercial grain farming
- 8 Dairying
- 9 Nomadic herding
- 10 Livestock ranching
- 11 Livestock fattening



fig



Shifting Cultivation

(Slash and Burn, Swidden, Milpa)

- Mostly in the tropical and equatorial areas of Latin America and Africa. Some in the rainforests of Southeast Asia.
- Required because of the poor soils of the rainforests, but very energy efficient.
- A “land rotation” system. Requires few, supports few. Fallow periods must be maintained.
- Sustainable, Healthy. Intertillage is common.

fig 1



Paddy Rice Farming

- Mostly found in South/Southeast Asia
- Flooded rice fields.
- Supports many, requires many.
- Double cropping (single, double grain)
- Intercropping
- Green Revolution technologies
- Implications for economics, culture and standardized math scores?



Peasant Grain, Root, and Livestock Farming

- Where it is really dry, ranching and dry land grains are the agricultural practices.
- Where it is wetter, root crops, like manioc/cassava are staples.
- Nutritionally unbalanced.
- Unaffected by green revolution technologies.



Sorghum and Millet



Geography

GREAT TASTE
SWEET

Cassava (manioc/yucca)



True Yam



Geography

Sweet Potato Field-New Guinea



Geography



Mediterranean Agriculture

- Almost non existent in subsistence form.
- Specialized crops that include?
- Now similar to market gardening.
- Where in the U.S.?
- Who settled this part of the US?
- What is the controlling variable?



Nomadic Herding

- Practiced in very dry areas of Africa and Asia, but dying out.
- Also in parts of frozen world.
- Africans raise cattle, Asians raise water buffalo...Others?
- Characterized by the constant search for food for livestock.
- Who else were nomadic herders?

Nomadic Herding-Kurdistan



Commercial Agricultural Systems

- Marked by profit seeking farmers
- Characterizes much of 1st World Farming
- Can produce enormous food surpluses
- Can wreak environmental havoc
- Frequently come with intense social injustices in the Third World

Plantation Agriculture

- Commercial agriculture that focuses on non-staple, export-oriented crops at the expense of traditional agricultural systems and food crops.
- Developed in the Americas, exported to Africa and Asia.
- Tends to be coastal.



Plantation Agriculture

- Socially and economically unjust. Becoming more so as labor is replaced by machinery.
- Coffee, Sugar Cane, Bananas, Tea, Cacao, Tobacco and Spices



Plantation Sign-Costa Rica



- Welcome to Freehold Plantation: Where labor harmony reigns...

Geography

Tea Plantation-Papua New Guinea



Banana Plantation



We are the world!

- Recorded to help Ethiopians suffering through famine in the mid-1980s.
- We thought it was drought, but it was in reality war and capitalism.
- Ethiopia EXPORTED agricultural products during this time.



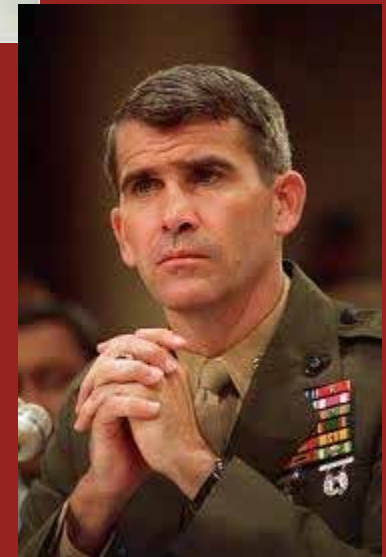
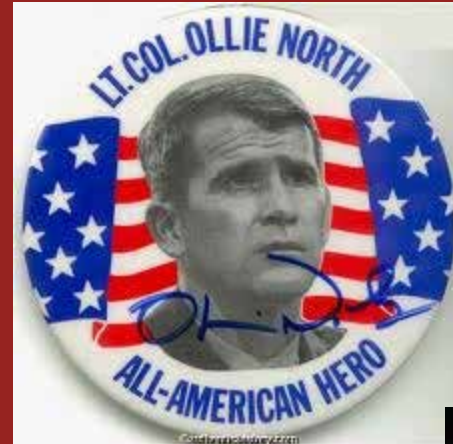
Juan Valdez

- Plantation agriculture and mono cropping are prone to wild market swings, competition and ecological disaster.



American Response

- The Iran Contra affair of the mid-1980s also points to the challenges of changing the agricultural / land used policies in the Third World.
- It's why many of you are here.



Q: It rains here *every* day!
What's for dinner?

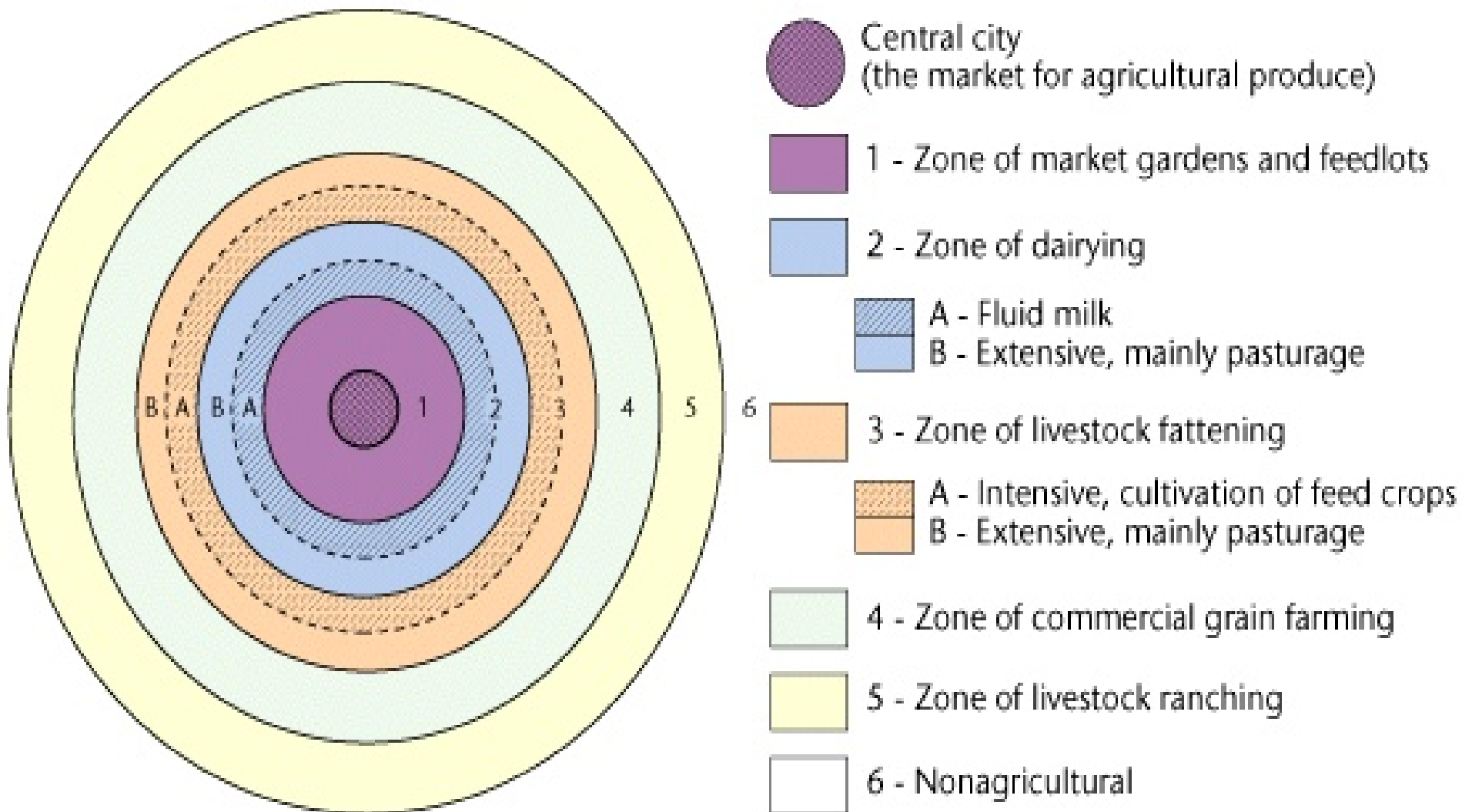
- A. Rice and Fish
- B. Corn, Squash and Beans
- C. Steak and bread
- D. Cheese and goat meat.

Von Thunen's Model

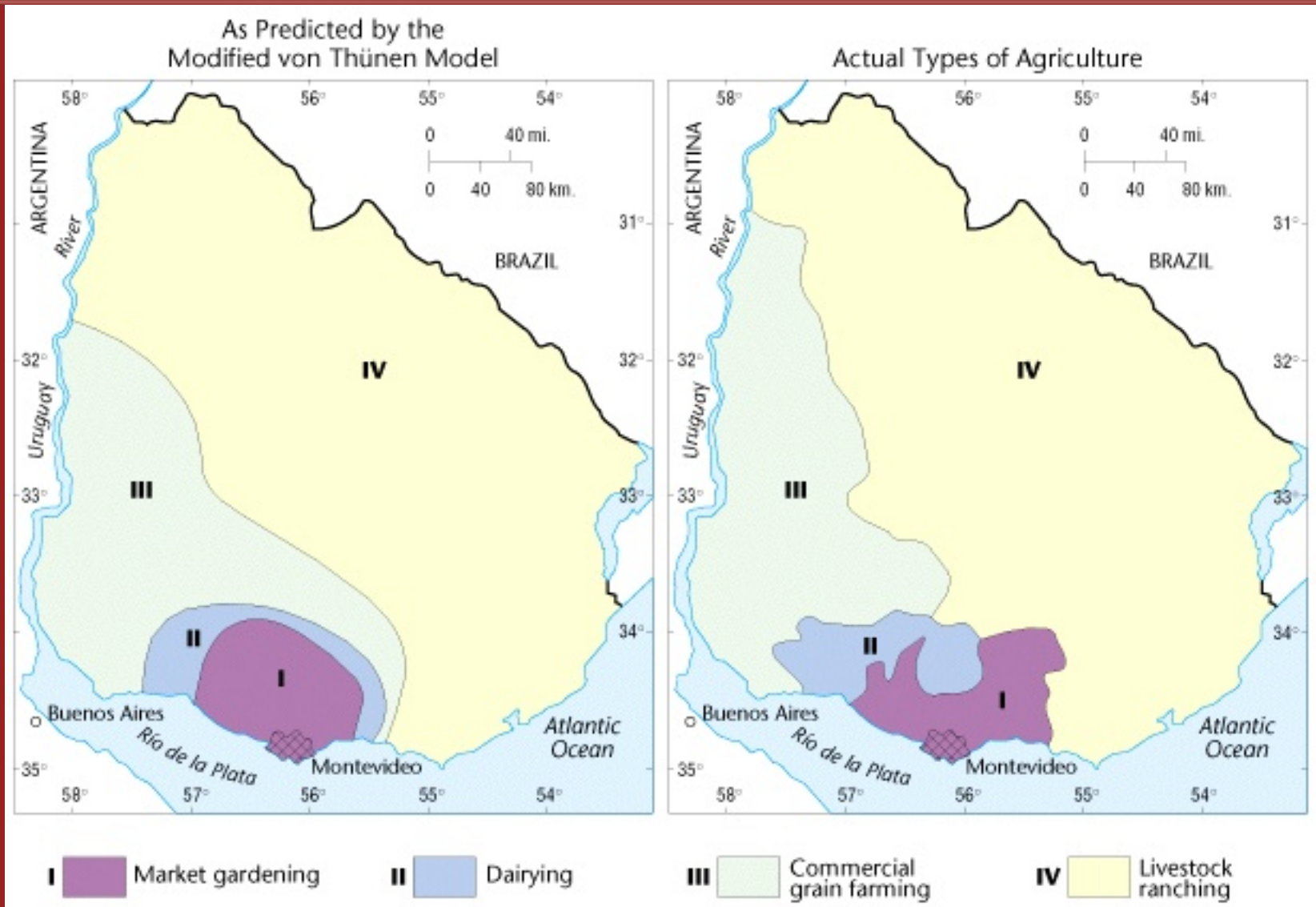


Geography

Von Thunen's Model



Von Thunen in Practice-Uruguay



Grand Central Market: LA



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Geography

More profitable than farming?



Geography



Market (Truck) Gardening

- Mostly in the first world
- Generally specialized for urban markets
- Dependent upon seasonal (immigrant) labor
- New Jersey, Michigan, California
- Where in California?
- What crops are “local”?

Perishables: Truck Gardening



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Commercial Livestock Fattening

- Hogs and Cattle brought in for fattening
- In areas of the Great Plains of the US
- Much of the corn and soybeans grown in the US goes to feed cattle.
- Is this efficient?
- Expansion of production areas in environmentally sensitive rainforest.

Feedlot – San Joaquin Valley



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Commercial Grain Farming

- Much of the grain grown in the US is grown to feed livestock. Efficiency?
- Where is the corn belt; wheat belt; rice belt in the United States?
- Are there international competitors?
- Suitcase farming
- Agribusiness vs. the family farmer

What grain? Where?



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Commercial Dairying

- Also near large urban areas. Upstate New York, Wisconsin, New England.
- Butter, Cheese or Milk?
 - Depends on where your cows are and markets are.
- Where in California?
- Also employs the feedlot system

Chino, California



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San Joaquin Valley



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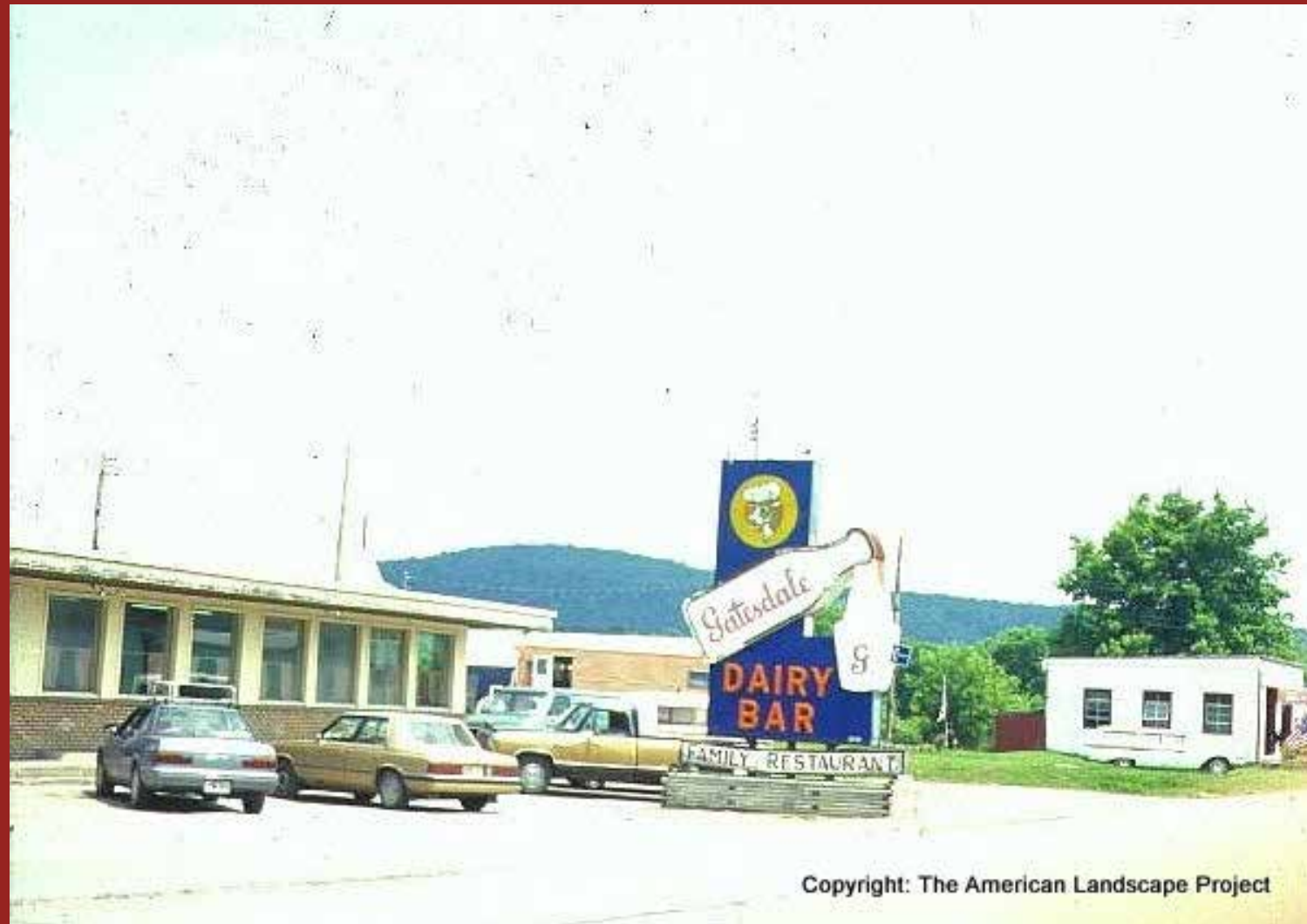
Upstate New York



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Upstate New York



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Geography

GREAT
FORN
SWEDEN

Dairying: Vermont



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Livestock Ranching

- Cattle and Sheep ranching
- US and Canada (Beef) also in the Pampas of South America
- Sheep ranching popular in Australia, NZ, Argentina and South Africa

South of Bakersfield



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Geography



Hay Farming



Geography



Urban Agriculture

- Big city people also have tiny little farms or backyard plots, especially in the Third World.
- A very important source of food in China.
- Becoming more prevalent in the US as “localvores” demand locally grown food.

Cultural Integration in Agriculture

- What we grow and eat is dependent upon many things:
 - A. Culture (Dietary Preferences)
 - B. Politics
 - C. Economics

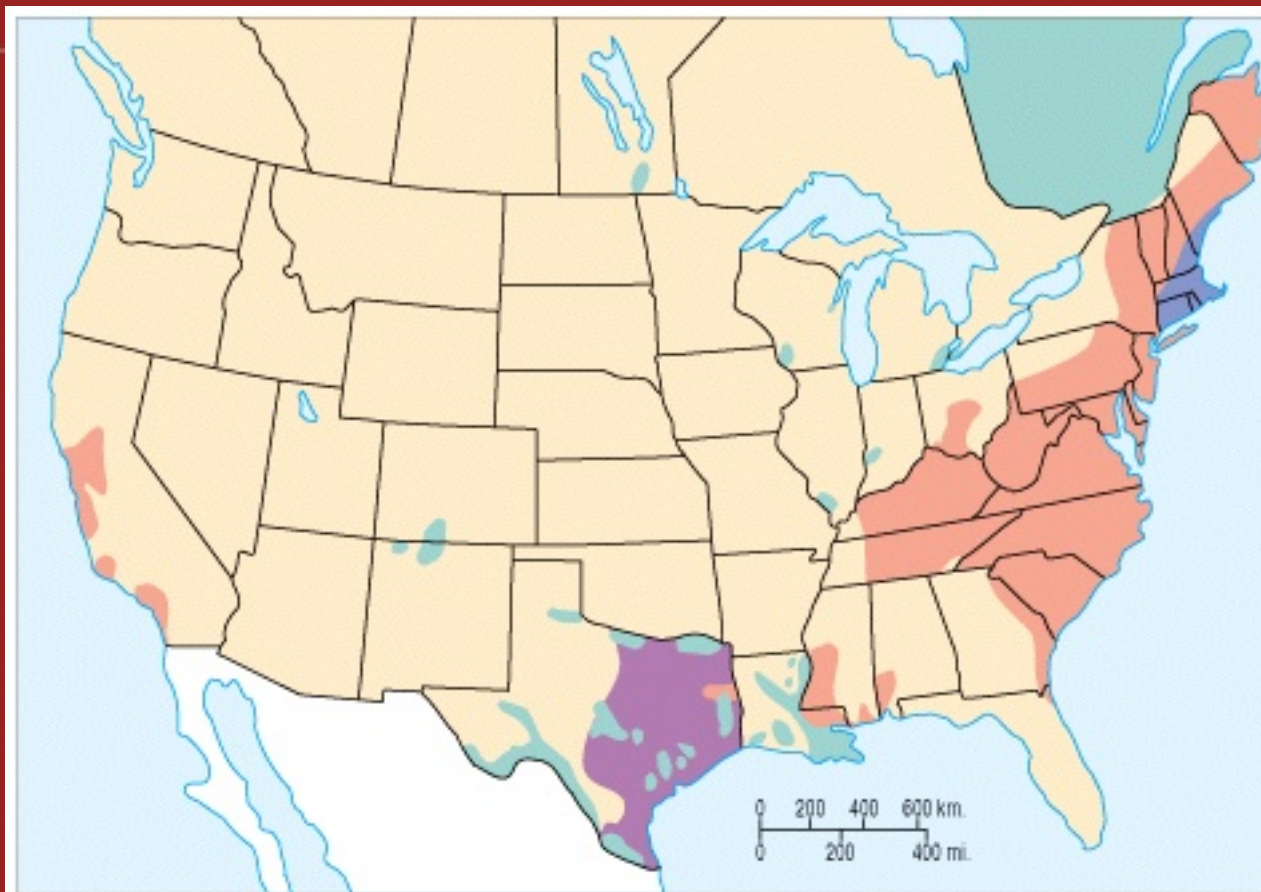







Agricultural Landscapes

- Cadastral and Field Patterns
- Different strategies for dividing land, each with different political aims and outcomes; each with different ecological costs and benefits.



Land survey patterns



- | | |
|---|--|
|  Rectangular survey |  Fragmented landholdings with farm villages |
|  Metes and bounds survey |  Irregular rectangular survey (mixture of rectangular and metes and bounds) |
|  Long lot survey | |

Metes and Bounds

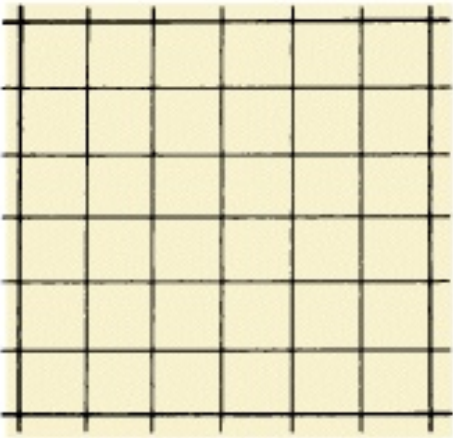
- **Characterized by irregular patterns on the land.**
- **Created in a nearly random pattern by surveyors, land speculators and buyers.**
- **Can be found in much of the 13 original colonies, except in New England where they had a village farms system.**

Township and Range

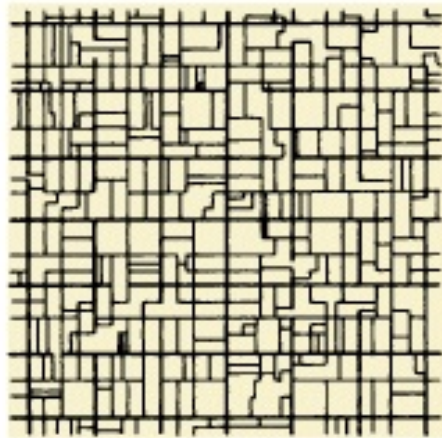
- Devised in the US by Thomas Jefferson who wanted to promote democracy through equitable distribution of land.
- (6)40 acres and a mule ideology...
- Found in much of the US west of the Appalachian Mountains.
- Not particularly environment-friendly.
- Dominates landscapes in the Midwest.

Cadastral Systems

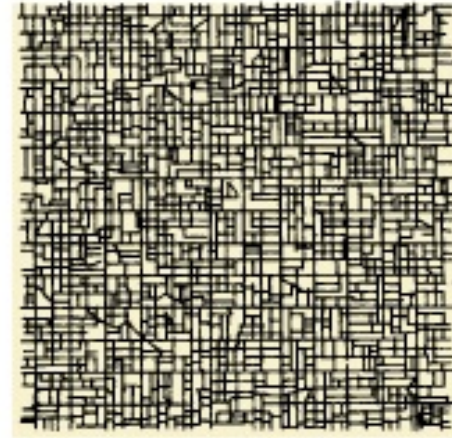
Original Survey Lines



Property Lines, About 1955
(Those that follow original survey lines are shown by thicker lines)



Field and Woodlot Borders, About 1955



U.S. RECTANGULAR SURVEY, HANCOCK AND HARDIN COUNTIES, OHIO



METES AND BOUNDS SURVEY, UNION AND MADISON COUNTIES, OHIO

What cadastral system?



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What Cadastral System?



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A symbol of Jeffersonian Democracy on a rural landscape



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Longlots

- Found in many regions of Europe and introduced into North America by the French.
- Provides access to transportation (esp. rivers) for each.
- Egalitarian as well.



Longlots-Montreal



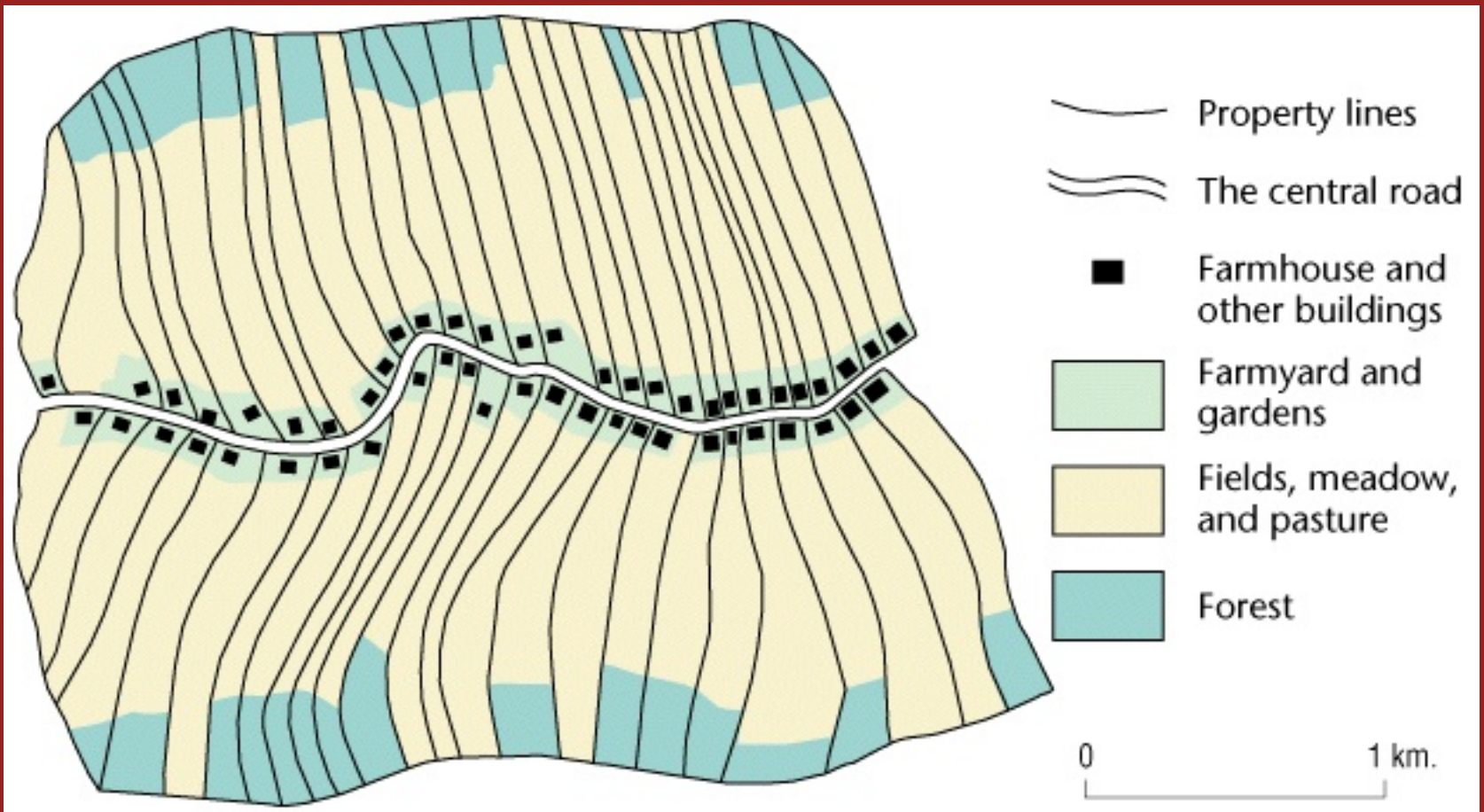
What US River is that?



Geography



Longlots-Germany



Question



- What cadastral pattern is this?
- What political value is represented by this pattern?
- Which president is most associated with this?
- Match this to a city name:

