Regional Landscapes of the United States and Canada

Appalachia and the Ozarks

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OVERVIEW

- One region with two parts 300 miles apart
  - Similar topography
  - Similar history of human settlement
- Both parts in relative isolation
  - Transportation impeded by mountain setting
  - Poor transportation promotes isolation
  - Landforms responsible for human settlement pattern
- Human geography distinguished by
  - Unique cultural development (created in part by isolation)
  - Lack of economic opportunities; poor farming conditions
  - Poverty

Appalachia

Appalachia is a cultural region, a social region and an economic region. It is not a physical region.

It is different from the Appalachian Mts. (or Appalachian Highlands) physical region.

Yet Appalachia is located within the Appalachians and owes its identity and uniqueness to the mountain setting.

Appalachia

When viewed with economic and social criteria, some definitions enlarge the region and include parts of Mississippi, South Carolina and all the southern tier counties of NYS.

Appalachian Landscapes
Settlement Limitations
- Narrow valleys.
- Steep hillsides.
- Lack of flat land.
- Poor soils.
- Thick forest cover.
- Low density road/railroad coverage.

Traditional Appalachian Settlement Scenes

Ozarks
The Ozarks are a physical region, a cultural region, a social and an economic region all within the same boundaries.

Ozark Culture

Hillbilly Persona
Term is applied to backwoods settlers of both areas.

“Hillbilly Mansion”
Ozark Tourist Center

- Branson in SW Missouri is known as “the Live Music Show Capital of the World” and the “family-friendly Las Vegas.”
- Specializes in country music; has museums and theme parks
- Many well-known entertainers have their own theaters.
- Grew from a one-venue town in 1960 to become a major tourist and convention destination of the Ozarks.

Ozark Highlands Topography

This area is composed of two regions:
- Ozark Plateau
  - Larger northern area.
  - Highest and most rugged area is in northern Arkansas.
  - Separated from Ouachita Mts. by Arkansas River Valley.
  - It is dissected plateau (separate plateau areas created by doming).
- Ouachita Mts.
  - Southern part of the region
  - Folded parallel ridges run in an east-west direction.
  - Hot Springs, Arkansas is a spa and the site of one of the first national parks (1921).

Ozark Highlands

- This area is rich in minerals and forest products.
- Limited flat land hinders agriculture.
- Wilderness setting and lower cost of living has made it a retirement destination.
- Scenery, wild rivers for rafting, forests and cultural heritage have made it a vacation destination.

The Southern Appalachians (New York-Alabama)

- Region of contrasts: Beauty and pollution. Richness and poverty.
- A major source of coal.
- A landscape greatly impacted by coal mining.
- Federally financed development (TVA and ARC).
- A growing focus on new activities: recreation, second homes, and retirement property.

Creation of the Appalachian Mountains

Ancient folded mountains, once higher than the Himalayas, caused by tectonic plate collisions (460 mya) as Africa and North America came together.

Appalachian Topography

Four physiographic sub-regions:

a) Blue Ridge

- Abrupt rise from adjacent Piedmont to the east.
- Narrow in north, widens in south.
- Crestline preserved in national parks.
- Natural gaps through the ridge:
  - Potomac River
  - James River
  - New River
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Great Smoky Mountains

National and state parks preserve some of the highest peaks of the Appalachians, all around 6600 feet high.

Located in North Carolina, Mt. Mitchell (6684 ft) is the highest point east of the Mississippi River.

Appalachian Topography

b) Ridge and Valley

- Parallel series of highlands and lowlands
- Ridges: resistant shale and sandstone; forested
- Valleys: softer limestone; good farmland.

The Delaware Water Gap

Located between PA and NJ in the Ridge and Valley area, the water gap was created as the ancient Delaware River cut down through a growing Appalachian fold.

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Appalachian Topography

c) Great Valley

- Between the Blue Ridge and Ridge & Valley sections.
- Historic route between the southern and the northern areas.
- Early agricultural area.

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Shenandoah Valley

part of the Great Valley

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Caves of the Appalachians

Hundreds of caves exist in the Blue Ridge and Ridge & Valley sections. They were created by ground water dissolving soft sedimentary rock formations, usually limestone.

Appalachian Topography

d) Appalachian Plateau is divided into 2 portions: Allegheny Plateau and Cumberland Plateau

- Allegheny Front is a steep escarpment on eastern edge of the plateau.
- Significant barrier to early westward movement.

Appalachian Plateau

Many rivers dissect the plateau making overland travel slow and difficult.
The section of I-64 across West Virginia was the most expensive stretch of the system based on cost per mile.
The New River cuts a deep gorge in the Appalachian Plateau of southern West Virginia. The bridge is the world’s longest arch structure and shortened the trip across the gorge from 45 minutes to 1½ minutes!

Human Geography of Appalachia and the Ozarks

- Earliest settlers of Appalachia
  - Scots, Irish, English, Germans
  - Settlement late in colonial era (late 1700s)
  - Entered Great Valley in southern Pennsylvania, then moved south into Virginia
- Post-revolution arrivals (early 1800s)
  - Adequate flat land for farms (25-50 acres)
  - Forests with abundant game
  - Wood used for building and fuel

Routes of Settlement and Cultural Diffusion

Increasing Isolation

- As population grew, available farmland was limited:
  - Insufficient flat land for large farms
  - Unsuitable for plantations, therefore, few blacks
- Bypassed in westward movement
  - Unsuitable for mechanization, economies of scale
  - Far from major crossings of Appalachians
  - No early rail lines
  - East coast residents and new arrivals skipped the area for the area west of the Appalachian Plateau.
Increasing Isolation

- Slow urbanization
  - Southern emphasis on agriculture
  - Few products to sell; no manufacturing

- Ozarks are settled in the early 1800s
  - After Louisiana Purchase.
  - Physical conditions similar to the Southern Appalachians
  - Area by-passed by movement west.

Unique Regional Cultures Develop

- Relative immobility + historic isolation
  - Little in-migration
  - Little out-migration until late 20th century
  - Little interaction with rest of country

- Population make-up remained constant
  - Predominantly white, Anglo-Saxon, Protestant
  - Largest white low-income region of the US
  - Politically and religiously conservative

- Early on labeled unsophisticated and behind the times: “Hillbilly” tag remains.

POVERTY

Southern Appalachia and the Ozarks contain some of the highest levels of poverty in the U.S.

While no longer isolated, the regions are still bypassed for new economic incentives.

These areas do not have the demographics and locational needs required by modern enterprises.

Northern Appalachia

- Includes Pennsylvania and New York
- Populated by people from Europe and New England.
- Religion
  - Less conservative; fewer fundamentalist churches.
  - Catholic and Orthodox Christian church affiliations.
- Transportation
  - Mountains easier to cross; access to the coast.
  - Links between eastern and western parts of Manufacturing Core pass through here.
- Less poverty is evident.

Divided States of Appalachia

- Civil War Disparity
  - Mountain people of Virginia opposed to secession
  - Plantation agric. foreign to mountain way of life
  - Mountain part of VA became West Virginia (1863).
- West Virginia: only state wholly within Appalachia

- In all other states that are part of Appalachia:
  - Largest city, chief manufacturing center and/or capital located outside Appalachia region.
  - Appalachian areas marginalized by more prosperous/urbane sections of these states

- Less access to education, news media, economic incentives.
- Less access to tax base (esp. if you avoid paying taxes!)

Agriculture

- Low urbanization rate (>50% the people are rural).
- Farms
  - Primary region of owner-operated farms.
  - Tenancy rare.
- Few resources, many farmers
  - Rugged topography
  - Poor soil
  - Short growing season in many areas
  - Small farm sizes (ave. 100 acres)
- Many part-time farmers.
Agricultural Products

- **General farming** (no one crop dominant)
- **Animal husbandry** (cattle/sheep/goats)
  - best use of steep slopes
- **Valley-area crops**
  - Tobacco - Apples - Dairying
  - Tomatoes - Cabbage - Grains
  - Corn for animal feed (historically it was distilled into moonshine)
  - Marijuana (the new illegal cash crop)

Specialty Crop Areas

- **Shenandoah Valley, Virginia**
  - Once state’s breadbasket, but lost out to Great Plains
  - Hay
  - Corn (fodder)
  - Apples
  - Turkeys
- **Pennsylvania valleys**
  - Dairying
  - Apples
- **Tennessee Valley**
  - Fodder crops
  - Livestock

Mining

- **Coal**: Pennsylvania, West Virginia, Ohio, Kentucky, Tennessee, Alabama
  - Mainly bituminous; anthracite in Pennsylvania
- **Oil**
  - First oil well in Pennsylvania (1859); also SW NYS
  - High-quality oils and lubricants
- **Zinc**: Tennessee
- **Copper**: North Carolina–Georgia border
- **Lead**
  - Ozarks Tristate District (OK, KS, MO)
  - SE Missouri

Coal

- **Allegheny Plateau** beds
  - Collectively world’s largest deposit
  - Bituminous
  - seams up to 10 feet thick
- **History of exploitation**
  - Post-Civil War new coke-burning iron and steel furnaces using bituminous coal
  - Fueled rise of Pittsburgh “Steel City”
  - Electricity for East Coast and Manufacturing Core

Coal’s Decline

- **Post–World War II**
  - Coal’s use declines with growth of petroleum, natural gas
  - New technology
  - Rising unemployment, out-migration
  - Economic depression in coal-mining regions
- **Late 20th century**
  - Declining demand
  - Shift to other regions
  - Fluctuation in exports
  - Environmental concerns
Coal Grades

- Coal is graded by assessing the relative presence of carbon vs. waste material.
- The higher the percent of carbon, the higher the grade.
- Grades in order of purity (high to low): anthracite, bituminous, lignite, peat.

Coal

- Anthracite (highest grade)
  - Ridge and Valley northern end in Pennsylvania
  - Harder, lower in moisture content than bituminous
  - Uses: iron and steel manufacture, home heating
  - Disadvantages: smaller, more broken seams, more expensive to mine

Coal Mining Methods

Shaft (underground mining)
- Earliest and still dominant method
- Huge mobile drills; continuous mining machines

Surface
- More prevalent in central region
- Techniques:
  - Contour (strip) mining
  - Area mining - flatter terrain
  - Mountaintop removal - hilly areas, much smaller scale

DEFINITIONS

- Strip mine is a mine at the surface that employs earth-moving machinery that removes (strips away) overburden so as to expose and provide ready access to minerals that would otherwise be underground.
- Overburden is unwanted (waste) material overlying useful geological materials.
- Mountaintop removal is an extreme form of strip mining that uses extra-large earth-moving machinery capable of excavating entire mountains in order to expose useful underground materials.
Coal Mining Equipment

Environmental Impact

Tennessee Valley Authority

Tennessee Valley Authority

Tennessee Valley Authority River and Dams

Producing Electricity

- Great Depression program goals
  - Navigation: 9-foot channel to Knoxville
  - Hydroelectricity
  - Flood control
- Present Day
  Over 40 dams to regulate river flow
  30 dams to generate power
  Low cost power attracts major industries
  Other power-generating facilities supplement production (coal, nuclear)
- Stimulates regional growth: flood control, water transport; power generation; navigation
Appalachian Regional Commission (ARC)

- Appalachian Redevelopment Act (1965) as extension of Area Redevelopment Act (1961)
- Appalachian Regional Commission
  - Responsible for an area from New York to Alabama
  - Primary objective to improve highways
    - Decrease isolation
    - Attract manufacturers
  - Differences from TVA
    - Requires state-federal cooperation
    - Improving public and vocational education
    - Regional economic planning

OZARKS: Arkansas River Navigation System

- Constructed in the 1960s-70s; opened in 1971
- Established a 10-ft navigation channel up the Arkansas River from the Mississippi River through the Ozarks to Catoosa, Oklahoma (near Tulsa)
- Facilitated an increase in barge traffic.
- Increased the region’s access to hydroelectric power.