

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 having a similar physical geography.
- ✓ Both parts in relative isolation.
- ✓ Human geography distinguished by unique cultural development, lack of economic opportunities, poor farming and poverty.

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Appalachia and the Ozarks

APPALACHIA
Alabama Georgia Tennessee
N. Carolina Kentucky Virginia
W. Virginia Ohio Maryland
Pennsylvania New York

OZARKS
Missouri
Arkansas
Oklahoma

Appalachia

Appalachia is a cultural region, a social region and an economic region.

- ❖ It is **not** a physical region.
- ❖ It is **different** from the *Appalachians* (Appalachian Mts. or Appalachian Highlands) which is a physical region.

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

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Appalachia

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

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POVERTY

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


County Economic Levels

- Distressed (121)
- Transitional (259)
- Competitive (21)
- Attainment (9)

These areas are still bypassed for new incentives. **Why?** They do not have the demographics and locational needs required by modern enterprises.

Settlement Limitations

- Narrow valleys
- Steep hillsides
- Lack of flat land
- Poor soils
- Thick forest cover
- Low density network of roads and railroads; few navigable rivers.



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Appalachian Landscapes



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Traditional Appalachian Settlement Scenes



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Ozarks

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



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Ozark Culture



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Hillbilly Persona

Term is applied to backwoods settlers of both areas.



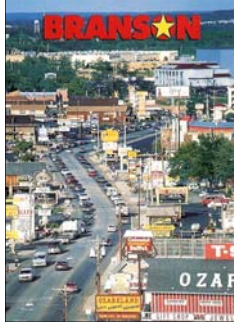
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“Hillbilly Mansion”



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Ozark Tourist Center




- **Branson**, 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.

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Ozark Topography

This area is composed of two regions:

- **Ozark Plateau** (north)
 - 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.** (south)
 - Folded parallel ridges run in an east-west direction.



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The Ozarks

- ✓ This area is **rich in minerals and forest products.**
- ✓ **Limited flat land** hinders agriculture.
- ✓ Rural 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.**

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The Southern Appalachians (New York-Alabama)

Region of contrasts:


- Northern portion vs. southern portion
- Beauty and pollution
- Wealth and poverty

A major source of coal.

A landscape greatly impacted by coal mining.

Federally financed development programs.

New activities: recreation, second homes, and retirement property.



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Northern Appalachia

- **Characterization**
Northern portion of Appalachia (PA and NY) is less poor and more modern than the southern portion.
- **Population**
Settled by people from Europe and New England. (Pennsylvania Dutch really *Deutsch* = *Germans*)
- **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.

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Southern Appalachia

- **Characterization**
 - Unique culture development: relative immobility plus historic isolation
 - Little in-migration; little out-migration
 - Little interaction with rest of country
- **Population**
 - Predominantly white, Anglo-Saxon, Protestant
 - Largest **white low-income** region of the US
 - Politically and religiously **conservative**
- **Early stereotyped**
 - Labeled *unsophisticated* and *behind the times*;
 - “**Hilbilly**” tag remains.

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Divided States of Appalachia

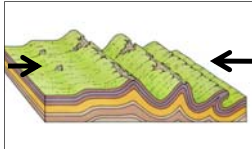
1. **Civil War Disparity** (see maps in Section 5 of Historical Atlas)
 - Mountain people of Virginia opposed secession as did those of PA and NY
 - Plantation agric. was not part of mountain way of life
 - Mountain part of VA became West Virginia (1863).
2. **West Virginia:** only state wholly within Appalachia
3. **In all other states that are part of Appalachia:**
 - Largest city, chief manufacturing center and/or state capital located **outside** Appalachia region.
 - So these areas became **marginalized** by more prosperous/urbane sections of their states.
 - Less access to education, media, eco. incentives.
 - Less access to the state's tax base.
(Especially if you avoid paying taxes!)

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Creation of the Appalachian Mountains

Ancient folded mountains caused by the collision of Africa and North America (460 mya).





Western Maryland road cut

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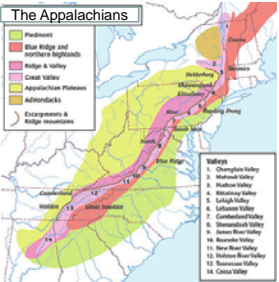
Appalachian Mt. Topography

Five physiographic sub-regions:

- a) Blue Ridge
- b) Ridge and Valley
- c) Great Valley
- d) Appalachian Plateau
- e) Piedmont (covered with the South)

The Appalachians

- Blue Ridge and northern highlands
- Ridge & Valley
- Great Valley
- Appalachian Plateau
- Adirondacks
- Escarpments & ridge mountains




Valleys:
1. Champlain Valley
2. Hudson Valley
3. Mohawk Valley
4. Susquehanna Valley
5. Lough Valley
6. Licking Valley
7. Cumberland Valley
8. Shenandoah Valley
9. James River Valley
10. Roanoke Valley
11. New River Valley
12. Holston River Valley
13. Tennessee Valley
14. Cane Valley

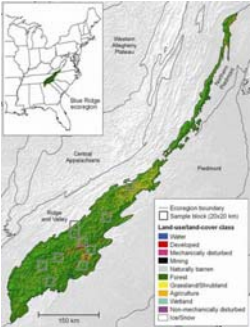
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Appalachian Mt. Topography

a) Blue Ridge

- Abrupt rise from the **Piedmont** to the east.
- Narrow in north, wide in south.
- Crestline preserved in national parks.
- River gaps through the ridge allowed early settlers to cross the region.






Blue Ridge Mts.


Blue Ridge Parkway

The Blue Ridge Parkway connects Shenandoah NP with Great Smoky Mountains NP.

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The Blue Ridge





Blue Ridge Mts.

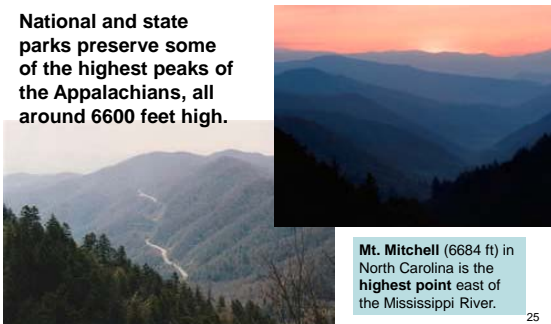
Blue Ridge Parkway

The Blue Ridge Parkway connects Shenandoah NP with Great Smoky Mountains NP.

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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.




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

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Appalachian Mt. Topography 2

b) Ridge and Valley

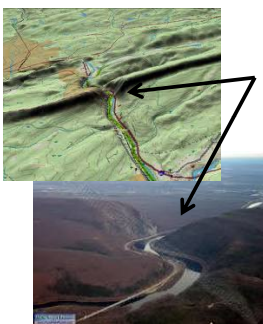

- Parallel series of highlands and lowlands
- **Ridges:** resistant shale and sandstone; forested.
- **Valleys:** softer limestone; good farmland.



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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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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 rocks, usually limestone.





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Appalachian Mt. Topography 3

c) Great Valley


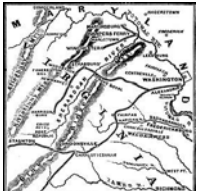

- Between the Blue Ridge and the Ridge and Valley sections.
- Historic travel route between the southern and the northern areas.
- Early important agricultural area.



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Shenandoah Valley

part of the Great Valley

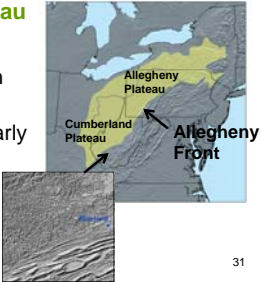
Many Civil War battles were fought here.

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Appalachian Mt. Topography 4

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

- **Allegheny Front** is an escarpment on eastern edge of the plateau.
- Significant barrier to early westward movement because of the rugged terrain.




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Appalachian Plateau

“A dissected plateau.”

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!

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Appalachian Agriculture

- More than 50% the people are rural.
- Farming
 - **Many owner-operated** farms, no corporations.
 - **Tenancy** rare.
 - **Few resources:**
 - Rugged topography
 - Poor soil
 - Short growing season in many areas
 - **Small farm sizes** (ave. 100 acres)
 - **Recent trend: part-time** farmers.

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Agricultural Products

- **General farming** (no one crop dominant)
- **Herding** (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)

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Mining

- **Coal:** PA, WVA, OH, KY, TN, AL
 - Mainly bituminous; anthracite in Pennsylvania.
- **Oil**
 - First oil well in Pennsylvania (1859); also SW NYS.
 - High-quality oils and lubricants (not fuel); *Quaker State*
- **Zinc:** Tennessee
- **Copper:** North Carolina/Georgia border
- **Lead**
 - Ozarks Tristate District (OK, KS, MO)
 - SE Missouri

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Coal


- **Allegheny Plateau Beds**
 - Together world's largest deposit.
 - Predominantly bituminous.
 - Seams up to 10 feet thick.
- **Rise of Coal Mining**
 - Post-Civil War new iron and steel furnaces use **bituminous** coal
 - Area coal fueled rise of Pittsburgh and Birmingham as “steel cities.”
 - **Electricity** for East Coast cities and the Manufacturing Core was first created by coal-powered generators.



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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.**
 - **The higher the grade, the hotter the coal burns, and the less the pollution.**
- **Grades in order of purity:** peat (LOWEST), lignite (called "brown coal"), bituminous, anthracite (HIGHEST)



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Coal Definitions

- **Anthracite ("hard") coal** is naturally clean and smokeless.

It became the preferred fuel in cities in the mid-1800s and was supplied from mines in northeast Pennsylvania.

The **Delaware & Hudson Canal** was an important link to get PA coal to east coast cities.
- **Bituminous ("soft") coal** is cheaper and more plentiful than anthracite but dirtier.

It came into demand for railway locomotives and stationary steam engines. It is used to make coke.

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Coal Definitions cont'd

- **Coke (coking coal)** is the result of processing bituminous coal with intense heat to drive off its volatile components.
 - It is almost pure carbon and creates little ash when burned.
 - Coke is used in blast furnaces to make steel
 - It is usually made on site from bituminous coal shipped to the steel plant.

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Mining Coal in Appalachia

- **Coal mining was very labor intensive.**
 - Tunnels were dug by hand.
 - Coal was mined by hand.
 - Mine workers carried coal to the surface.
- **Mechanization = fewer miners.**
- **Unions protested the use of machinery.**
- **Strikes and concessions** (higher salary in return for using machinery) **eventually hurt the miners more by eliminating jobs**, esp. in West Virginia.
- **The first conveyor belt for use in coal mines** was invented and installed in the early 1900s.


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Coal Mining Methods

- 1. Shaft (underground mining)**
 - Earliest and still dominant method
 - Huge mobile drills
 - Continuous mining machines bore and mine at the same time.
- 2. Surface**

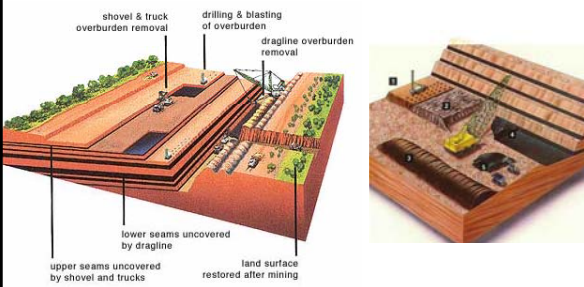
Used in the central region

 - a. **Contour (strip) mining**
 - b. **Area mining** - flatter terrain
 - c. **Mountaintop removal** - hilly areas; much smaller scale



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Strip Mining Diagram



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Coal Mining Persona








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Coal Mining Equipment









Environmental Impact

Science Matters

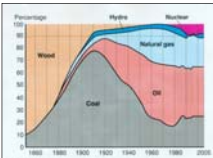
Kill a mountain for its coal
Coal mining companies put the "mountain" behind them. And it is safer than deep shaft mining – but it destroys land and pollutes streams.

- 1 Coal location** Geologists find and map coal seams.

- 2 Base removal** Miners dig and blast away sections near base of mountains, dump debris into valley.

- 3 Upper seam mining** Coal near mountaintop is removed; access rock is dumped into valley.

- 4 Baseline seam mining** Coal rich baseline seam removed; waste rock dumped as "backfill".

- 5 Completion** Baseline seam is completely mined and backfilled, leaves only a plateau or rolling hills.


Source: West Virginia Department of Environmental Protection, U.S. Environmental Protection Agency, Chicago, Illinois. © 2003, ECP.

Coal's Decline and Appalachia

- Post-World War II
 - Coal's use declines with growth of petroleum and natural gas
 - Leads to rising unemployment, out-migration
 - Economic **depression** in coal-mining regions
- Late 20th century
 - **Declining demand**
 - Shift to **other regions**
 - Fluctuation in **exports**
 - **Environmental concerns**




Source: U.S. Energy Information Administration

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Tennessee Valley Authority

A federally-owned corporation created by Congress in 1933 to oversee production of electricity in a 7-state area drained by the Tennessee River and its tributaries.

Project to get people back to work during the Great Depression.

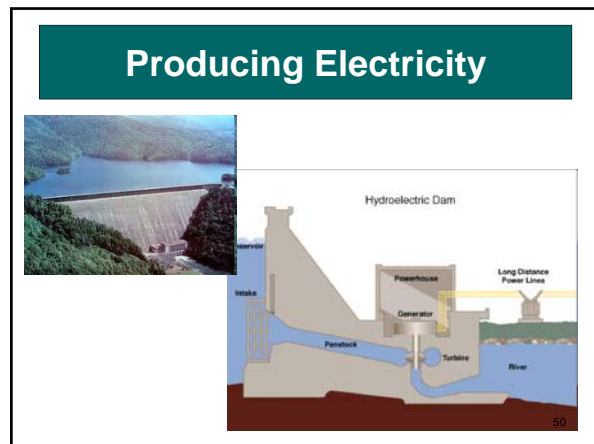
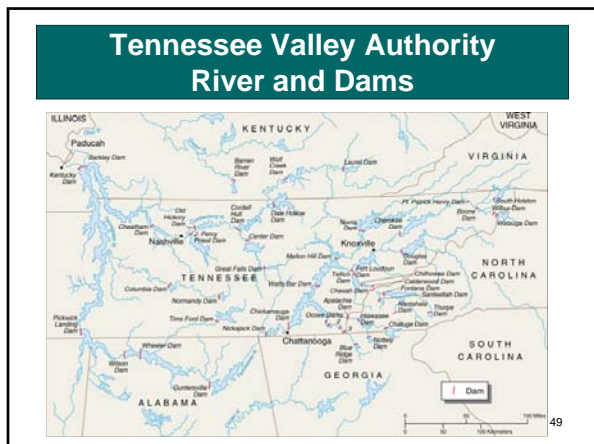


Tennessee Valley Authority

- **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

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- ### 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 1960s-70s**; opened in 1971
 - **Created a 10-ft navigation channel up the Arkansas River** from the Mississippi River through the Ozarks to Catoosa, Oklahoma.
-
- A map of the Ozarks region, showing the Arkansas River navigation system. The map highlights the river's path from the Mississippi River through the Ozarks to Catoosa, Oklahoma. Key locations like Muskogee, Ft. Smith, Little Rock, and Pleva Bluff are marked. The map is labeled 'OZARKS' and includes a north arrow and the number '52' at the bottom right.
- Facilitated an increase in barge traffic. Provided the region with inexpensive hydroelectric power. Encouraged regional economic development.