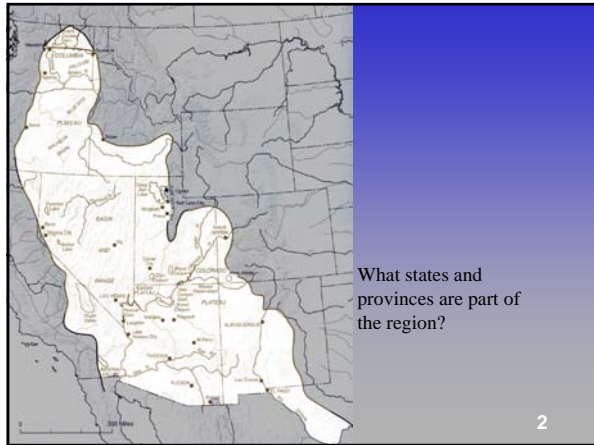


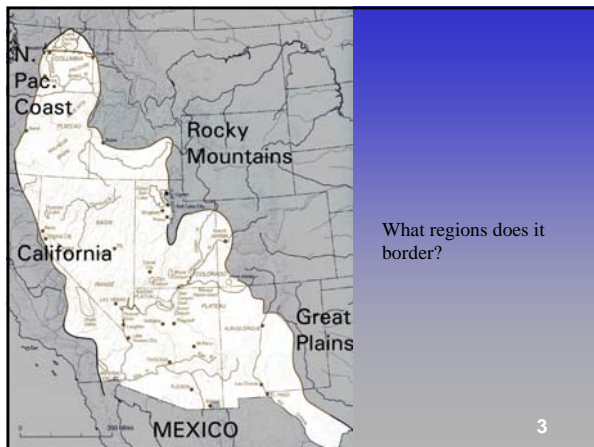
US & Canada: Intermontane West (Ch.15)



1



2



3

Overview

- Rugged and topographically diverse
- Population growing rapidly
- Inadequate water resources

4

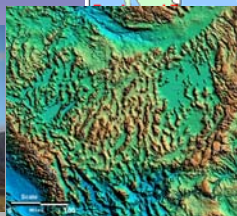
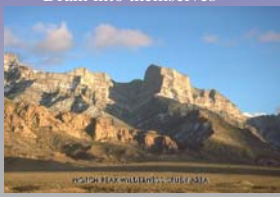
Physical setting

- Area between Coastal Mountains and Rockies
- Tapers to north
- Three regions
 - Basin and Range
 - Columbia Plateau
 - Colorado Plateau

5

Basin and Range

- Parallel narrow mountains with flat valleys in between
 - Pulled apart over time
 - Drain into themselves



Great Salt Lake



7

Colorado Plateau

- Much of land >1mi up
- Narrow permanent streams carved into uplifted land
- Much of land flat mesas



8



9

Columbia Plateau

- Covered with ancient lava flows
- Surface considerably transformed over time
 - 300 to 10000'



10

Hells Canyon (Snake River)



Deepest canyon in US (8000 ft in places)



11

Climate

- Driest climates here
- Somewhat more humid, wet in north
- Vertical zonation
 - Very hot low basins, especially south
 - Cooler plateaus, mesas

12

Climate comparison

	Akron	Boise	Top of Grand Canyon (8000')	Bottom of Grand Canyon (2000')
Jan Temp	33 / 17	37 / 23	37 / 16	56 / 36
Jul Temp	82 / 61	91 / 59	77 / 46	106 / 78
Rainfall	38 in.	12 in.	24 in.	8 in.
Snowfall	45 in.	21 in.	~80 in.	<5 in.

13

Death Valley

- Hottest spot in North America
 - 134° record high
 - 116° average high in July
- Lowest spot in North America
 - -282 feet
- Driest spot in North America
 - 2" of precipitation annually



14

Natural vegetation: Forest and grasslands

- Forests Found in wetter, cooler areas
 - Washington
 - Oregon
 - Mountains
- Grasslands found in drier areas



15

Natural vegetation: Desert

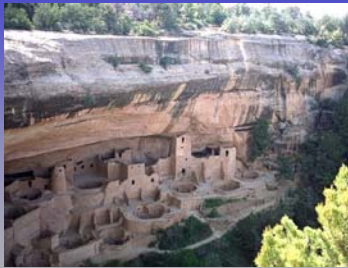
- Shrub
- Cactus



16

Native Settlement

- Sparse
- Varied
- Some of the best preserved native ruins
- Flourished in wetter climate in past



17

Spanish Settlement

- Settled along upper Rio Grande in 1500s and 1600s
 - Santa Fe 1607
 - Albuquerque 1703



18

British / American settlement

- Lewis and Clark
- Trappers only semi-permanent population
- Same populations passing through to West Coast
 - Gold Rush
- Eventually, miners settled region

19

Mormon Settlement

- 1847: Mormons settle in Great Salt Lake valley
- Utah only state to be colonized systematically
- Still dominant area for Mormons

20

Present population

- Very rapidly growing, especially southern parts
 - Booming metropolises: Las Vegas (+83%-fastest in US), Boise (+46%), Phoenix (+45%), Reno (+33%)
- Mostly white, significant Mexican population in borderlands
- Very transient population

21

Mexican population

- Dominant in borderlands
 - New Mexico is 42% Hispanic, largest percentage of any state
 - Many cities with greater percentages:
 - El Paso 76%
 - Laredo 94%



22

Native American population

- 11% in New Mexico
- 6% in Arizona



23

Population numbers

State/Metro Area	2000	1990	Change
Nevada	1998	1201	+66%
Arizona	5130	3665	+40%
Utah	2232	1722	+30%
Idaho	1293	1006	+29%
New Mexico	1819	1515	+20%
Spokane, WA	417	361	+16%
US & Canada	312,600	276,700	+13%

24

Mining

- Copper Mines
 - Arizona #1, Utah #2, New Mexico #3
- Gold
 - Nevada
- Coal
 - Navajo Generating Station
- Uranium



25

Irrigated Farming

- Takes up small geographical extent
- Important commercially
- Idaho potatoes
- Imperial Valley Dates
- Washington State Apples



26

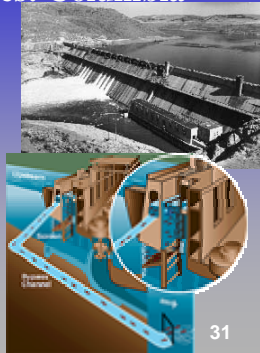
Livestock

- Similar to the Rocky Mountains:
 - Sheep and cattle
 - Many graze on federal land
 - Move higher up into mountains in summer, back to lower ground in winter

27

Water Resources: Columbia

- Mostly dammed
 - Grand Coulee: Largest hydroelectric dam in world
- Much of NW hinges on Columbia for power supply
- Significant environmental concerns



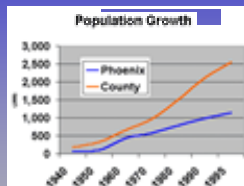
Tourism

- National Parks
 - Monument Valley, Zion, Grand Canyon, Big Bend
- Old mining towns and cliff dwellings
- Nevada: Gambling

32

Phoenix

- Incredible growth
- Over 500 square miles
- Diverse economy
- Large retirement population



33

Sun City, Arizona

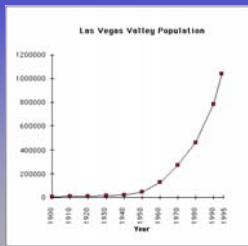
- Founded in 1960
- Someone in household over 55; no one under 18 allowed
- 38,000 people in 2000
- Popularity has led to other planned cities
 - Sun City West, Sun City Grand, Carefree, etc.



34

Las Vegas

- First built as gambling town
- Now transforming into “real” city
 - 1/3 still employed by casinos or related industries
- Rapid growth to decline with casinos elsewhere and water shortage



35

Salt Lake City

- 1.5 million people
- Mormon “capital”
- Diversifying economy
- Increasing prominence
 - Ski tourism
 - 2002 Olympics



36

El Paso

- Twice as many people in Ciudad Juarez, Mexico (1.4M) as El Paso (700k)
- Symbiotic economy, “maquiladoras” in Mexico
- Very high poverty rate



37

Outlook

- Incredible growth
 - Populations young and old
- Severe water problems

38
