

The Great Central Valley

Purpose: To acquaint the student with the most agriculturally productive valley in the United States.

I. Location

A. From Lake Shasta in the north, south 420 miles to the Tehachapis.

1. The distance = to the st. line distance between

Portland, Maine to Ocean City, Maryland, this is the largest province in California.

2. Its width varies avg. 50 miles in the north to 60 miles in the south.
3. Bordered on the west by the coast ranges and to the east by the Sierras.
4. The only opening being to the west via the Golden Gate.

II. Physical Geography

A. A Geosyncline -

1. Land on the sides rose, and the depression in between filled with alluvial material.
2. Also and at the same time, the movement of faults caused the "bottom to drop out" and thus the filling began.

B. Geosyncline defined.

A shallow inland sea, fresh water. Narrow and long, receiving sediments continuously over a long period of time.

Usually burying living material which becomes fossil fuel, plants = coal, animals = petrol.

C. The Central Valley is divided into three parts.

1. Sacramento Valley- after the south flowing river which it drains.
2. San Joaquin Valley - same reason but north flowing.
3. The Delta - where they come together, and the water leaves through the Golden Gate.

D. The Sacramento Valley

1. 150 miles long = flood plain of the river, starts at Shasta Lake and Dam to Keswick Dam and hydroelectric station and on through the Big Bend Hills and into the valley proper.
2. River flows through about the middle of the valley.
3. Has Levees, natural and man made.
4. Avg. elevation - less than 100' above sea level.
5. Largest landform = Sutter or Marysville Buttes. = Dome mtns. volcanic with no eruption just deformation of surface.
6. Terminates at Suisun Bay.
7. Before river controls - yearly flooding produced natural levees (10-20 ' high, 1 mile wide) and also natural bi-passes into which the overflow water ran when it broke through. They are on the west side of the river &(N-S) Colusa and Yolo Basins; on the east side (N-S) Butte, Sutter (no relation to the Buttes) and American Basins. SHOW SLIDES OF BOAT TRIP TO SACRAMENTO.

E. The Delta Lands

1. (500,000 acres) many islands, from 3-30 sq. miles each.
2. Sac.R. confined by levees, but San Joaquin breaks up into several streams near Tracy. Other rivers like Consumnes, Mokelumne and the Calaveras break up into a maze in intertwining streams.
3. Not a true delta i.e. not a deposit of mud, silt, sand dumped by the rivers. This is just the last part of the geosyncline that is still flooded since the end of the pleistocene and its resultant rise in sea level of about 600'. The lowest part of the Geosyncline.
4. Before 1851 = Tule marsh - reeds,cattails and willows and mosquitos. Today = 2/3 irrigated farmland.

F. San Joaquin Valley

1. Largest of the three areas. 2X size of Sacto Valley.
2. Like Sact. R. Upper reaches of S.J. R. are impounded by Friant Dam, 18 mi. NE of Fresno = Millerton Lake Reservoir. Water goes south, not back into S.J.R. (via Madera and Friant-Kern Canals.)
3. Kings R. alluvial fan so large = cut off flow and made a divide which now forces water to the south to flow into Tulare Lake Bed = a bolson or interior drainage area. A flood control reservoir now keeps the lake dry farm land.
4. A similar basin exists between Kern R. and Elk Hills producing a bolson draining into Buena Vista Lake.
5. Kettleman Hills - Tulare Lake basin
Elk Hills adjacent to the Buena Vista Lake Basin.
Both are over 1000' el. cover aarea 20 mi N/S and 5 mi. E/W . Each group of hills is an anticline containing rich oilfields. Elk Hills - military oil reserve, Kettleman Hills (Domes) have been mined since 1928 (oil and gas).
6. Greatest Contribution of C.V.= Agriculture = Cultural Geo

III. Cultural Geography of the Central Valley (Sp. Valle Grande)

- A. Ranks with the greatest agricultural valleys in the world.
- B. The 25,000 sq. mi. of this valley could meet the basic food needs of the entire nation today.
- C. It doesn't for several reasons.
 - 1. There is more money in specialty crops (non-basic foods) such as grapes, almonds, etc.
 - 2. Lack of available water and
 - 3. Very importantly; no simple way to remove leached salts in drainage water and the resultant problem of a perched watertable.
 - 4. Runoff from Sierras and pumped ground water provides much of the water. A good deal of the San Joaquin's water is imported from the north. See water lecture.
 - 5. Urban areas are along Hwy. 99 and I 5 (in the south)
About 3 million residents in the valley.
 - 6. Valley is on the Rectangular Survey System.
 - 7. Many towns are located along the rivers. Biggest = Sacramento, the state capitol. Sutters Fort, Capitol building, Terminus for the Railroad, shipping channel (deep water 1963), etc. = 1 million pop. today.
 - 8. Fresno = 2nd largest city. Trade hub of San Joaquin V.
 - 9. Stockton = 3rd. Has a port.
 - 10. For more on cities and towns in central Valley see text.

END