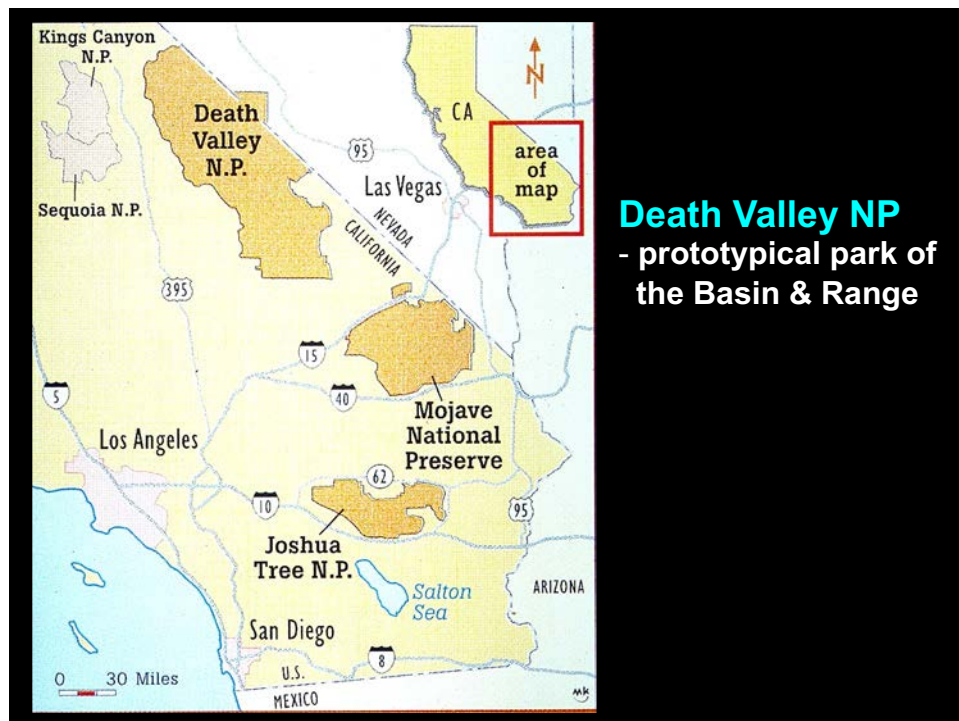


1



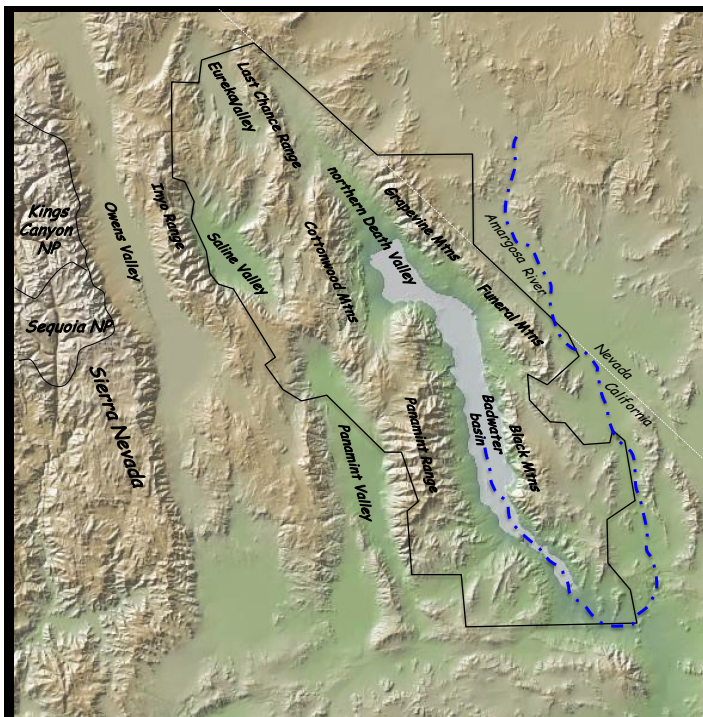
2



**Death Valley NP – hottest, driest, lowest place in N.A.**

134° 1"/yr -282 ft

3

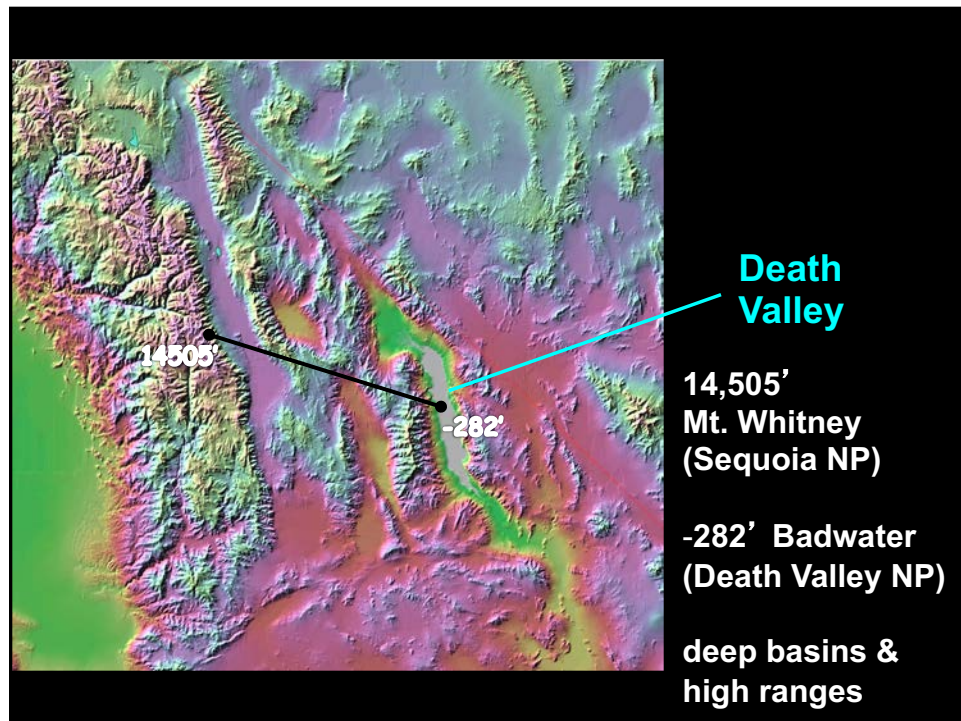


Major basins  
and ranges near  
Death Valley NP

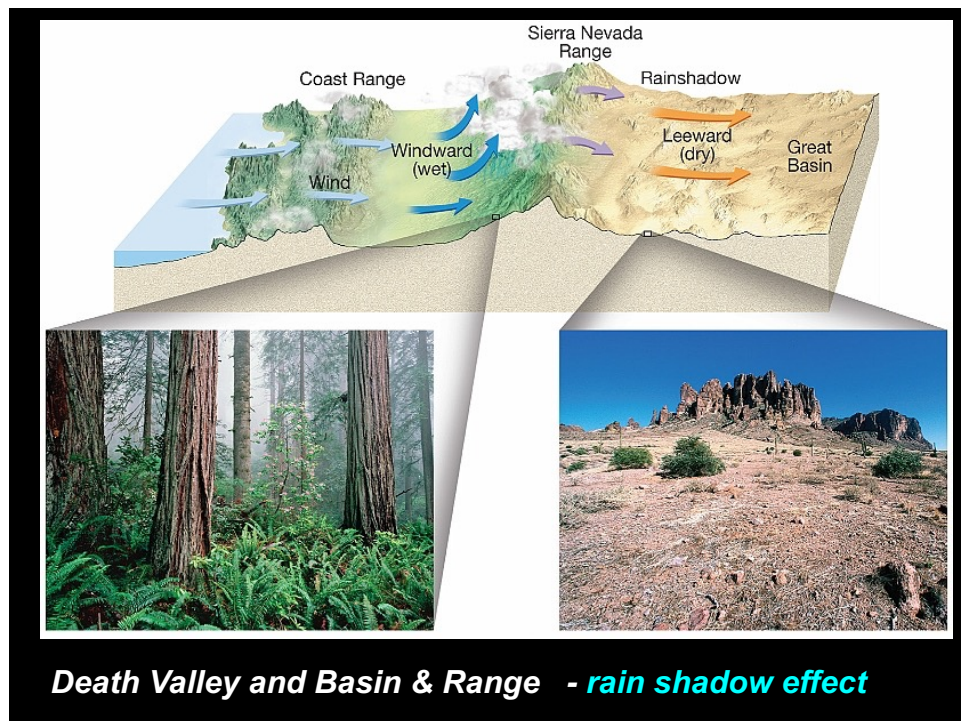
Amargosa River  
flows  
intermittently into  
Badwater basin  
(internal  
drainage)

4





5



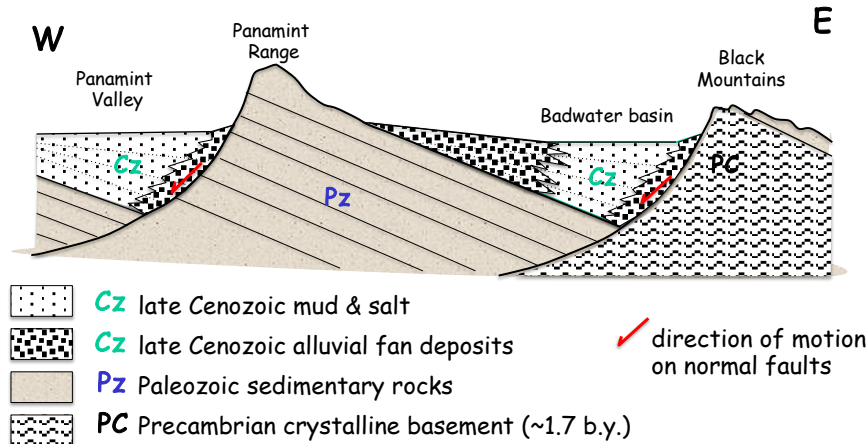
6



**Death Valley** - rocks range from very old (~1.7 b.y.) to very young (deposition occurs today within the basins from erosion of the surrounding mountains)

7

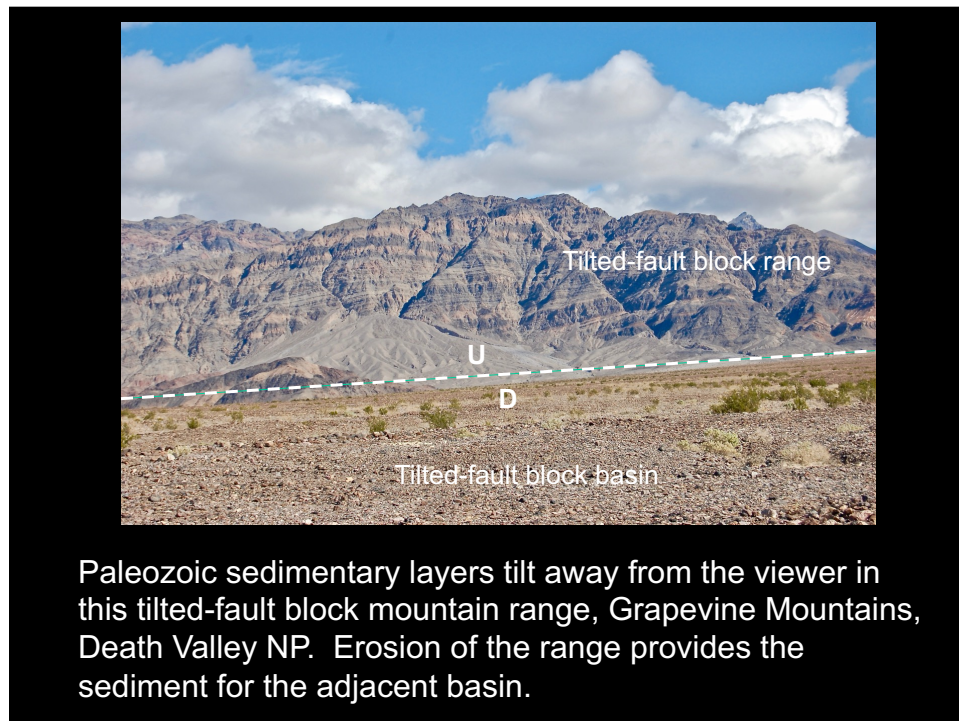
Simplified cross-section from Panamint Valley to Black Mountains, showing **tilted fault-block ranges and basins**



**ranges:** PC basement (~1.7 b.y.) to Paleozoic sed rocks  
**basins:** sediments accumulated over past 16 m.y. by erosion of adjacent mountains (Cenozoic)

8





9



10

**Wind . . . . common agent of sediment transport**



Gravel plain left behind after winds transport the sand, silt and clay downwind - **Death Valley NP**

11



12





*Mesquite sand dunes, Death Valley NP*

13

**Water . . . .** episodic agent of sediment transport



**alluvial fan** - Death Valley NP  
- produced episodically by **debris flows**

14



**boulders on Death Valley alluvial fan  
- evidence of the power of debris flows**

15



**August 2004  
debris flow damage  
in DVNP**

**2022**

16





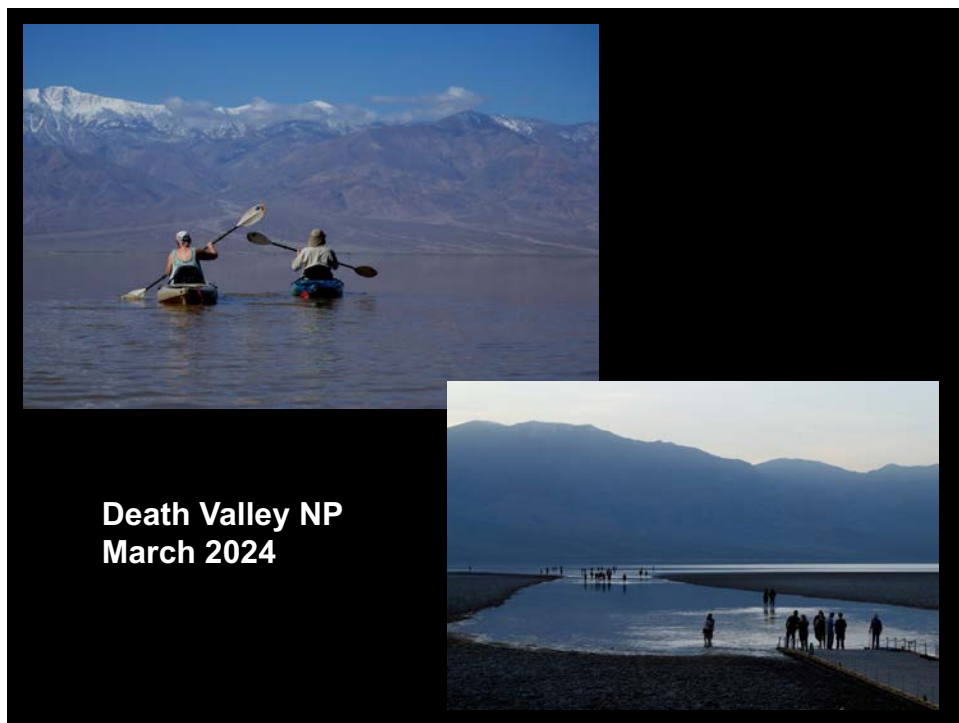
17



18



19



20





**NaCl salt precipitating from evaporating playa lake  
Death Valley NP**

21



**'Evaporite' salts crystallized on playa floor,  
forming polygonal patterns**

22



**'badlands' in DVNP**  
- volcanic ash ---> swelling clays (no vegetation)

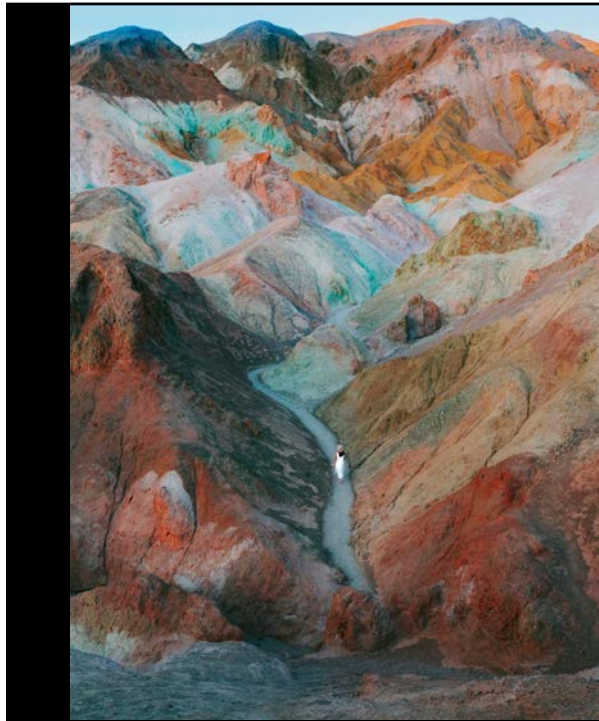
23



**badlands near Zabriskie Point, Death Valley NP**

24





**badlands along the  
Artist's Palette trail,  
Death Valley NP**

25



**Racetrack Playa - Death Valley NP  
- white surface of desiccated mud & salt**

26



27



28



## Great desert hikes in Death Valley NP



Mosaic Canyon



Mesquite sand dunes



Badlands loop near  
Zabriskie Pt