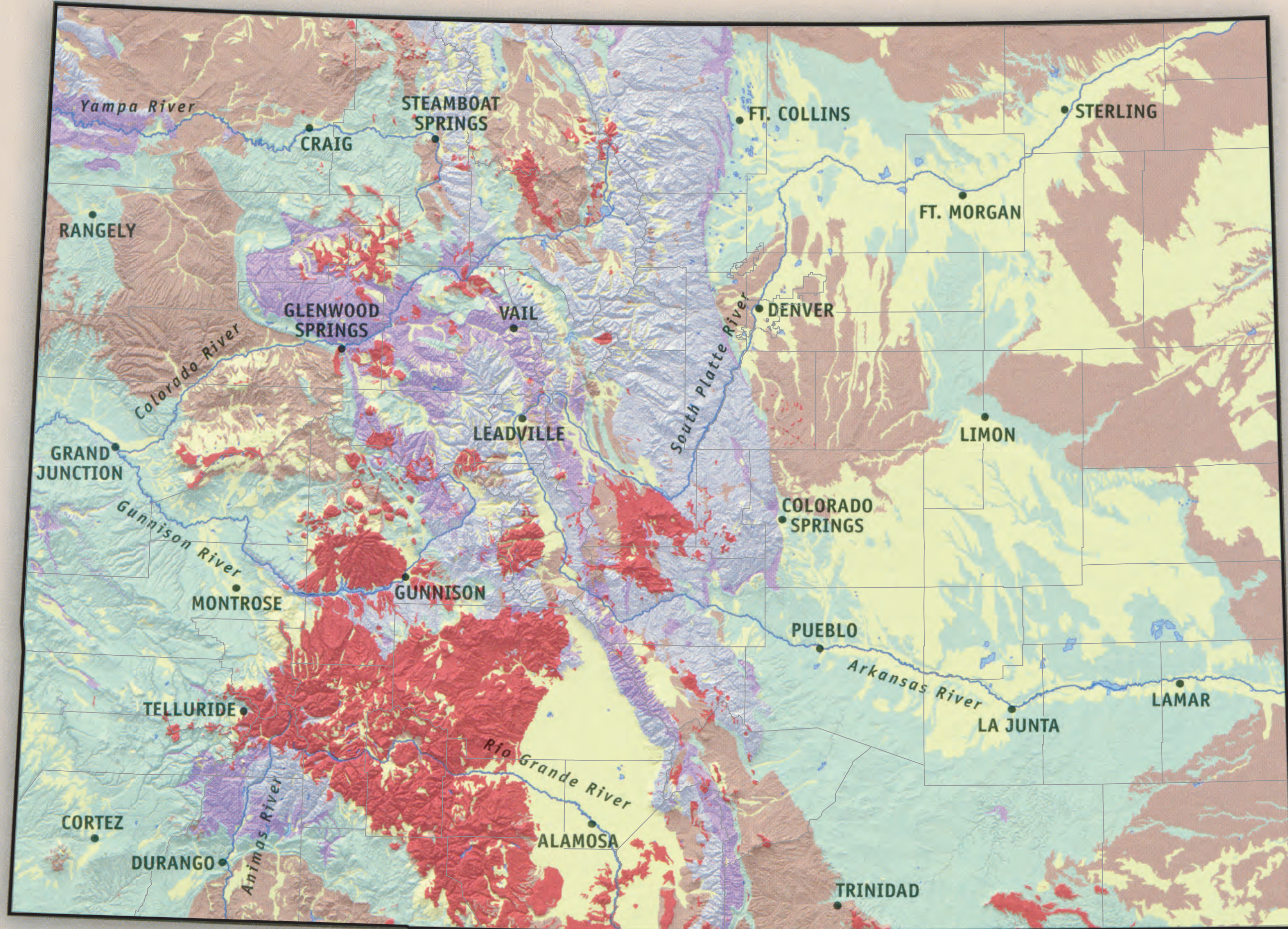


GEOLOGY OF COLORADO

AGES AND TYPES OF COLORADO ROCKS



AGES OF COLORADO ROCKS:

CENOZOIC: 0–65 million years ago (mya)

- unconsolidated deposits
- sedimentary rocks
- igneous rocks

MESOZOIC: 65–253 mya

- sedimentary rocks

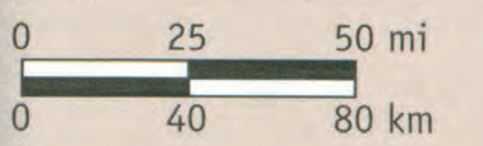
PALEOZOIC: 253–544 mya

- sedimentary rocks

PRECAMBRIAN:

544 mya–2.8 billion years ago (most are 1.7 or 1.4 billion years old)

- igneous & metamorphic rocks



COLORADO GEOLOGIC TIME SCALE

Era	Period	Millions of years ago
CENOZOIC (Age of Mammals)	Quaternary	1.8
	Tertiary	65
MESOZOIC (Age of Reptiles)	Cretaceous	145
	Jurassic	200
	Triassic	253
PALAEOZOIC	Permian	300
	Pennsylvanian	318
	Mississippian	360
	Devonian	418
	Silurian	443
	Ordovician	489
Cambrian	544	
PRECAMBRIAN	Proterozoic	
	Colorado's oldest rock Archean (accounts for more than 85% of geologic time)	2,700

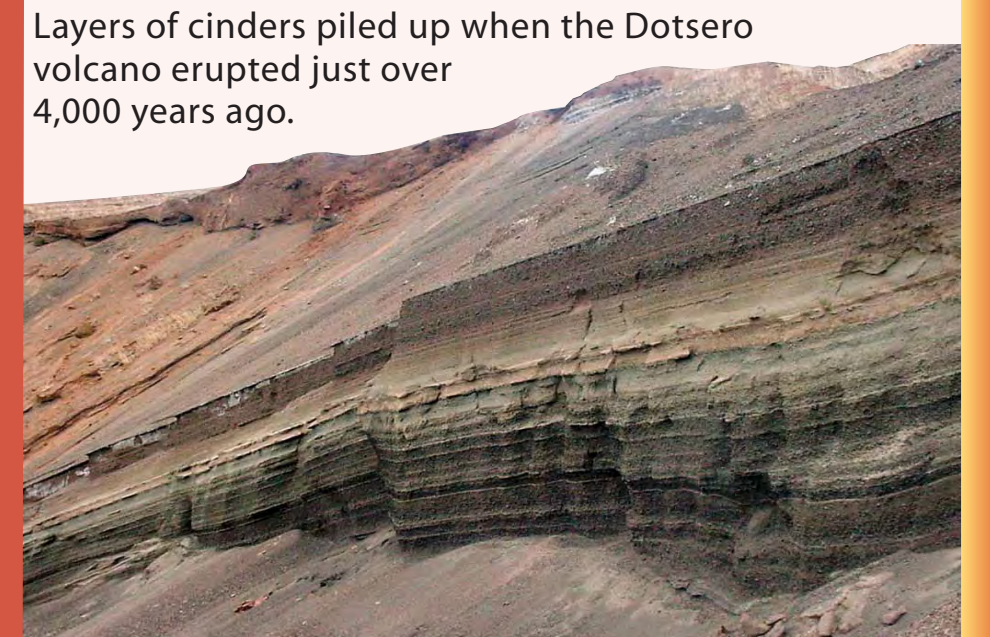


Dramatic sand dunes shape the landscape of the Great Sand Dunes National Park and Preserve.

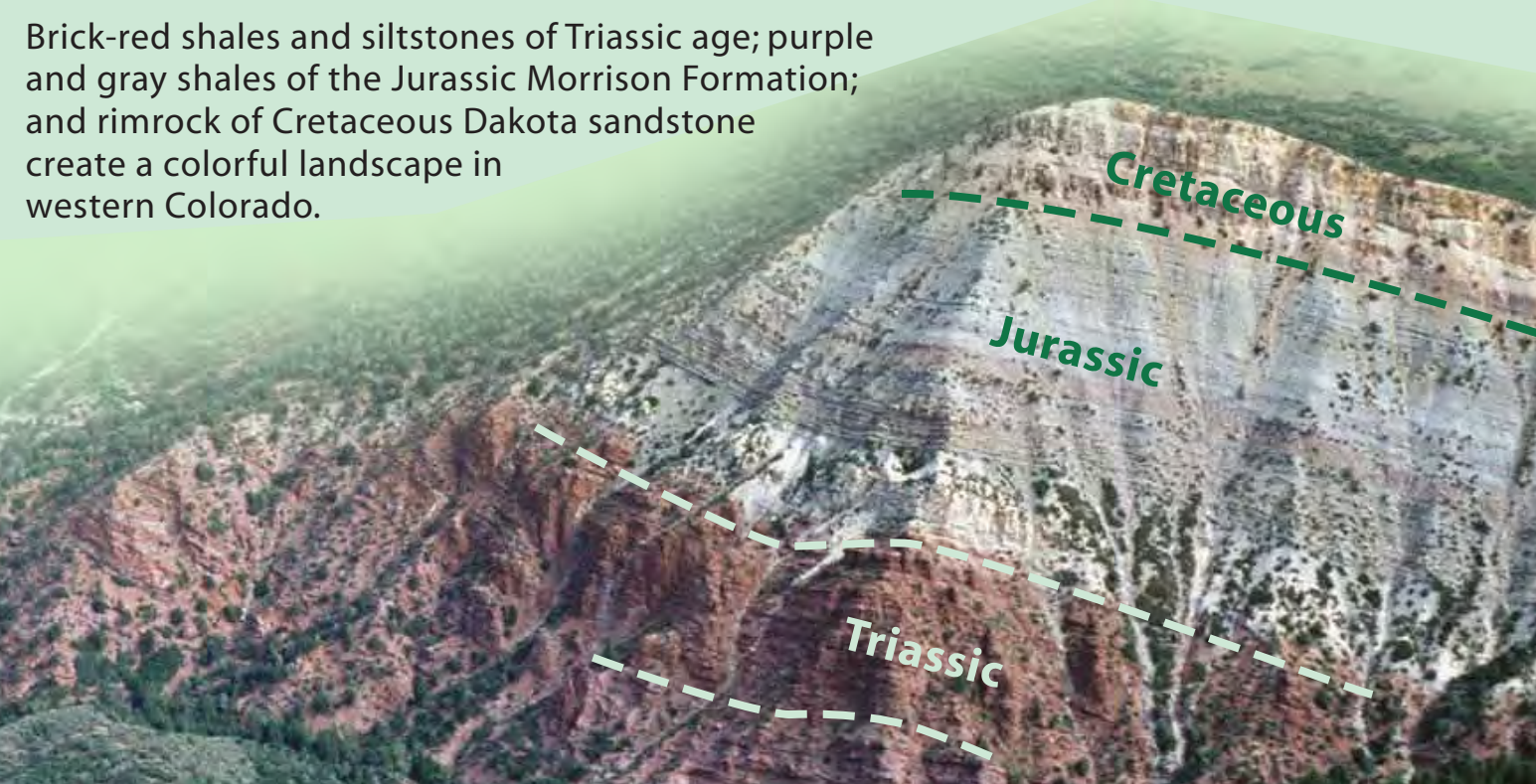
The beautiful red and yellow colors record a time of intense global warming about 56 million years ago.



Igneous dikes radiate out from the Cenozoic sedimentary rocks that form the world-famous Spanish Peaks.



Layers of cinders piled up when the Dotsero volcano erupted just over 4,000 years ago.



Brick-red shales and siltstones of Triassic age; purple and gray shales of the Jurassic Morrison Formation; and rimrock of Cretaceous Dakota sandstone create a colorful landscape in western Colorado.

Right: Beautiful cliffs along the Dolores River provide excellent views of Triassic and Jurassic strata that span 100 million years of time.

Magnificently preserved foot prints at Dinosaur Ridge record the variety of dinosaurs wandering over coastal tidal flats about 100 million years ago.



This massive monolith in Dinosaur National Monument freezes in time a huge dune field that existed 300 million years ago.



The Leadville limestone formed in shallow marine seas about 350 million years ago, and is host to most of the states caves and caverns.



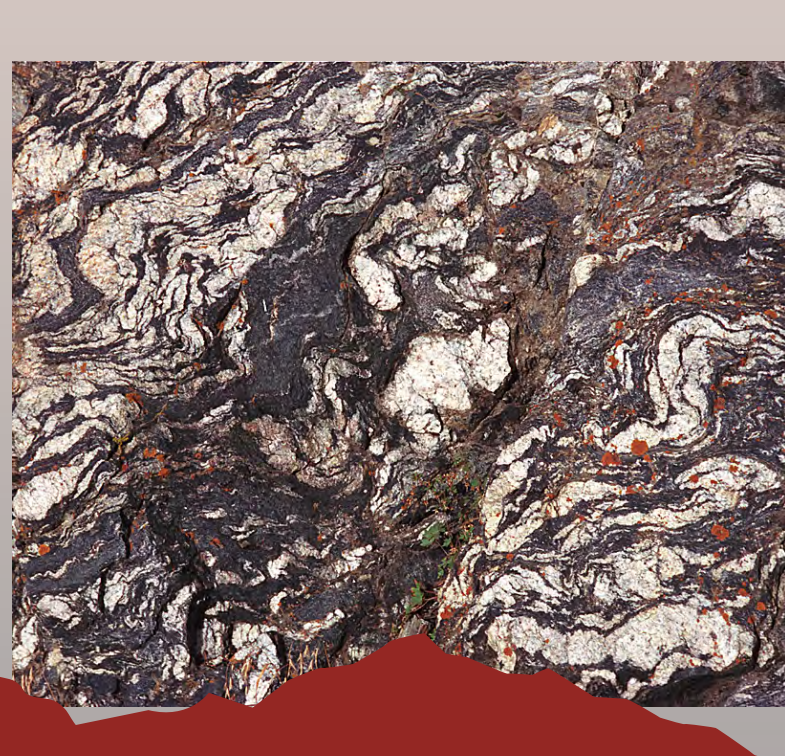
Red Rocks Park and Amphitheater (below) are made of 300 million-year-old red sedimentary rocks. 500 million-year-old sandstones make up much of the cliffs in Glenwood Canyon (right). Both formations rest on 1.7 Billion-year-old igneous and metamorphic Precambrian rocks.



The newly designated Black Canyon of the Gunnison National Park offers an intimate look at some of Colorado's oldest rock in the very narrow gorge scoured out by water during the past 2 million years!



Swirling layers attest to the intense pressures and temperatures that metamorphosed these rocks 1.7 billion years ago.



Weathering of Precambrian granite creates an intriguing landscape of rounded shapes.

