

Geological Time Periods and Rock Strata

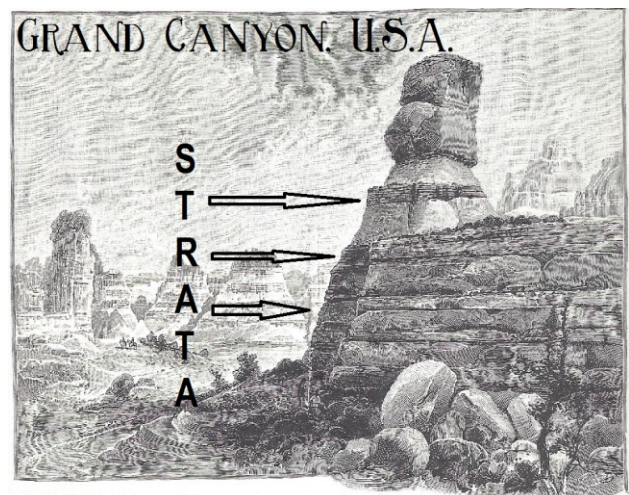
- I) Phanerozoic Eon
- a. Paleozoic Era
 - i. Cambrian Period
 - ii. Ordovician Period
 - iii. Silurian Period
 - iv. Devonian Period
 - v. Carboniferous Period
 - vi. Permian Period
 - b. Mesozoic Era
 - i. Triassic Period
 - ii. Jurassic Period
 - iii. Cretaceous Period
 - c. Cenozoic Era
 - i. Paleogene Period
 - ii. Neogene Period
 - iii. Quaternary Period
 - 1. Pleistocene Epoch
 - 2. Holocene Epoch

Strata (layers or segments of rock) are named according to the fossils they contain. Although life first appeared on Earth millions of years earlier, geologists (people who study the form and history of Earth) focus on the Phanerozoic Eon. This is because the Phanerozoic Eon, which began

around 542 million years ago, is the eon during which the most life has existed on Earth. By examining Earth's rock strata, we can trace the history of life on Earth.

1. layers or segments of rock:

- a. earth
- b. geology
- c. period
- d. strata



The Phanerozoic Eon is divided into three eras. From earliest to most recent, these three eras are the Paleozoic Era, the Mesozoic Era, and

the Cenozoic Era. Each era is further divided into periods. For example, there are three periods in the Mesozoic Era; from first to last, these are the Cretaceous Period, the Jurassic Period, and the Triassic Period.

2. Which of the following is not a period of the Mesozoic Era?
- Cretaceous
 - Jurassic
 - Neogene
 - Triassic

Each period is further divided into epochs. For example, humans of today live in the Holocene Epoch. The Holocene Epoch reaches back to the end of the last Ice Age, about 12,000 years ago. Looking at the outline, one can see that the Holocene Epoch is part of the Quaternary Period, which is part of the Cenozoic Era.

No one kind of rock makes up the strata of any particular era, period, or epoch. Sandstones, limestones, slates, etc., are found among the rocks of all ages. The strata are classified according to the fossils which they contain, and not according to the

varieties of rock of which they are composed.

Strata—layers of rock—are laid down over time. Although different forces can move layers of rock around and jumble them up, for the most part, the oldest rocks (and fossils) are found in the bottom strata, and the newest rocks (and fossils) are found in the top strata.

3. Strata are classified according to the _____ which they contain.
- fossils
 - living things
 - rocks
 - slates
4. Archosaurs appeared during the Triassic Period during the _____ Era.
- Cenozoic
 - Mesozoic
 - Paleozoic
5. Lorna digs and finds a fossil six feet below the earth. Dora digs and finds a fossil sixty feet below the earth. Whose fossil is most likely the oldest? _____