

2. *Neopaleozoic Section.*

1. UPPER SILURIAN, OR UPPER SILURIC, ERA.
 1. Niagara Period.
 2. Onondaga Period.
 3. Lower Helderberg Period.
2. DEVONIAN, OR DEVONIC, ERA.
 1. Oriskany Period.
 2. Corniferous Period.
 3. Middle Devonian, or Hamilton, Period.
 4. Upper Devonian Period.
3. CARBONIC ERA.
 1. Subcarboniferous Period.
 2. Carboniferous Period.
 3. Permian Period.

III. MESOZOIC TIME.

1. Triassic Period.
2. Jurassic Period.
3. Cretaceous, or Cretacic, Period.

IV. CENOZOIC TIME.

1. TERTIARY ERA.
2. QUATERNARY ERA.

European geologists, at meetings of the International Congress of Geologists, have decided to make the names of the higher subdivisions of the eras end in *ic*.

In early geologic science, the oldest system of rocks recognized was called the *Primary* or *Primitive* system, and it comprised granite, gneiss, mica schist, and all other related crystalline rocks; and the more schistose kinds, like mica schist, chlorite schist, hornblende schist, were made the newer of the series. The terms "Fundamental gneiss," in English, and "Urgneiss," German, are relics of this beginning period.

Under the same geological scheme — that of Werner — the second division was called the *Transition* rocks. It embraced the semi-crystalline schists, and slates or argillyte, along with hard gritty rocks called gray-wacke, and some limestones which were much upturned and thus were *seemingly* distinct from the ordinary fossiliferous strata, or the so-called "Secondary" rocks. Their partly semi-crystalline texture and their upturned condition were regarded as evidence of their being older than and separate from "Secondary" rocks; and their imperfectly crystalline or uncrystalline state, that they were younger than the Primary rocks.

The idea that gneiss and mica schist are always "Primary" or Archæan rocks, that grade of crystallization is a safe mark of relative age, was shown to be false by Lyell (*Principles*, 1830-33), who, with De la Beche (1834), rejected all Wernerian errors. Lyell went so far as to hold — as a table in the third volume of his *Principles* (1833, p. 387) shows — that crystalline or metamorphic schists may occur in all the formations, from the earliest to the latest.