

## **XXIX. DEAD ONES, OR OBSOLETE FORMATION NAMES IN OKLAHOMA**

**Chas. N. Gould, Oklahoma Geological Survey**

Many geologic formation names having served their usefulness become obsolete and are relegated to the scrap heap. The reasons for this are many. Sometimes the name has been preoccupied, as for instance the Red Bluff sandstone of Cragin, preoccupied by a name in California, and changed to Whitehorse. Sometimes the formation is found to be identical with another formation already named. Witness Silo sand of Taff of southern Oklahoma, which when traced far enough was found to be the same as the Woodbine of Hill in Texas. Sometimes a change of grouping renders a name obsolete, and sometimes the name dies a natural death and never comes into popular use, as in the case of the name Chandler, which was once proposed for the Pennsylvanian red beds of central Oklahoma.

Usually the dropping of a formation name is simply identical to the growth of the nomenclative science of geology, for as new data are secured, and more exact information becomes available, new classification constantly becomes necessary, and old terms and old definitions of them must either be modified to coincide with new knowledge, or dropped altogether.

May I be permitted to interpose a personal observation? To my mind it is very much better to abandon a formation name outright rather than to try to modify it, if any change is found necessary. A new definition of an old term is always liable to be confusing. In order to be understood, some qualifying terms must usually be employed as for instance Smith's original X formation, or Brown's modified X formation. My observation has been that if, in the light of increased knowledge it becomes necessary to divide formation X, or to assign new boundaries to it, it is better to abandon the term altogether and introduce new terms, as Y. and Z.

The geologic nomenclature of Oklahoma is little more than a quarter of a century old. There are in this state a few formation names which antedate 1900 that were first employed in other states, and the formations afterward traced into Oklahoma. As examples note Chattanooga shale proposed by Hayes in Tennessee, in 1891; Wichita and Clear Fork formations of Texas, proposed by Cummins in 1890; Ft. Scott limestone proposed by Swallow

in Kansas, in 1866; or the Dakota proposed by Meek and Hayden in Nebraska, in 1862.

However in casting about in my own mind, and in reviewing the literature on the subject I have been able to find but 24 formation names which have been definitely abandoned, with six others which will probably be either modified or abandoned within the next few years.

When we remember that at the last attempt to enumerate the formations of the State, 125 separate formations were listed, this may not be considered a bad showing.

The following list, while probably not complete, contains the names of such obsolete formations in the State of Oklahoma as I now happen to remember.

#### Obsolete Names

Hunton formation; Silurian and Devonian, named by Taff in 1902 and divided by Reed in 1911 into the Chimneyhill, Henryhouse, Haragan, and Bois D'Arc. The name Hunton will probably remain as a group name, for purposes of mapping.

Franks conglomerate; named by Taff in 1901, shown by Morgan to consist not of a single geologic horizon, as indicated by Taff, but to represent the "shoreward phase of the McAlester, Savana, Boggy, and possibly younger formations." However, the term "Franks" will probably continue to be used, to apply in a general way to the various conglomerates of the Arbuckle Mountain region.

Vinita formation; Pennsylvanian, proposed by Ohern in 1910 to apply to all Cherokee shales, except the upper part which was found to contain an additional ledge of limestone. The name never came into common use, and has been abandoned, and the original name, Cherokee, is now universally employed.

Claremore formation; Pennsylvanian, used by Ohern in 1910 to include the Ft. Scott, or Oswego limestone, plus a shale and a limestone member at the base. The name Claremore never became popular and the original name Ft. Scott is in common use.

Carl formation; Pennsylvanian, was named by Ohern in 1910 to include a series of shales and sandstones in Nowata and Washington counties. On reclassification the name has been abandoned.

The Wann formation; Pennsylvanian, was used by Ohern in 1910 for a series of shales, sandstones, and limestones in Nowata and Washington counties. The name was abandoned on the reclassification of the beds on the Miser map.

**Skiatook formation; Pennsylvanian,** is one of Ohern's names adopted from Hutchinson, used in 1910 which become obsolete on reclassification. It applied to a series of Pennsylvanian rocks in Tulsa, Washington, and Osage counties.

**Ramona formation; Pennsylvanian,** was used by Ohern in 1910 to apply to a series of shales, sandstones, and limestones. On reclassification on the Miser map the Dewey was raised to formation rank, and the Avant became a member. The term Ramona was abandoned.

**Payne sandstone; Pennsylvanian-Permian,** proposed by Kirk in 1904, to describe sandstone assumed to represent the Pennsylvanian-Permian contact in the Oklahoma red beds. The name never came into popular use.

**Norman division; Pennsylvanian and Permian,** proposed by Gould in 1902, to include all red beds below the Gypsum Hills. The term was never in general use. Synonymous with the Enid and Chandler beds of later classification.

**Chandler beds; Pennsylvanian,** proposed by Gould, in 1906, to include the Pennsylvanian red beds of central Oklahoma. The name died a natural death.

**McCann sandstone; Permian,** name proposed by Gould in 1900 to describe a ledge of sandstone in Kay County. This name also died a natural death.

**Glass Mountain formation; Permian,** used by Cragin in 1897, to include his Flowerpot shales and Cedar Hills sandstone. The name was never in common use and on reclassification was abandoned.

**Kingfisher formation; Permian,** proposed by Cragin in 1897, to include the Salt Plains and Harper. The name never came into popular use.

**Cave Creek gypsum; Permian,** as used by Cragin in 1896, included the two upper gypsum members of the Gypsum Hills of southwest Kansas and western Oklahoma, namely the Medicine Lodge and the Shimer, also the Jenkins clay. In Oklahoma a third gypsum member, the Ferguson, was found to occur, and the three gypsums with associated dolomites and clays are now known as the Blaine.

**Altona dolomite and Maghie dolomite; Permian,** proposed by Gould in 1902, for dolomite members in the Blaine formation. The names were abandoned on the revision of the Permian in 1906.

**Delphi dolomite; Permian,** proposed by Gould in 1902 for the upper member of the Greer formation. Name preoccupied, and since known as the Magnum dolomite.

Chapman dolomite and Ampitheatre dolomite; Permian, proposed posed by Cragin in 1897 for two dolomite ledges members of the Dog Creek. The names were never in common use.

Red Bluff formation; Permian, named by Cragin in 1896 from an old postoffice near Protection, Comanche County, Kansas. Name preoccupied and formation renamed Whitehorse by Gould in 1906, from Whitehorse Spring in Woods County, Oklahoma.

Greer gypsum; Permian, named by Gould in 1906 from Greer County and divided into an eastern and western area. The western area is now known to be the Blaine, the eastern area was named the Cloud Chief in 1924 from a town in Washita County, Oklahoma.

Cyril gypsum; Permian name proposed by Clapp in 1921 and later used by Reeves to apply to a gypsum ledge in and around the Cement oil field in Caddo County, Oklahoma. Now known to be Cloud Chief.

Antlers sand; Comanche, used by Hill to describe the lowest formation of the Comanche Cretaceous in Oklahoma. Synonymous with Trinity of Texas which name is in common use.

Slio sand; Cretaceous, named by Taff in 1903 to include the sandstone member at the base of the upper (Gulf) Cretaceous. When correlated with the Woodbine of Texas the name Silo fell.

Laverne formation; Tertiary, used by Waite to include some leaf-bearing beds of Tertiary age in Harper and Beaver counties. The name has never come into popular use.

#### **Names Which Will Probably Be Abandoned Or Modified**

Burgean sandstone, Ordovician, proposed by Taff in 1905. Now considered by Drake and others to be St. Peter, and so indicated on the Miser map and in the Index to the Stratigraphy of Oklahoma, where it is referred to as the St. Peter ("Burgeon") sandstone.

Enid formation; Permian, proposed by Gould in 1906. At this writing, the Duncan and Chickasha formations have been segregated from the upper part of the Enid. Some geologists believe that the basal part of the Enid in northern Oklahoma is the same as the Wellington, and in southern Oklahoma the same as the Asher. Aurin and Clark are using two sub-formation names the Garber sandstones and Hennessey shales, for the middle part of the Enid in northern Oklahoma. It is evident that the use of the term Enid as a formation name must be modified.

Woodward formation; Permian, named by Gould in 1906 for the middle part of the Permian of western Oklahoma, including the Dog Creek, Whitehorse and Day Creek members to formation rank. The name Woodward is still used as a group name on the Miser map and in the Index.

Caddo formation; Comanche, named by Taff in 1902. Bullard has shown that the Caddo is the equivalent of the Duck Creek and Fort Worth formations of Texas. The term Caddo will probably be abandoned.

Bennington limestone; Comanche, named by Taff in 1902. It is now shown by Bullard to be the same as the Mainstreet limestone of Texas which name has priority, and Bennington must fall.