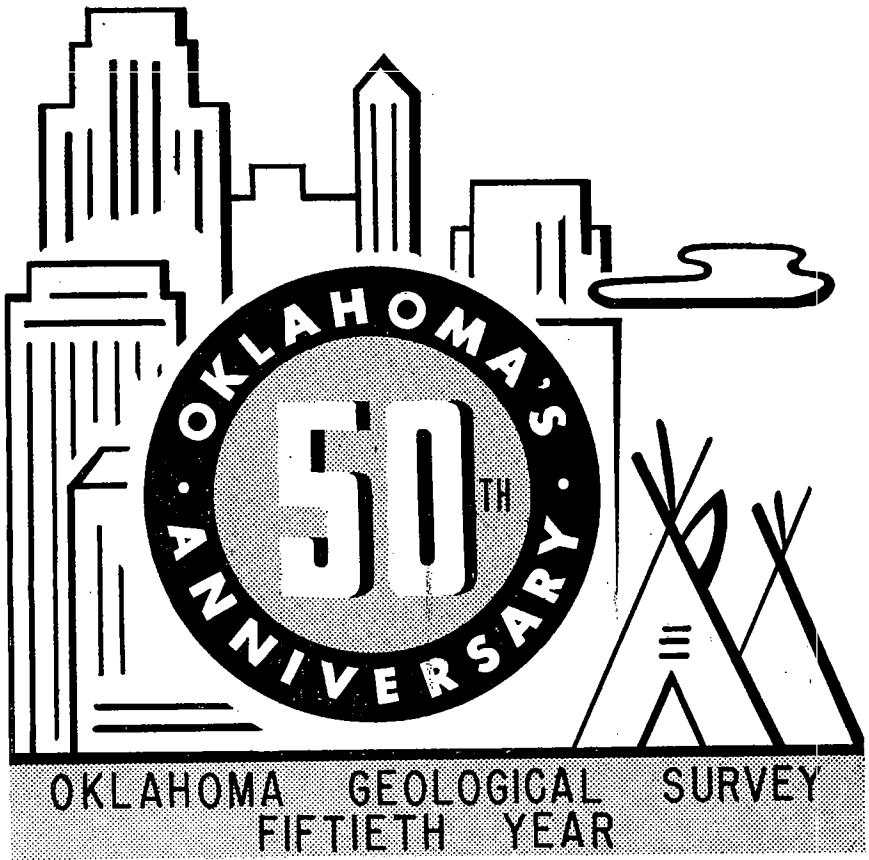


# OKLAHOMA GEOLOGY NOTES



# Olympic Pool, Hughes and Okfuskee Counties, A Review

There are many oil pools in Oklahoma about which there is little or no published geological information. The Olympic pool is not in this classification. Discovered in 1935, Allen W. Tillotson in 1938 described the 326-well pool including structure maps on the top of the Henryetta coal and on the top of the Olympic sand. In 1941, the 349-well pool was discussed by W. Reese Dillard, who added isopachous and isopotential maps of the Olympic sand. In 1948, J. W. Fox, R. L. Ginter and G. P. Alden wrote an article on secondary recovery possibilities of the pool. Now, in 1957, W. E. Stiles (*Journal of Petroleum Technology*, vol. 9, no. 2, p. 29) discusses the performance of the water flood which was completed in November 1954.

His article includes brief notes on geology of the field and a structure map contoured on the top of a Senora (Olympic) sand, primary development and production history, pilot flood development and performance, history of complete waterflood, unitized area and water system (from Arbuckle, then Canadian River). Prior to the advent of water flooding on January 1, 1949, the cumulative primary oil recovery was 13,634,700 bbls., an average per acre recovery of 3,900 bbls. Since that date to January 1, 1956, the pool has produced an additional 14,730,000 bbls. Ultimate recovery by water flooding is predicted at 25,000,000 bbls., an average recovery of 7,250 bbls. from each acre under water flood. He warns that such waterflood recoveries are unusual and should not be expected elsewhere except under the most favorable conditions.

— Louise Jordan

## Geologic Map of Carter Area Available

The Carter area is not in Carter County. It is an area including the village of Carter, Beckham County, and includes adjacent parts of Kiowa, Greer, and Washita Counties. The mapping was done by George Scott for his Master of Science degree. His work was directed by W. F. Tanner and P. A. Chenoweth and aided by W. E. Ham. The map is printed in 4 colors at a scale of 2 inches per mile and shows the distribution of units of the Blaine formation and of formations above and below. On the map are analyses of the Blaine gypsums, a potential source of industrial development in the area. The report on the area is ready for the press as Circular 42 of the Oklahoma Geological Survey. The map is available at the Survey offices for \$1.25 post paid.

## Springer Fossils Described

Dr. C. W. Tomlinson of Ardmore has long been active in geologic investigation in the Ardmore Basin and has sponsored research of others. The latest publication arising from his intense interest in the geology of the region is a paper by Maxim K. Elias entitled "Late Mississippian Fauna from the Redoak Hollow Formation of Southern Oklahoma," Part I (of 4) (Journal of Paleontology, vol. 31, no. 2, pp. 370-427, March 1957). The title rather curiously refers to the unit as a formation whereas it is properly the Redoak Hollow sandstone member of the Goddard shale formation.

Elias had earlier published stratigraphic data (A.A.P.G., Petroleum Geology of Southern Oklahoma, vol. 1, pp. 83-89). The present paper includes the description of 4 Foraminifera, 4 boring sponges, 6 crinoids, one echinoid, 2 worms, 3 unassigned borers, and 41 bryozoans. Elias concludes that the Redoak Hollow is younger than the Pitkin limestone of northeastern Oklahoma and possibly equivalent to the Kinkaid of Illinois.

In his 1956 paper Elias listed 45 bryozoan species. Three of these he now refers to as "penetrants of uncertain affinity." Of the 41 species described, twenty-three are new, two varieties are new, and two new genera and a new subgenus are proposed. The nude names printed in 1956 are now validated excepting for *Streblotrypa rhabdomesontea*, which is abandoned, and for *Cornulites tardus*, now referred to *C. inelegans* Hyde. *Caulostrepsis clarki* appears as *Seminolithes clarkaei*, and *Fenestella nicklesi* becomes the genotype of *Fenesteverta*.

Apparent changes from Elias' list of nude names of 1956 to the present article are:

1956 (nude)	1957
<i>Cliona paleodendra</i>	<i>Cliona paleodendrica</i>
<i>Cornulites tardus</i>	<i>Cornulites inelegans</i> Hyde
<i>Caulostrepsis clarki</i>	<i>Seminolithes clarkaei</i>
<i>Heteronema priscum vinei</i>	<i>Marcusodictyon priscum</i> (p. 392)
	<i>M. priscum vinei</i> (p. 425)
<i>Eridopora stellata</i>	<i>E. (Discotrypella) stellata</i>
<i>Eridopora radiata</i>	<i>E. (Discotrypella) radiata</i>
<i>Batostomella</i>	<i>Rhabdomeson</i>
( <i>Rhombopora?</i> ) <i>ulrichi</i>	( <i>Rhombopora</i> ) <i>ulrichi</i>
<i>B. (R.?) foersteri</i>	<i>R. (R.) foersteri</i>
<i>Rhombopora</i>	
( <i>Rhabdomeson</i> ) <i>rogersi</i>	<i>R. (R.) rogersi</i>
<i>Fenestella nicklesi</i>	<i>Fenestevata</i> (new gen.) <i>nicklesi</i>
<i>Streblotrypa rhabdomesontea</i>	not given
not given	<i>Archimedes pseudoswallovanus</i>
not given	<i>Archimedes pitkinensis</i>

The other three parts of Elias' faunal study are scheduled for early publication in the journal.

## Panhandle Geological Society Field Trip

The Panhandle Geological Society of Amarillo, Texas, held its annual field trip on May 2, 3, and 4 in spite of continued rains. The road log was prepared and the field party was led by Dr. W. E. Ham of the Survey, Dr. C. A. Merritt and Dr. E. A. Frederickson of the OU School of Geology. Dr. Louise Jordan of the Survey contributed subsurface data.

The excursion started from Sayre at noon on May second. A stop was made on Doxey siltstone near Sayre. After a visit to the granite quarry of the Pellow Brothers at Granite, the party saw Permian sediments unconformable on granite and gabbro. The overnight stop was at Quartz Mountain Lodge.

On May third the group saw wave-cut terraces of Permian age, Century granite, Viola limestone, Reagan sandstone, Honey Creek formation, and Post Oak conglomerate, Meers quartzite, and the granite on Mount Scott. After a night in Lawton, the trip led to Dolese Brothers quarry at Richards Spur and northward to the axis of the Anadarko syncline north of Apache.

The guidebook (Oklahoma Geological Survey, Guide Book V) is available at the Survey offices for \$3.00 post paid. The book consists of 58 pages and 16 maps, tables, and figures.

## Mineral Statistics Now Available

Each year the Survey publishes the preliminary statistics on mineral production for the previous year and the final statistics for the year before that in an early issue of Oklahoma Geology Notes and in a Mineral Report. The report is prepared by cooperation between the U. S. Bureau of Mines and the Survey. The Bureau was slow this year and the report was issued in May. Oklahoma production of natural gas increased to 662,000 million cubic feet. Natural gas liquids increased 15 percent. Gypsum production rose again. Stone production established a new record in 1956. Petroleum production accounted for 80 percent of all mineral production. The statistics for 1955 and 1956 were issued on May 6 as Mineral Report 32, "The Mineral Industries of Oklahoma in 1955 and 1956," by Peter Grandone and William E. Ham. The thirteen-page booklet is available for twenty-five cents, post paid.

## Missourian Fusulinids Described

In a paper entitled "Northern Midcontinent Missourian Fusulinids" (Journal of Paleontology, vol. 31, no. 2, pp. 289-328, March 1957), M. L. Thompson describes a sequence of fusulinids from Missourian rocks in Kansas, Iowa and Missouri, with a few forms noted from Nebraska and Oklahoma. The new genus *Kansanella* is established for species of the type of *Triticites osagensis*, with *Kansanella joensis*, new species,

designated as genotype. The subgenus *Iowanella* is established for the single species *Triticites winterensis* Thompson, Verville, and Lokke, 1956, from the Winterset limestone of Iowa and rarely from the Drum limestone. The species should be sought in the Hogshooter limestone and the Dewey limestone in Oklahoma.

The subgenus *Kansanella* of the genus *Kansanella* contains *Triticites osagensis* Newell, 1934, from a limestone about 60 feet above the Avant limestone in a road cut on Oklahoma Highway 11, 2 miles north of Avant, SW $\frac{1}{4}$  sec. 31, T. 24 N., R. 21 E., Osage County. The species is doubtfully reported from "a calcareous sandstone 4 or 5 miles north of Bartlesville."

*Triticites collis* Burma is reported from the Dewey limestone of Iowa. The Dewey is an Oklahoma unit named for Dewey, Washington County. Thompson probably meant Drum limestone. *Fusulina fallsensis* Thompson, Verville and Lokke, 1956, is redescribed. The species occurs in the Bethany Falls limestone, the same unit that contains the last of the genus *Wedekindellina*.

	<i>Fusulnella</i>	<i>Fusulina</i>	<i>Wedekindellina</i>	<i>Kansanella</i>	<i>Triticites</i>	<i>Dunbarinella</i>	<i>Schwagerina</i>	<i>Pseudoschwagerina</i>
LEONARDIAN								
WOLFCAMPIAN								
VIRGILIAN								
MISSOURIAN								
DESMOINESIAN								
ATOKAN								
MORROWAN								

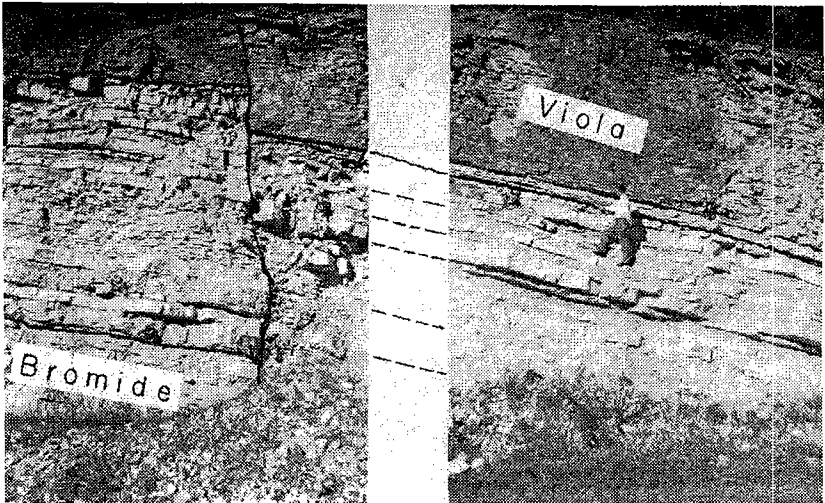
Evidence is accumulating that fusulinid genera had ranges which do not correspond to major stratigraphic divisions.

Dr. Thompson is leaving his position as chairman of the Department of Geology at the University of Kansas to join the Illinois Geological Survey. Illinois can look forward to a second excellent study of its fusulinid faunas.

## Bulletin on Simpson Ostracoda

Dr. R. W. Harris first became interested in the ostracods of the Simpson strata in 1928 when Dr. C. E. Decker was establishing the formational units of the group. He described some of the species in Decker's report (Oklahoma Geological Survey, Bulletin 55, 1931) and figured other species in Decker's field guidebooks (Oklahoma City Geological Society, November 21, 1936, and March 5-6, 1937). His work was presented as a doctoral dissertation at Harvard University in 1938. Dr. Harris has continued to study this important fauna since that time and in 1956 he spent the summer as geologist for the Survey. His work was completed in manuscript form and prepared for the press in the following months.

The bulletin (Oklahoma Geological Survey, Bulletin 75) has now been issued and is available at a price of \$3.00. The bulletin contains ten collotype plates, 333 pages of text, and many figures and ostracode range charts. The Simpson group contains several important oil sands, such as First Bromide, Second Bromide, Third Bromide, and Oil Creek. The ostracods are the best markers of age and Dr. Harris is the expert on their distribution. The publication of his results of research is an important event in Oklahoma petroleum geology.



Roadside (Okla. Hwy. 99) Type Section of Corbin Ranch Formation  
3 mi. South of Fittstown, Okla. (Note minor faulting)