carried on for several seasons by Drs. Campbell and Maxson under the auspices of the Carnegie Institution. A river trip was necessary in order to visit sections inaccessible by pack train from the rim. Work in the Granite Gorges was greatly facilitated by the excellent topographic maps of Matthes, Evans and Birdseye and by the careful geological reconnaissances of Noble and Moore.

The final results of the present trip must wait for laboratory examination of rock specimens under the microscope, which may to some extent modify the interpretations of field observations. Among the latter, however, may be tentatively listed:

1. The recognition of many primary structures in the Archean (Vishnu) schists, establishing definitely their origin as dominantly sedimentary.
2. The tracing of isoclinal folds across regional schistosity of the recrystallized sediments by means of bedding outlined by biotite concentrations along lines of fracture cleavage and by the presence of pegmatite and quartz stringers following lines of drag folds in the schists.
3. The close folding, repeating many times the Vishnu series in the Canyon, instead of a single, large, open fold involving an extremely thick series of the old schists, as formerly thought.
4. The presence of a large amount of amphibolite schists, which are so intimately intercalated with the sedimentary schists, that a water-lain, tuffaceous origin is suggested; and a lesser amount of cross-cutting amphibolite, assumed to represent old basic intrusions.
5. The record of two magmatic invasions, possibly separated in time but probably emanating from the same batholithic chamber underlying the Canyon section. The larger magmatic invasion was migmatitic in character, while a smaller granitic mass was somewhat more mafic, due to stoping and assimilation of amphibolitic country rock. A later series of pegmatite and aplite dikes cut the granites and schists, and represent the last event of Archean history in the Canyon sections.

Besides the detailed work in the Archean sections there was opportunity also for some observations on the continuity and changes in the lower Paleozoic formations; for some data on late inter-canyon lava flows; and for structural studies including the mapping of new faults and the recognition of repeated movement along many of the old fault zones.

Much credit is given to the boatmen for their skillful work, which left the geologists of the party free for scientific observations the greater part of the time.

THE SECTION OF GEOLOGY OF THE TENNESSEE ACADEMY OF SCIENCE

THE first meeting of the Section of Geology of the Tenessee Academy of Science was held on Friday afternoon, November 26, 1937, at the time of other section meetings of the forty-first meeting of the Tennessee Academy of Science at George Peabody College for Teachers in Nashville. Professor L. C. Glenn, of Vanderbilt University, a charter member of the academy, presided. Thirty-seven members and visitors attended the meeting.

On Saturday afternoon and Sunday (November 27–28) the section, under the leadership of C. W. Wilson, Jr., of Vanderbilt University, and Kendall E. Born, of the Tennessee Division of Geology, sponsored a geologic field trip into the Wells Creek Basin, a typical cryptovolcanic structure in southeastern Stewart County. The Wells Creek Basin, the largest of the American cryptovolcanic structures, consists of an intensely disturbed area of approximately 9 miles square. At the center of the disturbance the Knox dolomite of Cambro-Ordovician age is brought up through the St. Louis (Mississippian) limestone, a vertical displacement of more than 1,000 feet. Formations of Cambro-Ordovician, Ordovician, Silurian, Devonian and Mississippian ages are involved, many of which are not exposed elsewhere in Middle Tennessee. Sunday was spent in the examination of some of the more complex structural and stratigraphic aspects of this unique area.

On Saturday afternoon, *en route* to Wells Creek Basin, the following points of geologic interest were visited: Block faulting in North Nashville; Silurian, Devonian and lower Mississippian sections on the western flank of the Nashville dome; and a typical Tuscaloosa (Upper Cretaceous) outlier on the western Highland Rim.

Twenty-one members and visitors from six states were present on this field trip.

THE ANNUAL MEETING OF THE NEW YORK ACADEMY OF SCIENCES

A. CRESSY MORRISON, industrial chemist, chairman of the advisory committee of the Hayden Planetarium at the American Museum of Natural History, was elected president of the New York Academy of Sciences, the oldest scientific society in New York City, at the one hundred and nineteenth annual dinner of the academy held on November 15.

Twenty-nine members were elected fellows of the academy and honorary members were elected as follows: Dr. Orpen Bower, botanist of the University of Glasgow; the Rev. Pierre Teilhard de Chardin, S.J., paleontologist, of the Cenozoic Research Laboratory, China; Dr. D. Obrutschew, geologist, of the Soviet Academy of Sciences, Leningrad; Dr. Charles Palache, mineralogist of Harvard University; Dr. H. Spemann, embryologist, of the University of Freiburg, and Dr. Franz Weidenreich, director of the Cenozoic Research Laboratory.

In an address made after the elections, Dr. Barnum Brown, curator of fossil reptiles at the American Museum of Natural History, described his research last