9. GRAHAM B. MOODY, The Geology of Santa Rosa Island (abstract).

Thick sections of Eocene and Miocene sedimentary rocks are exposed on Santa Rosa Island. Faulting has influenced structural development to a large extent. Slickensides check the conclusion that horizontal movement has been greater than vertical along the principal faults. Greatest displacement is apparent along the Santa Rosa fault, which splits the Island into north and south parts. Eocene sedimentary rocks are exposed over large areas south of this fault but do not outcrop north of it. Interesting structures are the Hoya Vieja, Pedregosa, Cerro Pablo, and Arlington anticlines; the Pedregosa, Santa Rosa, and Beecher's Bay synclines.

10. R. D. REED and J. S. HOLLISTER, Geology of the Transverse Ranges (abstract).

Recent structural and stratigraphic work in the less known parts of the western Transverse Ranges throws some light on several problems of interest to California geologists. A few of these problems will be mentioned during the exhibition of a series of new maps, geologic, structural, and paleogeographic, and a few sketch structure sections.

11. ROBERT M. KLEINPELL, Discussion of Miocene History and Faunas (abstract).

Relative distribution of facies in the various Miocene foraminifer faunas of California is summarized and wherever possible compared with associated geologic phenomena such as lithologic facies, relative geographic distribution, observable structural features, and extra-foraminiferal faunal data. On the basis of the time relations of the associated phenomena summarized, the Miocene of California is classified into three separate geologic units of two distinct types, each unit having minor subdivisions of varying type and order of magnitude. Anomalies and similarities with the recorded Miocene history of Europe are briefly discussed.

12. ROBERT BALK, Comparison between the Structure of Intrusive Igneous Domes and Oil Domes (abstract).

The structures of many oil domes as well as those of several intrusive masses have been caused by deforming forces at least one component of which was directed vertically upward. The up-warped beds of oil domes have a counterpart in domal or anticlinal flow structures seen in intrusives. Associated with them are fracture systems which, in intrusive areas, appear in systematic angular relation to the older flow structures. One of these systems represents funnel planes, converging toward a zone below the structural apex. Measured offsets along these planes (normal faults) show that they serve to widen the expanding structures. Faults of the same nature have been recognized in oil domes of Wyoming, California, Montana, and other districts. In elongate domes transverse and longitudinal fracture systems can be distinguished. Under favorable circumstances, they may serve as conduits of oil or gas, on the one hand, or as planes of dike invasion and subsequent mineralization, on the other. There is reason to believe that detailed studies in fracture mechanics will permit predictions as to where maxima of distension are to be sought in domes. It may be possible, also, to determine maxima of uplift in complexly faulted areas, by means of careful observations of the details in subordinate faults, and where intrusive masses are present, they will perhaps aid and supplement the evidence by the configuration of their own structures.