Permian Ammonoids from Southernmost Mexico

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1/20 mm. diameter and thus suited for examination under the binoculer microscope, and the other consisting of fine silts and clays. The percentages of each portion as well as the nature of the residues were used in correlation.

Chert is the most diagnostic residue. Its color, texture, and fossil content vary with different horizons. Coals and coal smuts are relatively thin and quite persistent over long distances. Scattered through a large percentage of the sediments are varying amounts of pyrite and glauconite. However, their abundance in a single sample and their crystal or grain form may be quite diagnostic. Fine sand, black fissile shale, and red beds are common at some horizons and can be traced over wide areas. The most important fossil residues consist of siliceous, pyrite, and iron oxide sponge spicules, foraminiferal tests, glauconitic coral fragments, and internal fusulinid molds. However, these remains reoccur at different horizons, and unless used in conjunction with other criteria may lead to faulty correlations. Chalcedony concretions, often in the form of rosettes, are found in most of the limestones and are of almost no diagnostic value. Goethite and limonite frequently have replaced pyrite and may retain the cubes, spines, or oolitic forms of the pyrite.

Minor mineral constituents not widespread enough to be of any great correlative value include almandine, fluorite, muscovite, biotite, authigenic quartz, barite, selenite, and gypsum. Among the minor fossil fragments found are silicified ostracodes, bryozoans, fusulinids, brachiopods, gastropods, crinoid stem segments and carbonaceous fragments.

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Representatives of the ammonoid genera Perrinites and Peritrochia are described from south of Chiocomuselo, Chiapas. It is concluded that the containing beds belong in the Leonard series.

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