

and coal measures. The greatest known thickness of Triassic rocks is about 2,000 feet and present day distribution is confined to the southeast part of Tasmania.

Jurassic Rocks

Large scale intrusion of tholeiitic magma took place during the Jurassic. Permian and Triassic rocks have been intruded extensively by this magma. Jurassic sediments are not present in Tasmania.

Tertiary Rocks

Marine and non-marine Tertiary sediments are found at various places in Tasmania. The marine Tertiary rocks consist of a thin sequence of limestone and sandstone. Non-marine Tertiary up to 1000 feet thick consists of silts, greywackes, and agglomerate.

Volcanic activity was widespread during the Tertiary. Basic volcanic rocks outcrop over an area of 1600 square miles. Some of the sources of basaltic flows are located on Tertiary faults.

Structure

The Tasmanian shield has the gross form of a downward bent plane in its southeastern quadrant. In other words, it has a synclinal axis plunging southeastward with a Permian basin, later filled with Jurassic dolerites, occupying the core of the syncline. The rim is composed of Lower Paleozoic sediments and intrusives with granites particularly common in the northeast. The undifferentiated Paleozoics are shown on the Tectonic Map of Australia of 1960 as "quartzite, phyllite, dolomite, conglomerate, schist, rare gneiss. Metamorphism to sillimanite grade. Moderate to strong folding. Basic intrusions". The terrane of undifferentiates is split by an arcuate band of Lower Devonian to Cambrian geosynclinal deposits with "moderate to strong folding. Greywacke, volcanic and pyroclastic rocks in Cambrian; sandstone, shale, limestone, and conglomerate in Ordovician, Silurian and Devonian. Ultrabasic and acid intrusions." This simple regional framework is distorted by a northwesterly trending salient from the inner Permian-Jurassic core which encounters the