

Characteristics of Turbidites in a Few Ancient Deposits

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The Peira-Cava area north of Nice, SE France, shows an active margin. Detailed field studies started the understanding of the sandstone characteristics and their fixed order. Later someone named it the "Bouma Sequence". Visits to some other European countries revealed the same characteristics.

The last Deep Sea Drilling Project program was in 1985 in the Gulf of Mexico. Interesting results showed up once we compared the cores from different locations. At that time we were not aware of the differences when dealing with passive margins. The location showed that the relative sand increase is at the outer fan.

The Permian Karoo just north of Cape Town in South Africa is the only known ancient passive margin set of two more or less similar age depositional groups. One set is nearly vertical while the Tanqua Karoo is presently horizontal. The Tanqua Karoo has five fans of which the middle one is complete with its upper fan, middle fan and outer fan. Calculations indicate that the upper fan is comprised of sandstone ridges at right angles to the paleocurrent. The middle fan is characterized by sand-filled channels and shale-rich overbank deposits. The outer fans are interesting. The sheet sands comprise about 80% of all the sands.

Studies of the Pennsylvanian Jackfork Group in the State of Arkansas have no present horizontal deposits. However, we can apply the Tanqua Karoo deposits and notice similarities.