Sedimentary Enviroment and Tectonic Significance of Carboniferous in North Altay, Xinjiang

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Carboniferous of north Altay,Xinjiang is lack of the upper Carboniferous. The lower Carboniferous is named as Hongshanzui formation which can be divided into three parts.The first part consist of feldspar-quartz sandstone,muddy siltstone and limestone.The second part contain muddy siltstone,calcareous fine-sandstone,carbonaceous shale and pyroclastic rock..The thrid part are tuff,ferruginous dolomite,crystal tuff and volcanic breccia.They can be divided into six sedimentary facies.Their enviroments are continental slope, continental shelf and continental shore.Based on their sedimentary characteristics,two enviromental facies modles of Carboniferous were established in north Altay.

Type one:In late Devonian,the sea surface rose.The shore was dominated in the western part .The shallow sea –continental shelf covered the middle part and the carbonate platform occupied the eastern part.

Type two:In early Carboniferous ,the sea surface descended and the terrestrial area expanded.Due to continental rising and compassing,the western and the eastern part of north Altay underwent intense volcanism.But the former erupted in land and the latter under water.The enviroment transformed from sea to land.

The north Altay of Xinjing (China) was charactered of the passive continental margin in Carboniferous.It was different from that of the south Altay,which was charactered of the continental rift.Therefore,the north Altay and the south Altay belonged to different terrains.