MAIN STAGES OF CENOZOIC SEDIMENTATION IN THE BAIKAL RIFT SYSTEM.

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Three stages in the Cenozoic sedimentation history can be distinguished, each with its own tectonic regime and characteristic sedimentation.: Cretaceous-Paleocene, Eocene-Miocene, and Pliocene-Pleistocene.During the Cretaceous-Paleocene, weathering residues, either kaolinitic or lateritic, developed over the vast area of the present Sayan-Baikal upland, in an environment of stable tectonics and a warm, moist climate. Sedimentation was localised in shallow depressions where only locally-derived material was deposited.The second stage, during the Eocene-Miocene, also showed little tectonic activity, with the deposition of limnic deposits under sub-tropical conditions, in smooth low relief, long-wavelength sags which were precursors to (but probably wider than) the later rift basins.The third stage, during the Pliocene-Pleistocene, was accompanied by a decease in mean annual temperature and the development of montain-taiga and steppe landscape. Strong vertical movements were reflected by general uplift of the Baikal mountain area and marked subsidence, which was localised within the rift basins particularly in the Baikal rift, where the subsidence outstripped sedimentation and deep lakes were formed (Fig. 7). The nature of the sedimentation which was of alluvial and periglacial fan facies, and the intensity of the vertical movements did not change throughout the Pleistocene.The duration of the Holocene is so short that it has not proved possible to characterize the sedimentation and tectonic movements adequately. In general, the territory under consideration is developing in the same way as it has since the Pliocene.The authors are grateful to the Russian Fund of Fundamental Studies for supporting their research with grant N°98-05-64614.