AN EVOLUTION MODEL FOR THE HOLOCENE ALLUVDIAL PLAIN OF THE AMAZON RIVER

1Latrubesse E. and 2Franzinelli E.

1Universidade Federal de Goiás-IESA. Campus Samambaia, 74001-970, Goiânia, GO, Brazil.
2Universidade Federal do Amazonas- Manaus, AM-Brazil

The fluvial belt of the Amazon river is a complex system of Quaternary units of different ages and formation’s conditions. The main Holocene units are the hindered floodplain and the channel dominated floodplain.

The present day position of the channel and the morphology and size of the alluvial plain is in relation with the presence of neotectonic lineaments. In the study area the main channel of the Solimões is nearly straight with a low sinuosity and to present a low braided index. The river can be considered anastomosed with a low quantity of islands and anabranches.

The hindered floodplain is a widespread unit in the alluvial plain of the Amazon river. Is characterised for to present a very flat area and rounded or irregular shaped lakes

The channel dominated floodplain is a complex mosaic of fluvial forms. The main elements of this environment are channel active sand bars, islands, levee complexes and scroll dominated plain.

The hindered drainage floodplain plain is just partially affected by the present day floods. Yet, that parts than are affected by floods received a slow to null sedimentary source from the main channel. The changes suffered by the alluvial belt are produced by the destruction of hindered drainage plain and the re-generation of channel dominated floodplain. No new representative areas with the geomorphologic characteristic of hindered drainage plain are being generated. The hindered drainage plain
is here interpreted to be a first stage in the evolution of the Holocene alluvial belt that continue to evolve slowly until the present. The first stage of evolution was marked by a widespread flood dynamic dominant along the floodplain with a less morphogenetically active channel than today. The second stage is marked by the importance acquired by the main channel and paranas which generated a more developed scroll dominated plain. In this stage, the hindered drainage plain remain as a more "passive" unit and continue to be erosionate by the scroll dominated plain and to receive, in some reaches, small quantity of sediments from the main channel which smoothed its landscape.