FOURTH INTERNATIONAL CONFERENCE ON GEOMORPHOLOGY - Italy 1997  
Session: Tropical Geomorphology  

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KARSTIC-TYPE FORMS AND LANDSCAPE EVOLUTION IN TAUBATÉ BASIN (SÃO PAULO, BRAZIL)

ABSTRACT: COLTRINARI L., Karstic-type forms and landscape evolution in Taubaté basin (São Paulo, Brazil). (IT ISSN 0391-9838, 1999).

Morphological mapping of depressions, amphitheatre-like valleyheads and other karstic-type features was performed to demonstrate the extent of landforms of geochemical origin in the upper reaches of Taubaté sedimentary basin. Interpretation of aerial photographs ~1:25.000 surveyed before Presidente Dutra highway opening (probably in the middle '40s) allowed the detection of surface features prior to landform degradation by urban growth and industrialisation.

The choice of a morphological key aimed to stress changes in form and direction of slope over the interfluves and valley slopes in São José dos Campos plateau. Differences in shape, size and distribution of depressions within the research area are evident.

In the SW extremity wide level interfluves predominate, depressions are isolated or within amphitheatres at valley heads and drainage density is low. In the NE section depressions are more numerous and vary in size, shape and distribution; they may be flooded or present swampy bottoms. Flat concave areas were interpreted as dry depressions related apparently to a former higher level of the water table.

References to the geochemical origin of depressions and karstic-type features appear repeatedly in the literature. Only recently was confirmed that these landforms evolve by vertical exportation of soluble material from the base favoured by lithological or tectonic discontinuities. The dominance of geochemical evolution of landforms and soils allows the adoption of a landscape evolution model homologous to etchplains.

KEY WORDS: Karstic-type landforms, Morphological mapping, Geochemical processes, Landscape evolution, SE Brazil.

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