

## **Land use dynamics in favorable and unfavorable areas of southwest Germany**

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Since the Neolithic Revolution and the beginning of agriculture in central Europe about 7.500 a ago human influence on the environment is increasing. Human activities created a cultural landscape during the Holocene, which led to quasi-natural relief formation. Colluvial deposits are the correlate sediments of human induced soil erosion on slopes and depict an excellent archive for land use and landscape history. The present study combines pedological, archaeological and palynological knowledge with AMS 14C and luminescence datings to build up a chronostratigraphy of colluvial deposits, thereby allowing the reconstruction of past land use and settlement dynamics in the Baar and the Black Forest (SW Germany).

Compared with Black Forest the Baar is a favorable area for agricultural land use, where seven main phases of colluvial deposition could be detected. Increased colluviation, and thus land use intensity, took place during the younger Neolithic (~3700 BCE), the early to middle Bronze Age (~1400 BCE), the Iron Age (~500 BCE), the Roman Empire (~200 CE) and in three phases from the High Middle Ages onwards (~1100 CE, ~1300 CE, ~1600 CE). The Black Forest low mountain range is an unfavorable area characterized by low temperatures, high precipitation and steep slopes. Nevertheless, human influence dates back to the Neolithic in the Black Forest. Minor colluvial deposition phases were detected before the Middle Ages and increased formation of colluvial deposits during the High Middle Ages (~1100 CE) and the Modern Times (>1500 CE). This colluvial stratigraphy shows an intense land use of the Black Forest area from the Middle Ages onwards.

The different land use dynamics in the Baar area compared to the Black Forest will be discussed against the paleoenvironmental conditions reconstructed from different archives. It is to analyze whether climate was the main determining factor for the settlement pattern in time and space or if there were other factors responsible. Such other factors might be: different human motivations to settle the land depending on natural or cultural resources, conflicts in neighboring areas or trading relations. Feedback mechanisms of the anthropogenically altered landscape might also interact and determine settlement and land use dynamics.