

NEOLITHIC AND BRONZE AGE HUMAN IMPACT AND LANDSCAPE DEVELOPMENT IN THE SEEBACHTAL, THURGAU, SWITZERLAND

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The Seebachtal is located southwest of Bodensee (Lake Constance) which is bordered by Switzerland, Germany and Austria, in a region settled by prehistoric people since the Neolithic period. Archaeological research has revealed three major lake-shore and pile-dwelling villages in the Nussbaumersee (Neolithic 3840–3700 BC: approx. 30 buildings, early Bronze Age 1580 – 1538 BC: approx. 30 buildings, and late Bronze Age 850 – 800 BC: at least 100 buildings). In order to reconstruct general landscape and vegetational changes, a lake sediment core was taken from the deepest point of the Nussbaumersee and analysed for pollen, non-pollen palynomorphs and macrofossils. Each of the known larger settlements is also represented in the pollen and macrofossil data by indicators for human impact (especially charcoal and Cerealia), even if there is no direct correlation between village sizes and these biological markers. Population density, social and sustainability aspects, and/or different economic systems of prehistoric societies may have contributed to this picture. In addition, it was revealed that eutrophication of the lake ecosystem took place during the settlement periods, shown for example by higher quantities of *Nymphaea alba* finds, as well as by various animal and fungal remains. The macrofossil data also show repeated lake level changes which partly correlate with the known climate changes during the Holocene, and which show that the archaeologically preserved settlements were mainly built during times of generally low lake levels. In contrast to the archaeological evidence, however, palaeoecological data show that human influence in the area started at least 4900 BC and continued with only a few interruptions until the present. The virtual lack of archaeological finds during the periods of higher lake levels can best be explained as the result of unlikely chances of preservation of archaeological remains on dry upland settlement locations.

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