



The hill forts and castle mounds in Lithuania: interaction between geodiversity and human-shaped landscape

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Lithuania is famous for its abundant, picturesque hill forts and castle mounds of natural origin. In Lithuania as well as in whole Europe the fortified hills were used as the society dwelling place since the beginning of the Late Bronze Age. Their importance increased when Livonian and Teutonic Orders directed a series of military campaigns against Lithuania with the aim of expansion of Christianity in the region at the end of 1st millennium AD, and they were intensively used till the beginning of the 15th c. when most of them were burned down during fights with the Orders or just abandoned due to the changing political and economical situation.

What types of the geodiversity were used for fortified dwellings? The choice in a particular area depended on a variety of geomorphology left behind the retreating ice sheets. High spots dominating their surroundings were of prime interest. In E and SE Lithuania, the Baltic Upland hills marking the eastern margin of the last Weichselian glacier hosted numerous fortified settlements from the end of 2nd millennium BC to the Medieval Ages (Narkunai, Velikuskes etc). In W Lithuania, plateau-like hills of the insular Samogitian Upland had been repeatedly fortified from the beginning of 1st millennium AD to the 14th century (Satrija, Medvegalis etc). Chains of hill forts and castle mounds feature the slopes of glaciofluvial valleys of Nemunas, Neris and other rivers where the slopes were dissected by affluent rivulets and ravines and transformed into isolated, well protected hills (Kernave, Punia, Veliuona etc). Peninsulas and headlands formed by the erosion of fluvial and lacustrine deposits were used in the lowlands, e.g. in central and N Lithuania (Paberze, Meztotne etc).

How much the landscape was modified for defense purposes? Long-term erosion and overgrowing vegetation damaged the former fortified sites, however some remains and the archeological excavations allowed their reconstruction. The fortified Bronze Age settlements used naturally-protected sites with only hilltop flattening and small ditches. Wooden fences surrounded the settlements in most cases while stony ditches were used in NW Lithuania (e.g. Ipiltis). From the beginning of 1st millennium AD the fortifications became stronger with multiple rampart-ditch systems and artificial canals. Construction of hill forts with a high-powered fortification system started in 13th c. when wooden castles surrounded by rampart-trench systems appeared.

What is a protection status for the hill forts and castle mounds? Near 1000 sites are protected by the Lithuanian State as historical monuments. Many of them are cleaned from vegetation, supplied with an infrastructure and arranged for tourism purposes. Some are parts of the nature or historical reserves or regional and national parks. However, apart from a few cases, geology of the hill forts and other strongholds in Lithuania is yet poorly known. Needless to say, the hill forts and castle mounds are quite a unique and attractive feature of the Lithuanian landscape. For defense purposes, the ancient European countries relied more on stone and brick castles than on steepness of high hill slopes as it was in case of Lithuania.