

# Geomorphological conditions of the location of Daugava River waterway hillforts in Latvia

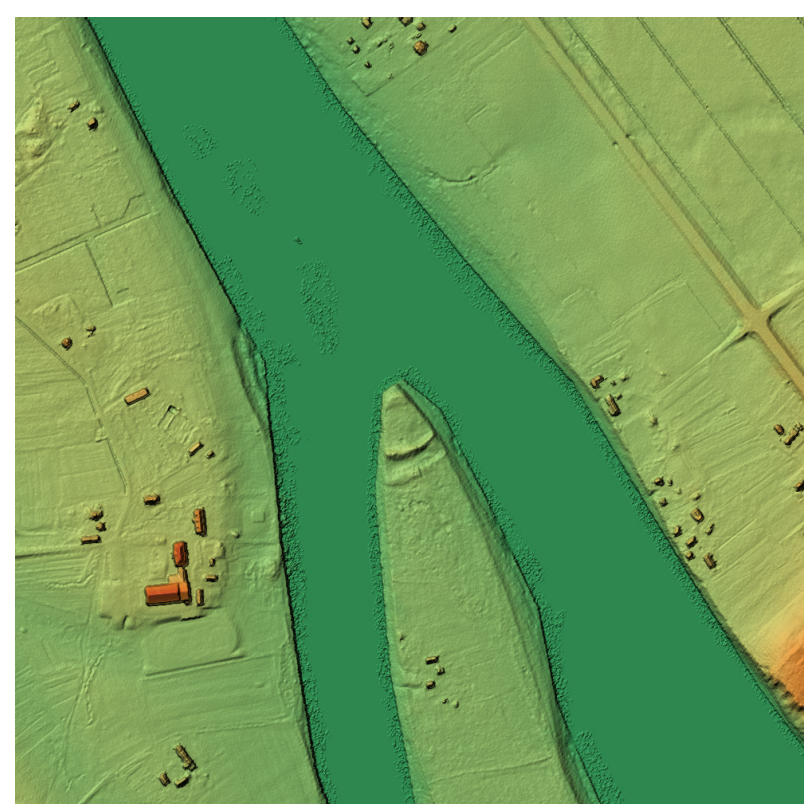
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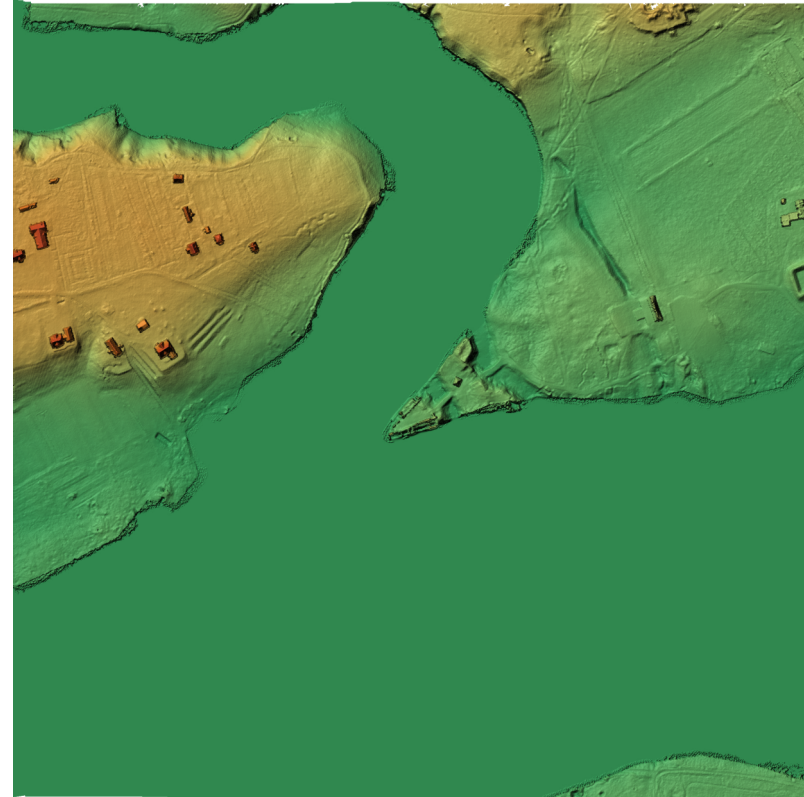
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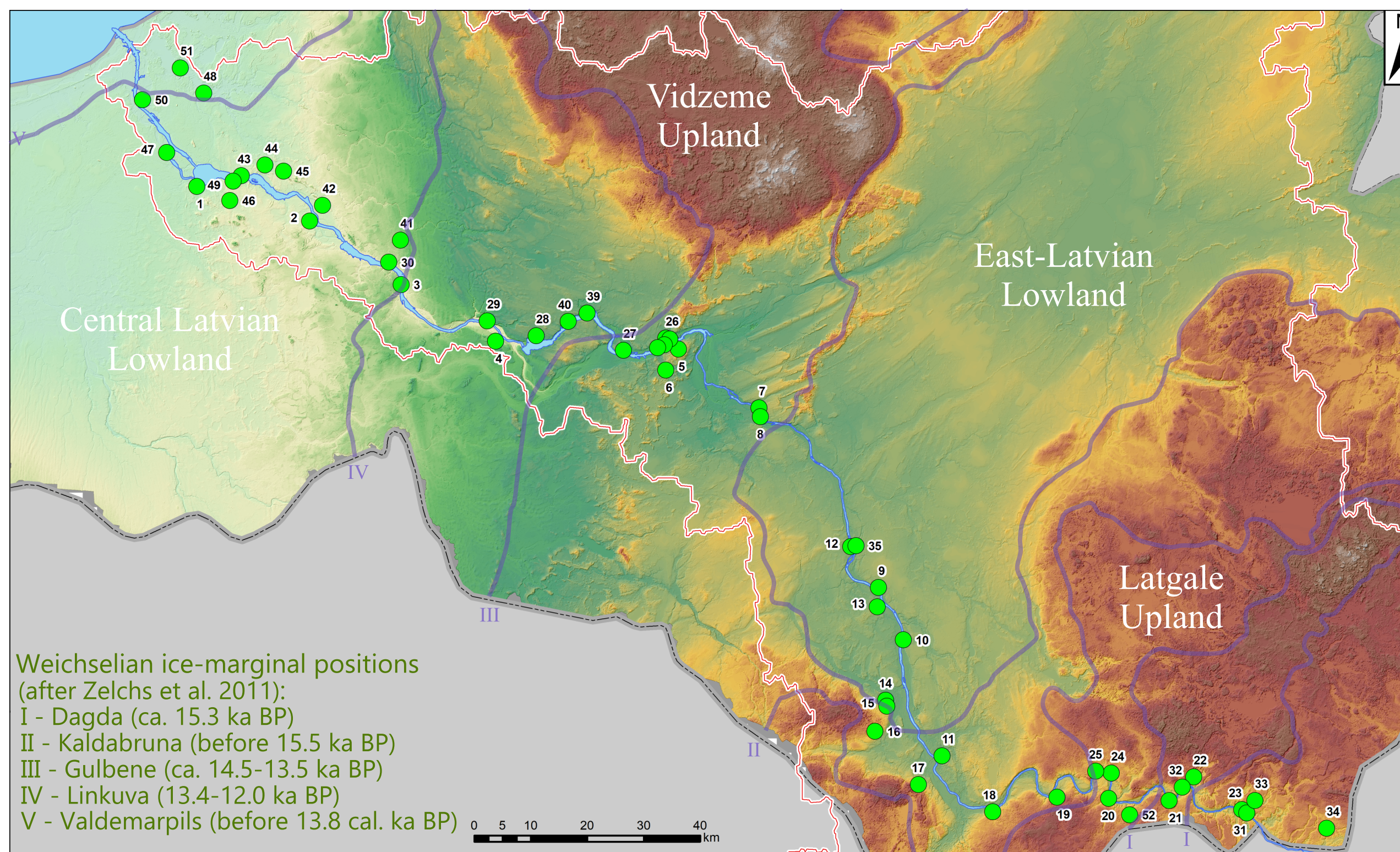
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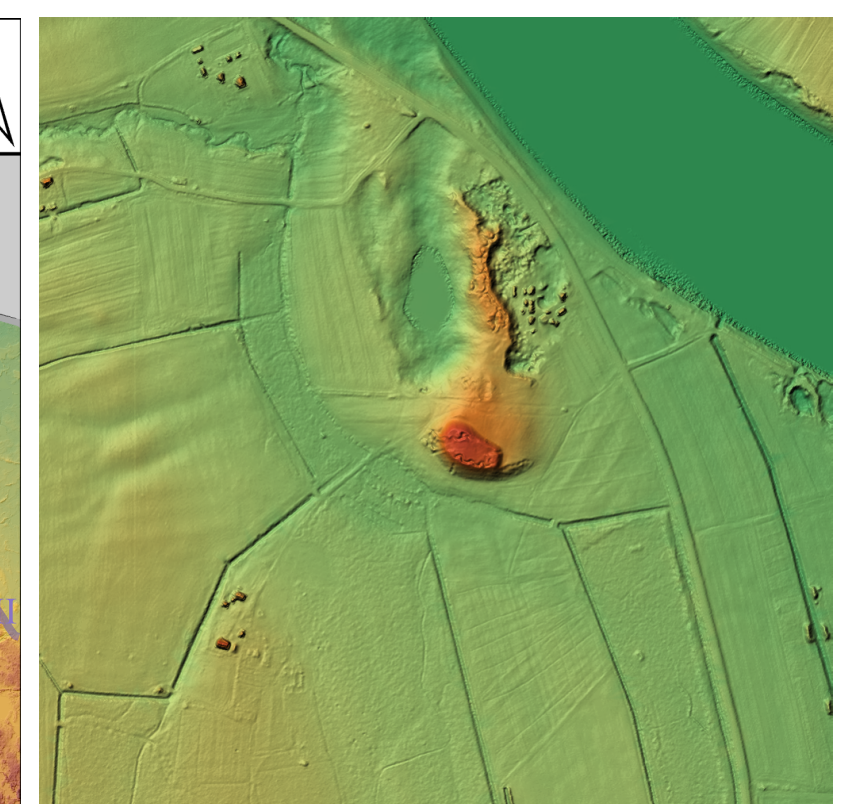
Kaupres (No. 8)



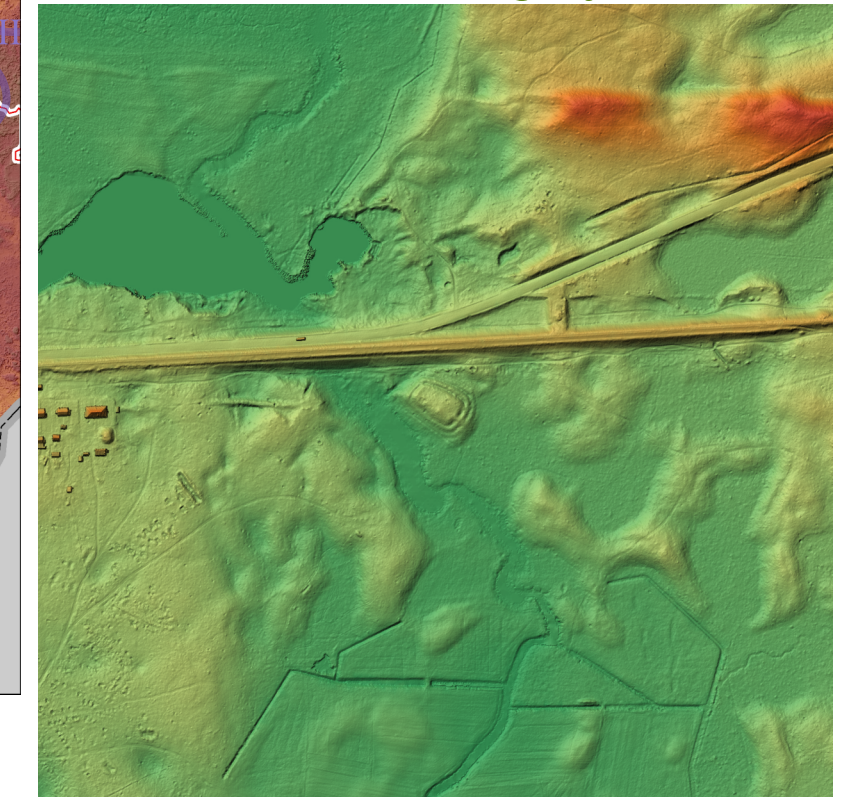
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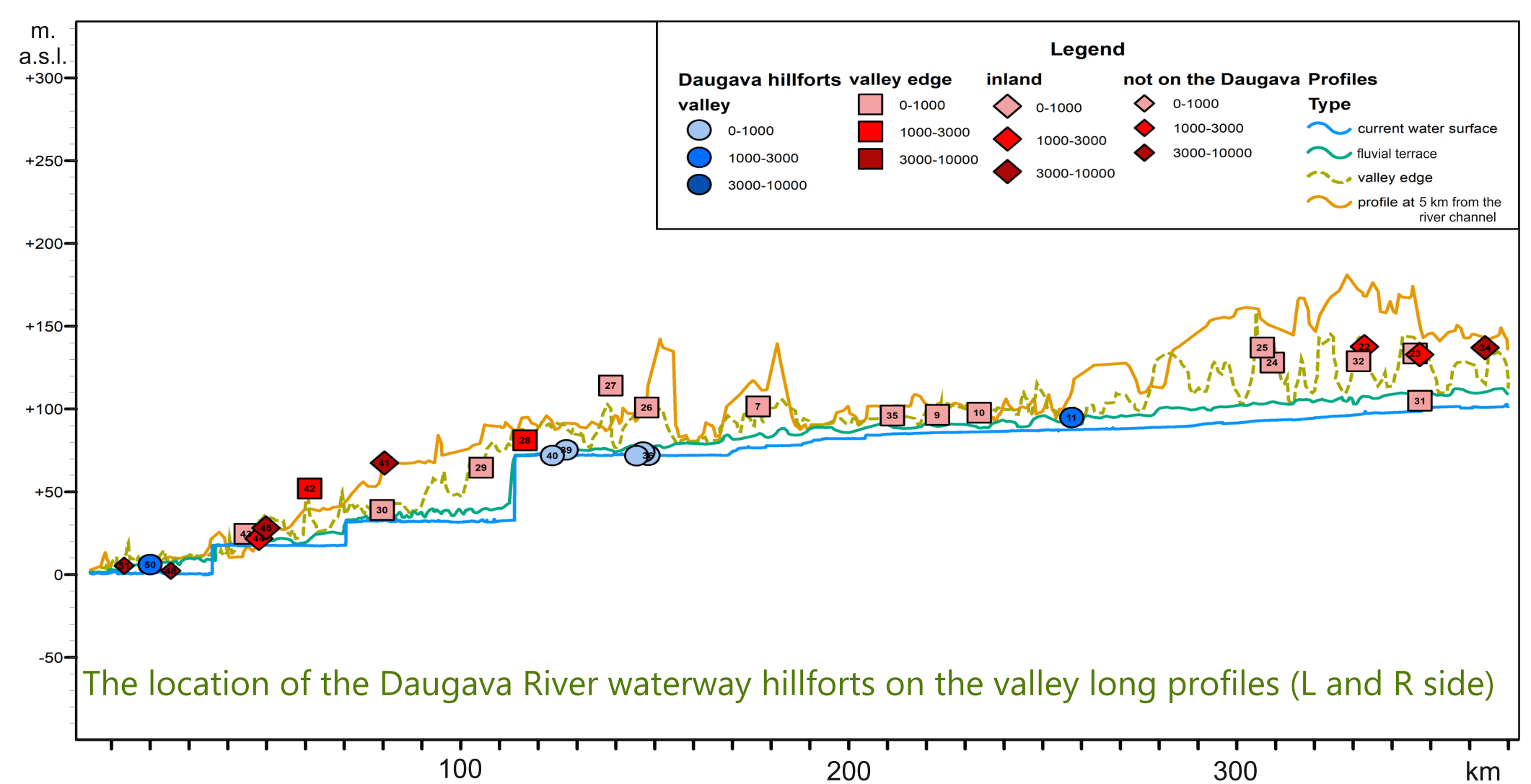
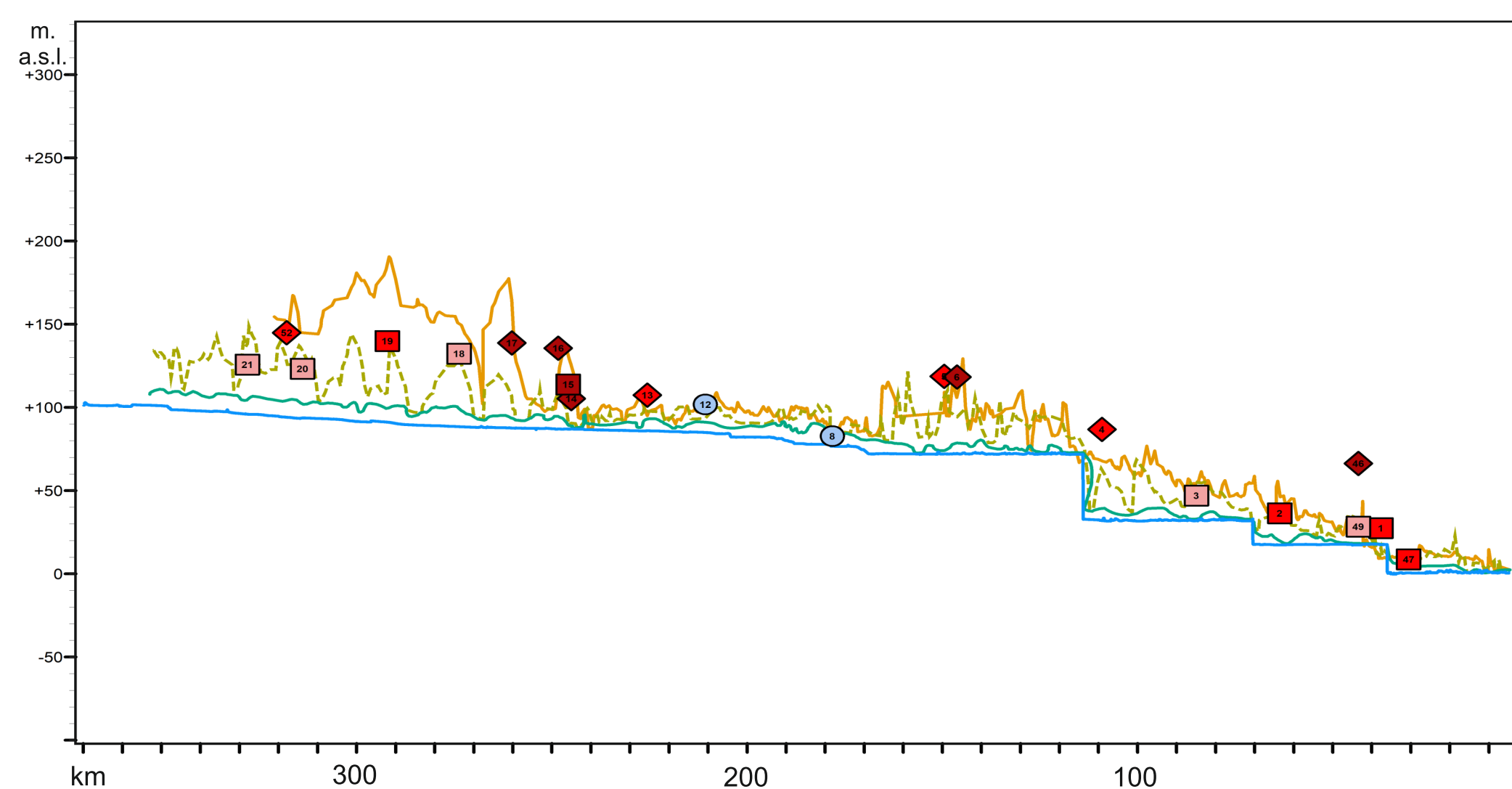
The location of hillforts in the Daugava River valley against the land relief



Dignajas (No. 12)



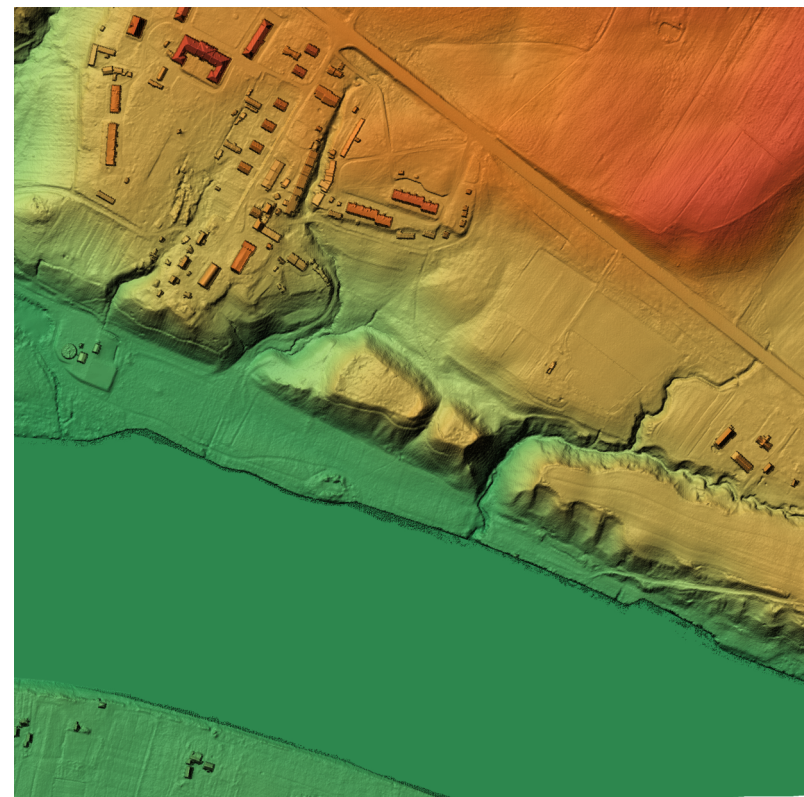
Lubasta (No. 11)



The location of the Daugava River waterway hillforts on the valley long profiles (L and R side)



Jersikas (No. 35)

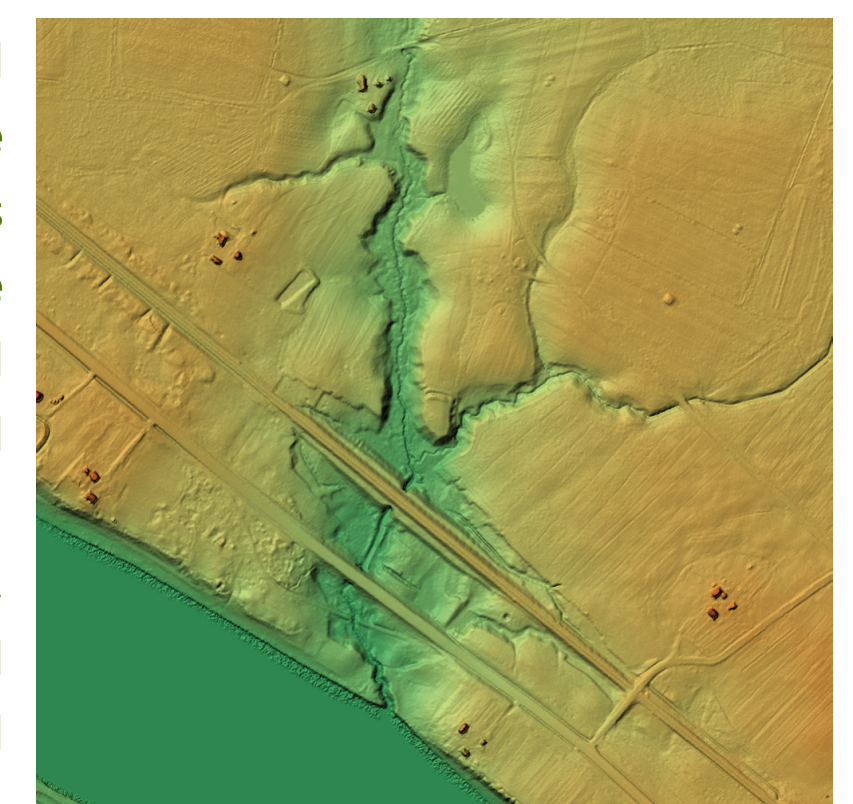


Aizkraukles (No. 29)

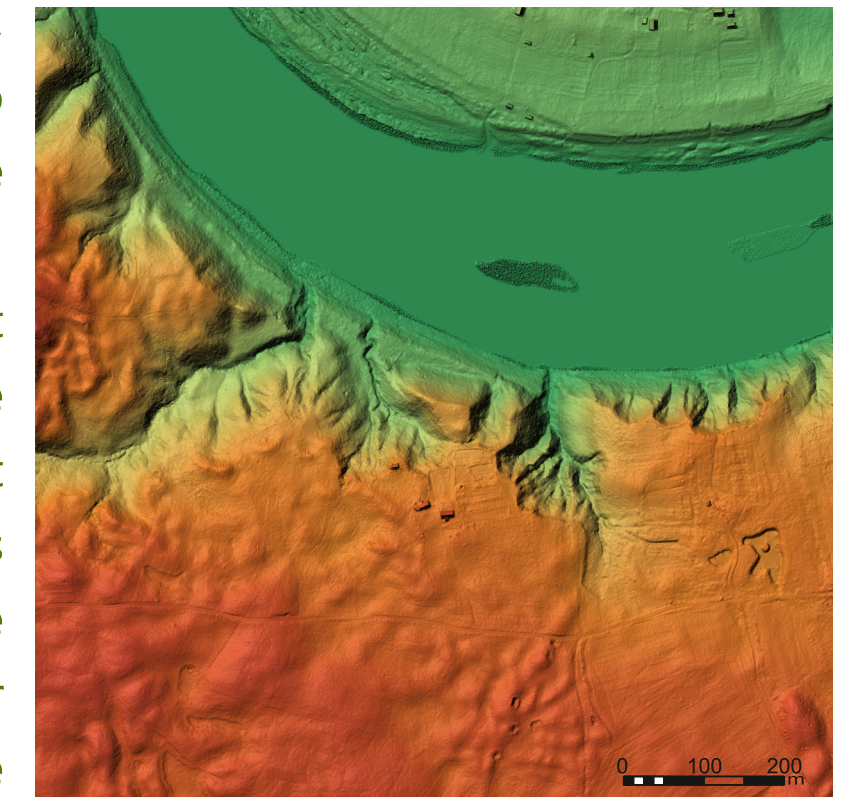
The **Daugava River** (Dūna, Дзвина, Западная Двина) originates in the Valdai Hills of Russia, runs through Belarus and opens into the Baltic Sea in Latvia. The Daugava R. was one of the most important gateways from the Baltic Sea to the East European waterways and achieved significance as central trade route in Prehistory and the Middle Ages. Due to its environmental and economic significance a system of settlement and fortification developed that relied on, and in some cases, attempted to control the Daugava R. waterway. The probable core of this system is made up of fortified settlements and hithes, landing places for ships on naturally protected islands and promontories. About 50 fortified settlements have been identified so far along the 350 km long Latvian section of the Daugava River.

The **INHILLDAUGAR Project** combines data from the three disciplines: archaeology, earth sciences (geography, geomorphology, geoarchaeology) and linguistics, both historical and contact. The joint application of non- and minimally invasive techniques, like geomagnetic surveys, drillings and test pits, radiocarbon and dendrochronological dating's with linguistic and toponymical investigation will promote a thorough understanding of settlement pattern in the Daugava River valley. Geoarchaeological survey is a potent tool for clarifying chronology and, unlike excavations, does not permanently alter monuments. The central tenant of the project is to collect new and merge existing data into a data management system for GIS-based spatial analyses. This, along with specialised analyses, will allow for the identification and reconstruction of synchronous fortification systems.

Preliminary results on **topographic and geomorphological conditions of the Daugava hillforts** demonstrate that they were present both on the valley floor and the river terraces. However, the most abundant fortifications are those occupying the valley edges, upland promontories, and adjacent plateaus. These sites had access restricted by deeply cut topographic features, usually small valleys fluvial, denudational, or erosive. These sites, along with island fortifications located directly in the rivers multi-channel fluvial system may have held special significance. From the perspective of the functioning of the Daugava waterway, a special role was played by defensive structures located in the area of the Upper Dvina spillway and in the zone of breakdown of long profile of Daugava River channel near Aizkraukle (ie. in the interlobal zone of the Riga and Pejpus ice streams).



Dzenes (No. 9)



Aizvejīnu (No. 21)

**DFG** Deutsche Forschungsgemeinschaft



**NARODOWE CENTRUM NAUKI**

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