

## Early Iron Age kurgans from the North Caucasus

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### INTRODUCTION

The steppe regions of the northern Caucasus, which cover the areas of the Stavropol district in Russia, contain thousands of large burial mounds, the so-called kurgans of the Iron Age period. They were constructed by the Scythian nomads and constitute a visible legacy of this culture. A few hundreds of these kurgans are defined, simply because of their sheer monumentality, as “great kurgans” and are ascribed to the elite of the horse-riding nomads (Gass 2011). Generally, these great kurgans dominate large burial grounds and form visible landmarks in the steppe. In the western part of the Stavropol region, very few kurgans have been investigated archaeologically in detail. Within the frame of a Russian–German cooperation and with the support of the “Exzellenz Cluster Topoi (Berlin), Program B-2-4” and the Geophysics Department of the Ludwig-Maximilians University in Munich, we started in 2012 with a geophysical mapping project on selected sites.

The eastern part of this large region of Stavropol (which covers about 66,000 km<sup>2</sup> in total) has not been explored yet. Historical reports describe the northern foreland of the Great Caucasus Mountains as the starting point of the “heroic history” of the Scythians, from where these horse-riding nomads started their raids to the Middle East (Herodotus I, 103–106). Hence, it can be assumed that the northern forelands of the Caucasus played an outstanding strategic role in the organization of these raids. Since little is known about the origin and development of Scythian culture, this region was selected for our research project.

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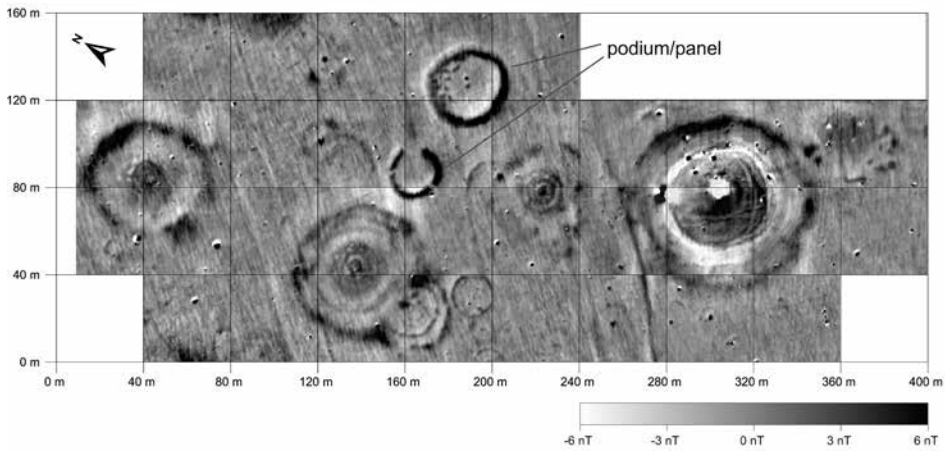


Fig. 1. Vinogradova. Magnetic map of the early Iron Age necropolis and its environs. Smartmag SM4G-Special caesium-magnetometer, sensitivity  $\pm 10$  pT, variometer (duo-sensor) configuration, sampling rate 25 x 50 cm

## ARCHAEOLOGICAL RESEARCH QUESTIONS

Were the Scythian nomads of the eastern part of the Caucasian forelands involved in the war-like operations of the horse-riding nomads of the Eurasian steppe, who were acting from southern Siberia in the east to the upper Danube river in the west? And what was the role of these nomads in this region? What was the burial ritual of these Scythian people, where were their burial mounds and graveyards with all the accompanying features and structures and what did they look like?

Valuable information can be found not only beneath the great kurgans, but also in a thorough survey of their environs, the periphery of these large kurgans. Basically, we would expect to find evidence of the complex rituals that took place before, during and after a burial ceremony. In the periphery of a kurgan, we can also expect to find further burials, architectural structures, secondary burials, grave goods, offering places, as well as evidence of ceremonial acts and feasts. Finds of this kind have been reported from many sites of the Eurasian steppe belt in South Siberia, e.g., Kurgan Aržan 2 in South Siberia, and the necropolis Žoan Tobe and Tört Oba in Southeast and West Kazakhstan (Fassbinder *et al.* 2009; Gorka and Fassbinder 2011). Structures like these have been found with magnetometer surveys at the necropolis in Vinogradnyj 1 in the northern Caucasus (Fig. 1) as well as on the kurgan of Alexandropol in Ukraine.

## PROSPECTION RESULTS

A caesium total field magnetometer in a duo-sensor configuration was used for the survey. It allowed us to reduce the diurnal variations of the Earth's magnetic field and thus apply the instrument in its full range of sensitivity. The crucial factor for the application of this type of

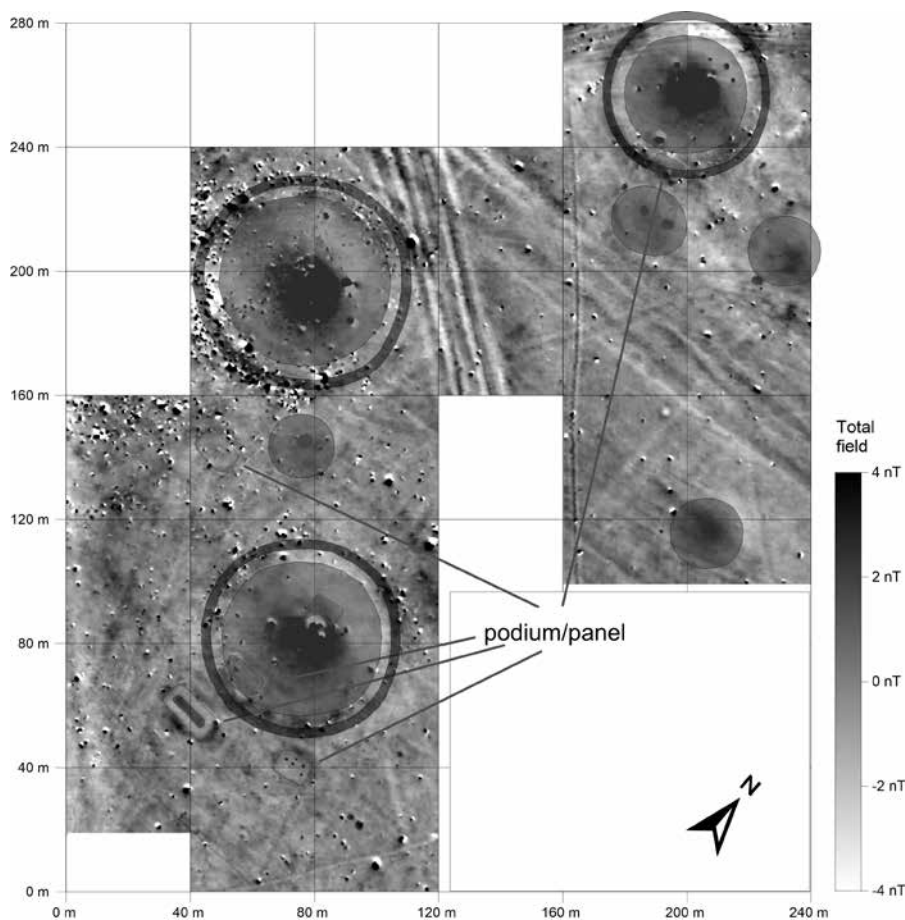


Fig. 2. Zunkar 2. Magnetic map of the early Iron Age necropolis and its environs with the interpretation map as overlay. Smartmag SM4G-Special caesium-magnetometer, sensitivity  $\pm 10$  pT, variometer (duo-sensor) configuration, sampling rate  $25 \times 50$  cm

instrument, however, is its tilt tolerance, which is invaluable when prospecting uneven and rough terrain like a kurgan field with monuments of considerable size and steep slopes.

The Zunkar 2 necropolis is composed of three kurgan rows that are aligned and directed north–south. Every row or chain of kurgans consists of at least five mounds. The largest kurgans have heights of 2.5 m to 7.0 m; they are found in the middle row, and the highest of them is at the north. All these great kurgans have a typical form with flattened dome, three steep slopes and a dip slope on the south side.

The magnetic map reveals first of all ring ditches around the kurgans, some further little kurgans and single irregular-sized pits (Fig. 2). The most interesting, however, was the finding

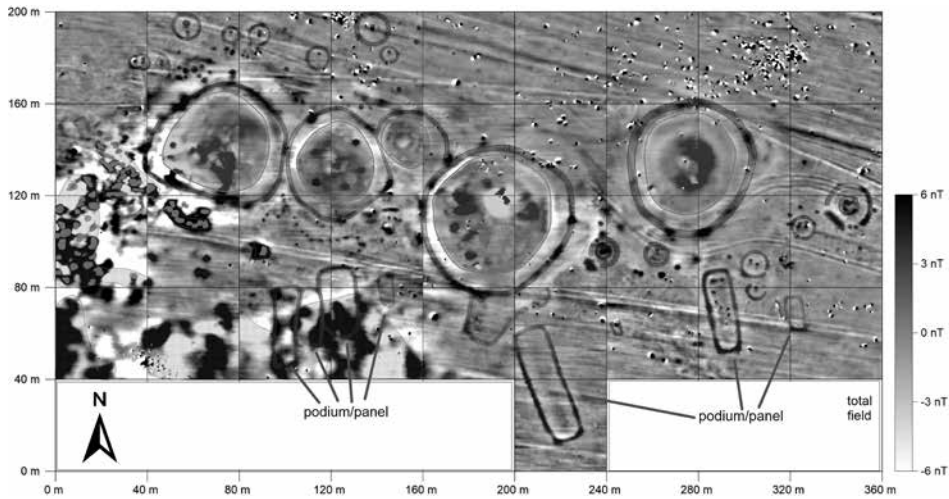


Fig. 3. Tört Oba. Magnetic map of the necropolis and its environs. Smartmag SM4G-Special caesium-magnetometer, sensitivity  $\pm 10$  pT, variometer (duo-sensor) configuration, sampling rate 25 x 50 cm

of rectangular features in the south of the two great kurgans. Oriented northwest–southeast and about 10 m x 15 m and 10 m x 20 m in size, they resemble similar structures that were found in west Kazakhstan on the kurgan field of Tört Oba and Besoba (Fig. 3).

The rounded and square-shaped structures from Tört Oba and Besoba varied a great deal in size, but in orientation they pointed with the narrow side towards the kurgan, while at the Zunkar site they were all oriented broadside to the kurgan. Without exception, however, they were all to the south of the kurgans.

The excavation in Tört Oba demonstrated that the features are ritual places, where some feasting ceremonies and offerings took place. The excavated rectangular feature was 39 m x 13 m in size and can be seen in the field as a slight elevation (10–20 cm). The surrounding ditch has a depth of 1.0–1.8 m and was 1 m wide at the base. Animal bones were found in some parts. After short usage the ditch was obviously refilled with black earth. The fact that no potsherds or waste were found and that the feature was in use only for a short time points strongly to its interpretation as an offering place. The object dates to the same archaeological period as the great kurgans and radiocarbon dates provided by the Poznań laboratory point to the 7th–5th century BC (early Iron Age, early Sakes period).

Our archaeological considerations support the thesis of archaeologists, who claimed that the Scythian–Sakian culture spread from east to west.

As a result of the geophysical survey and on the basis of similarities with the layout and orientation of features from western Kazakhstan and northern Caucasus, we propose that these structures followed similar rituals and traditions representing the same culture. Our measurements in the northern Caucasus have uncovered a case of similar ritual conventions occurring independently in both regions. Further research, test excavations and case histories with similar results may clarify, confirm, or reject this ideas.

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