## WAGONS OF YAMNAYA COMMUNITY: EVOLUTION AND INFLUENCE

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This article focuses on the development of early wheeled transport of the Eurasian steppe. Wagon graves are a typical feature of the Yamnaya culture. The form of rite associated with vehicles and their construction affected the role they played in both economy and the mindset of people of the Early Bronze age.

**Keywords:** early bronze age, Yamnaya culture, wagons, early wheeled transport, Bronze Age steppe.

Yamnaya culture is known as one of the first centres of early wheeled transport development, different from other areas because of finds of real, wooden vehicles. By analyzing the finds from the steppe area there is a possibility to recreate their full construction and the way they were used by people from the Eneolithic and the Early Bronze age, when wheeled transport was a new invention, affecting mobility, lifestyle and the potential of faster information exchange between groups of people living on larger distances than before.

Vehicles or their parts, usual wheels, were discovered on all of Yamnaya core area, between the Dniester and Ural basins. They were placed in graves and were an integral part of the Yamnaya community's burial rite. It seems like this was common practice for the Yamnaya society, but not as common as other elements of the burial rite, such as scattering ochre on the deceased's body. It was not popular enough for wagon parts to appear in a high number of cemeteries. In fact, burial rites including a wagon were well-known, yet still rare.

The author only managed to find 43 well-described Yamnaya graves containing wagons. Most of them are located near big rivers basins: Northwest Pontic area (mainly Dniester), Dnieper, Don-Kuban-East Manych and the Urals. These regions vary in both the number of known graves containing parts of vehicles and the way the wagons were handled during burial.

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The Northwest Pontic area is located in the north-west part of the Pontic Coast, from modern-day western Ukraine (mainly Odessa obl.) to Bulgaria. The westernmost find happened in today's Bulgaria, in Plachidol (Dergachov & Panajotov, 1984, p. 107). There is also the case of Kétegyháza, but it is uncertain if the wooden construction that covered the grave's pit was a part of a vehicle (Nikolaeva & Safronov, 1983, p. 52). According to the author, about 18 wagons were found in this territory. One of them can be described as a full wagon, with both roofing and the bottom part (Luk'yanovka, Odesskaya obl.) with four, dismantled wheels and a thill (Mel'nik & Serdyukova, 1988, p. 119). Another type of that burial, 3 cases, contained wheels and a wagon's chassis used as a kind of a bed for the deceased, where his body was placed (Kholmskoe 1/7, Etulia 1/14, Taraclia 10/18) (Novitski, 1985, p. 233; Gey, 2004, p. 185; Ivanova & Tsimidanov, 1993, p. 28). In about 5 other cases, wheels were present in the grave and the lower part of the wagon's chassis served as the grave pit's cover. Three cases (Bychok 6, Katarzhino 1/11, Taraclia 10/19) (Ivanova, Petrenko & Vetchinikova, 2005, pp. 117, 111; Agul'nikov, 2002, p. 92) could be interpreted as graves with wagons because of the similarities in placing the lower part of the wagons' bodies in the pits; although they did not contain wheels. The last kind of burial is one where only 2-4 wheels were found in the grave pit (see e.g. Ivanova & Tsimidanov, 1993, p. 28).

The next accumulation of finds, located in the Dnieper basin, was quite similar to the previously mentioned area. There are 14 finds collected, and although there were no full vehicles, we can highlight 4 graves, where both the lower part of the wagon's chassis and wheels were found (Starosel'e 1/8 and 1/10 and Storozhevaya Mogila) (Shilov, 1975, p. 67; Terenozhkin, 1951, p. 187). The remaining 10 contained only wheels, but compared to the Northwest Pontic Coast area, their number varies from one (Pervokonstantinivka 1/19) to seven (Starosel'e 1/8) (Shilov, 1975, pp. 55, 67).

The southernmost area is located over the Don basin. It was not the richest in Yamnaya graves with wagons, but there are at least 7 of them. In two graves from kurgan 3 of stanitsa Bryukhovtskaya (2 and 15) (Bochkarev, Bestuzhev, Biankin & Trifonov, 1991, pp. 27, 37) there were traces found, which can be identified as both wheels and a wagon's chassis. There was also an interesting case of a wagon's grave from Sharkhalsun II 6/18, where the body of the deceased was placed in a sitting position on the wagon's chassis as if they were the driver. There was no additional

equipment in the grave, but it can be linked to the 4th Millenia BC, which means that this is also a burial made by the Yamnaya community (Tucker, 2017, p. 2). Grave from Rostov, Kominterna street (1/7) contained only wheel (Cherednichenko, 1969, p. 86). In two last cases, from Kudinov (1/6 and 1/7) (Melent'ev, 1965, p. 55) wooden parts of the pit's cover were recognized as parts of the wagons.

The last and easternmost province is around the Ural area, in its European part, mostly near today's Orenburg. Two kurgans, Gerasimovka (Fyodorova-Davydova, 1971, p. 57) and Shumaevo (Morgunova & Chochlova, 2006, p. 307), contained wooden wheels and one – Izobilnoe – only a clay copy of wooden wheels, arranged like in real wagon (Morgunova & Kravtsov, 1994, p. 47). These two last areas, near the southern and eastern boundary of Yamnaya core territory, are interesting because of their low amount of wagon graves, even though in the next period when Catacomb and Sintashta societies developed, these territories were very important for the evolution of wheeled transport.

The grave's inventory is another factor that determines the interpretation of the wagon graves. The most popular category of grave goods consisted of tools, which have been found in 16 graves, and the so-called "home furnishings", especially mats made of organic materials or pillows. Some graves contained also weaponry (see e.g. Shilov, 1975, p. 56; Lyashko & Otroshchenko, 1988, p. 61; Morgunova & Kravtsov, 1994, p. 47; Agul'nikov, 2002, p. 97). The Northwest Pontic area seems to be the most diverse: there was also some founds of jewellery and the types of grave inventory, which, while not uncommon for the Yamnaya society, do not usually occur in wagon graves, such as stone stelae (Kholmskoe 1/7) (Novitski, 1985, s. 233), feathers (Etuliya 1/14) (Alekseeva & Shmagliy, 1985, s. 20), animal bones (Luk'yanovka) (Mel'nik & Serdyukova, 1988, s. 119) or vessels (Kholmskoe 2/17) (Ivanova & Tsimidanov, 1993, s. 28).

There is also one very important thing to consider: the differences in the construction among Yamnaya wagons are very slight. In most cases graves contained parts of heavy, four-wheeled vehicles, resembling *kibit-ka* known from ethnographic sources.

As it was said before, Yamnaya wagon graves were found all over Yamnaya territory with some differences, but many similarities also need to be brought to light. These include things such as the way the vehicles were disassembled, with dismantled wheels and roof. The wheels were placed in the corners of the grave pit, usually on the step, and in some cases right on the ground, but their arrangement always resembled the layout of a real vehicle, even in the case of Izobilnoe, where only clay models were found. The wagon's chassis was used as the cover for the grave and placed on the grave's bench, left for roofing, or sometimes as a bed for the deceased.

These common features might lead to the conclusion that their context was related to a specific symbolic, universal for Yamnaya society meaning. Intentional deconstruction of grave goods was typical for many societes in prehistory, like in late bronze and iron ages in today's Poland (Madyda-Legutko, Rodzińska-Nowak & Zagórska-Telega, 2005, p. 181). This might mean that an object cannot reach the afterlife with the deceased without changing its original form, just like the deceased themselves. Getting into the "world of the dead" meant, that without changing its shape, an object was not useful for the dead (Kawa & Kmieciak, 2018, p. 93). It is essential to take note of because a large number of grave inventory were tools and "home furnishing", which lead to some conclusions, that the wagons in graves symbolized houses (Ecsedy, 1979, p. 38), especially within semi-nomadic Yamnaya society, and, after all, a house needs to be useful for its resident.

The other theory is connected strictly to the *pars pro toto* rule, in particular for graves containing only wheels or parts of a wagon's chassis. This means that only a part of the object is needed to complete the burial process, as it symbolises the wholeness of the object itself (Kawa & Kmieciak, 2018, p. 94).

The last reason for placing the vehicles in graves in such a way might be related to rites of passage. Death is a transition to another world and another way of life itself. A wagon can be a symbol of this journey. In the burial rite, their parts were used in two ways. Either the wagon's chassis was used as a bed of the deceased, or as cover for the grave. In the first case, the wagon represented the journey itself, and in the other, its parts served as a symbolic boundary between the world of the living and for the dead (Kawa & Kmieciak, 2018, p. 93).

It is very important to highlight the symbolic role wagons played for the semi-nomadic Yamnaya society. As it was seen before, they were useful not only for their economy but were also ingrained in their minds perhaps at a very early stage, as is indicated by the way the ritual was spread and handled.

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