## A HACKAMORE FROM ŠLJIVOVAC, EAST SERBIA

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In the late nineties of 20th century, at the entrance to the village Šljivovac, at the site "Njive", a hackamore made of bronze was found with a metall-detector. This find, along with other metal objects discovered in the same way, like bronze simpulum, bronze pot, bronze bowl (plate) and iron attache, was handed over to the National museum in Požarevac. The character of this find could indicate that one is dealing with a hoard. Unfortunately, no other data concearning this find are known.

The village Šljivovac is situated 21,7 km (some 15 Roman miles) to the south from Kostolac, the former Roman city and military camp of *Viminacium* and 7,5 km (some 5 Roman miles) to the west from Kalište, former Roman *Municipium* (Figs. 1 and 10) The village is situated on the eastern slope of the Sopot hill rock, 6,5 km (some 4,5 Roman miles) to the east from the right bank of Velika Morava (Roman *Margum*) and 5 km (some 4 Roman miles) to the west from the river Mlava. The location on which these objects were discovered is situated near the road Požarevac – Žabari, some 9 km to the south from Požarevac.

The whole hackamore is made of a single bronze band (Fig. 2) Its height measures 15 cm, its length 17 cm and its width 14,7 cm. It has a slightly oval nose-strap with two gutter-like recesses on the broadest part of it (Fig. 3 and 4) Above and under the recesses, on each side there is one ball-like ornament. At each end of the oval front part, there is a side-loop with a rectangular hole for fastening leather reins and bits. Side-parts are rectangular and they meet the front part at the right angle (Fig. 5 and 6) Finally, at the ends of the side-parts, there is a semi-circularly bent part, which went under the horse's jawbone.

Since all the finds were discovered with a metall-detector, there are no reliable data about the archaeological context. Still, there are data about the neighbouring sites, like the near-by village Kravlji Do, in which a mosaic was found, indicating the existence of a *villa rustica* in this area. The find of this hackamore, probably of military character, could indicate the existence of a *statio* or *mutatio* in this area, and it can be dated to 2nd or 3rd century A.D.

Sources enabling modern archaeologists to understand how Roman horse equipment looked like and how it was worn is threefold: there are written sources, images (mostly carved in stone) and original finds. Among the written sources, there are several ancient writers who mention the appearance of horse's equipment of the time: Tacitus, Flavius Iosephus and Arrian. Among

<sup>&</sup>lt;sup>1</sup> JUNKELMANN 1989, pp. 28.

<sup>&</sup>lt;sup>2</sup> JUNKELMANN 1989, pp. 29.

the images depicting cavalry, one should under no circumstances forget the infamous Trajan's column, which bears images of the Roman cavalry not only during battles, but also within military camps and during marches. These images are much more precise and true than any of the average stone monuments from any of the Roman provinces, since the second are often made under hellenistic-classical formal canons and are therefore idealized. Still, monuments with images important for this study are numerous for 1st and 2nd century A.D. but appear less frequently for the period which came afterwards.<sup>3</sup> The same can be said for archaeological finds.

It is interesting to observe the finding frequency of different parts of horse's equipment: pendants, metall pieces of bridles, reins and bits and spear-points are found much more often than any other part of this equipment. It is also of interest to know the weight of the equipment of this kind: front- and back-reins with all of the *phalerae* and pendants were weighing 4,5 kg.<sup>4</sup>

Horse's equipment was of an extreme importance for the effectivity of riders. It had to make it possible for a rider to have complete control over the horse even in extreme situations. Functionally, horse's equipment of the Roman times can be divided into three parts: the saddle, the bridle with reins and bits and the rest of the equipment, that was used for connecting the two parts and fixing them.<sup>5</sup>

During Roman times, two kinds of snaffle bits were in use. The first kind, the so-called ring-shaped snaffle bit, originate from Celtic times and the Late Iron Age. The second kind, the complex Italian snaffle bit, originates from the Mediterranean area.<sup>6</sup> This complicated mechanism is always schematically depicted on monuments, making it impossible for archaeologists to make its reconstructions. Still, one can immediately understand that this mechanism was more effective than the other one. It consists of a mouthpiece with a flat tang, a bar that goes under the chin, cheeks to which cheek pieces of bridle were fixed and of rings used for attaching reins. The efectiveness of an Italian snaffle-bit was sometimes improved by using a hackamore.

A Roman hackamore has a nose-strip and side-loops on its endings. From the loops goes a bent part of the hackamore, consisting of two cheek-pieces. They are bent at their back endings and bound together with a bow-shaped back-piece. As a rule, the whole hackamore consisted of a single piece of metal, mostly bronze.

The important questions debating on why hackamores were worn and what was their precise function are still open. It is often believed that it was actually worn instead of a snaffle-bit, in cases when horse's gums were oversensitive and would get hurt. On the other hand, hackamores were applied when gums were hardened and a horse would not react or correspont to a command given by pulling the snaffle-bit.<sup>7</sup> Only with extremely wild or young horses, hackamores could have been combined with snaffle-bits for a better surmounting. Junkelmann believes that a hackamore was in some cases worn without a snaffle-bit i.e. that these two pieces were not always combined and applied together.<sup>8</sup> Still, in a book he published in 1992,<sup>9</sup> he is willing to accept the hypothesis of a hackamore always being worn along with a snaffle-bit.

The way of wearing hackamores is still a matter of academic discussion. After Groenmanvan Waateringe and Taylor, a horse would wear a hackamore with its nose-strip placed upon the lower part of the nose and nostrils.<sup>10</sup> (Fig. 7) The two cheek-pieces were bent upwards and the

<sup>&</sup>lt;sup>3</sup> JUNKELMANN 1989, pp. 28.

<sup>&</sup>lt;sup>4</sup> JUNKELMANN 1989, pp. 35.

<sup>&</sup>lt;sup>5</sup> KEMKES and SCHEUERBRANDT 1997, pp. 39.

<sup>&</sup>lt;sup>6</sup> CONNOLLY 1988, pp. 30.

<sup>&</sup>lt;sup>7</sup> SCHWINDEN 1987, pp. 36.

<sup>&</sup>lt;sup>8</sup> JUNKELMANN 1989, pp. 34.

<sup>&</sup>lt;sup>9</sup> JUNKELMANN 1992, pp. 30.

<sup>&</sup>lt;sup>10</sup> GROENMAN-VAN WAATERINGE 1972/75, 101–116; TAYLOR 1975, pp. 106–133.

back part of the whole hackamore was placed higher i.e. closer to the neck than the nose-strip. By pulling the reins, a hackamore would press the nose and the back part of the jaw. This opinion is shared by A. Hyland, who goes even further, claiming that there was a broad spectrum of hackamore's shapes and sizes. Since hackamores were, by pulling, making pressure on the back part of the jaw-bone and on the nose of the animal, one would have to choose an apropriate size in order to reach full efectivness. On the contrary to this, Littauer thinks that a hackamore was bound to the head-frame with loops, whereby cheek-pieces would be pointing downwards. The back-piece was then placed lower than the nose-strip (Fig. 8). The same principle of wearing hackamores is supported by Junkelmann and even explained with a precise illustration. After a close observation of the hackamore-example from Šljivovac, the authors of this paper are likely to support the explanations and descriptions given by Littauer and Junkelmann (Fig. 9)

The very function of hackamores was to prevent horses from opening their mouths. If leather reins were to be replaced with metall ones, the effect would become much higher. Even on the slightest pulling of reins, a horse would react immediately. Only with wild-tempered horses, a hackamore was combined with a snaffle-bit and even then only when a very experienced rider was training.

Another way of using hackamores was also during trainings, but without a person riding. In such cases, a long string would be attached to a hackamore. When the string was pulled or if a trained horse would try to set itself free from the binding, a hackamore would increase pressure on its nose and jaw. Needless to say, a metall hackamore was of much more use than a leather rein.

One should also not forget that a metall hackamore would offer greater protection during battles than the same piece of horse's equiment made of leather. And finally, a shinig metall piece could also serve as a decorative element.

A presentation of a hackamore very similar to the Šljivovac one is shown on a fragmented horse-head carved in sandstone and discovered in Wallerfangen (Saarlouis county, Germany). Apart from the hackamore, this horse also wore a brow-band, a head-piece, a throat-latch and a snaffle-bit. The nose-strap has two gutter-like recesses on its broadest part. It is also very similar to the hackamore discovered in Wiesbaden. On this one, there are also ball-like ornaments, each placed above and under the recesses. Both of the hackamores belong to the Taylor/Lawson type 4. Taylor ascribes such hackamores to local, pre-Roman populations of the Rhine valley. In her publication, she gathered some 80 hackamores of this type and named them "the Rhine type", since their finds were mostly spread in the provinces of Upper Germania and Raetia. Apart from the Wiesbaden example, there are other finds known from Augsburg and Augst. Their features include recesses on the nose-strap and rectangular, instead of circular opennings in the side-loops.

In graves of the Roman republican time, snaffle-bits and their accompanying parts, including hackamores, are always found in pairs, indicating that they were primarily used with draft animals, and not with riding horses. <sup>19</sup> Still, it is believed that they were used by the cavalry, mostly

<sup>&</sup>lt;sup>11</sup> HYLAND 1990, pp. 141.

<sup>&</sup>lt;sup>12</sup> LITTAUER 1969, pp. 291.

<sup>&</sup>lt;sup>13</sup> JUNKELMANN 1992, pp. 21, Fig. 9.

<sup>&</sup>lt;sup>14</sup> SCHWINDEN 1987, pp. 38, Fig. 4, Inv. 19086.

<sup>&</sup>lt;sup>15</sup> SCHWINDEN 1987, pp. 37, Fig. 1.

<sup>&</sup>lt;sup>16</sup> LAWSON 1978, pp. 140–143, Fig. 5–7, T. 50.

<sup>&</sup>lt;sup>17</sup> TAYLOR 1975, pp. 124, 129.

<sup>&</sup>lt;sup>18</sup> KEMKES and SCHEUERBRANDT 1997, pp. 43.

<sup>&</sup>lt;sup>19</sup> JUNKELMANN 1992, pp. 16.

for trainings of young and especially wild-tempered horses. Even the mentioned fragment of a horse-head from Wallerfangen was originally incorporated into a composition showing a group of cavalrymen. The realistic details on this horse-head indicate that it can be dated into 2nd century A.D.<sup>20</sup>

Finally, one concludes that hackamores were applied both with draft and riding animals. They were spread throughout the Empire. The largest number of finds from Europe comes from the Rhine and the Dunube valleys and from Greece. Their dating is from the early imperial time to 3rd century A.D. Depictions on sculptures sometimes date even from 4th century, although it is in such cases always difficult to tell wether the hackamores presented were made of metall or leather.

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The territory of Šljivovac and its vicinity was not archaeologically investigated. The only data about this area concearn several accidental finds. One of the most famous is a find from the late fifties and early sixties of 20th century, discovered in the neighbouring village of Kravlji Do. After fluvial erosion, a Roman mosaic was revealed. After a short archaeological research, one was able to tell that it was placed in a rectangular room, connected with another smaller room with a corridor and a stair-case. On the mosaic made of white and black pieces, a running horse was depicted. In a friese which was framing the mosaic, a Centaur and a human head were depicted. The whole building most likely belonged to a veteran or a city govenor, who was in posession of an estate in the vicinity of *Viminacium*.<sup>21</sup>

Most data about this region were given by Kanitz, a famous Austrian traveller, who visited Serbia during the second half of 19th century. He marked some ancient remains in Oreovac, situated 13,5 km (some 9 Roman miles) from Šljivovac, on a high terrace uppon the right Morava bank. On the Mijovica hill, he discovered remains of a Roman castel, measuring 70 X 15 m.<sup>22</sup> No remains of a settlement on a larger scale were noted, although he traced pieces of Roman bricks in the Kolimirska valley.

Kanitz traced down a Roman road which lead along the Morava (*Margum*) valley, towards Požarevac and then to Vlaški Do, where the lower part of this road is still visible some ten meters away from the modern road. From that point onwards, the road lead along the area that was never flooded, towards the modern village of Aleksandrovac and then over Oreovica towards Simićevo-Rakinac. In Simićevo (former Rakinac) Kanitz found traces of a castellum built there to protect the road, at the right bank of a brook that flows through the village. According to him, the sides of the castellum measure 160 m. Around it, among bricks and tegulae, many pottery shards were found, Roman silver coins, a Byzantine gold-coin and an iron vessel. Kanitz followed the remains of this Roman road down the hill, all the way to modern Žabari. Along this way from Oreovica and Žabari, only 6 km (4 Roman miles) long, Kanitz traced down three Roman sites with *castella*.<sup>23</sup>

Kanitz's opinion was that the Morava road lead from *Margum* to *Horreum Margi*. This ancient road, reliably traced down by Kanitz, represented a natural, easily established connection between the Danube and its southern inland. Even modern engineers suggested a rail-line

<sup>&</sup>lt;sup>20</sup> SCHWINDEN 1987, pp. 40.

<sup>&</sup>lt;sup>21</sup> MIRKOVIĆ 1968, pp. 68.

<sup>&</sup>lt;sup>22</sup> KANITZ 1991, pp. 223.

<sup>&</sup>lt;sup>23</sup> KANITZ 1991, pp. 224.

from Dubravica towards Niš along this track over Požarevac, Svilajnac and Ćuprija (*Horreum Margi*), as the most plausible one.<sup>24</sup>

The position of this road, on a certain height of the western slope of the Sopot hill rock, offers complete surveilance over the entire Morava valley, rich in wood and river sleeves.

Apart from the main road (*via publica*) *Viminacium-Horreum Margi* (Fig. 10), mentioned in itineraries and in the Tabula Peutingeriana<sup>25</sup>, the remains of the road located by Kanitz indicate the existence of a "Morava road", not mentioned in the itineraries. Since the Morava valley was of extreme importance ever since prehistory, representing the main connection to the Aegean world, and along the Danube with the Black sea coast, the Kanitz's hypothesis is justified. This line, situated on the western slope of the Sopot hill rock, was branching to vicinal roads to *via publica Viminacium – Horreum Margi* and to Homolje-Zviž inland, rich in oars.

In order to understand the area to the south from *Margum* and *Viminacium* as a communication area, which lead from Dubravica to Ćuprija and had an important strategic meaning for communicating raw materials and trade, one has to consider a small ammount of finds, most of which were found accidentaly. If they are brough in connection with Kanitz's data, they gain on importance. Another fact which could be of interest is that until recently, this area was planted with vinyards, indicating a great soil quality of the right Morava bank, which was convenient for establishing rural villas and *vici*. A find from Kravlji Do makes this hypothesis plausible.

Supplying road stations was not difficult, since this area was traditionally known for horse breeding. It is also known that horses were bred here in Antiquity. This hypothesis found its confirmation on a papyrus from the beginning of Trajan's reign (105 A.D.), in which in a daily command of the *cohors I Hispanorum veterana quingenaria equitata* from Lower Moesia, a unit is mentioned, sent to *Margum* to buy horses.<sup>26</sup>

Itinerar stations belonging to the public post were situated on distances of 5, sometimes 7 or 9 miles (7 to 13 km) from each other. Procopius claims that Roman emperors arranged between five and eight stations on certain places for a daily trip of a quick messanger. This distance would measure between 48 and 60 Roman miles (or 71 to 88 km) per day.

In written sources, itinerar stations are named differently, depending of the time they originate from: *mansio, mutatio, statio, praetorium, palatium, civitas* or *vicus*. The term *mutatio* is found only from the 4th century A.D. onwards. In the *Itinerarium Burdigalense*, from the year 333, *mansio, mutatio* and *civitas* are separated from each other. The *Itinerarium Antoninianum* does not describe *mutationes*, but only *mansiones*.<sup>27</sup>

Itinerar stations were conducted by *praepositi* or *mancipes*. This duty was free and it was done by *decuriones* during the period of five years. Apart from the *praepositi*, there were other servies situated in itinerar stations. The *milites stationarii* (a kind of police, most likey two policemen per station), were in charge of controling the ways of using cattle, as well as for making sure cattle was not expropriated when it was needed for ploughing. The *stratores* were looking after the station, but also doing other kinds of work, like looking after horses. The *muliones*, the mule-keepers, were the most numerous workers. They were slaves of the state and each one of them took care of three mules. The *hippocomi*, the horse-keepers, were taking care of stables, guiding passengers from one station to another and returning carriages. The *carpentarii* were repairing and making carriages. All of them were under the supervision of a *praefectus*. A veterinarian,

<sup>&</sup>lt;sup>24</sup> KANITZ 1991, pp. 224.

<sup>&</sup>lt;sup>25</sup> VASIĆ and MILOŠEVIĆ 2000, 9–14, pp. 230.

<sup>&</sup>lt;sup>26</sup> VASIĆ and MILOŠEVIĆ 2000, 9-14, 230.

<sup>&</sup>lt;sup>27</sup> VASIĆ and MILOŠEVIĆ 2000, 133.

*mulomedicus*, was most likely living in a house within a *mansio*, together with his family. They were supplied with food and clothes by the state.

It cannot be said with great certainty how many pieces of cattle were in a single road station. It most likely depended on the importance of a road concearned. Procopius claims that there were forty horses in each station, which could be accepted for a very frequent route. According to the law from 378 A.D, five horses per day could have been equipped from each station. Only when imperial letters or those of uttmost importance were carried, this number could have been increased. Also, only one mule-drawn four-wheeled carriage could have been equipped daily.<sup>28</sup>

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The hoard of metal objects from Šljivovac is dated into the period from 2nd to 3rd century A.D. It represents a significant contribution to the so far archaeologically very little know area of the right Morava bank, to the south from *Viminacium* and *Margum*.

Apart from other objects, the find of a bronze hackamore is of great importance, representing a unique discovery of this kind at the territory of Braničevo known so far. It is also one of the few finds of this kind from the whole territory of the former Roman province Upper Moesia. Studying of this find casts more light on certain parts of horse's equipment. Needless to say, horses played a special role in military, economic and religious lives of ancient people.

Typological and functional determination of the "Šljivovac" hackamore was made according to written sources and parallels from Raetia and Germany. It was determined as the "Rhine" type.

It is usually treated as a decorative and "binding" element of horse's equipment, but it played a much more important role in taming and training horses, which was necessary before such an animal would be included in different activities.

Although without a precise archaeological context, the position of the hoard on the western slope of the Sopot hill, to the west from the road from *Viminacium* to *Horreum Margi*, reaffirmates the area of the right Morava bank and a possible route of the *Margum-Horreum Margi* road, whose existence was recognized by F. Kanitz during the second half of 19th century.

Its functional and chronological determination can be brought in close connection with services which were functionally connected to road station (*mansio*, *mutatio*), or with a specfic unit on the part of the route concearned (*Margum-Horreum Margi*).

Horse-breeding, traditionally developed in the Morava valley, was already mentioned in sources dating from the time of emperor Trajan.<sup>29</sup> When it is connected with the facts named above, it casts more light to the character of the territory to the south from *Viminacium* and *Margum*, especially on its importance within the system of defence and communication.

The previous owner of the hoard of metall objects was most likely a person which was connected to the road station along the route mentioned, either as an officer of the station or an inhabitant of a nearby estate – *villa rustica*.

The discovery of this hoard of metall objet reaffirmates qualitative and quantitative potentials of the territory to the south from *Viminacium* and *Margum*, i.e. the right Morava bank, as extremely conveniant for establishing *vici* and *villae* of city governors. The discovery of a building with a mosaic in the nearby village of Kralji Do also indicates this.<sup>30</sup>

<sup>&</sup>lt;sup>28</sup> VASIĆ and MILOŠEVIĆ 2000, 135.

<sup>&</sup>lt;sup>29</sup> VASIĆ and MILOŠEVIĆ 2000, 230.

<sup>&</sup>lt;sup>30</sup> MIRKOVIĆ 1968, 68.

Since after Kanitz's discoveries, this area remained on the edge of archaeological interest, such a splendid find shows a need for systematic research and defining a suspected route and an infrastructure along this route. A hypothesis of highly developed agriculture and stock-breeding in this area from 1st to 4th century is in a way supported with this find. Agricultural estates offered strategic support to communications and travelling stations in supplying them with food and livestock. Data from the already mentioned papyrus point out to this fact (time of Trajan's reign, around 105). There is a unit mentioned in it, which was sent to Margum in order to get supplies in horses.<sup>31</sup>

The find of the Šljivovac hackameore represents a modest contribution to clarifying the unsufficiently explored territory to the south from two important Moesian urban and military points, Viminacium and Margum, situated on extremely fertile area, which, apart from its strategic function, also played an important role in the economy of both cities.

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In the late nineties of the 20th century, at the entrance to the village Šljivovac, at the site "Njive", a hackamore made of bronze was found with a metall-detector. This find, along with other metal objects discovered in the same way, like bronze simpulum, bronze pot, bronze bowl (plate) and iron attache was handed over to the National museum in Požarevac. The location on which these objects were discovered is situated near the road Požarevac – Žabari, some 9 km to the south from Požarevac.

The whole hackamore is made of a single bronze band. It has a slightly oval front part with two gutter-like recesses on the broadest part of it. Above and under the recesses, on each side there is one ball-like ornament. At each end of the oval front part, there is a rectangular ending with a rectangular hole for fastening leather belts and bits. Side-parts are rectangular and they meet the front part at the right angle. Finally, at the ends of the side-parts, there is an semicircularly bent part, which went under the horse's jawbone.

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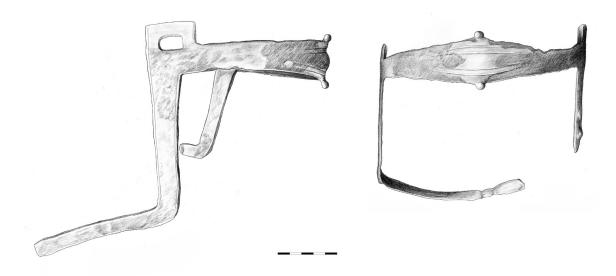


Fig. 1 Position of the village Šljivovac (map by V. Ilić)

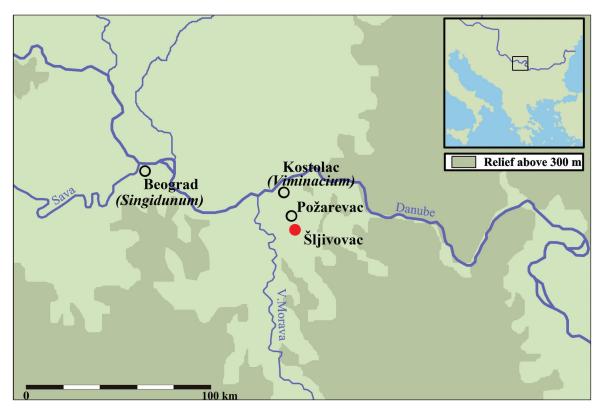


Fig. 2 Hackamore from Šljivovac



Fig. 3 Nose strap of the hackamore from Šljivovac (photo by V. Ilić)



Fig. 4. Nose strap of the hackamore from Šljivovac – detail (photo by V. Ilić)



Fig. 5. Side-part of the hackamore from Šljivovac (photo by V. Ilić)

Fig. 6. Side-part of the hackamore from Šljivovac (photo by V. Ilić)

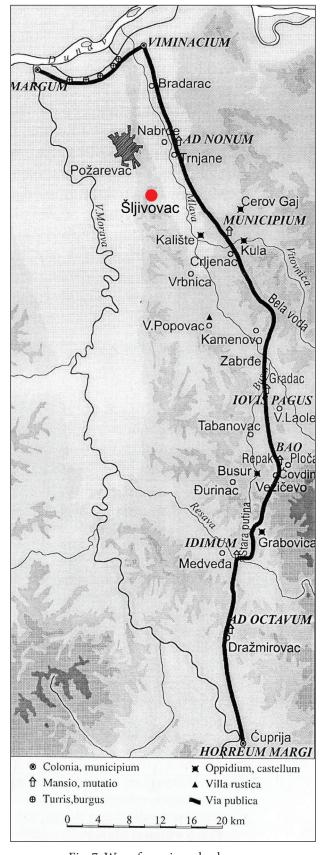


Fig. 7. Way of wearing a hackamore (drawing after Junkelmann 1992, 31, Fig. 28, varijant a)

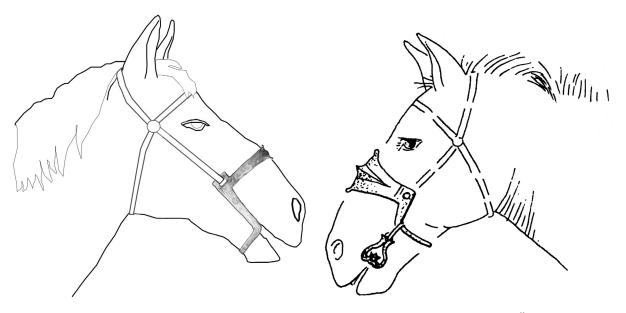


Fig. 8 Way of wearing a hackamore (drawing after Junkelmann 1992, 31, Fig. 28, varijant b)

Fig. 9 The way of wearing the Šljivovac hackmore (reconstruction by V. Ilić)

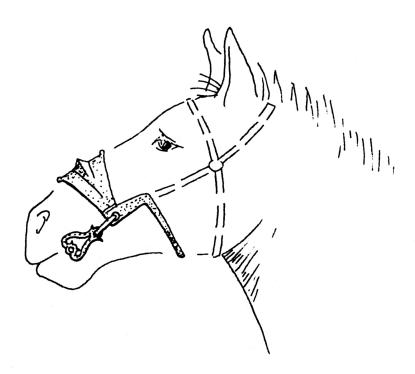


Fig. 10 Map of the Roman public road from Margum to Horreum Margi (after Vasić and Milošević 2000, 139, Fig. 49)

