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**CUMAN INTEGRATION AND ANIMAL HUSBANDRY
IN 13TH–16TH CENTURY GREATER CUMANIA, HUNGARY**

ABSTRACT

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Tribal fragments of the Cumans, a people of the Eurasian steppe region, appeared in the medieval kingdom of Hungary in the early 13th century, on the eve of the Mongol Invasion. Many of them permanently settled in the Great Hungarian Plain, and their community had to undergo profound transformations both in terms of social and economic strategies. Mobile pastoralism, often associated with the Cuman communities of the steppe, was definitely impossible in their new homeland. However, animal husbandry remained the most important economic activity in this part of the Carpathian Basin in the centuries after the Cumans' arrival.

This paper provides a case study on the region called Greater Cumania in the Great Hungarian Plain, and especially on one Cuman village, Orgondaszentmiklós, where 14th–16th-century habitation layers were brought to light. Archaeological and written evidence for animal husbandry is analyzed in order to establish patterns of integration or specialization in terms of animal herding. The results show that although some preferences that may have been rooted in steppe tradition were retained, the main factor in economic orientation was the position in the settlement network and the connection to markets. Swine keeping, a tradition virtually non-existent in the steppe area, was adapted relatively quickly as a response to available natural resources (marshlands) in the area. It seems, on the other hand, that horses preserved their high social value and their flesh was also consumed.

Key words: Middle Ages; Early Modern Period; Great Hungarian Plain; Cumans; animal husbandry

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I. INTRODUCTION

The integration of Cumans into medieval Hungary has been a well-researched topic in Hungarian archaeology and historical scholarship. As a population of mobile pastoralists, they focused on animal herding in the steppe zone, and their tribal fragments that entered Hungary were settled in the Great Hungarian Plain, an area of the Carpathian Basin traditionally associated with extensive animal breeding. The economic aspect of their integration, however, has hardly been discussed, as the most direct evidence of their economic activity, the animal bone

material recovered from Cuman sites has only been sporadically processed and analyzed. In this study, a short summary is provided on the economic standing of 13th–16th century Cuman communities in the Great Hungarian Plain, with a special emphasis on a Cuman village site in the area of Greater Cumania.

II. CUMAN ECONOMY IN THE STEPPE REGION

There is little written evidence that would testify to the economic life of the Cumans in the vast area known as the Cuman-Kipchak Federation. Medieval travelers and chroniclers, such as Henry of Livonia, Robert of Clari, or William of Rubruk, give very similar accounts on the sustenance of nomadic societies, including the Cumans, and these are sometimes highly stereotypical. It is likely, though, that different forms of local subsistence were present in different regions of this huge area without centralized state power. The khans and their retinue, supported by a military élite, ruled over a mass of commoners who were mainly involved in animal herding. It seems that before their migration to the Carpathian Basin, Cumans started to permanently settle in their previous winter camps and get engaged into land cultivation. Important trade routes, such as the one between the cities of Khwarezm, Volga Bulgaria and Eastern Europe, and the one connecting Byzantine colonies with the Russian Principalities, crossed the Cuman territory and presented opportunities of trade, tribute and raid alike. The trans-steppe trade was in fact so important that it resumed right after the Mongol Conquest (Noonan 1992, 321).

Medieval contemporaries described the Cumans and Kipchaks in general terms as mobile people with animal herds. Plano Carpini notes that the Cumans were pagans who did not till the soil but lived in tents and ate the produce of their animals (Plano Carpini, p. 58). According to the account of the Fourth Crusade by Robert of Clari, Cumans did not plough or sow and lived only on meat, cheese and milk (Robert of Clari, p. 89). The Cumans' expertise on animals and livestock management was highly appreciated, and according to the sources even Cuman commoners were sometimes captured and commissioned to train horses or handle flocks (Noonan 1992, 315).

However, the *Codex Cumanicus* contains a surprisingly extensive vocabulary of plant cultivation as well, which Györffy explained by the fact that the wordlist was compiled on the basis of the language spoken in more-or-less settled Cuman communities in the Crimea (Györffy 1990, 244). However, they must have been able to practice small-scale farming that fit within their cycles of seasonal migration.¹ Draught-resistant crops such as spring wheat, millet and oat could

¹ According to ethnographic observations, nomadic Mongol families utilized wooden ploughs, and then broke up the clods with their hands. Wheat, barley and rye seeds were sown also by hand. After sowing, they moved to the summer pastures, and returned to the seeded soil in the autumn, when crops were ripe (Róna-Tas 1959, 449).

be cultivated even in areas generally unfit for agriculture. Their involvement in land cultivation must have depended on a number of factors, such as the size and composition of the animal herd, the climate, the opportunities to hunt and gather, the quality of the soil, the availability of instruments needed for toiling the land, or immediate trading options.

Commodities other than animal products were supplied mainly through trade. The complex web of central places in the pre-Mongol Rus', and the agricultural production that served them, provided the supplementary commodities the Cumans needed (Miller 1992, 235–237). Some of these places were even under Cuman control, such as the city of Sudak, where Cumans bought fabrics in exchange for furs of foxes, beavers and squirrels, as well as slaves, which they sold for Levantine merchants (DeFrémery 1849, 457; Spinei 2003, 225). Anna Komnena mentions the city of Cherson which worked as a Byzantine-nomadic trade hub in the 11th century, where nomads bought various goods (*Alexiad*, p. 238). Although trade must have been controlled by the élite, simple commoners may have been involved as well; Rubruk notes that Mongol commoners also traded with sheep and skins in order to obtain grain, clothes or other commodities (Nooan 1992, 318–319).

The way how the Cumans procured plant-based staple food is, however, not elaborated upon in the sources, even though it is clear that their diet could not have been exclusively animal-based. Anna Komnena mentions: “[...] the Comans who frequented the place [the city of Cherson— K.L.] for trading purposes, and for carrying home necessaries from that town [...]” (*Alexiad*, p. 238)², which probably testifies to the role of trade in securing everyday items they themselves did not produce. This suggests that the Cuman economy was not self-sufficient but intertwined with intensive commercial relations, which at the same time made it possible for the mobile population to specialize in animal-related activities. Steppe horses seem to have been a pivotal commodity of trade between the Slavic merchants and Mongols, Cumans and Pechenegs. “Tartar horses” were held in high esteem (Kleimola 1995, 201f.), and thus a complex and sophisticated web of trade emerged between the Cumans and the Rus' élite, with good quality horses as the most important commodity (Nooan 1992, 309).

It is important to note, however, that although there was a vivid trade with the settled communities, the Cumans never developed such an organized system of trade as did the Khazars and West Turks, simply because there was no central state power which could have provided a framework for a safe international market with major hubs conveniently approachable by many routes. On the contrary, they were divided into different tribal units which all had their own leaders and interests. Similarly to the Pechenegs, the Cumans could not

² It must be kept in mind, however, that Komnena's account is also highly stereotypical of Cumans; according to her, they are: “[...] barbarians [who — K.L.] have lightheartedness and changeableness as natural characteristics [...]” (*Alexiad*, p. 241), and who were “[...] longing eagerly to gulp down draughts of human blood and take their fill of human flesh, as well as to carry off much booty from our country [...]” (*Alexiad*, p. 238).

establish a central power in the form of a khaganate or state formation (although there were attempts to establish a centralized power in the early 13th century, which was then swept away by the Mongol attacks; Golden 1991, 78f.). This was due to the relative strength of local leaders who posed competition to each other, both in terms of political influence and control of the pastures (although they did form temporary military alliances; Noonan 1992, 305).

Central places of commerce, such as Cherson or Sudaq in the Crimea, played an important role in the trans-steppe trade, and were sometimes protected by the Cuman khans (Noonan 1992, 324f.). It is, however, not clear how these market hubs influenced Cuman settlement. In all probability, the winter camps, like embryonic towns, as well as these big market hubs, were places where pauperized pastoralists could find means of sustenance if they lost their livestock.

Raiding presented a viable alternative to trade. Noonan came to the conclusion that these were inherent in the Cuman — Rus' co-habitation and were in fact acts of "licensed and controlled predation" (Noonan 1992, 305, 316). Human trade — that is, a trade with Christian prisoners as slaves and serfs — was also an important source of income in the 11th–13th century Pontic steppe³. The Cumans aimed to capture as many slaves as possible and then asked ransom for them or sell them. Those that could not be used in the nomadic economy were sold on the markets of the northern Black Sea and thus contributed to the trade with Crimean markets.

The local division of labor in terms of agricultural production versus animal herding is an issue that must be raised. It is possible that tasks were ethnically or socially divided, serfs or slaves doing small-scale land cultivation, while the Cuman aristocracy and most commoners stayed mobile and their activities were rather organized around livestock management. It is certain that slaves contributed to their economy a great deal. However, it is interesting that the medieval sources usually mention slaves and captives as serfs kept around the household or soldiers sent to the first lines in battle, but not as peasants toiling the land. In fact, engaging in tillage was not necessarily a result of impoverishment, cattle loss or lower status: a precondition for land cultivation is stored grain, suitable pieces of land, equipment and draught animals. Therefore, poorer families on their own usually could not start land cultivation, and even if they tried, the rent of draught animals and grain for sowing did cost a large part of the harvest (Vainshtein 1980, 158).

³ *The Laurentian Chronicle* reports on a Cuman raid of the town of Torchesk, 65 km south of Kiev, in 1093: "The Polovtsians [that is, the Cumans — K.L.] after seizing the town, burned it. They divided up the people and led them to their dwelling places, to their own relatives and kin. Many Christians suffered [...]". This account is even more interesting as the inhabitants of this town were mainly Pechenegs and Oghuz, and the story shows how the Kipchak elite displaced the Pechenegs from their ruling status in the steppe zone (Christian 1998, 357; see also *Primary Chronicle...*, p. 179).

III. THE CUMAN MIGRATION TO HUNGARY

Cumans had intensive contacts with Christian states after they first appeared on the southern borders of the Russian Principalities in the mid-11th century; they also had frequent conflicts with the Hungarians. After the battle at the Kalkha River in 1223, the Mongols regarded Cumania as their rightful possession and the Cumans as their subjects, and thus a rapid movement of the steppe population to the West began. As a devastating military conflict with the Mongols seemed inevitable, a Cuman khan, Kuthen asked for asylum in Hungary in 1239, and entered the kingdom with a larger body of people. By that time the Cuman-Hungarian connections became closer, mainly due to missionary activities and the establishment of the Cuman bishopric in Milkov under the jurisdiction of the Hungarian Church.

At the time of the first Cuman migration wave in 1239–1240, the Hungarian king Bela IV desperately needed military allies against the approaching Mongol armies, and saw an opportunity in using the Cumans as auxiliary military forces. Their armies had only cavalry troops but these were superior to European armies in terms of agility and the knowledge on steppe warfare (Spinei 2003, 227). Moreover, Bela IV needed supporters not only against the Mongols, but also in his struggle against influential Hungarian barons, as he wanted to stabilize his own position as a political leader. Shortly after their arrival and baptism, however, news reached the court that there were Cumans in the Mongol army⁴. The spreading news caused a panic that the Cumans are actually Mongol spies in disguise. Khan Kuthen, his family and retinue were killed in a spontaneous assault, after which most Cumans left the country. This also meant that the Hungarian king lost his military ally on the eve of the Mongol attack.

In 1245, only a couple of years after they left and Hungary suffered a devastating defeat from the Mongol armies, the king invited the Cumans back. The population loss in Hungary, caused by the Mongol Invasion and the famine that followed made it crucial for Bela to invite new settlers⁵. However, little is known about this second migration wave. Those who came back to Hungary to settle here for good were probably not identical to those who left the country a few years earlier; other Cumans who originally lived in Bulgaria must have joined them as well⁶. The military role previously played by Pechenegs was now taken over by the Cuman forces (Pálóczi Horváth 1994, 10) that served as mercenaries in the king's army and supported Bela's campaigns in Austria,

⁴ In fact, these were Cumans previously captured, made slaves and forced to fight, as it is reported by John of Plano Carpini and Thomas of Split (Plano Carpini, p. 58; *Thom. arch.*, p. 285).

⁵ Although the settlement concentration and village desertion process had started earlier and was accelerated by the Mongol Invasion, the destruction was severe in the Great Plain where the Cumans found their new home. The impact of the invasion varied from one region to the other. In the middle region of the Plain, around present-day Kiskunfélegyháza, 75–90% of the villages were destroyed and abandoned (Rosta 2009, 191).

⁶ They had been camping somewhere on the lower Danubian Plain since they left Hungary. The confusion that followed the death of Tsar Coloman Asen I of Bulgaria in 1246 may have put some pressure on them to migrate back to Hungary on Bela's invitation (Pálóczi Horváth 1989, 52).

Styria and Moravia (Pálóczi Horváth 1989, 68–77). Therefore, their nobility had a strong influence in the royal court and continuously reinforced its political status. Aristocratic family ties were quickly formed⁷. Cuman influence reached its peak during the reign of Ladislaus IV (also called Ladislaus the Cuman), who tried to settle the dispute over the Cumans' legal standing and ease the tension between his court and the Church by issuing the Cuman Laws in 1279⁸. These, on the one hand, granted them a good measure of internal independence, but on the other hand, compelled them to assimilate into the feudal state.

The early 15th century brought important changes in the Cuman minority's life. They were not needed anymore in the army and thus were more looked at as taxpayers than military allies. A pivotal step in the Cuman integration process was the creation of the so-called *sedes* system. The *sedes*, or Cuman seats, were administrative units of the state, organized in the areas inhabited by the Cuman population. This meant that instead of an ethnically organized legislation, a territorial-based organization was set up. Some privileges and internal autonomy was still preserved, but now it was organized within administrative units under state control (Hatházi 2004, 185). At the same time, Cumans were more and more often mentioned in charters as *rurales*, that is, peasants involved in land cultivation (Hatházi 2004, 184). This again signifies an acceleration of the integration process.

Thirteenth-century Cumans entering Hungary appear in the sources as mobile pastoralists politically organized into a chiefdom-level society, which represented a lower level of political complexity compared to the Hungarian state. Thus, the Cuman entry to Hungary was a movement of a fragmentary tribal alliance into a numerically superior sedentary society: the integration of a small group who were in a dependent position⁹. At the same time, Cuman social structure

⁷ Bela IV wedded his son, who later became King Stephan V, to the daughter of the new Cuman khan in 1254. It is not clear if she was the daughter of the late khan Kuthen or another Cuman leader, Zeyhan. The latter is more probable as he is named as a relative of the king in a charter issued one year later (Gyárfás 1873, 307; Szűcs 1993, 18).

⁸ This text was supposed to regulate the rights and duties of the Cuman minority. The original text has been lost; a 1339 copy is stored in the Archives of the Vatican. The historiographical tradition knows about two texts, the First and the Second Cuman Law, the first of which was long considered a draft, while the second included a longer and more precise description of the landed properties donated to the Cuman minority by the king. This second text, however, seems to be an 18th-century forgery that was compiled when the inhabitants of Cumania fought over the property rights of their lands (Berend 2001a, 89–92; 2002).

⁹ Much debate has been focused on the number of Cuman families migrating into Hungary. Master Roger wrote about 40,000 families (“[...] preter ipsorum familias circa quadraginta milia dicebantur [...]” [GH, *Mag. Rogerii*..., p. 140]). This account, however, is questionable; it is not even clear whether the word *familia* means family members and servants or only the former. András Pálóczi-Horváth tried to estimate the number of Cumans on the basis of the extent of their lands, and came to the conclusion that the arriving Cumans counted 70,000–80,000 souls. Estimating a ca. 30% population loss in the thirteenth-century Cuman revolts and the emigration of certain groups, he calculated their number in the early fourteenth century as 50,000–60,000 (Pálóczi-Horváth 1989, 61). This figure is, however, obviously imprecise. Nóra Berend estimates the size of the Cuman minority as comprising up to 7–8% of the whole population of the Kingdom, but admits that this ratio cannot be calculated with precision since the number of the Hungarian Kingdom's inhabitants is unknown (Berend 2001b, 105).

was disintegrating and reorganizing, and there were no remaining contacts with outside forces or other Cuman communities to counterbalance this process. Therefore, Cuman commoners probably integrated into the host society relatively quickly. Elements of ethnic identity, such as the Oriental dress and hairstyle, however, survived well into the 14th century as attested by pictorial representations as well as archaeological finds, although Cumans they definitely entered the Hungarian commodity market and adopted elements of the Western attire (Pálóczi Horváth 1982, 99–101; Hatházi 2004, 131f.)¹⁰.

According to earlier scholarship, the arriving Cumans maintained a nomadic lifestyle in the first one hundred years after their migration to Hungary (Kring 1932, 42; Marjai Szabó 1946, 97–98; Szabadsfalvi 1984, 60; Györffy 1990, 250–253, 260; Spinei 2003, 221), but this was questioned already in the 1980s by László Selmeczi (Selmeczi 1988). The image of a nomadic people constantly on the move seemed supported by place names associated with early Cuman presence. Charters often designate Cuman communities with the construction *in circuitu villarum*, *circa ecclesiam*, or *iuxta locum*, suggesting not yet fixed forms of settlements but rather temporary camps. The term *descendus* (dwelling, camp) is also regularly used, often with Turkic personal names of possible Cuman leaders. Nevertheless, these ambiguous place names might well reflect the uncertainties caused by the Cuman naming practice, according to which the settlements' names changed in every generation to correspond the name of the community's leader (Bereend 2001a, 138)¹¹.

The fact that many settlement names appear only in the 15th century also reflects the sporadic nature of the charter evidence rather than a system of early nomadic movements on the Plain. Hatházi calculated that the area at one Cuman family's disposal could not be larger than 40–50 km², which was definitely not enough to support real nomadism (Hatházi 1996, 28). Communities might have moved within smaller areas but this movement had nothing to do with nomadic practices where large distances are covered and different ecological niches exploited both by the human population and the animal herd.

As an often cited example, there is a report on Cumans living in tents as late as in the mid-14th century: in 1347, Kuncheg, the chieftain of the Cuman Chertan clan had a charter issued in which he allowed a Hungarian aristocrat, Töttös, to have ownership of twelve Cumans (or Cuman families¹²) who had

¹⁰ On the other hand, Cuman attire and armament was fashionable in the 13th century, probably as a result of the Cuman élite's high status. The steppe-type saddle, the reflex bow, the leather armor, the kaftan, the belt and the high felt cap appear again and again on wall paintings and miniatures from this period; elements of the typical attire were found in high status Cuman graves as well as in cemeteries of commoners (Zichy 1934; Pálóczi Horváth 1980, 408–409, see also Footnote 38; 1982; 2003, 294).

¹¹ This is also supported by archaeological observations of the early Cuman settlements (Rosta 2009, 199)

¹² It has been questioned if the charter talks about 12 men or 12 families. In fact, in the *Codex Cumanicus* the term "yurt" is used not only as "tent" but also as "household" (Györffy 1990, 258; Hatházi 2000, 228).

originally belonged under his authority but escaped from his territory to the land of Töttös. These are described as Cumans living in “felt houses” (*filtreas domus habentes*; cf. Gyárfás 1883, 72f.). In this case, however, living in tents was definitely not equal to being mobile, because these people were refused to move around freely. Hatházi even argues that their repeated escape from the authority of a Cuman chief to a Hungarian lord suggests that the latter meant a more tolerable fate (Hatházi 2000, 216f.).

Recently, the research of Szabolcs Rosta also questioned the early mobility of the Cumans in the Great Plain. He systematically re-investigated ca. 100 late medieval places in the area of Lesser Cumania (the Danube-Tisza Interfluve region), analyzed the early settlement network and came to the conclusion that fixed settlements appeared earlier than it was previously thought; in some cases permanent settlement is evidenced already in the 13th century. If there was any form of mobility practiced, it must have been the privilege of a small élite. At the same time, landed properties associated with early Cuman presence in Lesser Cumania are surprisingly clustered and seem relatively closed (Rosta 2009).

Settling in Hungary obviously presented a very different economic situation than the one in the steppe region. The migrating Cuman community was a diverse group of refugees, who must have been forced to abandon all forms of land cultivation and focus on animal herding alone while fleeing from the Mongols. However, the possible sources of income were now fundamentally different from what was usual in their previous interactions with state-level societies. Raiding was not an option and mercenary services were needed only for several decades. Animal husbandry, however, remained a leading branch of agriculture as the Cumans found their place in the new economic nexus.

In 14th–16th-century Hungary, settlement concentration and the abandonment of smaller villages accelerated parallel to the development of market towns. This was most evident in the Great Plain, including the Cuman areas. The market towns had a key role in the redistribution of fields and pastures that belonged to abandoned villages; due to the growing importance of animal production there was a constant competition for the available pastures and hay harvesting resources, and the success in this competition could decide the fate of a village. The dynamically changing settlement network provided opportunities for the wealthier settlements to acquire abandoned lands (Neumann 2003); those villages that could obtain new pastures had the best chance to economically flourish (Zimányi 1976, 132).

By early 16th century, peasant society had become highly differentiated from a financial point of view (Bácskai 1965, 83). The most important factor in this regard was — in addition to wine production — the growing trade of animals and animal products, which was extensively practiced throughout the Great Hungarian Plain. The cattle trade, mainly to Germany and Italy but also to domestic markets, became the most important sphere of agriculture, as it met the growing demand for meat in Western Europe, especially in Venice and Nuremberg (Kiss 1979). Cattle herding gained a new emphasis in the period of

the Turkish-Ottoman Occupation (animal herds, as opposed to landed properties, could be driven away in cases of danger, and thus offered a more reliable form of sustenance in wartimes; moreover, the military posed a continuous demand for animal-based food).

IV. CUMAN ANIMAL HUSBANDRY IN GREATER CUMANIA: A CASE STUDY OF A LATE MEDIEVAL CUMAN VILLAGE

Due to the lack of extensively excavated and documented early sites, it is mostly the later phases of Cuman integration that are archaeologically perceptible (the 14th–16th centuries). It is crucial to synthesize information from written records and archaeological excavations as these sources reveal different aspects of the same integration process, and reflect different spheres of everyday life, from large-scale animal trade to animal-related household activities.

The area known today as Greater Cumania is located east of the Tisza River in the Great Hungarian Plain, in the southeastern segment of present-day Jász–Nagykun–Szolnok County. The medieval history of this region after the arrival of the Cumans is complex, and landed properties often changed ownership. Cuman villages were interspersed with smaller areas in non-Cuman possession, and so the trajectory the fate of these Cuman communities took largely depended on the geographical situation, immediate environment, property relations, economic and market opportunities of the individual settlements (Pálóczi Horváth 2009, 220). A. Pálóczi Horváth identified 41 settlements in this area, dated to the 14th–17th century, associated with Cuman population or under Cuman ownership, to which 9 settlement names (probably early, temporary camps, not yet located and identified in the archaeological record) were added. Some of these are known from late 14th-century documents (Pálóczi Horváth 2009, 224–226), but most of them only appear later in the written sources.

The original, thirteenth-century habitation area of Cumans in this region is unknown. The earliest (although indirect) data on Cumans in present-day Greater Cumania comes from the late 13th century, when noblemen who had properties around present-day Abádszalók had to flee from the revolting Cumans (Bági 2007, 18). Most probably, Cumans of the Olas clan were settled here (Györffy 1987, 531). The name Olas first appears in a charter in 1328 (Mándoky Kongur 1976, 56), and almost two decades later, a document from 1344 reports that king Louis the Great took two Cumans under his protection and made them exempt from the jurisdiction of the leader of the Olas clan, after that they escorted him from the village of Túr to Kócs during the night¹³.

¹³ Györffy suggested that this area corresponds to modern-day Greater Cumania, and helping the king find his way through this land during the night certainly required a profound knowledge of the region, and thus the Cumans living here must have been members of the Olas clan (Györffy 1990, 302).

It is not certain, however, if there was an actual clan defined by blood ties behind this name or this community consisted of smaller, perhaps diverse tribal fragments. According to A. Pálóczi Horváth, the clan known in the Carpathian Basin as *Olas* (from the Cuman word *ulaš* “achieve, unite”; Mándoky Kongur 1976, 56; Pálóczi Horváth 1989, 56) is identical to the *Ulaševiči* group mentioned in 12th-century Russian chronicles, whose fragments turn up in Anatolia and among Turkmen tribes in the 16th century (Mándoky Kongur 1976, 56f.; Pálóczi Horváth 1989, 56; Györffy 1990, 308). The linguistic analysis of place names in present-day Greater Cumania suggests that names of different clans or extended families are present; this might signify that the clan, whose name refers to the word ‘unite’, in fact united groups with different backgrounds (Selmeczi 2011, 29f.)¹⁴. It is not clear, however, how these groups might have related to each other, or if they had the same economic tradition, level of sedentism and social stratification at the time they arrived.

Not much is known about the internal affairs of this region in the 14th century; most documents that mention the area are donation charters. It is certain, however, that this region became part of the administrative unit of Kolbazzék when the *sedes* system was established in the 15th century¹⁵. Cases when Cumans fought for the ownership of landed estates in the area, both arable lands and pastures, are known from the early 16th century onwards, and may signify an economic as well as demographic expansion (Pálóczi Horváth 2002, 50; 2009, 222). Serious fights for the property rights of pastures, such as the one between the Cumans of Kolbazzék and the Hungarian peasants of Kenderes that escalated into an armed conflict in 1522 (Kormos 1979, 26–29; Pálóczi Horváth 2009, 223) might pinpoint the increasing importance of animal husbandry and a strong competition for pasture and hay¹⁶. The toll registers from 1560 and 1563–1564 from the ferry on the Danube at Vác testify to animal trade from the region of Greater Cumania to the northwest, although not in large quantities (Kocsis 1986, 27f.).

Double taxation was widespread in the region after the Turkish-Ottoman Conquest. The conscription from the castle of Eger in 1577–1579 mentions that inhabitants of the Cuman administrative unit of Kolbazzék paid their taxes in the form of money and labor, but also in the form of grain, butter, cheese, cottage cheese, fattened oxen and bacon for the Eger castle (that is, Hungarian royal authorities) (Gyárfás 1885, 132; Botka 1987), while at the same time

¹⁴ The linguistic analysis was done by I. Mándoky Kongur (1993, 146–153), but the interpretation comes from L. Selmeczi.

¹⁵ “Kolbaz” was definitely a personal name; I. Gyárfás suggested on the basis of an analyzed family tree that Kolbaz might have been the name of the leader of this particular Cuman community at the time of their arrival in Hungary, after whom the whole area was named. (Gyárfás 1883, 272.)

¹⁶ According to the document that reports on the conflict in 1522, the Cumans of Kolbazzék not only attacked the Hungarian peasants of Kenderes, but also stole their livestock; witnesses claimed that the Cumans in fact came especially for the cattle and sheep, and their meat was later cooked and sold in the marketplace of the Cuman village of Kolbazzállás (Kormos 1979, 28).

they were obliged to provide fattened oxen, dairy cows, butter and cheese, occasionally also lambs and bees to the Turks as tax (B o t k a 1987). This means that dairy cows, dairy sheep, fattened cattle and swine kept for market purposes formed an important resource of sustenance, and even though these settlements did not participate in the remunerative animal export, local trade connections may have been very much alive.

However, the continuous fights between the Turkish-Ottoman and royal forces meant a serious economic stress, and livestock must have often been damaged or stolen. According to the Turkish tax rolls of nearby Szolnok in 1591, tax was collected after almost all species of the livestock; however, swine younger than one year were exempt from tax paying, although using the forests for feeding them on acorn had to be paid for (Á g o s t o n 1988, 233). This definitely encouraged peasants to keep swine for their own consumption purposes. However, taxation must have been a serious burden for the population, as it is also evidenced by complaints to the Eger castle¹⁷.

V. THE CUMAN VILLAGE OF ORGONDASZENTMIKLÓS

The second segment of the village's name definitely refers to the patron saint of its church, St. Nicolaus (B a g i 1994, 84; 2007, 75).

Not much is known about the village's medieval population, except that it was situated on the territory of the Olas clan and was considered a Cuman village. The village's cemetery, excavated by László Selmeczi in 1971, presented early graves of commoners in which unusual phenomena — identified as possible Cuman customs — were observed. The arms of a young man buried in the mid-14th century were not crossed but straightened beside his body; however, objects buried with him (jewels with Christian symbols) already reflect "official" religious values (S e l m e c z i 2006, 265; 2009, 21f.). Cloths woven of reed placed under the body of the deceased were also discovered (similarly to the cemetery of nearby Cuman Asszonyszállás¹⁸); this practice does not have any precursors in Central

¹⁷ The peasants of Mizse complained that they were required to perform a variety of agricultural labor as part of their tax, which meant an almost continuous work (B o t k a 1987, 214).

¹⁸ The 14th–16th-century cemetery of Asszonyszállás, the neighboring village of Orgondaszentmiklós, reveals intriguing details on the level of integration of Greater Cumania's Cuman population. Although all the dead were buried in coffins and according to proper Christian manners, a number of phenomena that might be classified as remnants of pagan customs were discovered. Archaeobotanical examination revealed that all bodies, irrespective of the status of the deceased, were wrapped in a cloth made of reed before they were put into the coffin. This practice was unknown in the Carpathian Basin before, and only appeared with the migration of the Cumans. Remains of *Claviceps purpurea*, a toxic fungus that grows typically on rye and was used for medical purposes, and *Artemisia* plants, species associated with grieving, were unearthed in a couple of graves, placed around or under the head of the deceased. Teeth of horses were found in two graves; Selmeczi interprets this as a symbolic horse burial. It seems that at Asszonyszállás and thus, probably also at Orgondaszentmiklós, Cuman acculturation was not yet completed in the 14th–16th century, but some (although only minor) elements of their specific cultural background were still preserved (S e l m e c z i 1992, 13–19; 36).

Europe but is evidenced from the region of the Donets River from the 11th–13th centuries (Selmeczi 1992, 36). Grave no. 40 of the village's cemetery yielded the whole skeleton of a dog, which was placed under the head of the deceased, clearly evidencing some form of a pagan ritual¹⁹.

Taxation data of the village are available only from the second half of the 16th century. The Turkish-Ottoman Wars severely affected Orgondaszentmiklós: in 1571, 29 houses were conscripted (Györfy 1956, 25), but in the 1577–1579 tax roll, the population consisted of 7 peasants and one person without landed property (*pauper*). They paid their tax in the form of grains, butter and cheese (on top of tax paid in money and in labor; cf. Botka 1987, 242). Interestingly, the Turks collected tax after all pigs, which was unusual: according to the tax rolls, Orgondaszentmiklós was the only village where this form of tax was collected. This means that swine keeping must have been of special importance here. The village's situation got worse during the Fifteen Years' War, and at the end of the 16th century it was definitely destroyed. In 1594–1595 it was conscripted as a completely deserted settlement (Elek 2006, 31).

The first excavations were carried out by Lajos Bartucz and István Györfy in 1926, whose findings and documentation were unfortunately not properly preserved. However, almost 20 years later M. Bárányné Oberschall wrote that Orgondaszentmiklós was definitely a Cuman settlement, based on the clothing items found in the graves and the anthropological features observed on the skeletons (Bárányné Oberschall 1942, 7; Selmeczi 1996, 59; Bárányné Oberschall mistakenly placed the site to the historical Csanád county). The site was further researched in 1970–1973 by L. Selmeczi; the faunal material to be discussed here was unearthed during this excavation. Unfortunately not the whole village, only two plots and their features were brought to light and documented, along with sections of the cemetery. On the surface, the traces of the settlement were observed along a 1 km long stripe. Orgondaszentmiklós was a “one road” settlement: two straight rows of houses were separated by a road that led through the village (Selmeczi 1992, 50). The settlement was situated on the bank of a dead branch of the Tisza River, so the coeval environment must have been wet and rather swampy, just as the whole of the Greater Cumania area (Pálóczi Horváth 1987, 11). Selmeczi dated the excavated archaeological features to the 14–16th century, although early graves with grave goods dated to the late 13th century were also found in the village's cemetery (Selmeczi 2006, 20f.). Thus, Cumans may have been present in the village right after their mid-13th century migration.

Based on the observations he made during the excavations, Selmeczi presented Orgondaszentmiklós as evidence for the structural similarities between Cuman

¹⁹ Moreover, this is not a practice that can be performed in secret or can escape the attention of church officials, so it is challenging to explain how this could have taken place in a cemetery that largely reflects Christian customs (Selmeczi 1992, 40). This skeleton, however, has not been found in the museum's collection; it might have been lost.

and Hungarian settlements. In his view, the basic structure of the 14th–16th century village did not significantly differ from what was usual for other coeval communities on the Great Hungarian Plain, apart from the presence of a yurt in the backyard (Selmeczi 1992). However, the yurts, whose bases were un-earthed on two separate plots next to a house and a pit-house, signify important cultural differences. Even more interesting is the fact that the same type of yurt base was found next to a pit-house and next to a properly built one, which suggests that yurts might have been used regardless of the financial position of a family (Selmeczi 1992, 72). The use of these structures might also reflect the increasing necessity of mobility in the 16th century due to the conflicts with Turkish-Ottoman forces. These yurts could have easily been dismantled and built again in case of danger. This is also supported by the lack of burning traces on the place of one yurt while the contemporary house next to it seems to have burnt down (Selmeczi 1992, 71). Selmeczi suggested that the yurt might have been occupied during the summer, as its entrance was on the coldest, northern side, while the entrance of the proper dwelling house opened in a southeastern direction (Selmeczi 1992, 55). Structures related to animal keeping were also brought to light: a fold or stable of 10 × 4 m size, and a pit-stall were discovered (Selmeczi 1992, 51; 1996, 65–66).

A relatively large number of animal bone remains (1654 pieces), representing kitchen refuse, was collected from this site, 1167 fragments of which could be precisely identified²⁰. Most of the bones are badly damaged as they were broken up or chopped during butchering and cooking, and most of them had been gnawed by dogs. This resulted in a number of unidentifiable pieces. This also means that rubbish was disposed in an open area where dogs had access to it. As the dating of the excavated features spans over three centuries without a clear internal chronology, differences between separate phases are unavoidably eliminated in the record. Here, only a few aspects of the faunal material will be discussed.²¹

The species list of the site contains the expected domesticates: cattle, horse, sheep, goat, swine, dog, cat; poultry (domestic hen, goose, duck), and three types of wild game: red deer, hare and wild boar (see Diagram 1) Cattle dominates the assemblage, while horses and small ruminants (sheep and goat) are represented in similar ratios. Swine, an animal not kept in the Eurasian steppe region and most definitely not bred by the Cumans in their previous homeland, is present with a somewhat lower, but still significant ratio. Wild game are represented only by four bones, which means that hunted animals only rarely contributed to the diet. Kill-off patterns reveal a low number of animals slaughtered at a young age; even in case of swine that is usually culled when it reaches its

²⁰ Given the archaeological methodology of the 1970s, precise methods (sieving, flotation) were not used, the bones were collected by hand, which is reflected in the average size of the finds (the smallest pieces are 3–4 cm long). This reflects an unfortunate but unavoidable loss of information.

²¹ A comprehensive study of animal bone remains from Cuman archaeological sites is provided in the author's PhD dissertation entitled *The Socio-Economic Integration of Cumans in Medieval Hungary. An Archaeozoological Approach* (see now Lyublyanovics 2018).

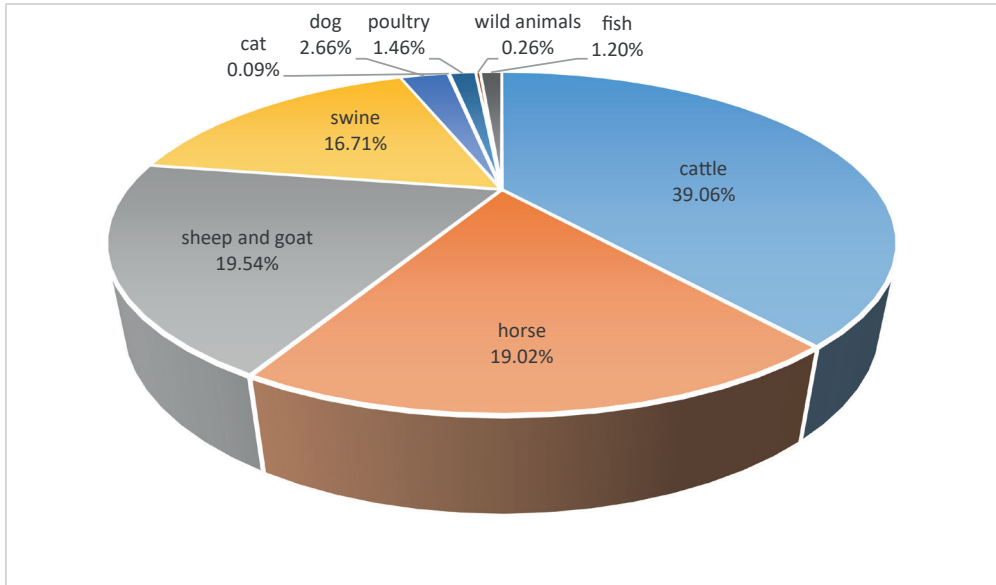


Diagram 1. The ratios of faunal remains unearthed at Karcag-Orgondaszentmiklós (n = 1167); computer design K. Ljublyanovics

ideal weight, juvenile animals do not exceed 12%. This ratio is especially low in sheep (5.3% respectively), suggesting an emphasis on secondary exploitation, that is, wool and dairy production, for which adult individuals were needed. Old animals were very few, and exclusively cattle and horses.

The species list is not exceptional; the ratio, however, is unusual in a late medieval Hungarian context. The most striking fact is the remarkably high ratio of horses. Moreover, butchered horse bones are available from the site, which indicates that their meat was consumed, and thus their ratio in the kitchen garbage probably reflects their ratio in the meat consumed²². Butchered horse

²² A short summary of the debate on horse consumption in medieval Hungary was provided by I. Vörös (2006, 176–180). In the previous decades, S. Bökönyi considered the practice of horse consumption to be a remaining pagan custom (Bökönyi 1974, 40; 1981, 256). I. Vörös warns that almost all texts that advise against horse consumption refer to sacrificial contexts, that is, the consumption of horses sacrificed to pagan deities; the meat of “everyday horses”, however, was allowed to be and was, in fact, consumed on a regular basis in medieval Hungary, as it is clearly shown by the horse bones present in the kitchen refuse (Vörös 2000, 96f.; 2006, 180). Horse bones are always present in the refuse excavated from Cumans sites, and these finds have been associated with steppe nomadic customs, especially in connection with the Cuman village of Szentkirály in Lesser Cumania. The situation, however, is not entirely clear. I. Takács concluded that the high number of horse bones in the Szentkirály material must reflect a surviving nomadic practice of horse consumption; he even found traces of partitioning on horse skulls similar to those observed on cattle skulls (Takács 1990, 99–101). É. Á. Nyerges, however, found no clear evidence for hippophagy in the Szentkirály assemblage, and rather connected the cut marks present to skinning, although she and L. Bartosiewicz did not exclude the practice of horse consumption (Nyerges 2003a, 268; Bartosiewicz, Nyerges 2006, 338). T. Somhegyi also noted that the horse bones he examined originated from skeletal parts carrying low

bones included femur, humerus, tibia and scapula, skeletal elements which are not associated with leather production in any way but represent good quality meat. The unambiguous butchering marks leave no doubt that horses were consumed on a regular basis.

The question of the special attitude towards horses is raised in connection with a pelvic bone that shows signs of a dislocated fracture, an injury that could not have been healed without human intervention. This find is unique in the Hungarian record. The iliac shaft broke into two in a ca. 10 cm distance from the acetabulum. The ilium was shortened and the normal angle of the ilium changed, while newly formed osseous tissues contributed to the distortion of the skeletal element. The pelvis comes from an adult individual; as the find was only a fragment of the whole pelvis and its shape is distorted by the observed pathology, it was not possible to determine whether it was a mare or a stallion (for a more detailed description of the find; see Bartosiewicz 2013, 61f.).

Fractures of the pelvis are usually traumatic and are mostly associated with accidents such as falling and slipping (Baxter 2011, 389). Such finds are extremely rare in the archaeological record, as displaced fractures of the pelvis — even though pelvis fractures are not at all uncommon — are difficult to heal even in the modern veterinary praxis²³. Such injuries are usually treated conservatively; a stall rest of at least 3 to 4 months are required in case of an adult individual (Auer, Stick 2012, 1449). This means not only confinement but also support bandaging. From medieval times there is evidence for the application of a sling that allowed the animal to rest its limbs by lowering its abdomen, as it is shown on a miniature in the 14th-century veterinary treatise of John Alvares de Salamiellas (Bartosiewicz 2009), or in a 13th-century Italian treatise on equine medicine by Jordanus Ruffus (Driesch 1989, 122). Although relatively simple, this method required labor and attention from the owners' part, and probably a continuous supervision of the injured animal. It is unlikely that the animal was able to perform in any kind of work after healing.

The find itself does not reveal the method of treatment. It is, however, telling, that money and time was invested into the treatment instead of simply slaughtering the horse, even though the consumption of horse meat was a regular practice in the village. This might signify an attitude that reflects the overall value attached to horses. Earlier historical accounts of the Cumans often mention the special role horses had in their rituals (William of Rubruk describes horse

quality meat and were probably not connected to horse consumption (he, however, failed to recognize in this argument that parts described today as less valuable may have been considered delicacies in past cultures; Somhegyi 1998, 11) A. Körösi came to the same conclusion when she examined the animal bones from pit stall no. 2 at Szentkirály (Körösi 2006, 372). At Orgondaszentmiklós, however, horse consumption was undoubtedly practiced.

²³ The prognosis depends heavily on the degree of displacement, as the displacement itself can be the root of various problems, such as deformation of the contralateral limb, muscle wasting as a consequence of pain, coxofemoral arthritis, or the compromise of the birth canal in mares. In adult individuals, if the ilium is involved, laceration of the iliac arteries may contribute to acute death (Pilsworth 2009, 139; Baxter 2011, 389).

sacrifices connected to burials and the consumption of horses on burial feasts; these customs were apparently kept even in some cases when the deceased was baptized; Horváth 2001, 126). Cumans served as mercenaries in the Hungarian army well into the 14th century, and they were mostly mounted archers. This practice required many and perfectly trained horses. Cuman warriors usually took two or three horses with them, to which the horses used as beasts of burden must be added; in a military campaign in 1260, they constituted an army of 40,000, which means that ca. 100,000 horses were needed to furnish their army (Gyárfás 1873, 154). Even though Cumans did not have this military function anymore after the mid-14th century, the social value and status attached to the animal might have been preserved.

The question if Cumans bred different types of horses than those widely available in the country is still to be answered. In the Orgondaszentmiklós material, only one horse metatarsal bone was suitable for withers height calculation; this belonged to an individual that measured 142 cm at the withers, which is a little higher than the average size of horses in Hungary in this period²⁴. In fact, a stallion of similar size was unearthed from a 13th-century Cuman nobleman's grave in Lesser Cumania, Csengele²⁵. This individual's DNA analysis revealed a genetic similarity to Arab horses, the Seglawi Arab bloodline, respectively, which is one of the oldest and well-documented Arab horse lineages (Priskin 2006). This bloodline is nowadays known for refinement and almost feminine elegance, and horses of this strain are more likely to be fast rather than having great endurance, which makes them perfect animals of representation (Lynghaug 2009, 181). The traveler Bertrandon de la Brocquière, who also happened to be the horse master of Philip the Duke of Burgundy, wrote about the huge herds of excellent horses he saw in Lesser Cumania (Szamota 1891, 91f.). It is not likely, however, that horses possessed by the Cuman élite were of the same quality and phenotype as those possessed by simple commoners in the villages.

Another striking fact about Orgondaszentmiklós is the high ratio of swine. As mentioned earlier, the tax rolls reveal that swine keeping must have been important in this particular village, and Orgondaszentmiklós was the only settlement in Greater Cumania in the 1577–1579 tax rolls where the Turks collected tax after every pig (Botka 1987, 243). Swine is usually considered a typical “backyard animal” that is impossible to keep and graze in large herds simply due to their natural behavior, so their presence is not expected in abundance if traditional species preferences of the steppe zone were still cherished. It is an interesting question whether there was any negative connotation attributed to pigs in the Cuman tradition, but it is unlikely. Traditional legal prohibitions or superstitions would have stopped them from adopting their husbandry, but Cumans accepted swine keeping relatively rapidly.

²⁴ Bökönyi estimates the average withers' height between 135 and 140 cm (Bökönyi 1974, 294).

²⁵ This 7.5 year-old animal measured 143 cm at the withers, and was about 300 kg according to L. Sótönyi's estimation (Vörös 2006, 167).

Even though Cumans were definitely familiar with pigs (a few expressions connected to swine are listed in the Cuman wordlist of the *Codex Cumanicus*; Györfy 1990, 244), the everyday practice of swine keeping was probably adopted from the locals when the Cumans arrived and settled (this is also supported by the observation of Á. Aszt in connection with the Cuman village of Szentkirály, where structures related to swine keeping resemble those seen in earlier Hungarian settlements; Aszt 2005). Swine keeping is remunerative due to the prolific nature of this species, and the wet environs must have provided fodder. In the 1521 perambulation that first mentions Orgondaszentmiklós, places called *Disznósréth* (a meadow used for grazing swine) and *Disznóshalom* (a hill where swine are kept or grazed) are mentioned in the vicinity of the village (Gyárfás 1883, 752), also indicating that by that time the practice of swine keeping must have been so prevalent that natural places were named after this kind of land use.

This also implies that the environmental conditions were favorable for the keeping of swine; in fact, bodies of water supplied not only the people but also the swine with fish. Georg Wernher in his 1551 travel account mentions that pigs were taken to the floodplains after flood so that they could feed on the small fish left behind, but there was so much fish that most of it was left to rot on the meadows even after the pigs fed on them (Wernher 1551). The same is also reported in the early modern period by Matthias Bel, who adds that pigs fed on fish and plants of the floodplains were often much fatter than those fattened at households (Matthias Bel I, p. 15; Matthias Bel II, p. 69).

Forests were also utilized for swine husbandry. Woodland management and fattening must have been properly synchronized, because if all acorn are all eaten, no seedlings will appear next year.

It seems that the Cumans either arrived with a cattle livestock similar to the one already present in the Carpathian Basin, or they simply continued using animals they found locally; it is certain, however, that they did not breed phenotypes radically different from the rest of the local animal population.

Four cattle bones were preserved intact, one metacarpal and three metatarsals; based on the measurements all of them come from cows. Their withers heights are estimated²⁶ to 113, 116, 130 and 143 cm, respectively, suggesting the presence of at least two size cohorts of cattle. The late medieval material from the nearby Hungarian castle of Szolnok yielded bones of cattle of similar size cohorts²⁷. When compared to other cow metapodia from another Cuman village, Móric, as well as Árpád Period (9–13th century) and late medieval Hungarian sites, the cattle at Orgondaszentmiklós seem relatively small, although they fit into the average trend (Diagram 2).

The fact that only bones of cows could be identified suggests that males were fattened and sold, while cows used for dairy production were kept at the households and eventually slaughtered at an adult age (when milk production

²⁶ Calculated with Nobis' method (Nobis 1954).

²⁷ Calculations based on the data published in Bökönyi 1974.

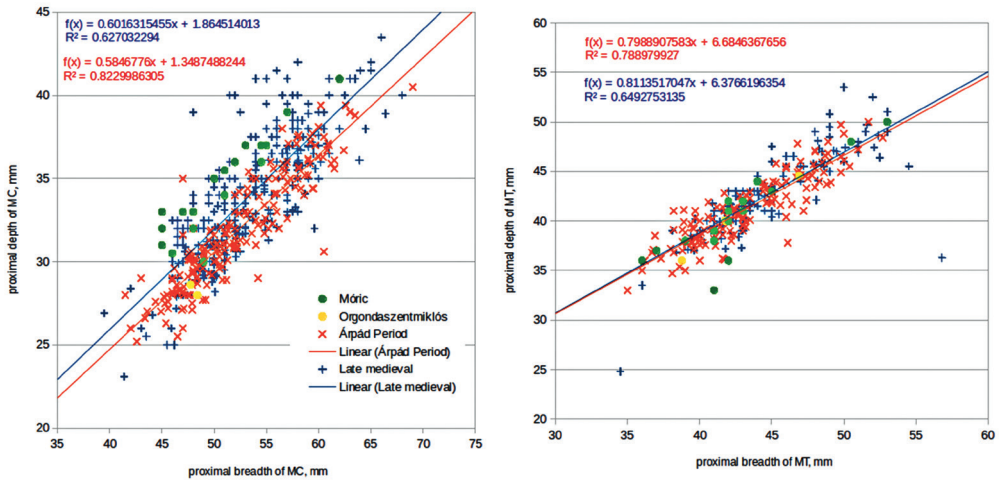


Diagram 2. Metapodial measurements of medieval cows from the Cuman villages of Orgondaszentmiklós and Móric, compared to bones recovered from Árpád Period and late medieval Hungarian sites. Sites included: Kána, Muhi, Orgondaszentmiklós, Túrkeve-Móric, Tiszagyenda, Gorzsa, Vác, Doboz-Hajdúirtás, Hanta, Szentkirály, Gyula Castle, Kardoskút-Hatablak, Tiszalök-Rázom, Kőszeg Castle, Hajdúnánás-Fürjhalmi dűlő, Endrőd 6, Szolnok Castle, Kiskuhalas-MOL5, Buda Caste, Perkáta, Visegrád, Murga-Schanz, Újhartyán, Nagyvázsony-Csepely, Tiszaszőlős-Csákányszeg, Fonyód. $n(\text{MC}) = 540$; $n(\text{MT}) = 330$. The correlation (r^2) is somewhat weaker in the later period, indicating an increased variability of the livestock (comparative data were taken from the following publications: Bökönyi 1974; Bartosiewicz 1995a; Vörös 1996; Somhegyi 1998; Nyerges 2003b; Gál 2004; Körösi 2006; Gál 2010; Daróczi-Szabó 2014); computer design K. Ljublyanovics

was not sufficient anymore). Although charters are silent on the animal trade in this particular region, Greater Cumania definitely belonged to the catchment area of the late medieval cattle trade. According to a mid-16th century report of Sigismund von Herberstein, the plains east of the Tisza River were especially abundant in cattle (Bartosiewicz 1995a, 306). The animals raised for market purposes, however, are necessarily missing from the archaeological assemblage, because they were sold and driven to be slaughtered elsewhere.

Although Orgondaszentmiklós was not mentioned in documents in connection with animal trade, it was typical for the area that wealthier villagers maintained small herds of cattle or sheep that could be sold on the local market. The tax paid by the village's remaining families at the end of the 16th century is not at all exceptional in the region. Most villages paid 5–8,000 akçe altogether, with alternating emphasis on various taxation items. It is interesting, however, that in Orgondaszentmiklós it was only 5 families that paid this amount, while in other settlements similar amounts were collected from 10–20 families (Ágoston 1988, 241–277). This might signify a slight concentration of resources, although the taxes paid after the livestock in this village was not high, and therefore, it is not likely that inhabitants of Orgondaszentmiklós would have possessed huge animal herds (or at least not in the period of Turkish taxation).

The *primigenius* cattle type that starts to spread in the 14th–15th century, and has been considered a “predecessor” of the Hungarian Grey cattle (Matolcsi 1968, 25), does not appear in this assemblage, although it has been proposed that animals that later became known as the Hungarian Grey were in fact brought to the region by the Cuman migrants (Bökönyi 1961, 90). There is, however, no clear evidence that the Hungarian Grey would have had its roots in the Cuman cattle population. At this village, no animal remains were found that would testify to the presence of such beasts.

The low number of fish remains (respectively, 2 common bream and 12 carp bones) unearthed from the village site is not necessarily due to a methodological flaw of excavations in the 1970s, but might also reflect medieval restrictions. The nearby dead branch of the Tisza River called Üllő, which was used as a fishpond in the mid-14th century, was in noble possession and commoners were not allowed to use it for fishing. A 1349 document explicitly prohibits Cumans living around the nearby villages of Abád and Tomajmonostora to use the Üllő pond for their own purposes (Gyárfás 1883, 483). Probably the same prohibition applied to the inhabitants of Orgondaszentmiklós as well.

Nevertheless, other bodies of water might have been legally used for fishing. On the maps of the first and second military survey, the region is shown as abundant in watercourses²⁸. The medieval legal standing of these bodies of water are unknown. It is certain, however, that Cumans in Greater Cumania had access to fishponds: a charter from 1401 mentions Cumans from nearby Kolbazszállás who gained landed properties in the village of Kakat, including three fishponds called Kázmérfoka, Sebesér and Kárászos (Gyárfás 1883, 184)²⁹. According to a 1551 description of Georg Wernher, the Tisza River was also especially abundant in fish. He specifically mentions the carp and the pike, which were caught in large numbers and sold cheap without even selecting them; there was actually so much fish available that some of it was simply left at the marketplace to rot (Wernher 1551).

It is worthwhile to take a look at the bones unearthed from the buildings and their connected features, and see if there are differences in the material associated with features identified as belonging to two separate households. These plots were situated in a 50 m distance from each other, and they seem to represent households of different financial (and probably social) status. On the first plot, which probably belonged to a wealthier family, a tripartite dwelling house of 6 m × 14 m size was brought to light with connected features (pits, trenches) behind it (Selmeczi 1992, 52–55). This type of dwelling is characteristic for the Great Plain in general (Selmeczi 1992, 55), and signifies a high level of acculturation in terms of architecture. In the immediate vicinity of the house

²⁸ The village itself was already abandoned and destroyed by the time the surveys were made, but its location appears in the maps under the name *Orgondahalom* (Orgonda hill); see maps: *First Military Survey*, *Second Military Survey* of Hungary.

²⁹ The latter name means “a place where crucian carps live”.

there were pits, working areas where the grinding of cereals took place, and a phenomenon that was identified as the base of a yurt.

The refuse of this first household is represented by 1268 bone fragments. The second plot yielded significantly fewer pieces, only 215, in which only the main domesticates are represented (which, however, is probably due to sample size). On this second plot two pit houses were discovered, one of which was fully excavated; these structures suggest far less wealthy inhabitants. An interesting find from one of the pit houses is a stove tile which, according to Selmeczi, must have been used as a cup or bowl (S e l m e c z i 1992, 57). Although the difference in sample size inevitably distorts a comparison, but it is nevertheless interesting that the ratio of domesticates is almost identical in the material unearthed from the two plots. The only difference is that there were significantly more swine bones in the refuse from the second household, while the first, presumably wealthier household had more sheep bones in the kitchen garbage. The pathological horse pelvis that testifies to veterinary treatment was also brought to light from the wealthier household.

There are almost no pieces with chop marks from the pit houses (only 3 were found), while there are 46 of them in the material of the first household. This suggests that the inhabitants of the proper tripartite house had access to quality metal tools and could use them when they processed the carcass, while people in the second household did not have such items and tended to break up the bones instead. Most of the long bones are spirally broken, and there are smaller but still visible cut marks inflicted with blunt tools around (below or above) the broken surface of the diaphysis. This means that the bones were hit several times until they broke up spirally. In many cases, there are no cut marks at all, but only a characteristic spiral (helical) break, which testifies that the bones were broken up while still fresh (probably in order to extract the marrow; O u t r a m 2002). This method does not really differ from the prehistoric practice of breaking up the bones with a heavy object.

Greater Cumania, and the region of the Tisza River ("Middle Tisza Region") in general was, according to the synthesizing study of István Vörös, characterized by a high ratio of horse and sheep with a very small contribution of swine bones in the period preceding the Cuman migration³⁰. Even though late medieval Hungarian assemblages are varied in terms of species ratios, there is a trend towards the increasing dominance of cattle, the fluctuation of swine and small ruminants, and the decrease of horse bones with time in the archaeological record (Diagram 3). Immediate species ratios depend on a number of variables, including the available natural resources, pastures, wetlands, as well as the aim of production (household consumption, market-oriented breeding).

³⁰ Unfortunately, not many sites have been published in this area, and the assemblages available often comprise of selectively collected material. I. Vörös in his synthesis used data from four 11th–13th century sites: Sarud-Pócsöltrés, Tiszafüred-Majoros, Tiszaszőlős-Csákányszeg-Gyep and Kunhegyes-Jajhalom, yielding altogether 543 animal bones. This, however, is a summarized value that blurs taphonomic factors and special circumstances observed at individual sites (V ö r ö s 2000, 80).

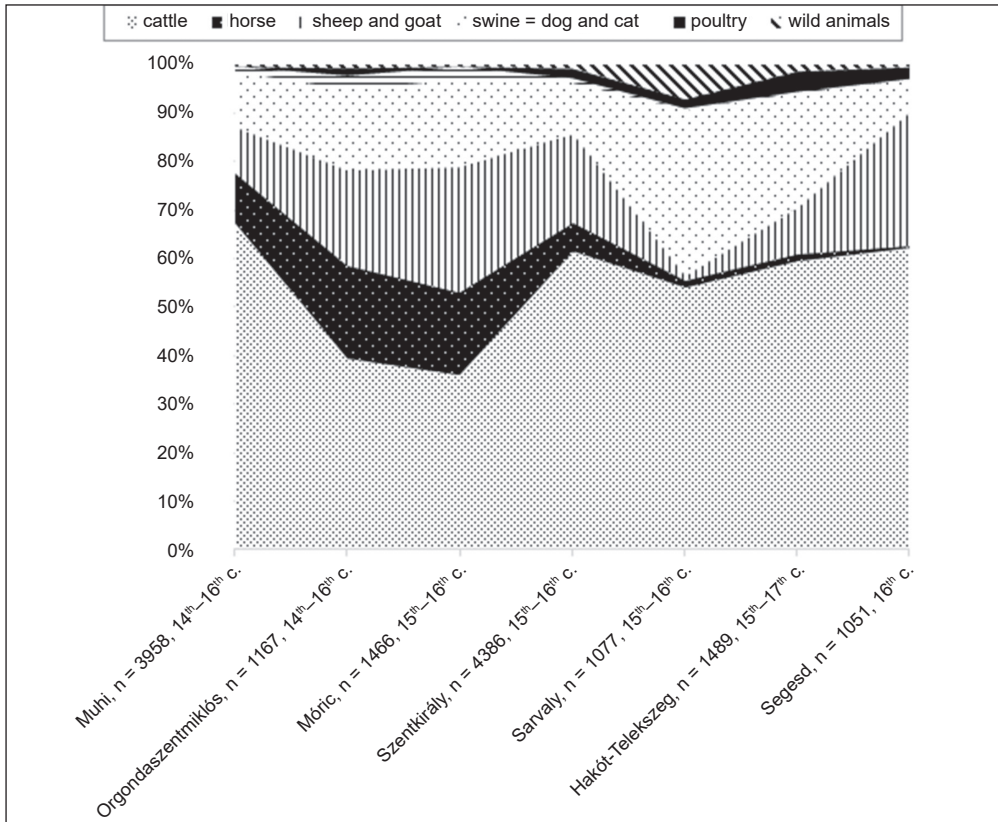


Diagram 3. Species ratios in medieval animal bone assemblages from the Carpathian Basin. The Cuman villages of Orgondaszentmiklós and Móric in Greater Cumania are characterized by a high ratio of horse bones and fewer cattle, while the small Cuman market hub in Lesser Cumania, Szentkirály, shows a ratio more similar to Hungarian sites (comparative data were taken from the following publications: Bökönyi 1974; Bartosiewicz 1995b; Takács 1990; Somhegyi 1998; Nyerges 2003b; Vörös 2003; Kőrösi 2006); computer design K. Ljublyanovics

The three Cuman sites, Orgondaszentmiklós, Móric (Greater Cumania) and Szentkirály (Lesser Cumania) do not significantly differ from the late medieval trend. It is interesting, however, that the two small villages in Greater Cumania are surprisingly uniform in terms of a higher ratio of horse bones, while Szentkirály, a settlement whose economic life was heavily influenced by the animal trade in the Great Plain's market hubs, especially Kecskemét, shows a stronger resemblance to other 15th–16th century Hungarian sites. This suggests that the position a village had in the settlement network had a greater impact on its economic strategies than the ethnic background of its inhabitants.

VI. CONCLUSIONS

The Cumans who entered Hungary as refugees in the 13th century represented a heterogeneous group facing a numerically superior sedentary society. Their previous economic strategies, focused around sheep, cattle and horse herding, as well as regular raiding of and trading with sedentaries, had already disintegrated during their flight from the Mongol armies, and returning to these after their migration to Hungary was not possible due to physical limitations of the available lands and the state's pressure to integrate. The factors that resulted in the re-arrangement of Cuman society both from an economic and a social point of view must have had the greatest impact on fragmented communities. The territory of the Olas clan in Greater Cumania was not only interspersed with lands in Hungarian possession (which meant a stronger contact with locals), but its Cuman population may have been a group of disjointed tribal elements with a newly formed identity. Thus, a rapid process of acculturation is not surprising.

The picture emerging from written and archaeological data on Orgondaszentmiklós does not significantly differ from what is known of late medieval settlements in the Carpathian Basin. Although it seems that Cumans retained some of their earlier practices in terms of pagan customs and food choices, such as prevalent horse consumption, the use of yurts as additional structures of dwelling, or unusual elements of burial rites, these rather belonged to the household sphere, but from an economic point of view they were fully integrated by the 14th–16th century. It seems that the Cumans adapted to their new environment quickly and instead of trying to continue the economic strategy previously practiced in the steppe zone, they saw an opportunity in cattle breeding and at the same time started using the wet environments of Greater Cumania for raising swine. The fact that animal husbandry, and later animal export became the main form of agricultural production in the Great Plain by the 16th century, suggests that Cumans found their place in the economic nexus as participants in animal production. However, position in the settlement network — and thus, the access to natural resources such as pastures — was a main factor. Specific Cuman characteristics seem to have been preserved in small villages (such as Orgondaszentmiklós and Móric), while larger settlements, more embedded in the network of trade, show signs of a possible faster acculturation.

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