

Csomorkány – A medieval village and its changing environment

Csomorkány – Ein mittelalterliches Dorf und der Wandel seiner Umgebung

Csomorkány – Un village médiéval et les transformations de son environnement

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Csomorkány was located in a marshland environment on the bank of the Brook Cirják connecting with the River Maros (Fig. 1).

Data originating from charters and archeological findings prove the existence of a human settlement in the area having favourable natural conditions as far back as the 10th century. According to archeological findings and an aerial photo taken in 1970 the extension of the medieval Csomorkány could be determined as an 2.25 x 2.25 (km) area. The village developed to a borough surrounded by rampart during the 15th century (Béres 2000). In the course of the Turkish campaign in 1596 the village was completely destroyed, therefore natural and semi-natural ecotopes have been able to regenerated since then in a great extent.

During the 17th and 18th centuries the area could be characterized by large scale extensive livestock keeping. The units of a traditional medieval landscape (villages, unutilized lands, vineyards, orchards etc.) mostly were disappeared. The anthropogene elements of the landscape's present structure and dynamics were formed almost entirely by the land use (plough-lands, system of detached farms, reclaimed wetlands) of the last 200–250 years. Altogether only greater units of the settlement-system, roads of greater importance and the total absence of forests were inherited to present generations.

The aim of the study was to investigate local and historic landscape aspects of the former settlement, Csomorkány.

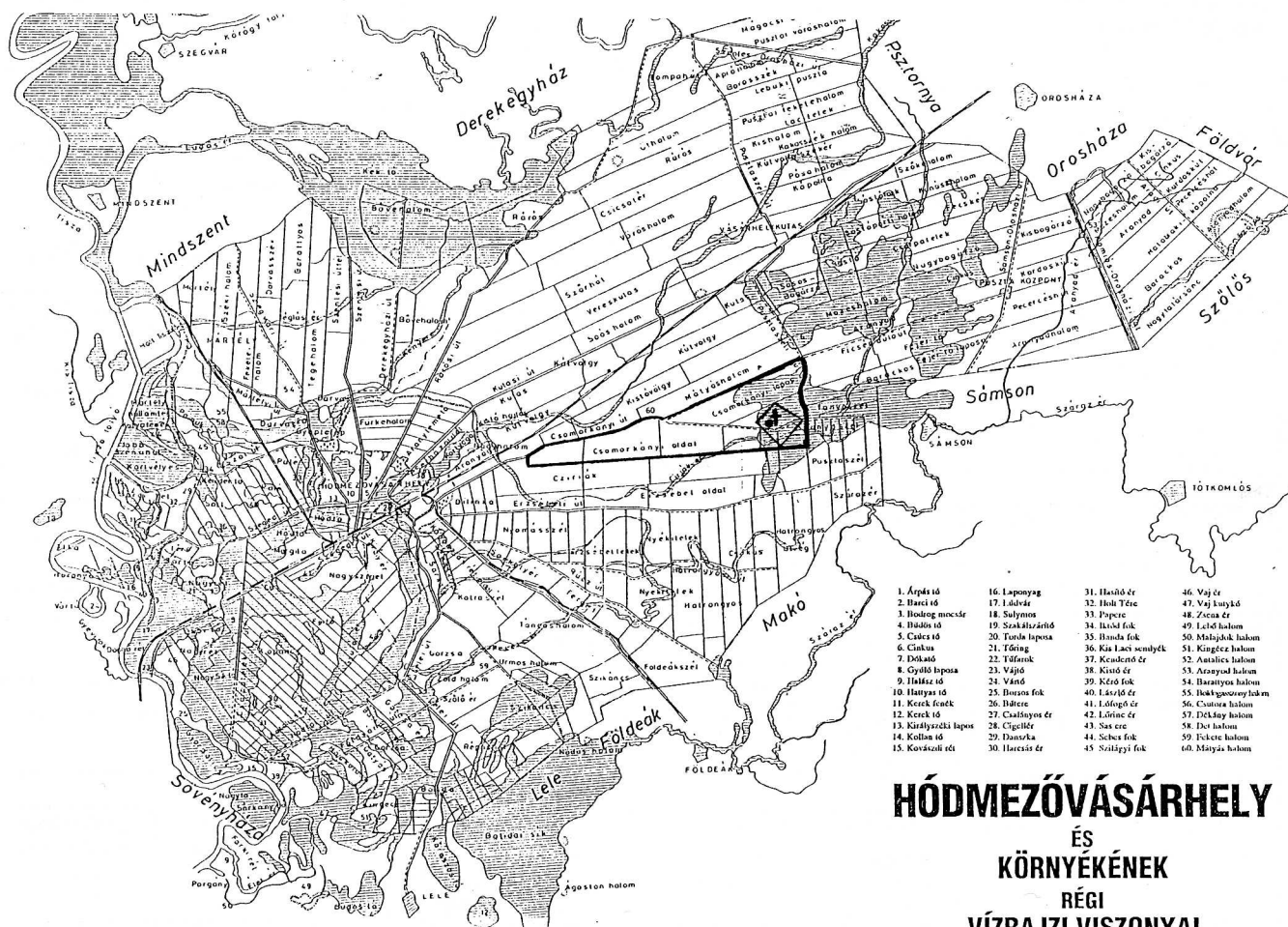


Fig. 1. The studied area.

In the local historic study we emphasized the architectural and geological features of the settlement's only survived relic.

Direct and indirect data concerning with land use, demographic changes, farming and its intensity, phenology and the level of the human activity on landscape were analysed and summarized.

In the local historic and landscape historic reconstruction of Csomorkány we used findings from archeological excavations and data came from archives as a basis. We also relied on historical and natural geography, history of the settlement and its agriculture, botanical records as direct sources as well as ordnance maps made in the 18th and 19th centuries.

The survey of the monument, archeological excavations and geophysical investigations related to the preservation of the church have been taking place since 1991. The final purpose of the geological investigation of the monument was a unified examination of the building materials discovered at the excavation site. It includes petrographic identification that meant clarification of the origin of the building rocks, absolute age determination from brick and mortar samples (thermoluminescent examination,¹ determination of hydraulic factors) and ranging the building materials into architectural periods.

¹Thermoluminescent examinations were conducted by the Department of the Hungarian Monument Protection Office in Szeged and by Konrad Graef-Dramm in the laboratory of the Cathedral of Köln between 1993–1994 with the support of the Technical College of Dortmund.

A monument geological study on the church of Csomorkány

Natural and arteficial building materials (bricks, tiles, mortar, plaster) were treated as archeological findings. In the course of the preparation 268 items of rock samples of 7 classes and a great quantity of plaster (642.8 dkg), mortar (1142.25 dkg), brick (6129 dkg) and tile (8268.28 dkg) were classified.

In the course of the macroscopic petrographic examination of the building rocks we determined 17 mineral and rock types from which thin sections were made, although only the building rocks found in the biggest quantity are significant in the historical investigation (*Kelemen – Fazekas 2000*).

The treatment of the artificial building material under preparation at present. After classifying the great quantity of samples by microscope we made thin filaments from them. The examination on chemical compounds derived from plaster samples and hydraulic factors contributed to the separation of the historic building periods in a great extent. If we suppose that the plaster making technique was similar in a given period there can be connection between the composition of plaster samples, their origin and age (*Zádor 1983*).

In the course of the study we could clarify the building periods of the church by examining of archeological findings and used stones together that made also possible to sketch the demographic and economic historical stages of the later borough (*Tab. 1*).

Charters

-	-	1256	-	1437	1450 1464 1469	1522 1523–1560	1557–1558 1560 1561 1562
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The church and its environment

Cemetery 1 th . church? - C/a ditch? Village	Cemetery 2 th . church - C/a ditch Village	cemetery 2 th . church - C ditch Village	cemetery 3 th . church - C ditch Village	cemetery 3 th a. church steeple? A ditch Village	Cemetery 4 th . church steeple? B/D ditch Village	Cemetery 4 th a. church N steeple - Borough	cemetery 4 th a. church N steeple - Borough
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Thermoluminescent data of bricks

1000+/-30	1170+/-30	1200+/-30	1300+/-30 1310+/-30 1320+/-30	-	-	-	-
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Thermoluminescent data of mortar

-	-	1200+/-30 1250+/-30	1350+/-30	1400+/-30 1410+/-30	1450+/-30	-	-
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Presumable age (century) based on hydraulic factors of mortar

-	-	13.H.18–20.(13.c) 13.H.1–10.(13.c)	13.H.45–55.(14.c) 13.H.42–44.(14.c)	-	10,12.H.17 –20. (15.c)	-	-
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Key findings

S hair-ring kettle (pottery)	S hair-ring Pottery	S hair-ring building clast pottery	gravefindings building clast pottery	gravefindings 1427 fitting building clast pottery	gravefindings 1462 fitting building clast pottery	gravefindings building clast pottery	gravefindings building clast pottery
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Table 1. The most important data of the church of Csomorkány.

Years	1231	1469	1536	1558	1561	1580	1596	1763	1851	1863	1884	1920	1959	1977	1992
Persons	168	521	1050	426	321	325	0	50	105	91	106	595	530	486	57

Table 2. Development of the number of inhabitants in Csomorkány.

Land use (%)	1561'	1763	1863	1884	1950	1953	1970	1992	Optimal land use
Arable land	1,5	69,02	74,2	75,23	83,97	82,64	83,29	82,52	68,56
Pasture	27,98	28,88	10,02	7,25	14,47	3,22	13,36	15,27	14,94
Waterlogged pasture	66,82	4,42	5,14	13,49	-	9,87	-	1,33	
Forest	-	-	-	-	0,54	1,44	0,9	0,2	15,07
Garden	-	-	4,68	2,65	-	-	0,2	-	
Vineyard	-	-	0,13	-	-	-	0,03	-	
Built-up area	3,8	-	0,72	1,65	0,81	1,78	1,8	0,26	
Ecogeographic stability	17,86	0,482	0,266	0,304	0,177	0,172	0,158	0,202	
Patch density	-	1,57	3,76	3,65	2,23	3,6	3,63	2,37	
Land use diversity	0,812	0,752	0,791	0,838	0,493	0,629	0,55	0,53	

Table 3. Change in land use by Csomorkány. *Estimation.

Settlements and the beginning of native farming

The establishment of the settlement can be dated back to the 10th–11th century. The archaeological finds prove the existence of permanent settlements. The increase of the total population was slow till the Tartar invasion of Hungary (1241–1242) and than it became moderately fast. At that time, only the small part of the village land was used as plough land (Fig. 2–3), e.g. a quarter of it was cultivated in the 13th century (Béres 1988).

Taking into consideration the characteristics of the native form of farming which uses soils until getting worn out, ley-farming agriculture, and the high density of archeological sites we can suggest that most of the original grass cenosys had already been periodically cultivated.

The area of the medieval borough has been cultivated for a long time. Its welfare was established on its thick-grassed pastures. Most of them disappeared because of the intensive grazing, the expansion of the agricultural cultivation and melioration of the agricultural fields. Its survival fragments as landsca-

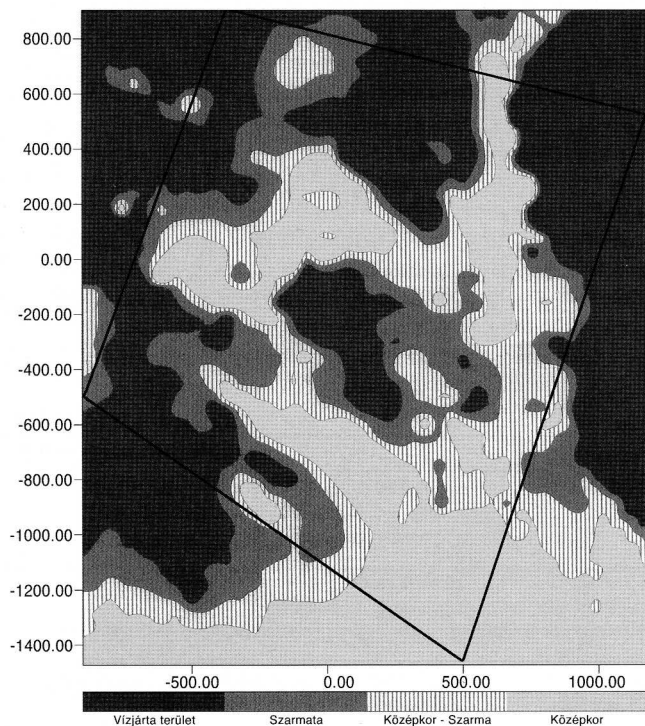


Fig. 2. Relation between inhabitation and landscape morphology: Szarmata = 2th–5th century AD, Szarmata-középkor = 2th–16th c. AD, Középkor = 10th–16th c. AD, Vizjárta terület = Watered pasture.

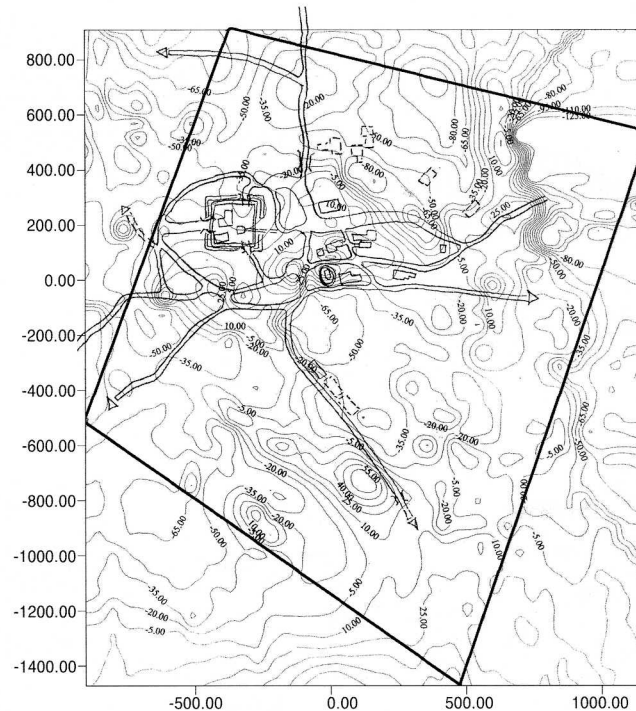


Fig. 3. Relative elevation aspects of the studied area the reconstructed sketch of the borough.

pe historic values, are degraded by the current land use.

A declaration process of its protection initiated in 1994 by archeologists from the Móra Ferenc Múzeum (Szeged) aims to save the settlement together with its environment (farms, plough-lands, pastures) as an integrated value.

The development of the nomadic stock-raising – Csomorkány the flourishing borough

The 14th–15th century is the period of the development of boroughs. These were the bigger or smaller centres of the developing monetary economy and commodity production. Their most important role was the organisation of markets. Usually they were located along the river banks or around lakes and their attraction area spread deeply into the Mező area (Blazovich 1985). The population of boroughs was increased partly by the introduction of the right of free movement and by the rural movement of villeins and partly by the spread of the rotation of crops. As it was first mentioned as a town (1536) the population of Csomorkány exceeded 1000 people, which was ten times as much as that of

an average village (Table 2). However with increase of the population the importance of farming also rises, still the nomadic stock raising remained the most typical economic form.

By the second half of the 16th century the production cattle-breeding reached its height. The flourishing economic of Csomorkány was also based on also the cattle-breeding, thanks to the high yield-capacity of moist grazing lands, to the desolation of the surrounding settlements stricken by the Turkish occupation and to the fact that the Turks did not demanded neither tax nor tithe on cattle. The land use – reconstructed on the basis of the amount of cattle-stock, of the population and of the ecological factors - was dominated by the existence of grazing lands (Table 3). The yield capacity of these grazing lands – no to mentioned their high proportion – had to be ten times as much as that of a recent one in this area. Consequently we can exclude the presence of extended dry grass cenosis and dry licks (*Achilleo-Festucetum pseudovinae*) in the area, and we can suggest the existence of mainly wet, moderately aqueous, and aqueous marshy meadowlands (*Carici-Alopecuretum pratensis*) with high yield capacity of grass, slightly saliferous humid meadowlands (*Agrostio-Alopecuretum pratensis*) and loess field meadowlands with chernozem even satisfying the

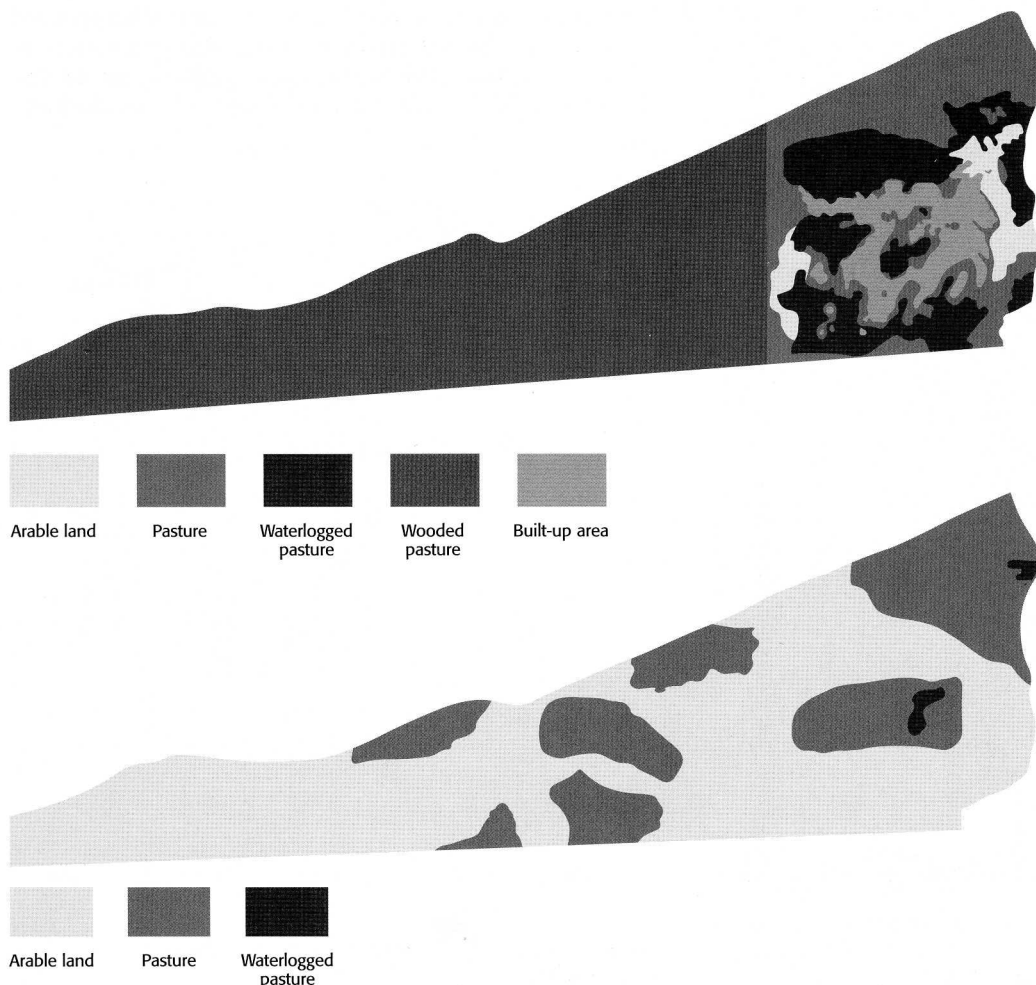


Fig. 4. Land use in Csomorkány in 1561. Speculative reconstruction.

Fig. 5. Land use in Csomorkány in 1763. On the basis of I. Ordnance Map.

needs of forests (*Salvio-Festucetum rupicolae*, *Aceri tatarico-Quercetum roboris*). The extent of plough lands was small because they cultivated only the essential areas for autarchy, so the ecogeographic stability could remain at a high level (Fig. 4).

Extension of plough land cultivation – domanial farming

Csomorkány settlement depopulated during the devastation caused by the Tartars and the Turks in 1596 is mentioned as “puszta” (*predium*) in the 17th century documents. The main form of agriculture was still stock-raising. Csomorkány puszta was attached to the dwelling area of Hódmezővásárhely at that time and nomadic cattle-raising became dominant in this area for a century. Parallel with the increasing population (especially from the 18th century) the area of arable lands became larger and nomadic stock-raising turned into more intensive because of the wintering function of the dwellings (Körtvélyessy 1942). In the big domain passed into the ownership of Count Sándor Károlyi in 1722 land surveys were done and they fixed the borders of the dwelling territories in 1752–53. In the beginning the Csongrád-vásárhely domain settled down for extensive stock-raising. From the 1810s sheep-farming became conspicuous – replacing horse and cattle-breeding –, which was the sure sign of the decreasing grass yield and the drying of pastures (*Achilleo-Festucetum pseudovinae*) caused by the regulation of water-ways. Larger and larger areas were used as plough lands. On the map made during the I. Ordnance Map (1763) arable lands of considerable extension are shown, though, experts doubt

the fact that all the arable lands were cultivated (Fig. 5.) The extension of pastures decreased to its half. They grew cereals, fodder and industrial crops and stock-raising became more and more intensive. Seigniorial domestic economy grew fast into a professionally organised large-scale farming system, which partly produced partly processed agricultural products. Though, ecogeographic stability decreased land use came the closest to the optimal state at that time.

Bibliography (References)

- Béres, M. 1988:
Adatok az Árpád-kori gabonátárolás kérdéséhez — Beiträge zur Frage der Getreidespeicherung in der Arpadenzeit. In: A Móra Ferenc Múzeum Évkönyve 1987–1. Szeged. 25–35.
- Béres, M. 2000:
A Hódmezővásárhely – csomorkányi egyház. In: Kollár, T. (Szerk.): A középkori Dél-Alföld és Szer. The Southern Part of the Great Plain and Szer During the Middle Age. Szeged, 193–217.
- Blazovich, L. 1985:
A Körös – Tisza – Maros köz középkori településrendje. Békéscsaba.
- Kelemen, É. – Fazekas, I. 2000:
Tájtörténeti és tájökölógiai kutatások egy elpusztult középkori mezőváros területén. In: Füleky, Gy. (Szerk.): A táj változásai a Kárpát-medencében a történelmi események hatására. Budapest – Gödöllő, 233–237.
- Körtvélyessy, L. 1942:
Hódmezővásárhely gazdaságföldrajza. Szeged.
- Zádor, M. 1983:
Műemlékek konzerválásának új módszerei. Budapest.

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