

A Forgotten Tributary of the Danube – The Vajas River

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Abstract

During the examination of the historical geography of the Danube-Tisza Interfluvium, the reconstruction of the medieval landscape was carried out, within which the channel conditions of the main watercourses were sketched. The Vajas River is assumed to be the most important medieval tributary of the Danube. It can be located based on historical maps, medieval and modern written sources. During the research, it turned out - based on our sources so far - that there was no tributary called Vajas on the right bank of the Danube. Only the tributaries/branches on the left bank of the river were called Vajas. The Vajas River was not uniform but consisted of at least four sections in an area of about 140 km from Kalocsa to Plavna.

Keywords: medieval Danube; Vajas River; medieval environment; historical geography

Introduction

The medieval Danube differed significantly from today's river, which is confined between flood-control dikes. Today's river is characterized by "permanence", as the riverbed barely changes and its water flows within controlled conditions. The medieval, constantly changing, meandering river was lined with extensive forests, swampy alluvial plains, and numerous abandoned oxbow lakes. Its water was drained by smaller tributaries and canals of artificial and natural origin in the floodplain, which was used by the medieval population for floodplain economy, especially fishing. One such natural tributary was the Vajas River. During the investigation of the medieval Bodrog county, the historian György Györffy established that the Vajas was actually a tributary of the Danube, which enclosed an island-like tract of land together with the Danube from Kalocsa to Bács/Bač (Györffy, 1963; Györffy, 1970). On the map attached to his book, he also outlined the Vajas River accompanying the Danube from the east (Figure 1). Since the publication of Györffy's historical-geographical repository, the idea of the Vajas has been taken over in countless places, mostly without any sub-

stantive criticism. However, Györffy's theory can be supplemented and clarified in several points. Thanks to the digitally available manuscript maps and medieval written sources, it is clear that there were several Vajas Rivers along the Danube, but - contrary to the historian's opinion - these did not form a single watercourse (Figure 2).

The geographical, historical, and archeological literature of the Danube and its surroundings can be claimed to be very rich (Pécsi, 1959; Ihrig, 1973; Marosi & Szilárd, 1967; Marosi & Somogyi, 1990). However, to the best of our knowledge, no summary study has been conducted specifically on the Vajas River. Nonetheless, there are plenty of scientific publications, repositories, and unpublished historical written and map sources from which we can outline the location and history of the Vajas. Among these, the old 18th-19th century manuscript maps depicting watercourses before the river regulation works are very important (MNL OL S12 D11. No28:1-2.). Related to this is the 19th century Danube Survey which was recently released on DVD (DM; MNL OL S81 1554/376). Un-

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Figure 1. The River Vajás on György Györffy's map
Source: Györffy, 1963

fortunately, the maps of the survey are incomplete, as a significant part of the sheets was lost or destroyed in the last century. Fortunately, the missing sections can be replaced based on maps made from the originals, representing larger areas (MNL PML Pmt018; HM HIM BIXb 122/2; BIXb 134). The descriptions made for the sections of the Danube Survey also contain a very large amount of data, which is of particular interest from a water and regulatory point of view (DM; see the descriptions in MNL OL S81 Vízrajzi Intézet, iratok 1/b.).

The sections of the Vajás River and the associated artificial and natural channels were important main-

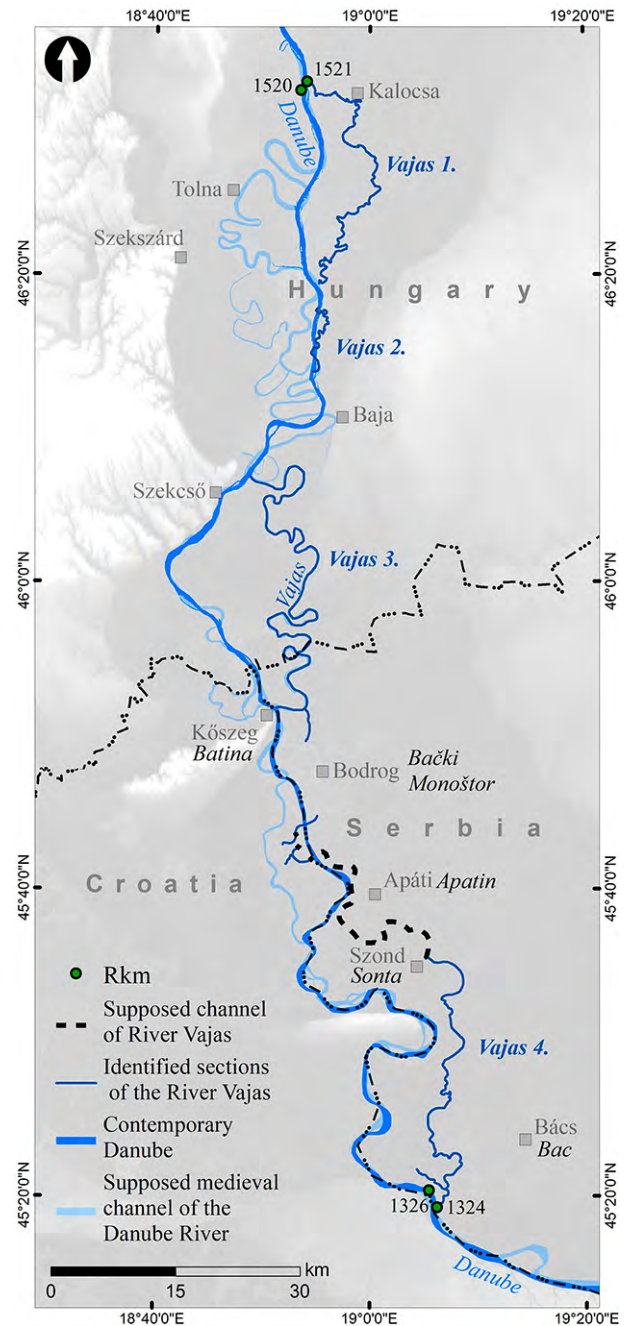


Figure 2. The identified sections of the River Vajás

ly for fishing in the Middle Ages. In numerous medieval charters, controversial issues related to fishing and fish farms occur. In the 16th-century Turkish tax registers fishing on the Vajás River is mentioned in several settlements (Káldy-Nagy, 2008). Ede Solymos and Márta Göldner (Solymos & Göldner, 1978) researched the 18th-century fishing contracts of the Archbishop of Kalocsa, from which data on fishing in the Danube region after the Turkish conquest can be obtained (Solymos & Göldner, 1978). There are also valuable studies at the local history level, through which we gain an insight into the surroundings of each settlement and the conditions of the sections of the Va-

jas River located near the settlements (Gallina, 2016; Romsics, 2016). The historical geography of Dusnok was written by local historian Kálmán D. Szabó (d. Szabó, 1992), and in many places, he mentions the Vajas and the related Hungarian and South Slavic historical toponyms. Medieval charters from the Szeremle area were published in full Hungarian translation by Nándor Kapocs and Mihály Kőhegyi (Kapocs & Kőhegyi, 1980). The research by Andrea Kiss (Kiss, 2012) is also based on historical sources, from which we can obtain valuable data on floods of the Danube and the Vajas River in the medieval Solt and Bodrog counties.

The Vajas River is often referred to as the Vajas Canal (Hungarian ‘fok’ – literally notch, also canal, ditch, crevasse). It is important to emphasize that the meaning of the word ‘fok’ differs significantly from a historical-ethnographic and geographical point of view. Bertalan Andrásfalvy (Andrásfalvy, 2002) and András Deák (Deák, 2002a/b/c) addressed the issue in their publications.

The origin of the name Vajas is a particularly interesting question, which has been studied by many au-

thors from the 18th century to the present (like Mátyás-Bél see in Ihrig, 1973; Andrásfalvy, 1973; Andrásfalvy, 1975). According to Mátyás-Bél, the name Vajas comes from the Hungarian verb ‘vájni’ (Vajas - Vájás), which means ‘to hollow out, to carve’ (Mindszenty, 1831; Mindszenty, 2020). Andrásfalvy (1989, 2002) drew attention to the fact that the ditches (Hungarian ‘fok’) along the Danube have traditionally been ‘hollowed out’, so there can be a connection between the word ‘vájás’ (hollow) and the name of the Vajas River.

It can be seen from this brief overview, that a lot of indirect and direct sources are available for Vajas River, but this watercourse has not been intensively explored. A prime example of such in-depth investigation is the recent interdisciplinary research of the Mostonga River in Serbia, in the course of which numerous archeological, ethnographical, and geographical data has been collected of the river (Lazic, 1998). In the present study, it is not possible to review the Vajas River in such detail, therefore I only intend to briefly outline each section of the river and its main geographical and hydrographic features.

Study area

The floodplain of the Danube begins south of Budapest and accompanies the river in varying widths to Titel, the confluence of the Danube and the Tisza. The territory of the floodplain – apart from the micro-regional classification used in Hungarian and Serbian geography – can be basically divided into two, significantly different main units. The northern part extends from Dunavarsány to Baja and the southern part from Baja to Titel.

The formation of the two plains began roughly 300,000 years ago, at the end of the Pleistocene. At the end of the last glaciation, the meltwater of the glaciers increased the flow of the Danube, thus increased the stream power of the river. At Dunaharaszti and Dunavarsány, the ancient Danube split into several meandering branches, and in the next few thousand years, the water transported away the sediment accumulated by aeolian processes during the Pleistocene. Simultaneously, the water deposited its sediment on the sur-

face, which is gravel in the northern part of the floodplain, sandy gravel in the eastern part, and sandy in the southern section. The boundaries of the floodplain thus shifted further and further eastward, to the present-day edge of the ridge between the Danube and the Tisza. As a result of fluvial processes, the 4-6 km wide high floodplain and the 10-15 km wide low floodplain bordering it from the east were formed. From Kiskunlacháza to Baja, the floodplain is interwoven with the old meandering river branches of the Danube, which have been abandoned for thousands of years (Marosi & Szilárd, 1967; Marosi & Somogyi, 1990).

The surface of the southern part of the floodplain – from Baja to the confluence of the Danube and the Tisza – differs from the northern part, as in the south the Danube is bordered by a low floodplain and a high floodplain slowly rising to the east. The width of the latter is only a few below Baja, but it is almost 40 km around Titel.

Data and methods

The most evident and geographically best sources for researching the sections of the Vajas River are the 18th and 19th-century historical maps. The Hungarian National Archives and county archives have very rich collections of maps and related written materials. A survey of the ca. 140 km-long area between Kaloc-

sa and Plavna can be found in the first, second, and third military surveys and on 20th-century maps, like the 1:10 000 and 1:25 000 stereographic, Gauss-Krüger and EO/HD72 projection maps. Georeferencing of each survey was necessary for their interpretation. The GIS works were performed in ArcGIS

10.4 in EO V (Hungarian Datum 1972) projection. The maps provided several data on the former channel of the Vajas River, but the translation of the medieval (Latin) documents and their interpretation in a GIS system was also needed to determine the former channel conditions. The Vajas 1 and 2 rivers still exist, but only a few historical documents survived that mention these two river sections. However, the

northern section of the Vajas 3 – from its confluence with the Danube to Dávod could be clarified based on medieval sources. The Vajas 4 was divided into several sections due to the early-modern and modern changes of the Danube. One of the sections is currently located on the right bank of the Danube. The channel of Vajas 4 could be broadly determined by GIS analysis.

Results

Based on the sources and GIS research, four sections of the River Vajas can be determined:

Vajas 1 (Main Canal of Sárköz I)

It originated from the Danube at Foktő between river kilometres 1520 and 1521 (MNL OL S12 D14 no38). According to Bél (1982) – who had a different opinion – Lak (northwest of the present-day Géderlak), Szentbenedek, Uszód, and Fajsz villages north and south of Foktő also lay next to the Vajas. The famous geographer was certainly mistaken, as the above-listed settlements – proven by local historical and geographic data – were not related to the River.

The Vajas 1 flowed eastwards from the village of Foktő towards Kalocsa, then turned south and meandered towards Bática, Miske, and Dusnok (Bárth, 1999). To the west of the latter, at the so-called Vajastorok ('mouth of the Vajas'), between river kilometres 1494-1495, it flowed into the Danube, next to the former medieval village of Csepcs (Asbóth, 1999; Asbóth, 2004; Mindszenty, 1831; MNL PML XV. 6. (PMT) 8; MNL OL S101 No400; MNL OL S12 D13 No646.). In modern written sources and maps, the section below Dusnok was called Fekete ('Black') Vajas (Solymos & Göldner, 1978; D. Szabó, 1992), probably indicating high organic matter content of water. At the beginning of the 18th century, the so-called Kis-Vajas ('Small Vajas') was still known, which formed the eastern border of Fajsz in the direction of Dusnok (Borosy & Szabó, 2000). According to 19th-century maps, the length of the Vajas 1 was about 50 kilometers. At Csepcs, due to the lateral erosion of the Danube, some parts of the mouth section (and the village of Csepcs) were destroyed by the River Danube at the turn of the 18th and 19th centuries (Mindszenty, 1831).

Numerous medieval, early modern, and modern historical sources and folk traditions have survived in connection with this section of the Vajas River (1447: DL 106509; 1502: Ipolyi et al., 1873 394.; DL 107288; Katona, 2001; Deák, 2004). On his way to the Great Plain, Antal Mindszenty recorded that "before the Ottoman occupation, the development of Kalocsa was significantly influenced by this river, because at

that time people sailed from the Danube to the city in small boats. The Vajas was possibly made navigable artificially, just as PéterVárdai, the Archbishop of Kalocsa turned another watercourse [the Mostonga] in the archdiocese navigable. The floods on the Danube filled the Vajas with mud so that even smaller boats could not sail on it, but the floods are sometimes so great that even the largest boats could sail on the river" (Mindszenty, 1831). It is possible that the Archbishop of Kalocsa, likewise the Mostonga, repaired the upper section of the Vajas River up to the Danube and made it suitable for navigation and, if necessary, for towing boats.

In the Ottoman era, the Vajas 1 remained important as a fishing ground due to its abundance of fish. It was mentioned in the Turkish tax register ('defter') of 1578 as Irmak-su ('river'). In 1570, the people of Kalocsa paid 150 akce for fishing the Vajas. At Doboka, which existed on the site of today's Dusnok built-in area, a very significant tax of 4,100 akce was paid for the use of the Vajas (D. Szabó, 1992). In the Turkish defter, the mouth of the river was mentioned as a "place rich in fish" and the inhabitants of Csepcs paid 50 excise taxes for its use (Káldy-Nagy, 2008). Turkish censuses suggest that even the people of Miske, Hontoka, Karász, and Dalocsa used the Vajas for fishing (Káldy-Nagy, 2008). Later, after the Turkish wars, it was still considered an important fishing place in the 18th century (Bárth, 1969; Borosy & Kiss, 2004). In the modern age, some branches of the Vajas were given different names. In Dusnok, Izsák-Vajas, Boroshát-Vajas, Buzsák-Vajas and Homoród-Vajas were distinguished (Szabó, 1992).

Vajas 2

It originated in the present-day Gemenc forest (river kilometres 1491-1492), around the so-called Black Forest at the confluence of Kerülő-fok and the Danube (Figure 3) It appears from several sources that the upper section of the Vajas 2 became muddy by the turn of the 18-19th centuries, and it was difficult to recognize in the swampy floodplain (Kothencz, 2012; MNL OL S81 VízrajziIntézet - iratok, no. 1469. sz. §306).

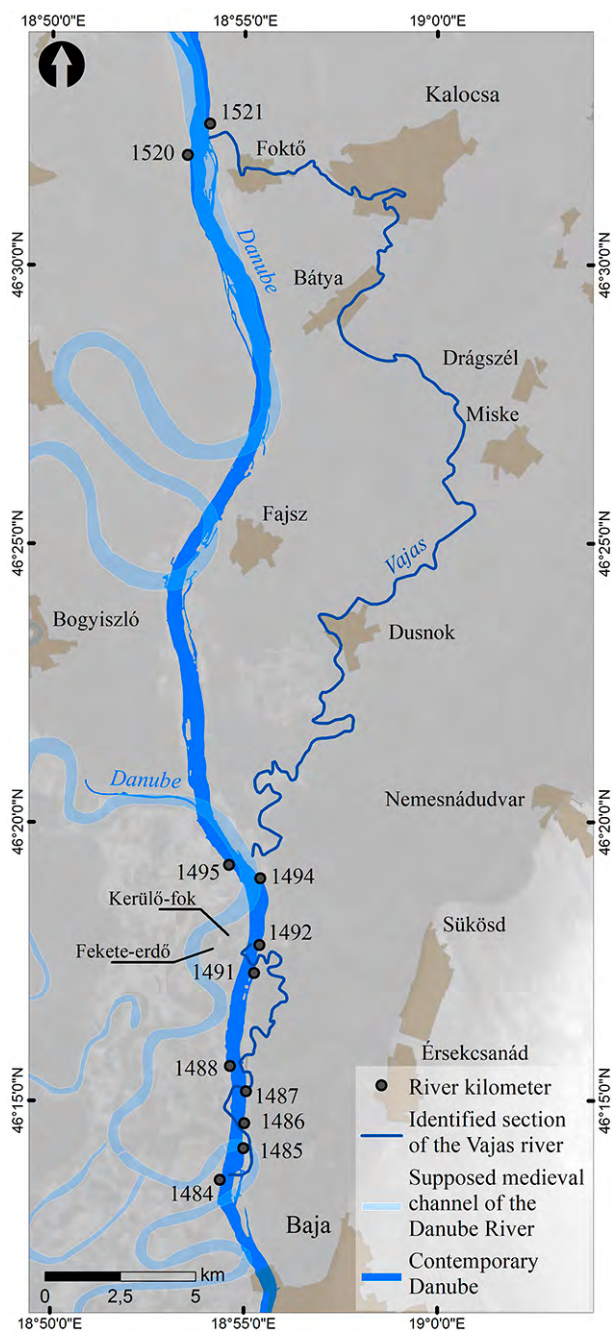


Figure 3. The channel of the Vajas 1 and 2

The Vajas 2 flowed into the Danube at the former village of Kákony (around 1484 rkm), (MNL OL S12 D13 No448:03; S12 D13 No371). At Kákony, there is a watercourse branching out from the Vajas River and flowing southwards. On some maps, it was marked as Vajas, but mostly as Lake Csíkós (Kemény, 2008; MNL OL S12 DXIX No196:1; MNL OL S12 D13 No0163; KFL.VIII.2.a. No.1345; MNL OL S101 no857). Its former mouth and the village of Kákony that lay on the riverbank were destroyed by the Danube in the first half of the 19th century. In 1805, László Kollonich, Archbishop of Kalocsa, relocated the inhabitants of Kákony to present-day Bajaszentistván (Borovszky, 1910). His memory was preserved in the

Vajas hunting lodge (Vajas J[agd] H[aus] on the 2nd military survey).

Vajas 2 can be found under several names in historical sources: the section at Sükösd was called Kerülő-Vajas, the section winding next to Csanád was called Csanádi or Görbe Vajas (Solymos & Göldner, 1978). In the Turkish defter of 1578, it was mentioned as Ir-mak-su ('river') at Csanád (Halasi-Kun, 1971). Mátyás Bél (Bél, 1982) mentioned that Csanád also lay next to the same Vajas as the above-mentioned (Géder) Lak, (Duna) Szentbenedek, Uszód, and Fajsz. Bél is partly wrong, as there was indeed a Vajas section here, but this is not the same as the Vajas meandering around Kalocsa.

Vajas 3 (Baracscai-Danube/ Bajski-kanal)

The channel of the Vajas 3 can be sketched based on medieval sources (mainly border descriptions) and 18-19th century manuscript maps (Pánya et al., 2020; Kapocs & Kőhegyi, 1980). According to charters, the Danube branched out in three directions between the market town of Bába and Szeremlén (now Szeremle village), somewhere about 2-3 km west of the rkm1469. The two western branches flowed southwards, towards Dunaszekcső/Mohács, and the eastern branch (on the southern border of medieval Szeremlén, today's Szeremle) flowed southwards forming large meanders and touching the market town of Bátmonostora (today's Bátmonostor). After about 81 kilometers (around 1426 rkm), it joined with the western Szekcső/Mohácsi-Danube branch (Figure 4). The 19th-century maps, Vajas-fok is shown southwest of Bezdan, which may be a section of the old Vajas that was cut off because of channel changes.

The Danube branch bordering Mohács Island from the east was known in the Middle Ages as Vajas (Wayas, Voyos, Vayas, Sebesvayas) (1382: Nagy et al. 1872 231., 232). In some cases, it was referred to as the Danube but with the name of Vajas (Danubio Vayas-vocato), or simply as the Danube/Sebesduna ('Swift-Danube'). Its oxbow lakes were also named after the Vajas and the Danube. From the charters we know the Holtiduna (Holthiduna, Fintaholtidunája formed with the male name Finta), Holtvajas (Hothvayas, Mizse-holtvajassa formed with the male name Mizse) (1366: Nagy et al., 1872 318.; 1373: Nagy et al.1872 492.; 1405: Nagy, 1888 389.). The Baracscai Danube, in contrast with the many Vajas river branches, seems to be clearly considered as part of the Danube by the contemporary population. The name of the Vajas river branches north and south of the Baracscai Danube, however, has always been merely Vajas.

In the Middle and Early Modern Ages, the Vajas 3/ Baracscai-Danube was the main branch of the Danube, and its memory is preserved in folk tradition



Figure 4. The channel of the Vajás 3

(Brodarics, 1983; Andrásfalvy, 1975; Gosztonyi, 1891). The river was sailed, boat mills, and from the beginning of the 16th century a cloth mill was also operated on the Vajás (1348: Nagy et al., 1872, 298., 319., 377., DL 76901; 1391: Nagy et al., 1872 471.; 1405: Nagy, 1888 389., DL 82376, DL 82377).

The channel of the Vajás 3 changed significantly due to the 19th-century river regulation works. The first intervention took place at Bata, where the lateral erosion of the Danube gradually undermined the bankline near the inland area of Bata. To protect the settlement, the bend of the Danube was cut off, and artefacts (spur dikes) were built to make the water of the eastern branch flow into the new channel of the

Danube. Afterward, the western branch (Mohácsi/Szekcsői-Duna) widened, and simultaneously with this change, the eastern branch narrowed, and its water discharge decreased significantly (Konkoly, 2012; Konkoly, 2015).

Subsequently, regulation works were carried out between Baja and Bezdán during the construction of the Ferenc Canal (Bajskikanal in Serbian) (Faludi, 1997; Csóka, 2011). The 44.6-km-long canal was built using a significant part of the channel of the medieval Vajás. Cut-offs were made southwest of Bátmonostor and west of Hercegszántó (Lóczy et al., 2014). The canal follows the channel of the medieval Sár River (fluvium Saar, Szurdokvíz in the early modern age), and then reaches the Vajás River at present-day Bátmonostor.

Vajás 4

In historical sources, it was mentioned as Vajás (Woyas, Vayos, Voyos, Vájas, Vaish) (Györffy, 1963). On the Second Military Survey, a ca. 6-km-long Vajás was shown on the left side of the Danube, west of Kupuszina/Kupusina (1407-1411 rkm), which joined an oxbow lake called Csorna. This Csorna is probably identical to the Churnahorda ~ Csornahorda watercourse mentioned in 1338 during the border investigation between the medieval villages of Papi and Hetes (1338: Nagy, 1883 482.; Piti, 2012 264., 321.; Györffy, 1963). South of the Csorna oxbow lake another watercourse meandered, also called Vajás (Vajs canal on today's maps), which was ca. 4 km long. Approximately 17 km southeast of the Csorna oxbow lake, on the old maps the Vajás River is depicted at Szonta/Szonta (medieval Szond), and reached the Danube at Palona (present-day Plavna) about 46 km farther (KFL. VIII.2.a. No.149.). Between these two sections, we do not know the exact channel of the Vajás, however, written sources provide some important clues. The earliest mention of the Vajás dates from the 11th century. Lake Vajás (stagnum Woyas) is mentioned in the document of 1093 by King László I (Wenzel, 1867 69.). It was mentioned as lake (stagnum Vayos) in 1192 at Apos (south of the present-day Apatin) and in 1211 at Aranyán (north of the present-day Apatin), and as watercourse (fluvium Voyos) at Szond (Szonta/Szonta) in 1206 (1192, 1211: Györffy, 1963; 1206: Ipolyi et al., 1880 2.). It can be found in the 16th-century Turkish tax registers at Fonó (south of Szonta/Szonta) as Irmag-I Tuna ('River Danube') (Halasi-Kun, 1971). According to historical sources and manuscript maps, the river section between Kupuszina/Kupusina and Szonta/Szonta may have been approximately 31 km long (Figure 5).

The Hungarian population of Bodrog and Bács counties disappeared by the first third of the 16th



Figure 5. The reconstructed channel of the Vajas 4

Conclusion

The analysis of the Vajas River research yielded important results from two aspects. On the one hand, the Vajas was not a single continuous river. Several smaller and larger tributaries were called by the name Vajas, and all of them existed in the middle and lower sections of the Danube in the Carpathian Basin, and they were found on the left bank of the river. However, based on historical data, it is obvious that between the 11th and 16th centuries, their channels may have differed from those marked on the 18-19th century manuscript maps. The outlet section of the Vajas 1 probably shifted to the east due to changes in the channel of the Danube. Its original mouth may have been to the west of its present-day location. The Vajas 2 may have originated close to the mouth of the Vajas 1 and therefore it can be assumed that there may have been a connection between Vajas 1 and 2. The Vajas 3 separated from the Danube near Bába (approx. 10-11 kilometers south of the Vajas 2). From medieval sources,

it is known that the River Sár meandered south of Baja, on the eastern border of the market town of Szeremlén (the predecessor of today's Szeremle), so there was no connection between the Vajas 2 and Vajas 3. Besides, medieval and modern sources suggest that the Vajas 3 was the main branch of the Danube, therefore it was larger and more significant than other narrow tributaries of the Danube. This is also confirmed by the fact that boat mills and fulling mills (or tuck mills) were used on it, and larger boats could also use them. We currently know two sections of the Vajas 4 (a shorter one west of Kupusina/Kupuszina and a longer one between Szonta/Szond and Plavna/Palona). In the area between the two sections, the name Vajas does not appear, instead, various South Slavic names can be found on the maps.

Compared to the conditions in the 19th century, the channel of the Danube has changed significantly. Along this section (Vajas 4.) the Danube shifted eastwards and started to meander in a north-south direction. As a result, some parts of the Vajas 4 were destroyed by the Danube. The changes of population and the channel of the Danube may have resulted in the disappearance of some parts of the previously continuous, approx. 82-km-long Vajas. Other sections survived but were given a new name by the migrating Slavic population (Dunavac west of Apatin, Kruskovac west of Szilágyi/Svilojevo).

historical archives that were previously difficult to search became widely available (online and on CD / DVD). These include thousands of manuscript maps, many of which depict sections of the Danube in the Carpathian Basin. As a result of digitization, a greater amount of data can be accessed in a very short time than in previous, “traditional” archival research. Not only has data access time been shortened, but data quality has improved due to good scanning and detailed data entry. It is important to note that it is not enough to examine the manuscript map material of the last nearly 300 years for medieval landscape history research. In many cases, these reflect the results of early modern and modern changes, and the older, medieval features of the landscape can-

not always be traced. The study of the Vajas River highlighted the need for thorough archive research and the study of medieval and early modern written sources in Latin (or in some cases German / Hungarian). This is greatly facilitated by the archival portal *hungaricana.hu*, where photographs of charters from medieval Hungary can be viewed. The other online archive portal is the *adatabazisokonline.hu* (‘databases online’), which contains the written sources of Hungary from 1526 to the Modern period, such as Turkish tax registers, Hungarian tax registers, etc. Thus, in recent years, the ever-expanding, freely searchable data repositories of the written and map sources required for landscape history research in the Carpathian Basin have been created.

Abbreviations

- DL – Hungarian National Archive Diplomatic Archive
- HM HIM – HM Military History Institute and Museum Map Archive
- KFL – Archdiocesan Archives of Kalocsa
- MNL BéML – Hungarian National Archive Békés County Archives
- MNL OL – Hungarian National Archive
- MNL PML – Hungarian National Archive Pest County Archives
- OSZK – National Széchenyi Library

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