

Descriptions of the Forests of Slavonia in Travelogues of the Early Modern Age

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Abstract. Forest history is a relatively new discipline in Croatian historiography. The scale of exploitation remains the main point of interest for scholars dealing with forest history. Nevertheless, recent scholarship has turned scholarly interest towards another question: Can exploitation (timber consumption) be the only criterion for the anthropization of forests? The present paper analyzes three travelogues from the seventeenth and eighteenth centuries and compares them with quantitative data originating from various historical sources. It shows how travelogues do not only offer a vivid description of a land and its inhabitants but can also be used as a valuable confirmation of historical conclusions based on quantitative historical data. Even more, travelogues may provide some specific data not available elsewhere. In this case, three travelogues (Atanazije Jurjević, Osman Aga of Timișoara/Temesvár, and Friedrich Wilhelm von Taube) give a broader understanding of the anthropization of forests in Slavonia during the early modern period.

Keywords: Slavonia, early modern period, frontier, travelogues, anthropization

Introduction

Slavonia is a region in Croatia well known for its large, predominantly oak forests.¹ Despite the large quantities of forests rich in their history, forest historiography in Slavonia is still in its infancy.² Due to several descriptions of Slavonia in the early

1 Historically, during the seventeenth century the name Slavonia changed its territorial scope. While in the Middle Ages it encompassed the territory between the Sutla River in the west and Požega in the east, during the seventeenth century the name Slavonia stretched to the east and started to be used also for the territory of Pakrac, Požega, and Syrmia Sanjak. The change could also be seen on the maps of that time, for example Joan (Johannes) Blaeu, *Regni Hungariae nova et exactissima delineatio*, 1664 (OSZK Térképtár, TR 7 080). In 1702, Slavonia and Syrmia were divided into Civil Slavonia and the Slavonian Military Frontier. In 1745, three Slavonian counties were established—Virovitica, Požega, and Syrmia Counties.

2 Even though Croatian historians and forestry experts have been writing about forest history for more than a hundred years, only in the last decades has it been recognized as a relevant historical

modern period as an unpopulated land, their vast forests could be described as primordial, and therefore Slavonia as a land of unconquered wilderness. This paper will show that the anthropization of Slavonian forests has other important aspects which change the final answer.

In the analysis of early modern Slavonian forest history, we should bear in mind the words of Emily K. Brock written about the ruined cities deep within the vast tropical forests of America and Asia:

“These remnants pose what Emmanuel Kreike has termed the ‘Palenque Paradox’ If wild forests are full of the vestiges of human activity, then there is no clear line between culture and nature, and no clear direction of environmental change. The dominant historical models of environmental change have all implied a cumulative and irreversible gradient from nature to culture, with nature the victim of human agency. But the history of Palenque and its forest challenges historians’ attempts to depict unilinear environmental change.”³

One could hardly agree more with Emily K. Brock that the history of forests is not just the history of deforestation. People cut down trees, but forests regrow because they are complex and dynamic systems. The history of forests in Slavonia provides excellent evidence for Brock’s statement. It also raises the question of how anthropized Slavonian forests were during the early modern era, considering that the region was rarely populated, but accepting the fact that it has been inhabited for thousands of years. Anthropization is usually defined as the conversion of open spaces, landscapes, and natural environments by human action. The primary goal of such conversion is the transformation or adaptation of the environment to meet the needs of humans. The history of forests is especially important because it shows that sometimes an area is anthropized even though it looks natural. This is exactly the case with Slavonian forests in the early modern period.

In the analysis of the anthropization of Slavonian forests, we should first find out what percentage of Slavonia was covered with forests before the Ottoman occupation. Because of the scarcity of historical documents, our possibilities for research are limited. Therefore, Péter Szabó’s 2005 book *Woodland and Forests in Medieval Hungary* is invaluable in answering this question. Szabó’s work includes Požega, Vuka (Valkó), Baranya, and Sirmia Counties. Even though his estimates are based on the sparse data available from that period, they match the facts we know about the demographic and economic history of Slavonia. Accepting Szabó’s data, it may

discipline. See: Skenderović and Župan ed., *Slavonske šume kroz povijest*; See also: Petrić, ed., *From the forest history*.

3 Brock, “New Patterns in Old Places,” 154.

be concluded that between the Rivers Ilova and Bosut, Slavonia was very woody at the end of the Middle Ages, but forests definitely did not cover more than 60 percent of its territory, while Syrmia County was less wooded, with forests covering between 21 and 40 percent of its territory.⁴

The question about the scale of the exploitation of forests in Slavonia during the early modern period (from the sixteenth to the eighteenth century) still needs to be answered. The Ottoman period is especially deficient. Croatian historians agree that at that time there was no increase in the exploitation of Slavonian forests. Moreover, Anđelko Vlašić states that the entire Slavonia was a “rarely inhabited area covered with dense and impassable forests.”⁵ Likewise, Nenad Moačanin describes Ottoman Slavonia as an island of arable land, situated around the settlements scattered throughout vast forests.⁶

It is interesting to compare the conclusions of Croatian historians with the discussion in Hungarian historiography about the Ottoman impact on Hungarian forests. According to Gábor Ágoston, Hungarian historians in the twentieth century, especially Gyula Szekfű, accused Ottomans of the destruction of the environment, going as far as to claim that the *puszta* [semi-desert] character of the Great Hungarian Plain and the lack of trees and water “are all due to the Turkish era, that is, are the consequences of the Turkish conquest.”⁷ Ágoston argues that this accusation is without a proper basis in historical sources:

“It is also clear that deforestation was not unique to Hungary and that its causes were similar to those observable elsewhere in Europe. Around 1500, Europe had substantially more forests and wooded areas than today. However, the growth in Europe’s population from about 1500 and the resulting expansion of agriculture led to forest clearings, whereas mining and smelting, war-related industries (cannon casting, saltpeter, and gunpowder production), fortress building, and the construction of ever-growing navies, all brought about by the so-called early-modern ‘gunpowder/military revolution’, required substantially more fuelwood, charcoal, and timber, and resulted in deforestation.”⁸

As mentioned before, a similar discussion was not present among Croatian historians. They were aware of the relatively small impact of Ottomans on the Slavonian environment.

4 Szabó, *Woodland and Forests in Medieval Hungary*, 47–55.

5 Vlašić, “Šume kao izvor prehrane,” 119.

6 Moačanin, *Town and Country on the Middle*, 26.

7 Ágoston, “Where Environmental and Frontier Studies Meet,” 72.

8 Ágoston, “Where Environmental and Frontier Studies Meet,” 72–73.

After the Peace of Srijemski Karlovci (Karlóca, Karlowitz) (1699), the Habsburg Monarchy established its control over Slavonian territory and started its revitalization. The Peace of Srijemski Karlovci opened a new era in the exploitation of Slavonian forests. The number of historical documents from the eighteenth century is also much higher. It is on this basis that the earliest estimates of Croatian forestry experts for the percentage of forest-covered territories in Slavonia are made for the eighteenth century. According to those estimates, in the mid-eighteenth century, some 70 percent of Slavonia (between the Ilova and Bosut Rivers) was covered with forests.⁹ Comparing Szabó's data with the estimates for the mid-eighteenth century shows that in two hundred years the forest-covered territory in Slavonia actually expanded from less than 60 percent to 70 percent.

The reason could be a population decrease. In the period between the 1680s and the 1750s, several villages stood abandoned for more than 50 years, which led to the reforestation of certain anthropized areas. During this period, nature began to restore many places that had been anthropized.

But this did not last for long. The population of Slavonia started to increase already from the beginning of the eighteenth century, mostly due to the constant colonization of abandoned areas, which led to a new wave of anthropization of the wilderness. Some recent research, like for example that of Ante Grubišić, has shown that the exploitation of forests and their clearing started on a larger scale already in the first half of the eighteenth century, after the Habsburg reconquest of the Slavonian territory.¹⁰

Besides the question of timber consumption, we should also ask whether this kind of exploitation is the only criterion for the anthropization of forests. In addition to producing timber, forests served another important purpose in early modern Slavonia. Due to their rich oak forests, Slavonians have traditionally raised large quantities of pigs, feeding them in forests. Therefore, the researcher cannot avoid two related questions. First, what was the scale of pig raising? Second, what was the impact on forests of feeding pigs with acorns?

There are three significant travelogues from the seventeenth and eighteenth centuries related to the history of forests in Slavonia. The oldest is by Atanazije Jurjević (Athanasius Georgiceus), imperial Habsburg interpreter and diplomat. His travelogue (i.e., report) from 1626, entitled *Relatione data all'imperatore dal signor Athanasio Georgiceo del viaggio fatto in Bosna l'anno 1626* (The report of Athanasio Georgiceo to the Emperor on a journey made in Bosnia in 1626), describes his travel

9 Klepac, "Hrastove šume u Slavoniji," 490.

10 Grubišić, "Šume Vukovarskog vlastelinstva u 18. st.," 147–92.

from Buda throughout Slavonia to Olovo in Bosnia.¹¹ Jurjević travelled to Bosnia as an imperial envoy with the mission to visit Bosnian Catholics. On his trip, he described towns, villages, and natural landmarks—among them Slavonian forests.

The second one is the travelogue of Osman Aga of Timișoara (Temesvár, Temeschwar) about his captivity and travels in the 1680s. Osman Aga was born in Timișoara, although his family was not originally from that town. It is very possible that Osman Aga was of South Slav origin because his father had moved to Timișoara from Belgrade (Nándorfehérvár).¹² As a young man Osman Aga joined the Ottoman military, thus continuing the family's military tradition. In early summer ("cherry season") of 1688, he was captured by Habsburg soldiers and spent the whole summer in captivity, moving from one town to another in Slavonia. In his travelogue, he describes many aspects of life in Slavonia, including some important details also about Slavonian forests.

The third travelogue is the well-known book *Description of the Kingdom of Slavonia and the Duchy of Syrmia (Historische und geographische Beschreibung des Königreiches Slavonien und des Herzogthumes Syrmien)* written by Friedrich Wilhelm von Taube and published in 1777. Taube was an Austrian administrative officer who worked from 1766 to 1776 as a court secretary in the Court's Commerce Council (*Hofcommercierrath*). In 1776, Emperor Joseph II sent him on a political mission to Slavonia,¹³ which gave him the opportunity to get to know the region of Slavonia. On that occasion, Taube made notable observations about Slavonian forests.

The Ottoman conquest of Slavonia and its 'ecological footprint'

After the Battle of Mohács, Slavonian towns fell into the hands of the Ottomans one after another: in 1536 Đakovo (Diakovár), Brod (Slavonski Brod), and Cernik, in 1537 Požega (Pozsega), in 1544 Pakrac, and in 1552 Virovitica (Verőce). During the next almost 150 years, the whole region lived as part of the Ottoman Empire. As noted before, the main question about the environmental history of Slavonia during the Ottoman period is what the scale of exploitation of natural resources was during the Ottoman government. For comparison, Gábor Ágoston shows that the population of Hungary "unlike that of Western Europe, remained stagnant or increased only

11 The "report" is contained in the volume "Scritture riferite nei Congressi, Dalmazia Miscellanea, Volumen 3" of the archives of the Holy Congregation of the Propagation of the Faith in Rome. It was published already in 1885 by the Croatian historian Mijo Vjenceslav Batinić. István György Tóth published it once again with commentaries in 2003. See: Batinić, "Njekoliko priloga k bosanskoj crkvenoj poviesti," 117–22; Tóth, "Na putu kroz Slavoniju pod krinkom (1626)," 95–120.

12 Čaušević, transl., *Autobiografija Osman-age Temišvarskog*, 3.

13 Taube, *Historische und geographische Beschreibung*, Tom. I, II.

modestly thanks mainly to warfare and its impact,” and therefore that “domestic fuel consumption probably did not rise substantially.”¹⁴ On the other hand, the Hungarian literature on woodlands and forests “has named cattle and sheep breeding as the number one cause for deforestation in the Great Hungarian Plain, which, contrary to general belief, was covered amply by forests in the sixteenth and seventeenth centuries.”¹⁵ Having in mind this observation, it is necessary to start researching the ecological impact of the Ottoman government in Slavonia on the basis of demographic data and a general insight into agrarian activity.

Demographic trends in Slavonia were similar to those in Hungary. There have been several attempts to estimate the population of Slavonia during the Ottoman period. The first estimation comes from Josip Buturac in 1970. According to Buturac, the population of Slavonia (including Syrmia) had some 226,000 inhabitants (33 percent Catholics, 48 percent Muslims, 14 percent Orthodox, and 5 percent Protestants).¹⁶ After Buturac, Ive Mažuran published his population estimate in 1988. According to Mažuran, Slavonia in the 1680s had between 200,000 and 220,000 inhabitants (among them some 100,000 Muslims). Mažuran gives assessments for Slavonian towns: the biggest Slavonian city was Osijek with 15,000 inhabitants, while Požega, Vukovar, Brod, Virovitica, Đakovo, and Valpovo had 3,000 to 5,000 inhabitants.¹⁷ It seems there is no difference between Buturac’s and Mažuran’s estimates. However, Mažuran was considering only the territory of Slavonia and western Syrmia (between the Ilova and Bosut Rivers), while Buturac said that his estimate was about Slavonia and the entire Syrmia. In 1997, Austrian historian Karl Kaser also gave his estimate on the population size of Slavonia and the entire Syrmia. According to his calculations, at the end of the Ottoman government there were about 222,000 inhabitants living in Slavonia and Syrmia; of that number about 115,000 were Muslims, 72,000 Catholics, 33,000 Vlachs, and 2,000 Ugric.¹⁸

The last assessment of Slavonia during the Ottoman period is that of Nenad Močanin, who however does not present specific numbers for the total population. Still, his conclusion that the density in rural areas was small (“maybe some 3 to 12 people per square kilometer”) is noteworthy.¹⁹ Literally, many villages stood alone as ‘islands’ surrounded by dense forests.

In fact, there is no doubt that population density increased from the 1550s to the 1680s due to the immigration of Muslims, together with Orthodox Vlachs

14 Ágoston, “Where Environmental and Frontier Studies Meet,” 73.

15 Ágoston, “Where Environmental and Frontier Studies Meet” 73.

16 Buturac, *Katolička Crkva u Slavoniji*, 54.

17 Mažuran, *Popis naselja i stanovništva*, 24.

18 Kaser, *Slobodan seljak i vojnik*, 220.

19 Močanin, *Slavonija i Srijem*, 21.

and Rascians. But this influx did not change the general state of the rarely populated territory. Based on the assessments cited, we can calculate population density. Ottoman Slavonia (including Syrmia) between the Ilova, Sava, Drava, and Danube Rivers stretched over 16,500 square kilometers. Therefore, the population density of Ottoman Slavonia in the 1680s must have been between twelve and thirteen inhabitants per square kilometer. Compared to Europe, this was a relatively low density. Géza Pálffy, for example, demonstrates that at the beginning of the seventeenth century, population density in Italy was between 50 and 120, in the Netherlands 40, and in Austria 18 inhabitants per square kilometer.²⁰ Based on the assessments of population density and the size of towns, it is clear that these factors could not cause the large-scale deforestation or timber exploitation in Ottoman Slavonia.

Travelogues of Atanazije Jurjević and Osman Aga throughout Ottoman Slavonia

Travelogues of seventeenth century travelers in Slavonia give useful additional data about Ottoman Slavonia, its population, economic activity, and environmental impact.

In 1626, imperial envoy Atanazije Jurjević travelled to Slavonia on the main road that ran from Buda along the River Danube to Baranya, and then across the River Drava to Osijek (Eszék). He travelled in the company of a dozen Bosnian merchants in two carriages. Atanazije himself was disguised as a Bosnian merchant, for this was the safest way for him as a Habsburg envoy to avoid distressing and dangerous situations. From Osijek, Atanazije started to describe his travel through Slavonia. On the road leading from Osijek to Đakovo, he says that he and his Bosnian companions went through “very dangerous forests” (*caminassimo tra certi boschi molto pericolosi*). That trip through forests was according to Atanazije some four ‘*leghe*’ (league, a unit of length) long, which equals more than twenty kilometers.²¹

The known facts about the anthropization of the area between Osijek and Đakovo confirm that the road connecting them passed almost completely through forests. Looking at the Josephine military maps from the 1780s, it can be seen that those forests still existed at that time, some 150 years after Jurjević had passed through them. More precisely, the Josephine military maps show that the Osijek–Đakovo road ran in large forests named Dubrava, Vuka, and Kalina. This description is highly relevant because those forests do not exist anymore. They were cut down mostly in the nineteenth century.²²

20 Pálffy, *Povijest Mađarske*, 101.

21 Tóth, “Na putu kroz Slavoniju pod krinkom (1626),” 117.

22 See: Skenderović, “Upravljanje šumama đakovačkog biskupijskog vlastelinstva,” 657–75.

Jurjević's travelogue contains an important description of another Slavonian forest named *Svinjarski Lug*. After arriving in Slavonski Brod (in the Ottoman period simply called Brod), the imperial envoy continued his trip towards Slavonski Dubočac and Slavonski Kobaš. After Slavonski Dubočac, Jurjević and his travel companions entered the forest locals referred to as *Svinjarski Lug* (*chiamato in Slauo Suignarski Lughi*), meaning Swineherd Forest. Jurjević explains that the forest bears this name because it was full of pigs that were feeding on acorns. Jurjević also estimates that the *Svinjarski Lug* was more than one *leghe*, i.e., more than five kilometers long.²³

A thorough analysis of historical maps of that area enables us to track Jurjević's itinerary. This analysis shows that Jurjević actually travelled towards the confluence of the Vrbas and Sava Rivers near the village that at the time also bore the name *Svinjar*, i.e., Swineherd in English (today the village is called Davor). This analysis explains that Jurjević's *Svinjarski Lug* is actually a forest between Slavonskog Kobaša and Davora that still exists some twenty-five kilometers west of Slavonski Brod and is called Radinje.

Jurjević's description shows that in Ottoman times the area of Slavonia was still heavily wooded and sparsely populated. But the Ottoman conquest led to changes in the landscape. The shifting of borders modified the degree of centrality of settlements and the importance of some road connections. The main cities in Ottoman Slavonia were Osijek and Požega. Therefore, their road connections with Buda, Belgrade, and Sarajevo became the most important Slavonian roads. All this affected the level of anthropization in certain parts of Slavonia. Osijek was of special significance, which from then on gradually developed into a metropolis of Slavonia, thus the area around it was the most exposed to anthropization changes.

Equally interesting are the records of Osman Aga of Timișoara, who wrote about his captivity and travels in the 1680s. As explained before, in his travelogue Osman Aga also described some important details about Slavonian forests, of which his journey through the Garavica (also Garjevica) Forest is the most relevant. In 1688, as a prisoner, Osman Aga of Timișoara traveled through Garavica twice, giving a short but important record of that journey.

According to historical sources, the establishment of the new border between the Habsburg Monarchy and the Ottoman Empire caused the most conspicuous changes in the border (frontier) area. The most striking example is that of the forest Garavica (Garjevica) in the medieval Križevci County. In the sixteenth century, the once rich, densely populated, and large Križevci County found itself on the path of the Ottoman invasion. In the 1540s, the border between the Ottomans and the Habsburg Monarchy was stopped in its territory. Thus, due to political circumstances

23 Tóth, "Na putu kroz Slavoniju pod krinkom (1626)," 118.

and wars, the medieval Križevci County was split, and in its center a large “no man’s land” was created. With the passage of time, the area of this “no man’s land” was undergoing natural reforestation.

The large Garavica (Garjevica) Forest situated on *Moslavačka gora* (Moslavina Hill) then expanded out of its borders and merged with other forests into a vast forest belt that stretched from the Sava across Moslavina all the way to the River Drava. Two Croatian historians—Hrvoje Petrić and Stanko Andrić—have recently written about this phenomenon. Petrić’s 2011 paper on the eco-history of the wider area of the Garić Manor in the seventeenth century emphasizes that in the seventeenth century the entire *Moslavačka gora* was called Garjevica, and that today the name refers to the forest that stretches around Garić. Petrić argues that the process of natural reforestation affected this area in the sixteenth century due to population displacement, but that it was re-inhabited in the seventeenth century, which led to a major change in the natural landscape due to the restored anthropization.²⁴

According to Stanko Andrić’s 2018 paper describing the area of Garavica (Garjevica), the border area in question was not inhabited in the seventeenth century and was in fact a “no man’s land”. That “no man’s land” was very large and was mostly covered with forests. For example, Andrić points out that in 1597 the Croatian-Slavonian Parliament mentioned in its minutes the large forests around Križevci that endangered the safety of that town.²⁵ The problem of toponyms and the question of how many forests there were in the area are still unresolved. According to Andrić, the toponym Garavica eventually assumed a double meaning: “[...]apart from the area of *Moslavačka gora*, it sometimes means some other neighboring areas; and in addition to a particular mountain or mountains, it also denotes a particular forest or wooded area.”²⁶

The topographic and military map of 1660 made by the Austrian military engineer and cartographer Martin Stier (1620–1699) *Mappa über die Wündische, Petrinianische und Banatische granitzen* (Österreichische Nationalbibliothek, Handschriftensammlung Cod. 8608, fol. 32) is well-known, showing that the forests merged into one vast belt from the Sava to the Drava River.²⁷ Stier’s map is not the only one that shows a vast forest belt. Luigi Ferdinando Marsigli’s schematic map of Slavonia from 1691 also reflects that there was a forest belt between the Sava and Drava Rivers (Fig. 1).²⁸ On this map, the forest belt bears the inscription “Verhakter Wald” (*Verhakt*

24 Petrić, “Prilozi poznavanju nekih aspekata ekohistorije šireg područja oko Garića,” 63–82.

25 Andrić, “Šuma Garavica i ‘ničija zemlja’ na slavonsko-turskom pograničju,” 99.

26 Andrić, “Šuma Garavica i ‘ničija zemlja’ na slavonsko-turskom pograničju,” 108.

27 Published in: Krmpotić, *Izvrštaji o utvrđivanju granica Hrvatskog Kraljevstva*, 43.

28 Biblioteca Universitaria di Bologna, Museo Marsili, vol. 50, p. 24 – Map was published in Hajdarhodžić, *Bosna, Hrvatska Hercegovina*, 76. Map was also published in: Kisari Balla, *Marsigli tábornok térképei / Le mappe del generale Marsigli*, 387, Nr. 128.

means ‘notched’ in German), not as the name of the forest but as an indication that there were obstacles for the enemy’s infantry and cavalry made of notched timber.

As a prisoner, Osman Aga of Timișoara passed through that forest belt that he referred to as Garavica twice, and briefly described what he saw:

“Since I did not escape, I marched [further] together with the Austrians to Požega, then to Sirač and Pakrac. Behind the places mentioned, there is the beginning of a large forest called Garavica, which separates Croatia and Bosnia (meaning the Bosnian pashalik). In order to [be able] to go through it, we needed a break of a few days. [During that time] capable guides were found among Croats and residents from nearby areas. [After a few days, the march began.] We moved along the carriage road and after two days of walking [managed] to break through the forest [so dense] that the sun or the sky did not appear to us for a moment. Arriving in Croatia, we first marched to a small town called Božjakovina.”²⁹

Osman Aga later passed through the Garavica Forest once more, this time in the opposite direction. He reports that the second passage also lasted for two days, after which he arrived in the vicinity of Podborje (present-day Daruvar).³⁰ Although the area was not previously known to Osman Aga, both these brief descriptions of the Garavica Forest are valuable. They briefly describe that between Božjakovina and Podborje there was a large uninhabited wooded area that separated Croatia from Ottoman Slavonia, which confirms Andrić’s thesis that it was a ‘no man’s land’. Osman Aga’s description also supports the thesis that the whole area of the ‘no man’s land’ was most often called Garavica or Garjevica.³¹

Finally, the example of Garavica reflects how the general political circumstances and wars affected the territory, especially the frontier area. This example is also relevant for the discussion in Hungarian historiography about the context of the frontier zones of Ottoman–Hungarian wars, where, as András Vadas and Péter Szabó point out, “in many cases the literature assumed total deforestation.”³²

29 Čaušević, transl., *Autobiografija Osman-age Temišvarskog*, 24.

30 Čaušević, transl., *Autobiografija Osman-age Temišvarskog*, 29–30.

31 Here we should also note the travelogue of Evliya Çelebi through Slavonia, Croatia, and Hungary in 1660s. Unfortunately, Çelebi’s travelogue is not copious with the facts about forests. The only important fact Çelebi mentions is the one during his travel to “Zrinyi Vilayet” (i.e., Croatia). On his way to “Zrinyi Vilayet” Çelebi heard that the border territory between the Sava and Drava Rivers is completely overgrown in the woods called “Kirintilik” (fallow). There is a possibility that the name “Kirintilik” is actually identical with “Verhackter Wald” from Marsigli’s schematic map. Çelebi, *Putopis: odlomci o jugoslavenskim zemljama*, 241–42.

32 Vadas and Szabó, “Not Seeing the Forest from the Trees,” 479.



Figure 1 Luigi Ferdinando Marsigli: schematic map of Slavonia from 1691.
(Biblioteca Universitaria di Bologna)

Historical evidence, including Osman Aga's account, shows a completely opposite development in Slavonia. The creation of a 'no man's land' on the frontier led to the reforestation of the area.

Reforestation and deforestation in the eighteenth century

Natural reforestation that occurred due to the creation of a 'no man's land' on the frontier between Croatia and Slavonia (i.e., between the Habsburg Monarchy and the Ottoman Empire) represents one of the most interesting episodes in Croatian environmental history. Such a huge area of wooded territory, formed due to the withdrawal of people, is a unique example of reforestation. Reforestation can be observed also in other abandoned territories during the first decades after the 1699 Peace of Srijemski Karlovci.

The Great War of Vienna that started in 1683 brought dramatic changes in the number and ethno-confessional structure of the population of Slavonia. According to the first conscription of inhabitants of the Osijek, Požega, and Virovitica districts in 1688, there remained only 79 inhabited villages, while 452 were abandoned.³³ Therefore, Ive Mažuran estimates that Slavonia (with western Syrmia) in the early

33 Mažuran, *Popis naselja i stanovništva*, 40.

1690s had only some 40,000 inhabitants.³⁴ This is only 20 percent of the pre-war population of 220,000 inhabitants.

After the decisive battles of Slankamen (Szalánkemén) (16 August 1691) and Senta (Zenta) (11 September 1697), Habsburg control over Slavonia became permanent. It led to the stabilization of everyday life and encouraged many people to go back to their homes. At the same time, many refugees from Ottoman territories also decided to settle in Slavonia. Ive Mažuran estimates that already by the year 1698, the population of Slavonia had risen to some 70–80,000.³⁵ Naturally, this number was still far from the pre-war 220,000, but shows the trend of repopulation.

Estimates of Croatian forestry experts suggest that in the mid-eighteenth century most of Slavonia (between the Ilova and Bosut Rivers) was still covered with forests. Đuro Rauš points out: “Forests represented the main natural resource of Croatia and Slavonia. At the beginning of the eighteenth century, they covered over 70 percent of the total area. Those were mostly valuable forests, suitable for exploitation, among which old oak forests (150 to 300 years old) stood out.”³⁶ Dušan Klepac also states that “[a]t one time, Slavonia was rich in forests, which in 1750 occupied over 70 percent of the total area.”³⁷

Rauš and Klepac were forestry experts whose assessment of the afforestation of Slavonia in the eighteenth century was not questioned later. Such a high percentage of forested area may seem excessive at first glance, but Rauš and Klepac had excellent knowledge of natural resources in Slavonia. Historical expertise can only confirm their estimates. Due to the lack of people, natural restoration definitely increased the proportion of forested areas, and it is possible that it went as high as 70 percent of the entire Slavonia.

It is hard to give a conclusive answer to the question of when large-scale clear-cutting of forests began. In his 2018 paper, Ante Grubišić cites the example of the Vukovar Manor where large deforestation started already in the first half of the eighteenth century. According to Grubišić, in the 1730s forested areas covered 33.6 percent of the Vukovar Manor.³⁸ Comparing precise maps of the Vukovar Manor from 1733 and 1755, Grubišić concludes that many forested areas had already been cut down by that time. As a result of deforestation a few decades later, in the 1790s the forested area covered only 11 percent of the manor.³⁹ Still, the example of the

34 Mažuran, *Popis naselja i stanovništva*, 40.

35 Mažuran, *Popis naselja i stanovništva*, 42.

36 Rauš, “Šume Slavonije i Baranje,” 134.

37 Klepac, “Hrastove šume u Slavoniji,” 490.

38 Grubišić, “Šume Vukovarskog vlastelinstva u 18. stoljeću,” 169.

39 Grubišić, “Šume Vukovarskog vlastelinstva u 18. stoljeću,” 174.

Vukovar Manor does not evidence a predominant trend of deforestation for the entire Slavonia already in the first half of the eighteenth century. Other manors were in a much harder position, with many villages left abandoned for decades. Due to the long war and weak resettlement, some villages were still empty even seventy years after the war's end. For example, Punitovci and Dragotin, villages of the Manor of Đakovo, were recolonized only in 1757–1758 by Catholics from Bosnia. Also, only at that time did the bishop of Đakovo manage to establish or resettle three other villages—Josipovac (Vuka), Široko Polje, and Beketinci.⁴⁰ Even though the population started to recover already in the 1690s, the examples of villages abandoned for 70 years explain why Slavonia reached its maximum of forest-covered area (about 70 percent of the whole territory) only in the 1750s.

By the end of the eighteenth century, the number of inhabitants had increased dramatically. According to the 1785–1787 census, Sirmia County already had 82,261, Virovitica County 116,990, and Požega County 64,417 inhabitants. Altogether Civil Slavonia had almost 270,000 inhabitants in that period.⁴¹ Also, according to Johann Andreas Demian, some twelve years later (in 1799) the Slavonian Military Frontier had 172,098 inhabitants.⁴² Therefore, we can estimate that by the end of the eighteenth century Slavonia (including the entire Sirmia) had at least 450,000 inhabitants. It was a dramatic increase compared with the situation at the beginning of the eighteenth century, but also compared with the 220,000 inhabitants before the war.

Despite the population growth, in the 1770s Friedrich Wilhelm von Taube also talks about endless forests in Slavonia. According to Taube, if one excludes the Duchy of Sirmia and some other sections, all other parts of Slavonia can be described as one vast uninterrupted oak forest. Taube also assures the reader that one can hunt in the woods for days without encountering any village.⁴³ Forest owners (landlords) derived at that time the greatest economic benefit from charging for pig grazing. According to Taube, some landlords earned as much as several thousand forints a year from it.⁴⁴

Pig grazing as the main economic activity reveals the low level of all other possible forest uses. Taube is also highly critical of the way Slavonians managed forests. He reports that many trees were lying and rotting on the ground. He describes that shepherds and travelers would often light a fire next to a large tree, which would later

40 Pavičić, *Podrijetlo naselja i govora u Slavoniji*, 275.

41 Erceg, "Jozefinski popis stanovništva civilne Hrvatske i Slavonije (1785/87.)," 2.

42 Demian, *Statistische Darstellung des Königreichs Ungarn und den dazu gehorigen Länder*, 442.

43 Taube, *Historische und geographische Beschreibung*, Tom. I, 13.

44 Taube, *Historische und geographische Beschreibung*, Tom. I, 14.

dry out and collapse. Taube also tells us that when the new path was cut through the forest, the felled trees were left there to rot. It seems that neither the landlords nor the peasants cared about the forest.⁴⁵

The most surprising of all is Taube's conclusion: "Whoever believes that Slavonian forests are filled with wild, edible animals is mistaken."⁴⁶ "The forests are teeming with tame, rather than wild animals. There are no deer at all; wild pigs are very rare..."⁴⁷ Therefore, if we accept Taube's claims, we have to conclude that in the 1770s Slavonia forests were no longer an area of unconquered wilderness. On the contrary, according to Taube, they were full of tame animals, predominantly domestic pigs.

Conclusion

The question about the level of anthropization in Slavonia in the early modern period seems to have a simple answer. Slavonia in the early modern period had a relatively small population and was covered with vast forests. Thus, at first glance, it might seem that Slavonia was predominantly an area of unconquered wilderness. But the travelogues of Atanazije Jurjević and the description given by Friedrich Wilhelm von Taube lead to a different view of Slavonian forests.

Jurjević's, Osman Aga's, and Taube's descriptions of Slavonian forests reflect an important shift that happened during the seventeenth and eighteenth centuries. In the older travelogues (Jurjević's and Osman Aga's), it is noticeable that travelers were impressed with Slavonian forests, with how large and "scary" they were. Still, Jurjević's and Taube's testimonies show that they were not scary for the local population. Already in 1626, Jurjević saw that the *Svinjarski Lug* Forest was full of domestic pigs, which shows that Slavonians used forests for their economic activities. Exactly 150 years later, Friedrich von Taube has the same impression that Slavonian forests are not filled with wild but with domestic animals—mostly with pigs. Therefore, the analysis of the three travelogues gives us a broader understanding of the relationship between natural resources, exploitation, and anthropization. They reveal the powerful impact people had on forests in Slavonia in the early modern period, despite the fact that the population was relatively sparse. In Taube's description, Slavonian forests are already completely in the service of man, emptied of beasts and full of domestic pigs brought in by the peasants. This conclusion points to the significance

45 Taube, *Historische und geographische Beschreibung*, Tom. I, 15.

46 "Wer da glaubet, dass die Slavonischen Wälder mit wilden essbaren Thieren angefüllt sind: der ist in einem grossen Irrthum." Taube, *Historische und geographische Beschreibung*, Tom. I, 15.

47 "Die Wälder wimmeln von zahmen, und nicht von wilden Thieren. Hirschen giebt es gar nich: wild Schweine sind höchst selten..." Taube, *Historische und geographische Beschreibung*, Tom. I, 15.

of travelogues as historical sources, because in this case the rare and fragmented quantitative data at historians' disposal did not yield such valuable findings.

With rising population numbers, the level of anthropization was gradually increasing in Slavonia. This led to the first forest management laws in the second half of the eighteenth century and the next phase of exploitation.⁴⁸

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