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**THE PLACE THAT LIES BETWEEN:
SLAVONIA IN THE 10TH AND 11TH CENTURIES**

MA Thesis in Medieval Studies

Central European University

Budapest

May 2009

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by

Jeremy Mikecz

(USA)

Thesis submitted to the Department of Medieval Studies,
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Accepted in conformance with the standards of CEU.

Chair, Examination Committee

Thesis Supervisor

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ABSTRACT

Medieval Slavonia was a place between – a place between cultures and kingdoms. In the tenth and eleventh century it existed at the intersection of a variety of cultural, political, social, economic, and religious influences – making it a fascinating subject for a study of frontiers and borderlands. Unfortunately few written sources from this period survive, and those that do are often vague or ambiguous. It is the archaeological record, therefore, that provides the best hope for answering the many questions left unanswered by the historical record. The remains of burials – bones and grave goods – are by far the most well-documented archaeological evidence available for medieval Slavonia. Thus, it is the goal of this study to analyze the spatial distribution patterns of grave goods with the intention of identifying patterns of exchange and interaction. These patterns should, in turn, reveal the nature of Slavonia's relationship with its neighbors during the tenth and eleventh centuries.

Jeremy Mikecz

May 25, 2009

Keywords: slavonia southern pannonia medieval spatial distribution patterns cemeteries grave goods burials bijelo bjelo belo bialo brdo bjelobrdo bjelobrske köttlach northern croatia hungary slovenia bosnia serbiadrava sava danube rivers archaeology archeology material culture artifact jewelry

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Budapest, 25 May 2009

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I

“THE FOG OF THE UNKNOWN”:

THE PROBLEM POSED BY MEDIEVAL SLAVONIA



Figure 1.1: Pannonia / Slavonia in AD 1050, from: Paul R. Magocsi, *Historical Atlas of East Central Europe* (Seattle: University of Washington Press, 1993), 13.

As shown in the map above, the land between and around the Drava and Sava rivers during the tenth and eleventh centuries was a place that lay *between* – between cultures and kingdoms. This period was also a “time between”: between the incursions of the first Croatian king, Tomislav (910-928) into Slavonia and the takeover of this region by the relatively young Hungarian kingdom in the last decade of the eleventh century, which culminated with two events: the establishment of a bishopric at Zagreb by King Ladislaus I sometime between 1093 and 1095¹, and King Coloman’s victory over the last Croatian King (Peter) in the Kapela mountains in 1097.² Five years later King Coloman would be crowned King of Croatia and Dalmatia in Biograd na moru.³

¹ *Codex diplomaticus Hungariae ecclesiasticus ac civilis*, edited by G. Fejér, 11 volumes (Budapest 1829-1844), Vol. 7, no. 4, 1-2.

² Tomislav Raukar, “Land and Society,” in *Croatia in the Early Middle Ages: A Cultural Survey*, edited by Ivan Supićić (London: Philip Wilson Publishers, 1999), 188.

³ Raukar, “Land and Society,” 188. For early records of Coloman’s title as “Croatiae et Hungariae rex” see Ivan Kukuljević Sakcinski, *Codex diplomaticus regni Croatiae, Dalmatiae et Slavoniae = Diplomatički zbornik kraljevine Hrvatske s Dalmacijom i Slavonijom*, Monumenta historica slavorum meridionalium, books 2-3 (University of Zagreb: Tiskom Dragutina Albrechta, 1875), 1-6.

The intervening period in Slavonia, between the death of Tomislav in AD 928 and Hungarian rule in the late eleventh century, has been the source of much debate. This confusion is expressed by the stripes in the map above. Regarding this confusion, Tomislav Raukar once described tenth and eleventh century Slavonia's relationship to the early Croatian kingdom as "shrouded in the fog of the unknown."⁴ This eloquent description can certainly apply to its relationship to the broader region as well. While this study makes no pretense of lifting this "fog," it is proposed that new approaches to the evidence can and will shed some light on the subject. By removing Slavonia from the margins of national histories and placing it as the center of study, a new perspective about this region's history can emerge.

The Setting: The Land of the Two Rivers

Looking at political maps, like the one above with its darkened outlines along the Drava and Sava rivers, can make the land between these rivers appear like a geographically distinct region. However, as a fertile, lowland area itself, it is very much a part of the larger Pannonian Plain or Carpathian Basin (see map below – Figure 1.2). In the title of his book on the medieval history of the region, Stanko Andrić calls this land between the rivers "A Sunken World."⁵ "Sunken" or not the people of this lowland certainly were not isolated from their neighbors in the surrounding lands. It is my hypothesis that the rivers served more as zones of contact than as natural borders. In order to understand Slavonia's status as both a unique historical and geographical region, it is important to look outside the rivers as well.

⁴ Raukar, "Land and Society," 188.

⁵ Stanko Andrić, *Potonuli svijet: rasprave o slavonskom i srijemskom srednjovjekovlju* [A Sunken World: Discussion about the Middle Ages in Slavonia and Syrmia]. Slavonski Brod: Hrvatski Institut za Povijest, 2001.

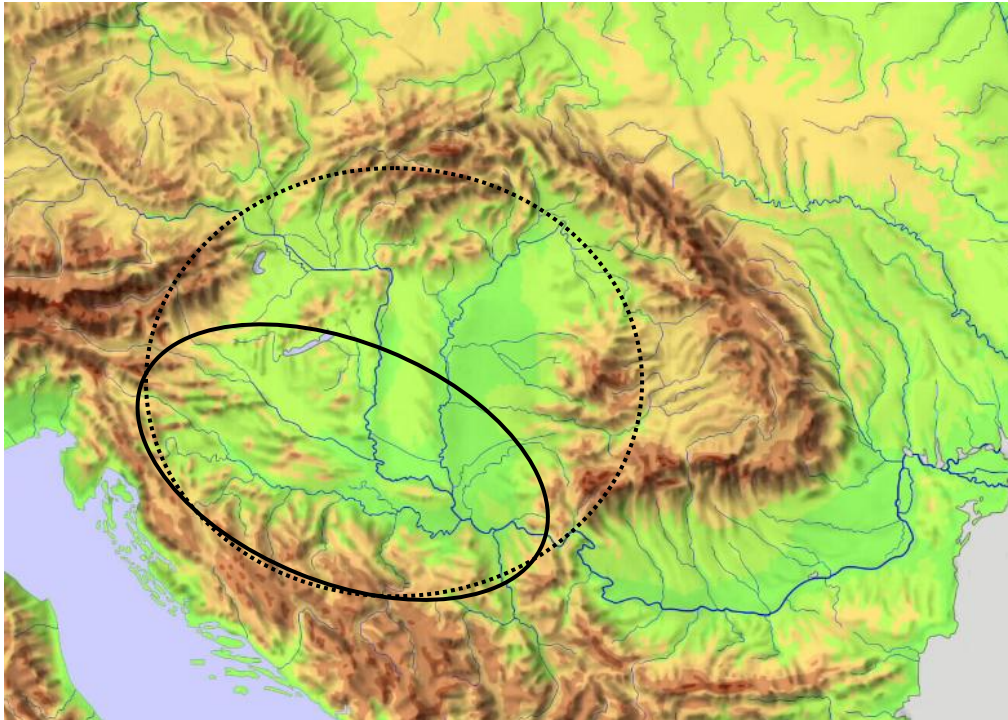


Figure 1.2. Map of east-central Europe with the Carpathian Basin (Pannonian Plain) in the center (dashed line). The scope of this study covers the southern half of the Carpathian Basin bounded by mountains in the west, south, and east, and stretching as far north as Lake Balaton (solid line). (Relief map from: László Zentai, “Relief of Carpathian-basin,” Eötvös Loránd University, Dept. of Cartography and Physics, 2009, <http://lazarus.elte.hu/gb/maps/karpat.htm>)

Placing Names or Naming Places: Slavonia, Sclavonia, Sklavinia, or Pannonia?

This “Sunken World” between the two rivers has had many names. In Antiquity it was part of the broader Roman province of Pannonia, which was divided into Pannonia Superior and Pannonia Inferior. Later, the region between the upper reaches of the Drava and Sava rivers became known as Pannonian Savia. After Hungary incorporated the region into their kingdom at the end of the eleventh century, they appointed a ban of “Slavonia” to govern this region.⁶ The origins of this name, however, are a little confusing. Prior to Hungarian rule, the Croatian kingdom had named their own bans of “Slavonia,” but the exact meaning of this term is unclear.

⁶John V. A. Fine, *When Ethnicity did not Matter in the Balkans: A Study of Identity in Pre-Nationalist Croatia, Dalmatia, and Slavonia in the Medieval and Early Modern Periods* (Ann Arbor: University of Michigan Press, 2006), 21.

One story that illustrates the many meanings of “Slavonia” comes from the First Crusade. At about the same time that King Coloman was battling King Peter in the Kapela mountains, Raymond of Toulouse was leading the First Crusade through the Balkans in 1096 and 1097. His chaplain, Raymond d’Aguiliers, described the count of Toulouse’s almost biblical 40-day trek across the “desert” of “Slavonia.” He described the lands he encountered as “so pathless and mountainous that we saw in it neither wild animals, nor birds for three weeks.”⁷ The locals were “boorish and rude” brigands. At one point, one Crusader captured six “Slavonians” harassing his entourage and ordered “the eyes of some of them to be torn out, the feet of others cut off, and the nose and hands of still others to be slashed, so that while the pursuers were thus moved at the sight and preoccupied with their sorrow, the Count could safely escape with his companions.”⁸ Besides hostility from the “Slavonians,” the Crusaders also endured bitter winter weather and hunger during their miserable 40-day journey.

The mountainous “Slavonia” the Crusaders crossed, however, bears no resemblance to historical Slavonia that had been seized by King Ladislaus I of Hungary (1077-1095) just a few years earlier. It is believed that the Crusaders crossed the Balkans through the mountains along the Adriatic Coast.⁹ Borislav Grgin argues that the locals’ hostile treatment of the Crusaders was a direct result of the Hungarian expansion into the region. He writes, “Under these circumstances, the peasants’ fear and mistrust of this huge and well-armed foreign army is perfectly understandable, as the crusaders could easily have been confused with the conquerors from the north. Moreover, at that early stage in the crusading expedition, the real

⁷“Raymond d’Aguiliers: Raymond of Toulouse and Adhémar of Le Puy,” in *Medieval Sourcebook: The Crusaders Journey to Constantinople: Collected Accounts*, 1997, Paul Halsall ed. (accessed Apr 18, 2009). Originally from August C. Krey, *The First Crusade: The Accounts of Eyewitnesses and Participants* (Princeton: 1921), 64-67.

⁸“Raymond d’Aguiliers.”

⁹ Miha Kosi states that members of the First Crusade took a route through northern Istria, through Senj, and across Dalmatia as they headed southeast. Kosi, “The Age of the Crusades in the South-East of the Empire (Between the Alps and the Adriatic),” in *The Crusades and the Military Orders (Expanding the Frontiers of Medieval Latin Christianity)*, edited by Zsolt Hunyadi and József Laszlovszky (Budapest: Central European University, 2001), 127.

intentions of the intruders were probably only known to a narrow stratum of the social elite in Croatia and Dalmatia, the clergy in particular.”¹⁰

What then was Slavonia? Or perhaps, it is more appropriate to ask where? During the Middle Ages, Slavonia included what is now northwest Croatia – both in the lowlands north of the Sava and in the highlands south of it – as well as northwest Bosnia.¹¹ In contrast, modern Slavonia applies to Croatia’s northeastern “arm” extending east from Virovitica and Jasenovac and including Croatian Syrmia.¹² Therefore, these two Slavonias only partially overlap. But this only reveals part of the story. Particularly in the early Middle Ages, the Latin toponym “Sclavonia” and the Byzantine equivalent, “Sklavinia,” were often used generically to refer to Slavic lands, as was the case with the account from the First Crusade. As Stanko Andrić points out in *The Sunken World: Discussion about the Middle Ages in Slavonia and Syrmia*, as late as the twelfth century, the term “Slavonia” did not have any territorial meaning.¹³ Similarly, John V. A. Fine believes that, “in the tenth and eleventh centuries Slavonia was not a clear cut entity.”¹⁴

György Györffy has written an important article on this topic,¹⁵ in which he argues that “the term “Slavonia” until the end of the 12th century did not refer to the area between the Drava and the forest mountains of the Gozd (Kapela), but to Adriatic Croatia and its southern bordering countries.”¹⁶ He goes on to state, that until the twelfth or thirteenth

¹⁰ Borislav Grgin, “The Impact of the Crusades on Medieval Croatia.” in *The Crusades and the Military Orders (Expanding the Frontiers of Medieval Latin Christianity)*, edited by Zsolt Hunyadi and József Laszlovszky (Budapest: Central European University, 2001), 168.

¹¹ Stanko Guldescu argued that during the Early Middle Ages Slavonia consisted of the land between the Drava, Sava, and Una Rivers southward to the Rišnak and Pričevica Mountains, while in the twelfth century he argued that Slavonia included all of Pannonia Croatia. Nenad Moacanin argues that prior to the Hungarian annexation of the region, Slavonia applied to “almost the entire northern part of present-day Croatia.” For a contrasting view see György Györffy below. Stanko Guldescu, *History of Medieval Croatia* (The Hague: Mouton, 1964), 81; Nenad Moacanin, *Town and Country on the Middle Danube, 1526-1690* (Leiden: Brill, 2006), 9-10.

¹² Moacanin, *Town and Country*, 9.

¹³ Andrić, *Potonuli svijet*, 49-50.

¹⁴ Fine, *When Ethnicity did not Matter*, 72.

¹⁵ György Györffy, “Die Nordwestgrenze des byzantinischen Reiches im XI. Jahrhundert und die Ausbildung des ‘ducatus Sclavoniae’,” in *Mélanges offerts à Szabolcs de Vajay*, edited by Pierre Brière (Braga: Livraria Cruz, 1971), 295-313.

¹⁶ Györffy, “Die Nordwestgrenze,” 299.

century, “none of the trustworthy sources” refers to the Drava as the border of Slavonia.”¹⁷

Györffy, in essence, argued that later medieval documents used contemporary conceptions of Slavonia in referring back to the tenth and eleventh centuries, which in turn led to what he calls a “displacement” of toponyms.¹⁸

Similar difficulties arise with the toponym “Pannonia.” As Bruna Kuntić-Makvić points out, “Pannonia” is most often used in reference to medieval Hungary or the modern geographic concept of the Pannonian Plain or Basin, but it can also refer to seven different Roman provinces, an early medieval Croatian dukedom, the Croatian realm of Slavonia, and the geographic region of Slavonia.¹⁹

Due to the near impossibility of identifying one appropriate meaning of any of the historical toponyms to be dealt with here, I will establish some common definitions to be used throughout this study. Whether or not they are the best terms to be used could be the subject of a rather extensive study in its own right, therefore it is my hope that whatever my chosen terminology lacks in accuracy it makes up for in consistency.

Since the scope of this study covers the entire southern portion of the Carpathian Basin, I will use “southern Carpathian Basin” or preferably the less clumsy “southern Pannonia” to refer to the entirety of the region. Thus, Pannonia here will be used in its geographic rather than historical sense.²⁰ “Southern Pannonia” will then roughly refer to the lower part of the Carpathian Basin bounded by the Slovenian Alps to the West, the Dinaric Alps to the south, and the Carpathian Mountains to the east. However, the distinction made

¹⁷ Györffy, “Die Nordwestgrenze,” 299.

¹⁸ Györffy, “Die Nordwestgrenze,” 300.

¹⁹ Bruna Kuntić-Makvić, “Hrvatska povijest i panonska povijest [Croatian History and Pannonian History],” *Osječki zbornik* 22-23 (1993-1995): 123.

²⁰ Historically, Roman Pannonia covered most of the lands of the Carpathian Basin south and west of the Danube. However, as a modern geographic term, Pannonia includes all the lowlands of the Carpathian Basin, thus including the land directly to the north and east of the Danube. Thus, in general terms, southern Pannonia here can also be used here to include the many archaeological sites lying in the lower Tisza River Valley. One could argue about the exact boundaries of “southern Pannonia” but the underlying point is to use a broad geographic term that in general describes the wider research zone of this study.

here between southern and northern Pannonia is rather arbitrary: the northern edge of Lake Balaton, which falls on the 47° North parallel, marks the northernmost edge of this study.

“Slavonia” will be used to describe the entire northern part of Croatia, including: all parts of Croatia between the Sava, the Drava, and the Danube, as well as the highlands of central Croatia and northern Bosnia. Hence, this usage combines the modern and medieval conceptions of the region. Similarly, while “Syrmia” (Croatian: Srijem) refers to the region between the Sava and the Danube in Croatia as well as Serbia, here the term will only be used to refer to the larger Serbian portion of this region. Finally, while sites throughout southern Pannonia are incorporated in this study, its central focus will be on the region lying between the Drava, Sava, and Danube rivers. Since no English word seems to adequately express this concept (except perhaps the rarely used term “interfluve”) the Croatian word, *međurječja*, meaning “between the rivers,” will be used as a proper noun here to refer specifically to the lands between the Drava, Sava, and Danube.

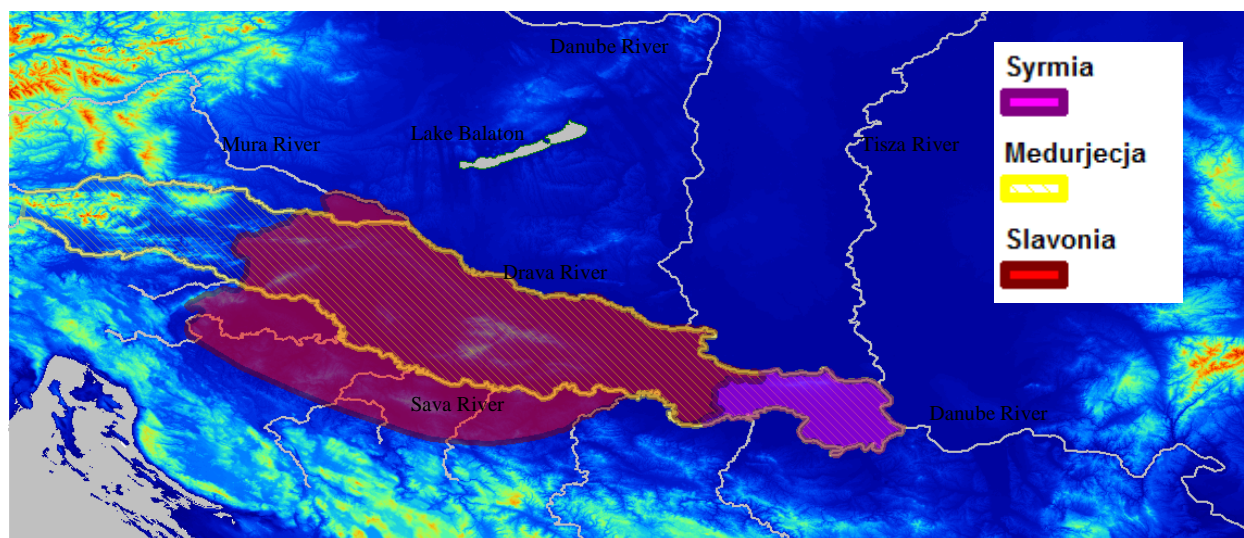


Figure 1.3. Map of the Southern Carpathian Basin (southern Pannonia) showing the regions of Slavonia, Syrmia, and *Međurječja* as defined here.

Entering “the Fog of the Unknown”: Historical Sources

When Tomislav Raukar described medieval Slavonia as shrouded in fog he was describing the incorporation of this region into the Croatian state during the tenth and eleventh centuries, but this phrase is perhaps an apt description of the entire time period between the death of Tomislav in AD 928 and the arrival of Ladislaus I (1077-1095) at the end of the eleventh century.

According to John V.A. Fine, after the death of Tomislav, “a confused situation” follows until the rule of Krešimir II (949-969).²¹ In his survey of the lands surrounding his empire written around the middle of the tenth century, Constantine VII Porphyrogenitus described Pannonia as being occupied by the “Turks” (Hungarians), including the lands from the Danube south to the Sava.²² This, of course, is a vague reference to a broad region: it would be difficult to draw any major conclusions from such a reference. For example, it is impossible to determine if this land – *inter Danubiam et Sabam fluvios*²³ - describes the relatively narrow region between these rivers in Syrmia or the huge expanse that stretches between the two in western Pannonia. Unfortunately, historical sources reveal little else about the region between the Sava and Drava in the tenth century. Nada Klaić describes tenth century Slavonia as being distinguished by total anarchy.²⁴

²¹ John V. A. Fine, *The Early Medieval Balkans: A Critical Survey from the Sixth to the Late Twelfth Century* (Ann Arbor: University of Michigan Press, 1991), 296-297.

²² *Constantine Porphyrogenitus: De administrando imperio*, edited by Gyula Moravcsik and R. J. H. Jenkins and translated by Jenkins, edition 4 (Dumbarton Oaks, 1967), Ch. 42 (p. 183).

²³ “Hungarorum sedes ac limites circa a. 950,” in *Codex diplomaticus Hungariae ecclesiasticus ac civilis*. Edited by G. Fejér, 11 volumes. Budapest 1829-1844. Volume 7, no. 4, pp. 26-27. Originally from Constantine Porphyrogenitus’ *De administrando imperio*.

²⁴ Paraphrased by Lujo Margetić in: Margetić, “The Croatian State during the Era of Rulers from the Croatian National Dynasty,” in *Croatia in the Early Middle Ages: A Cultural Survey*, edited by Ivan Supićić (London: Philip Wilson Publishers and Zagreb: AGM, 1999), 211.

The situation in the eleventh century is just as hotly contested. Klaić claims that by the 1020s, medieval Slavonia had greater ties to Hungary than to Croatia.²⁵ Assuredly this claim is disputed by some historians. However, one thing is clear: that is just how little we really know about tenth and eleventh century Slavonia. At various points in this period, Slavonia appears to have been under the influence of one kingdom or another, while at other times it appears to have been an autonomous region.

Illustrating the debates caused by the historical sources are the two maps at the end of the chapter (Figures [1.4](#) and [1.5](#)). One map, from a historical survey of medieval Croatian history, shows the borders of Croatia extending to the Drava river. Conversely the second map, drawn in a study of the borders of Slavonia, shows this region to be a part of Pannonian Hungary in the year AD 950. While the time difference between the two maps is minimal, the difference in the messages each map is sending is tremendous.

Escaping the Fog and Emerging on the Battlefield: Archaeological Sources

One would expect that archaeological evidence could perhaps resolve these debates. Unfortunately, the archaeology debates about this time period are just as contentious as the historical debates. In addition, many of the major political events do not appear in the archaeological record. Since these events cannot be directly observed in the archaeological record, archaeologists have instead searched for evidence as to who lived in Slavonia. That is one reason why arguments of ethnicity have dominated much of the debate. As a result, in studying the material culture of the Middle Ages in the region, archaeologists have focused on questions of origins and influences. This has led to the unfortunate use of artifacts as ethnic indicators and arguments in which sides are often taken according to national lines. Artifacts are examined not for what they can tell us about cultural processes but for what they

²⁵ References to Klaić's views in: Margetić, "The Croatian State," 211-212 and Fine, *When Ethnicity did not Matter*, 21.

reveal about national origins and ethnogenesis.²⁶ These heated debates have not only divided the archaeological community, but have also distracted archaeologists from seeking out questions that can actually be answered by the available material evidence.

²⁶ For an outsider's view of this phenomenon see: Miklós Takács, "A nemzetépítés jegyében megfogalmazott elvárások Kutatási célok az észak-balkáni államok középkori régészetében" [Expectations of Nation Building: Research Objectives in the Medieval Archaeology of the States of the Northern Balkans], *Korall* 24-25 (2006): 163-202.



Figure 1.4. Map showing the borders of Croatia (in blue) during the first half of the tenth century (Raukar, “Land and Society,” 186.)



Figure 1.5. Map implying Hungarian control over the lands between the Drava and the Sava in AD 950 (Györffy, “Die Nordwestgrenze,” inset).

II

LIFTING THE FOG:

IN SEARCH OF MEDIEVAL SLAVONIA IN THE ARCHAEOLOGICAL RECORD

Observations

Whether historical or archaeological in nature, many studies of medieval southern Pannonia – especially in Slavonia – refer to the dearth of information on the people who lived there during the tenth and eleventh centuries. As already discussed, the lack of historical records for this period has led to much debate and has provoked some historians to make some rather dubious claims, often along nationalist lines.²⁷ While there is a lot more archaeological data available, much of it has not yet been fully explored. Out of the 822 tenth to thirteenth century sites that Tajana Sekelj Ivančan identified in northern Croatia prior to and during the Yugoslav Wars, only 70 or 8.5% had undergone “systematic excavations.”²⁸ Since the end of the wars it appears that archaeological activity has increased significantly, however, little is still known about the majority of these 822 sites as well as those since discovered.

Despite the relatively small number of systematic excavations and surveys that have been conducted in the region, there still is a sizeable amount of published data available. Unfortunately, no synthetic work has been undertaken to combine the various types of data available for southern Pannonia in the tenth and eleventh centuries. Such a project is too large to be undertaken here, however, I hope to take the first step.

²⁷ See for example John V. A. Fine, Jr.’s discussion of historical maps, commonly found in Croatian historical literature, showing medieval Croatia’s borders covering nearly all of modern Croatia and most of present-day Bosnia. Fine argues that such a large medieval Croatia is based largely on speculation and therefore is very misleading. Fine, *When Ethnicity did not Matter*, 177-180.

²⁸ Tajana Sekelj Ivančan, *Catalogue of Medieval Sites in Continental Croatia*, BAR S615 (Oxford: Hadrian Books, Ltd., 1995), 9 and 19-20.

Questions

Previous studies of early medieval Slavonia (and its nearby surroundings) have described it as a “no man’s land” or “buffer zone,”²⁹ while some historians of different nations have at times participated in a tug-of-war over who lived there (arguments of ethnicity) and who controlled the region (arguments of nationality). Since this debate is ultimately about geography, borders, and population movements, maps should be an indispensable component of any study. Many historical maps, unfortunately, have shown Slavonia as a peripheral zone to some historical center of interest (i.e. Croatia, Hungary, Byzantine Empire, etc., see Figures 1.4 and 1.5 in the previous chapter). Often this leads to misleading and over-simplistic representations of a much more complex phenomenon. It is my attention, therefore, to use Slavonia as a central object of study within its geographic region, rather than as peripheral to national histories, which will provide not only new answers to old questions, but also new questions altogether. After all, regions on the periphery of political and population centers often serve as centers of interactions.

In order to do this, data will be analyzed from outside medieval Slavonia (however you define it). Thus, while Slavonia will remain the central object of study, to really understand its true place, data from throughout Southern Pannonia will be incorporated. In essence, there are three main questions to be explored here: two historical and one methodological.

First, what was early medieval Slavonia’s relationship to its neighbors in the tenth and eleventh centuries? Was it a borderland or a contact zone? What did the material culture of medieval Slavonia have in common with its neighbors and in what ways was it unique? Did the rivers that delineate this region serve as natural borders or conduits of exchange? While

²⁹ Tomičić, *Panonski periplus: Arheološka topografija kontinentalne hrvatske* [Pannonian Periplus: The Archaeological Topography of Continental Croatia], (Zagreb: Sveučilište u Zagrebu hrvatski studiji, Studia Croatica: Institut za arheologiju, 1999), 25; Florin Curta, *Southeastern Europe in the Middle Ages, 500-1250*, Cambridge medieval textbooks (Cambridge: Cambridge University Press, 2006), 256.

we can identify Slavonia as both a modern geographic concept as well as a somewhat ambiguous and vaguely defined early medieval historical entity, does the archaeological evidence reveal any distinct material culture patterns in Slavonia?

Second, just as larger regional patterns are to be analyzed, so too will I analyze smaller “sub-regional” patterns. What do distribution patterns of artifacts reveal about centers of production, as well as trade and distribution networks in Slavonia and the wider region? What factors may have caused these “sub-regional” patterns? On a material level, can Slavonia even be described as a cohesive region - in the tenth and eleventh centuries – unique from its neighbors?

Third and finally, I will look at how the various types of evidence to be studied here work together. For example, does the archaeological evidence support or contradict the historical evidence? To what degree, *if at all*, do the material artifacts reflect the political changes occurring in the region? In this effort, however, I hope to avoid the common mistake of trying to fit archaeological evidence into any pre-conceived notions of history based on debatable interpretations of the historical record.

Data

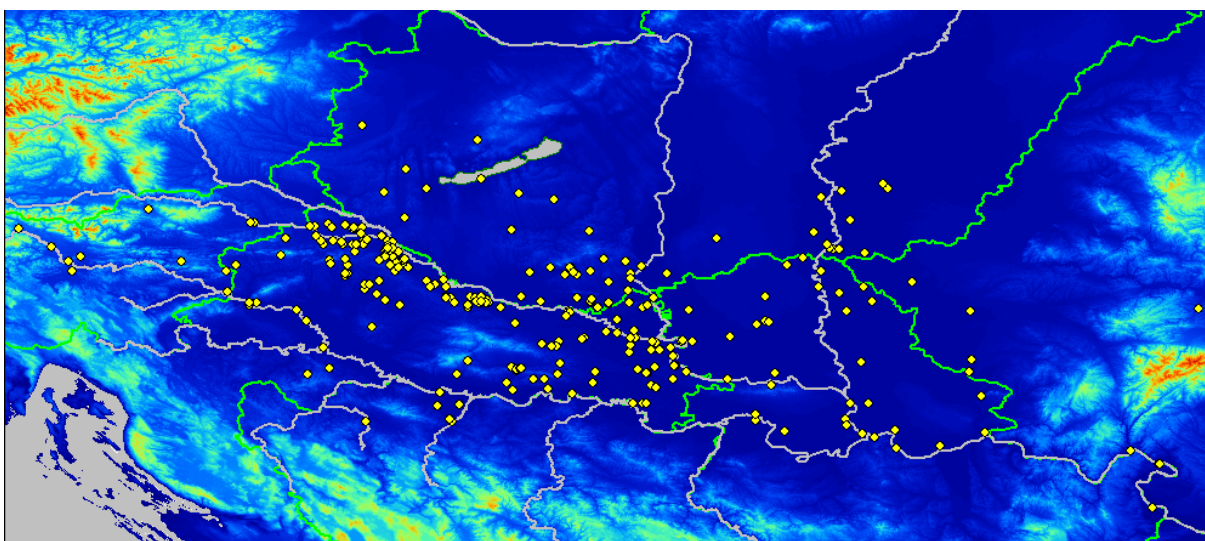


Figure 2.1. Map of the southern part of the Carpathian Basin and the sites examined in this study with modern national borders in green and rivers in silver. For a complete list of sites see Appendix A.

As previously explained, to understand the position of medieval Slavonia in relationship to its neighbors, it is important to examine those regions that surround it. This is especially in consideration that in the tenth and eleventh century Slavonia certainly had no clearly defined borders. Due to the breadth of this topic, only that data available in the published archaeological literature will be examined. This body of literature includes a numerous site reports and other journal articles from Croatia, Hungary, Bosnia, Serbia, Slovenia, and from the border regions of Austria and Romania. These articles are written in all these countries' respective languages as well as German and English. Thus, my examination of these sources is rather cursory and done with a focus on the data presented in each article rather than any detailed examination or critique of the author's individual interpretation.³⁰

The starting point of my research was Tajana Sekelj Ivančan's *Catalogue of Medieval Sites in Continental Croatia*, which is a survey of all known medieval sites in northern Croatia prior to the Yugoslav wars.³¹ Of the 822 medieval sites she identified, I selected 128 sites that are believed to have been in use at least during some portion of the period between 900 and 1100 AD. To this preliminary list, I have added 54 sites from northern Croatia that have since been discovered, 6 sites found north of the Dinaric Alps in Bosnia, 61 from southern Hungary, 16 from northeastern Slovenia, 40 from northern Serbia, 6 sites from the far western border of Romania, as well as one single site from Austria (see Appendix A). Obviously, as can be seen from the map in Figure 2.1, this is not an entirely exhaustive survey, nor is it entirely a representative sample as a disproportionate amount of sites have been examined from northern Croatia (the core area of my research focus) in contrast to other countries. I selected sites from outside northern Croatia that met the geographic and

³⁰ With the exception of the Croatian archaeological literature which I have read in much more depth.

³¹ Sekelj Ivančan, *Catalogue of Medieval Sites in Continental Croatia*.

chronological bounds of this study: namely, they are dated to the tenth and/or eleventh centuries and are found either within Southern Pannonia (i.e. the Hungarian sites found just north of the Drava) or at the fringes of this zone (i.e. Ptuj-Grad in the Slovenian transition zone between the Alps and the lowlands of Pannonia). For these sites I began with broader archaeological surveys³² and then, particularly for the larger or more well-published sites, moved to archaeological site reports.³³

Key surveys include the studies of the Bijelo Brdo culture by Jochen Giesler and Željko Tomić³⁴, as well as work by Hungarian archaeologists such as Csanád Bálint, Károly Mesterházy, and Attila Kiss.³⁵ In addition to these surveys, I have also consulted numerous site reports and artifact studies. With an eye toward distinguishing fact from interpretation as well as identifying any flaws in the methodology of the archaeologist, I have recorded this data in several detailed databases sorted by site and artifact type.

³² Besides Jochen Giesler's work (cited below) which covers Bijelo Brdo sites throughout the Carpathian Basin, I also reviewed more specific and detailed surveys such as: Csanád Bálint, *Südungarn im 10. Jahrhundert* (Budapest: Akadémiai Kiadó, 1991); Attila Kiss, *Baranya megye X-XI. századi sírleletei* [Baranya County 10th to 11th Century Gravefinds], (Budapest, Akadémiai Kiadó, 1983); Károly Mesterházy, "Bizánci és balkáni eredetű tárgyak a 10-11. századi magyar sírleletekben II" [Objects of Byzantine and Balkan Origins In 10th to 11th Century Hungary Grave-finds II], *Folia Archaeologica* 42 (1991): 145-177;

³³ Examples of these site reports includes Gyula Török's report on Halimba - Cseres in central Hungary, Attila Kiss's study of Majs – Udvari rétek in southwest Hungary (Baranya), Josip Korošec's report on medieval cemetery on the castle hill in Ptuj, Slovenia, and Nada Miletić's review of her excavations at Gomjenica – Baltine bare in northwest Bosnia. Gyula Török, *Die Bewohner von Halimba im 10. und 11. Jahrhundert* (Budapest: Akadémiai Kiadó, 1962), [hereafter: Török, *Halimba.*]; Kiss, *Baranya megye X-XI. századi*; Josip Korošec, *Staroslovansko grobišče na ptujskem gradu* [The Old Slav Burial Place on the Castle Hill of Ptuj] (Ljubljana: Slovenska akademija znanosti in umetnosti, 1950), [hereafter: Korošec, *Ptujskem gradu.*]; Nada Miletić, "Slovenska nekropola u Gomjenici kod Prijedora" [Slavic necropolis in Gomjenica near Prijedor] *Glasnik Zemaljskog muzeja Bosne i Hercegovine u Sarajevu, Arheologija* 21-22 (1967): 81-154, Tables 1.I-XXXII, [hereafter: Miletić, "Gomjenici"].

³⁴ Jochen Giesler, "Untersuchungen zur Chronologie der Bijelo-Brdo Kultur: Ein Beitrag zur Archäologie des 10. Und 11. Jahrhunderts im Karpatenbecken" [Investigation of the Chronology of the Bijelo Brdo Culture: A Contribution to Archaeology of the 10th and 11th Centuries in the Carpathian Basin], *Praehistorische Zeitschrift* 56 (1981): 3-168; While Tomić has numerous published works on the Bijelo Brdo culture in northern Croatia as well as the wider region of southern Pannonia, his broadest surveys of the culture include: Tomić, "Nova istraživanja bjelobrdske kulture u Hrvatskoj" [New research into the Bijelo Brdo Culture in Croatia], *Prilozi arheološkog instituta u Zagrebu* 9 (1992): 113-130; Tomić, "Ranosrednjovjekovno groblje u Velikom Bukovcu uz početke bjelobrdske kulture u Hrvatskoj" [The Early Medieval Cemetery in Veliki Bukovec at the Beginning of the Bijelo Brdo Culture in Croatia], *Opuscula Archaeologica Radovi Arheološkog zavoda* 23-24 (1999-2000): 285-307, [hereafter: Tomić, "Velikom Bukovcu"]; "O nekim vezama ranosrednjovjekovne Slavonije i Dalmacije na primjere polumjesecolikih naušnica s privjeskom" [On Some Connections between Early Medieval Slavonia and Dalmatia in the Example of Crescent-shaped Earrings with pendants], *Starohrvatska Prosvjeta* 3, no. 30 (2003): 139-157.

³⁵ See footnotes 6 and 7 above.

Methodology

Amongst the myriad types of data available in the archaeological literature, the most important single factor is location. Location provides context which is indispensable in archaeology. But, archaeological context is more than just the exact circumstances of discovery within the stratigraphy of a site; it also is its place within the broader picture of the wider region. It is this broader picture that I will look at. How do individual artifacts fit into the broader regional patterns of material culture in southern Pannonia? Likewise, how do the particular characteristics of site – whether a cemetery, settlement, or road – compare to other sites in the region?

To accomplish the geographic and spatial analysis of hundreds of sites and thousands of artifacts, I have relied heavily on technology: namely, complex databases for the recording, organizing, and sorting of data, and GIS software for the presentation and analysis of this data in its spatial context. GIS allows the manipulation of data in many ways, allowing infinite possibilities for combining, overlapping, and analyzing geo-data.³⁶ Due to its immense capabilities and the difficulty designing GIS software, it often is prohibitively expensive, particularly for the average graduate student. Fortunately, there are increasing numbers of GIS freeware, which is software available to download legally for free. For this project, I have chosen to use the SAGA GIS program, a freeware GIS program developed by the Department of Physical Geography in Göttingen, Germany.³⁷ It is with the use of this program that I created the distinctive, albeit un-natural-looking, blue maps found throughout this thesis.

³⁶ Geo-data is any type of data that is geo-referenced, meaning that it has been assigned specific grid coordinates which correspond to a particular spot on the ground. This means that in mapping a medieval cemetery, every grave and every grave find is given exact grid (x/y) coordinates (and often z coordinates for depth as well). Similarly, for regional maps, the cemetery itself becomes geo-data when its exact grid location (in this case latitude and longitude) are used to identify its precise location in the region.

³⁷ For information or to download SAGA see: <http://www.saga-gis.org/en/index.html>.

The collection and presentation of this data should allow me to take the first step towards answering the three questions framing this thesis. Namely, the charting and analysis of spatial distribution patterns will allow me to identify similarities and differences between Slavonia and its neighbors (question one), and to identify intra-regional variation to see what extent, if at all, Slavonia could be considered a cohesive unit (question two) – archaeologically speaking anyways. Finally, I will examine the archaeological evidence to determine in what ways it either corroborates or contradicts the historical evidence.

III

SKELETONS, JEWELRY, AND COINS:

RECONSTRUCTING THE LIVING BY ANALYZING THE DEAD

The Drava River, which forms much of the modern border between Hungary and Croatia, begins as a small stream in the Italian Alps and meanders its way through Slovenia before exiting the Alps and flowing towards the lowlands of the Pannonian Plain. By the time the Drava reaches Ptuj (Slovenia), it has grown from a small creek to a sizeable river 150 meters wide. Continuing east through southern Pannonia, the river has been dammed up at several locations forming some large lakes, both before and after it enters northern Croatia, where it marks the boundary between Međimurje County and the rest of the country. Not far from one of these artificially-created lakes is the town of Veliki Bukovec, where visitors to this small town can find an eighteenth-century manor house or castle at the southern edge of the town. This castle, built by Count Josip Kazimir Drašković between 1745 and 1755 and surrounded by a beautiful, semi-wooded park, is the town's most notable historic landmark. However, unknown to most visitors, more history is buried just below the surface of the castle park.³⁸ In 1870, an early medieval cemetery was discovered here, and the next year Šime Ljubića – considered the “founder of Croatian archaeology” – excavated the cemetery,³⁹ which is known as the site Veliki Bukovec - Dvorac Drašković⁴⁰ in archaeological literature. Here, Ljubića found six human burials which he described as adorned with “earrings of brass, rings, circlets, strings of glass and amber beads, buttons, and other jewelry.”⁴¹

³⁸ Or at least *was* buried. Many of these burials have been destroyed and it is unknown if more exist, yet to be unearthed.

³⁹ Tomičić, *Panonski periplus*, 160.

⁴⁰ Site #158 in Appendix A.

⁴¹ Tomičić, “Velikom Bukovcu,” 286.

Following the Drava to the east as it passes between Hungary and Croatia, it merges with the Danube just past Osijek, and turns to the south where it (now the Danube), meanders back and forth past the towns of Erdut and Borovo before flowing past the city of Vukovar. In Vukovar, one can still observe a battered water tower rising above the skyline, one remnant of the devastation suffered by this city during the Yugoslav Wars of the early 1990s. In Vukovar, about a decade after the discoveries at the Drašković castle park in Veliki Bukovec, and over 200 kilometers away, a nobleman, apothecary, and supporting member of the newly formed Croatian Archaeological Society, brought some jewelry he had found in the town to a museum in Zagreb.⁴² According to Željko Demo, this man – Alexander pl. Krajčović⁴³ – had found “two circlets and one torque of braided wire,” now known to date to the late tenth century.⁴⁴ Continuing well into the twentieth century, surface finds of medieval jewelry and ceramics continued to trickle into museums. Early on, the similarity between these finds and those from Veliki Bukovec suggested that these distant people shared, at the very least, similar material cultures.

Intensive investigations did not begin until 1951, when a preliminary survey by the curator of the Archaeological Museum of Croatia revealed the presence of a large early medieval cemetery in Vukovar (presumably it was in this same area that Krajčović made his discoveries).⁴⁵ By the end of the excavation, 435 medieval graves had been excavated, making it the largest graveyard of its kind in northern Croatia. While the immensity of this cemetery certainly dwarfs that found in Veliki Bukovec, the grave goods found at Vukovar - Lijeva bara⁴⁶ revealed even more similarities between the two cemeteries.

Approximately 20 kilometers north of Vukovar, near the confluence of the Drava and the Danube, similar surface finds were recovered in the late nineteenth century in the town of

⁴² Demo, *Vukovar – Lijeva Bara* (Zagreb: Arheološki Muzej u Zagrebu, 1996), 110.

⁴³ “.pl” apparently is a title for nobility in early modern Croatia.

⁴⁴ Demo, *Vukovar – Lijeva Bara*, 110.

⁴⁵ Demo, *Vukovar – Lijeva Bara*, 111.

⁴⁶ Site #816 in Appendix A.

Bijelo Brdo, where the chance discovery of a large early medieval cemetery in Bijelo Brdo along Venicije Ulica⁴⁷ (Venice Street) revealed similar finds to those from Veliki Bukovec and Vukovar. Although the Vukovar cemetery was not excavated until the 1950s, the late nineteenth century surface finds from this site as well as the more detailed excavations in Veliki Bukovec and Bijelo Brdo allowed the burgeoning discipline of archaeology to begin to fill in the gaps in the historical record of the Middle Ages.



These three cemeteries opened the way to a century of archaeological investigations of the early medieval period, largely dominated by the study of cemeteries. Few settlements near these cemeteries have been identified and fewer if any have been systematically investigated. An important question is of course why? Is this the result of an inability to find these settlements or, rather, a lack of interest on the part of archaeologists? On one hand, for many of these cemeteries, associated settlements have never been found, especially for those cemeteries found in urban areas. On the other hand, for those early medieval settlements that are known, few have been systematically excavated. For example, in Ivančan's 1995 survey of medieval archaeological sites in continental Croatia, only 7.7% of the 390 settlements had at that time been "systematically excavated."⁴⁸ This is in contrast to the 14.3% of the 119 medieval cemeteries that have been excavated.⁴⁹ Moreover, these numbers do not even factor in the great many settlements that have yet to be discovered.

⁴⁷ The early medieval row cemetery at *Bijelo Brdo – Ulica Venicije* (site #754) should be distinguished from the *Bijelo Brdo- Bajer* site (#753) which is an Avar-Slav cemetery found nearby.

⁴⁸ Sekelj Ivančan, among other things, classifies the 822 sites in her catalog by the types of investigation archaeologists have carried out at these places. I place this term "systematically excavated" in quotes because this is one of the terms she uses to describe the most rigorous type of excavations completed at these sites. However, she never defines just how systematic these excavations are, so I approach this term with just a little caution.

⁴⁹ Ivančan, *Catalogue of Medieval Sites in Continental Croatia*, 19-28.

The cause of this disparity is two-fold: first, cemeteries are more easily identified and, second, when discovered, cemeteries attract more interest from archaeologists and those institutions that fund their work. Most archaeological sites, at least in populated regions of the world, are discovered accidentally by locals or other non-archaeologists. To an untrained eye the hallmarks of early medieval cemeteries are easily spotted: human bones, antique metal jewelry and coins all are easily identified as indicators of an archaeological site. In contrast, since most early medieval people – at least in Southern Pannonia – lived in small villages or hamlets, their remnants are unspectacular and often undetectable to the non-archaeologist. A farmer plowing his field most likely would not even notice a hearth, a few post-holes, and some pot-sherds.

The problem of lack of interest in discovered settlements is a little more complicated. Part of this is common-place in the early years of archaeology as a discipline. Archaeologists of the late nineteenth- and early twentieth-century often simply wanted to dig up treasures of the past and take them back to their supporting museum. In contrast to Roman ruins and late medieval stone structures, early medieval settlements provided neither great “display” artifacts nor easily reconstructed buildings. This continuing tendency, which lasted throughout the twentieth century in northern Croatia, can be explained by the types of questions archaeologists were asking. Foremost among these questions was *who* and *when*. The centrality of identity and chronology framed many archaeologists’ efforts to fit archaeological evidence with the historical record, or at least their interpretation of the historical record. Further accentuating this focus on chronology and identity in this region was the twentieth-century fixation on the medieval past as the birthplace of ethnicity and the nation. In his critique of this fixation that begins with the Migration Period, Patrick Geary writes in *The Myth of Nations*: “The interpretation of this period of the dissolution of the Roman Empire and the barbarian migration has become the fulcrum of political discourse

across much of Europe.”⁵⁰ In Southern Pannonia, this search for origins continues past the Migration Period and into the tenth and eleventh centuries, known in Croatia and Hungary for being the time period of their first kings.

Since limited historical records have survived from this period, participants in this discourse often turn to the archaeological record to make their case. It is with this goal in mind, that some archaeologists have used material culture as a proxy and indicator of ethnicity, and therefore the origins of the nation. Material culture can tell us a lot of things, but ethnicity is not one of them. As a result of this fixation on ethnicity in archaeology, much has been written in recent years debunking archaeological myths about ethnicity and dealing with the “problem of ethnicity.”⁵¹ One of many manifestations of this problem can be seen in the search for “ancestors” such as in Željko Tomičić’s study of the Veliki Bukovec - Dvorac Drašković cemetery. He concludes this work this way:

“Destiny has decreed that the term for the material culture discovered in a few graves at Veliki Bukovec in 1870-1871 should nonetheless be synonymous with the village of Bijelo Brdo near Osijek, where numerous grave units were discovered in 1895. It should still be emphasized that at these two geographically distant sites, a related material and spiritual heritage of our distant ancestors can be recognized, which has proven, certainly along with linguistic components, the uniform nature of the national culture of the Croats in the time immediately prior to the encroachment of kings from the Arpad dynasty towards early mediaeval Slavonia.”⁵²

⁵⁰ Patrick Geary, *The Myth of Nations: The Medieval Origins of Europe* (Princeton: Princeton University Press, 2003), 7.

⁵¹ The bibliography regarding the “problem of ethnicity” in medieval archaeology is immense. I will cite just a few notable examples here: John V. A. Fine, *When Ethnicity did not Matter*; Geary, *The Myth of Nations*; Walter Pohl, “Conceptions of Ethnicity in Early Medieval Studies,” in *Debating the Middle Ages: Issues and Readings*, edited by Lester K. Little and Barbara H. Rosenwein (Blackwell Publishers, 1998). Florin Curta has written or edited several articles and books on this problem, including: *The Making of the Slavs: History and Archaeology of the Lower Danube Region, Ca. 500-700*, Cambridge studies in medieval life and thought (Cambridge: Cambridge University Press, 2001) in which he argues that the Roman frontier played a role in the defining of Slavic identity; “Some Remarks on Ethnicity in Medieval Archaeology,” *Early Medieval Europe* (2007): 159-185, *Borders, Barriers, and Ethnogenesis: Frontiers in Late Antiquity and the Middle Ages*, edited by Curta (Turnhout: Brepols, 2005), of particular interest is the concluding chapter by Walter Pohl; and “Pots, Slavs, and ‘Imagined Communities’: Slavic Archaeology and the History of the Early Slavs,” *European Journal of Archaeology* 4 (2001): 367-384.

⁵² In the English summary translated by B. Smith-Demo in Tomičić, “Velikom Bukovcu,” 307.

Material Culture Groups of Tenth and Eleventh Century Southern Pannonia

Due to this emphasis on cemeteries and grave goods, material cultures of early medieval East Central Europe are therefore naturally defined by assemblages of grave goods. In the material culture history of medieval Pannonia, the tenth through eleventh centuries represent a transition period in the region. Gone were the distinctive burials of the Carolingians and Avars, yet the people of this region had not yet begun to bury their dead in traditional churchyard cemeteries.⁵³ This transitional period lasted until the widespread replacement of medieval row cemeteries with churchyard burials after the Hungarian expansion into Slavonia in the late eleventh century. According to Florin Curta, these church graveyards became common in the region at the end of the eleventh century and at the beginning of the twelfth century as a result of the “drastic measures” undertaken by King Ladislaus I (1077-1095) and King Coloman (1095-1116) to “force people to bury their dead next to the newly founded parish churches.”⁵⁴ However this transition from row cemeteries to churchyard cemeteries in the region was most likely a more gradual and more complex phenomenon than Curta’s description allows.⁵⁵

Between these two developments, the archaeological record of tenth- through eleventh-century Slavonia and southern Pannonia is dominated by the Bijelo Brdo (alternatively “Bjelo Brdo,” “Bialobrdo,” or “Belo Brdo”) material culture group. The Croatian term Bijelo Brdo or “bjelobrdo” is a common toponym meaning “White Hill.” The Bijelo Brdo – Ulica Venicije site in northeast Croatia, named after a hill and a town with this

⁵³ The transition from medieval row cemeteries to churchyard cemeteries in all likelihood was a gradual and complex phenomenon that does not necessarily signify conversion to Christianity. Just as Christians may have continued their traditional “pagan” burial practices for generations after conversion, so too is it possible that the people who buried their dead in churchyard cemeteries were not Christians by any traditional definition.

⁵⁴ Curta, *Southeastern Europe in the Middle Ages*, 252.

⁵⁵ József Laszlovszky (personal communication).

toponym, became known among the wider archaeological community as the eponymous center of the Bijelo Brdo Culture.⁵⁶

Lubor Niederle first applied the term “Bijelo Brdo” to the material culture in the 1920s in his efforts to characterize similar artifact assemblages found throughout the Carpathian basin as Slavic in origin or character.⁵⁷ With this goal in mind, he named the wider material culture after this archaeological site in eastern Croatia due to its wealth of similar grave goods.⁵⁸ His efforts to ascribe a particular ethnic character to materials finds prefigured the early decades of research in the field, and to some extent recent studies as well.



Figure 3.1. Some examples of characteristic jewelry forms of the Bijelo Brdo Culture including S-shaped hoop earrings (on the left) and so-called “grape-shaped” earrings (right) (Demo, *Vukovar – Lijeva bara*, 88).

Thus far, the Bijelo Brdo material culture has primarily been defined through cemeteries. Therefore, just about any study of the Bijelo Brdo Culture will center on cemeteries and their respective grave goods. While these cemeteries have several common characteristics, the primary distinguishing characteristic of the culture is the presence of particular styles of jewelry, most notably S-shaped circlets and hoop-earrings, silver-wire

⁵⁶ Željko Tomičić, “Novi prilozi vrednovanju ostavštine srednjovjekovnog groblja Bijelo Brdo II” [New Contributions to the Evaluation of the Remains of the Medieval Cemetery Bijelo Brdo II], *Prilozi Instituta za arheologiju u Zagrebu* 8, no. 1 (1991): 116, [hereafter: Tomičić, “Bijelo Brdo II”].

⁵⁷ Demo, *Vukovar – Lijeva bara*, 113.

⁵⁸ Demo, *Vukovar – Lijeva bara*, 113.

finger-rings, and necklaces with crystal, glass, or stone beads.⁵⁹ In *The Early Slavs*, P. M. Barford described the Bijelo Brdo culture as “a mixture of Slav-Avar, Magyar, ‘Old Croat’, Kottlach, and Moravian influences.”⁶⁰ They also are part of a larger group of medieval row cemeteries known as the *Reihengräberfeld*... This common material culture has led to the identification of over seventy Bijelo Brdo cemeteries in Slavonia.⁶¹

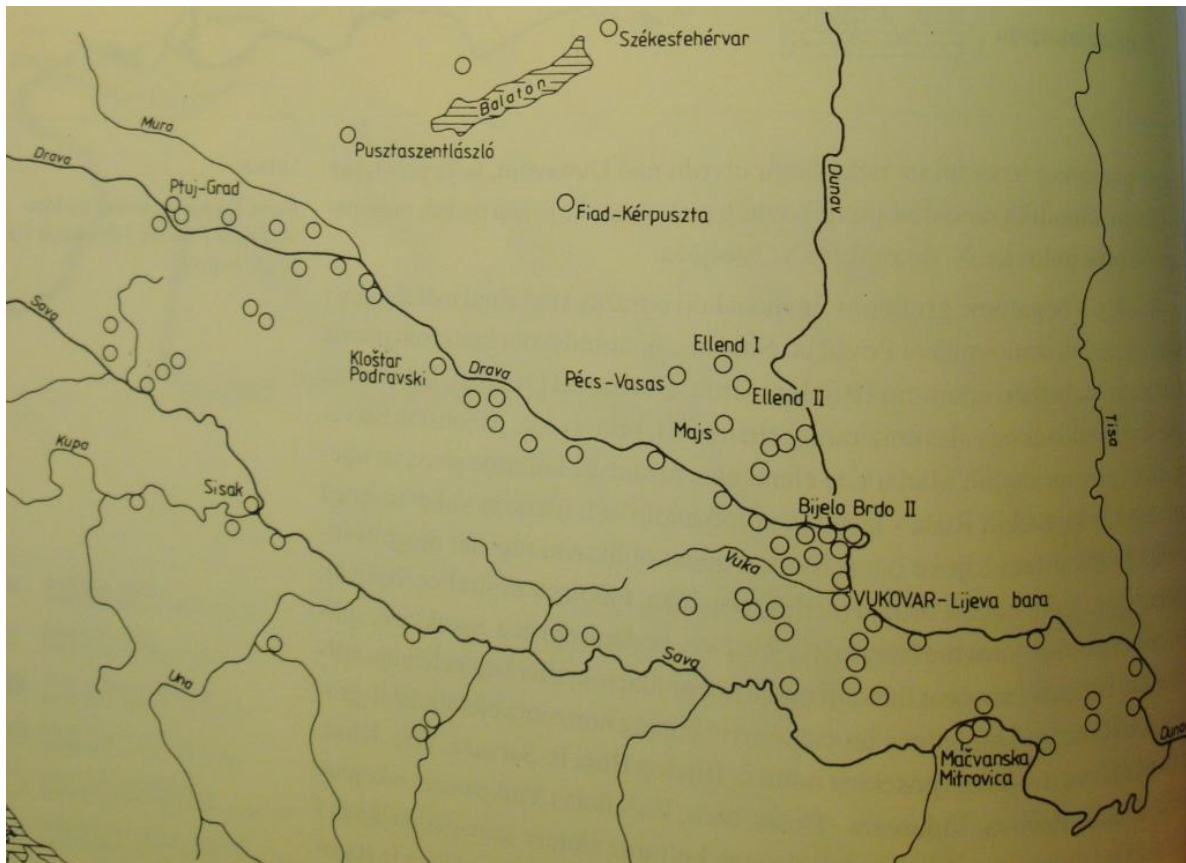


Figure 3.2. Map of Bijelo Brdo Cemeteries in southern Pannonia (Tomičić, *Panonski periplus*, 234).

Archaeologists have discovered and identified such cemeteries in all corners of the Carpathian Basin. In addition to continental Croatia and Hungary, Bijelo Brdo cemeteries are known as far south as Bosnia, as far west as Austria and Slovenia, as far north as Slovakia, and as far east as Romania.⁶² The dating and geographic extent of these distinct grave finds suggests some definite historical correlations to the migration, conquest, and expansion of the

⁵⁹ Curta, *Southeastern Europe in the Middle Ages*, 192 and 253.

⁶⁰ Paul Barford, *The Early Slavs: Culture and Society in Early Medieval Eastern Europe* (Ithaca, NY: Cornell University Press, 2001), 231.

⁶¹ Željko Tomičić, “Nova istraživanja bjelobrdske culture u Hrvatskoj” [New research into the Bijelo Brdo Culture in Croatia], *Prilozi arheološkog institute u Zagrebu* 9 (1992): 119.

⁶² Demo, *Vukovar – Lijeva bara*, 113.

Hungarians in the region. However, debates still rage about the nature of this connection. Were the Bijelo Brdo people indeed Hungarians? Or did their expansion merely facilitate the spread of certain materials items such as the S-shaped jewelry among diverse groups of people? After all, the Pannonian Slavs did not simply disappear nor did the Avars and other people that lived in the Carpathian Basin before the Hungarian migrations. Alternatively, other archaeologists speculate about the lasting impact of the ninth century expansion of Great Moravia.

These are significant debates, but in handling these questions it is important to avoid the fallacy of the culture-historical approach: which is the belief that material culture can be used as a proxy for ethnicity.⁶³ It is this very association of *material culture* with actual *culture* that has led some archaeologists to replace the term material culture altogether with the term “Techno-complex.” Another important trend in the interpretation of tenth through eleventh century archaeology in Pannonia is the social construction. According to this viewpoint, the Bijelo Brdo culture was the material culture of common people, while other material items from the period – often found in the same cemeteries – represent not earlier cultures or different ethnic groups but different social classes. This perspective was first advanced by Béla Szőke and has had a lasting influence on the archaeological literature of the region, particularly in Hungary.⁶⁴

⁶³ For an interesting discussion of this see Florin Curta, “From Kossinna to Bromley: Ethnogenesis in Slavic Archaeology,” in *On Barbarian Identity, Critical Approaches to Ethnicity in the Early Middle Ages*, edited by Andrew Gillet (Turnhout: Brepols, 2002), 201-218.

⁶⁴ For a brief overview of the historiography of this viewpoint in Hungary see: Károly Mesterházy, “The Archaeological Research of the Conquest Period,” in *Hungarian Archaeology at the Turn of the Millennium* (Budapest: Ministry of National Cultural Heritage, 2003), 321-327.

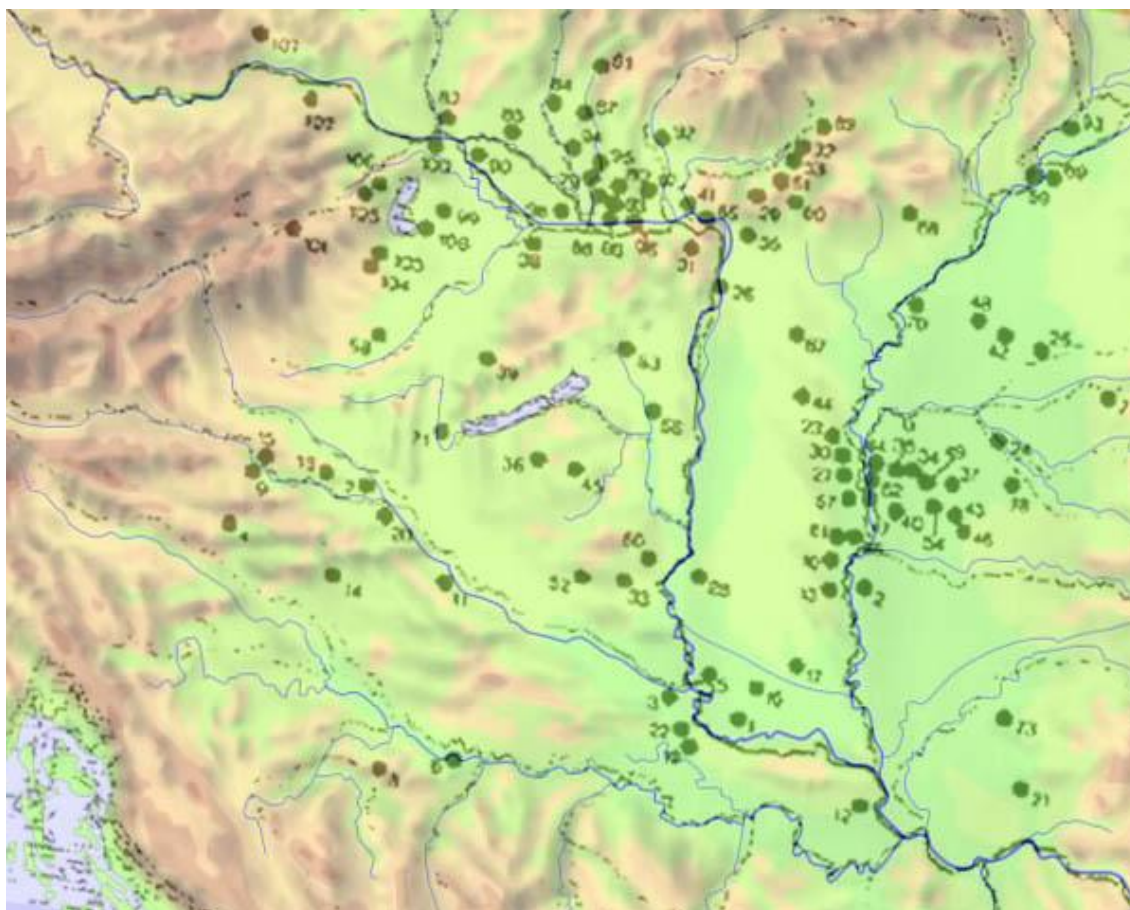


Figure 3.3. Map overlay showing location of Bijelo Brdo sites (from Giesler Table 48.1) over a map of the Carpathian Basin (see map citation in Ch. 1).

Other material culture groups contemporaneous with Bijelo Brdo in Southern Pannonia are the Köttlach, “Old Croatian groups,” and possibly “Old Hungarian” material culture groups. Named after a site in Austria, objects of the Köttlach culture are dated to the ninth and tenth centuries and are predominantly found in the Carinthian regions of Austria and Slovenia, but also to a lesser degree in the western reaches of Slavonia.⁶⁵ However, illustrating the futility of trying to draw borders and confine a particular material culture group to a particular space is the discovery of some Köttlach finds in Transylvania. This discovery led to much speculation as Bóna argued that these goods had been transferred as

⁶⁵ Typical forms of the Köttlach culture include enameled ear-rings, particularly lunar-shaped ear-rings, a variety of circlets, rings with stones, rings with small chains underneath, and a few distinctive forms such as bird-shaped rings. Josip Korošec, *Staroslovansko grobišče na ptujskem gradu* [The Old Slav Burial Place on the Castle Hill of Ptuj] (Ljubljana: Slovenska akademija znanosti in umetnosti, 1950), 340-350. Also: Barford, *The Early Slavs*, 230.

Hungarian booty, while Heitel argued that these finds were the result of “pre-Hungarian” contacts between Romanians and the Slavic people of the eastern Alpine region.⁶⁶

The other two material culture groups commonly identified in the archaeological literature for Southern Pannonia in the tenth and eleventh centuries are the “Old Hungarian” and “Old Croatian” groups. The very names of these cultures are problematic as they imply a homogenous ethnic identity. Certainly Hungarians – however you define them – were not the only people to use these objects as by the tenth century the Pannonian Plain was a pretty heterogeneous place. Obviously, the Avars, Pannonian Slavs and others did not simply disappear upon the arrival of the Hungarians to the region.

However, it should be pointed out that even the term “Bijelo Brdo” could be considered a “loaded term” as well, as the Czech archaeologist, Niederle, named this material culture group after the Bijelo Brdo site to indicate its Slavic origins.⁶⁷ This identification of Bijelo Brdo as Slavic was widespread early on in both Slavic and Hungarian literature.⁶⁸

Furthermore, with the “Old Hungarian” group, there is still much debate about its meaning and its relationship to Bijelo Brdo, as they are often found in the same graveyards. In his establishment of a chronology for the Bijelo Brdo material culture, Giesler argued that the “Old Hungarian” group was a predecessor to Bijelo Brdo. Others have argued that the “Old Hungarian” and Bijelo Brdo graves are contemporaneous and just represent different social classes. Most prominently, Béla Szőke argues for three different types of graves, those of the ruling elite, a middle class, and graves of commoners.⁶⁹ In this scheme, the Bijelo Brdo graves are those of the commoners. While his arguments have had a great influence, particularly on Hungarian archaeology, some have over-stated the acceptance of this

⁶⁶ Curta, “Transylvania around A.D. 1000,” in *Europe around the Year 1000*, edited by P. Urbańczyk (Warsaw, 2001): 150-151.

⁶⁷ Demo, *Vukovar – Lijeva bara*, 113.

⁶⁸ András Róna-Tas, *Hungarians and Europeans in the Early Middle Ages: An Introduction to Early Hungarian History* (Budapest: Central European Press, 1999), 134.

⁶⁹ Mesterházy, “The Archaeological Research of the Conquest Period,” 323-324.

argument. For example, in his book on early Hungarian history, András Róna-Tas argues that Bijelo Brdo graves are “now thought of as comprising the burial sites of common Magyars.”⁷⁰ However, there is hardly any consensus on this subject, neither on the “common” nor on the “Magyar” assumptions. Giesler in his 1981 work, as already noted, argued for a separation (but overlapping) chronology for “Old Hungarian” and Bijelo Brdo goods, while Tomićić – who has been researching the Bijelo Brdo culture in Slavonia for the past twenty years – agrees but drops the “Old Hungarian” altogether and simply calls it the “transitional” Bijelo Brdo phase.⁷¹ Since this debate largely centers around the establishment of a relative chronology for the individual graves within these medieval cemeteries, which is outside my research, I will not weigh in on this debate here. Regardless, most archaeologists would probably agree that these early, simplistic models have been replaced by a more nuanced understanding of complex circumstances marked more by ethnic diversity than previously thought.⁷²

The other material culture group commonly identified in Slavonia is the Old Croatian group. While centered along coastal Croatia, finds from this group also extends past the Dinaric Alps into Slavonia. As one example of the overlap of material cultures, the tenth through eleventh century cemetery of Gomjenica – baltine bare is rich with Old Croatian finds as well as those from the Bijelo Brdo material culture complex.⁷³

⁷⁰ Róna-Tas, *Hungarians and Europeans*, 134.

⁷¹ For example, in “Nova istraživanja bjelobrdske culture,” (p. 121) Tomićić refers to this group as the “Übergangsphase,” while in “Gomjenica,” (p. 197) he refers to it as the “Prijelazna faza” [transitional phase]. Tomićić, “Prinos poznavanju kronologije ranosrednjovjekovnoga groblja Gomjenica kraj Prijedora” [Contributions to the Chronology of the Early Medieval Cemetery in Gomjenica near Prijedor], *Starohrvatska Prosvjeta* 3, no. 34 (2007): 151-197, [above and hereafter: Tomićić, “Gomjenica”].

⁷² Demo, *Vukovar – Lijeva bara*, 113 and József Laszlovszky (personal communication).

⁷³ Miletić, “Gomjenici,” and Tomićić, “Gomjenica.”

Cemeteries

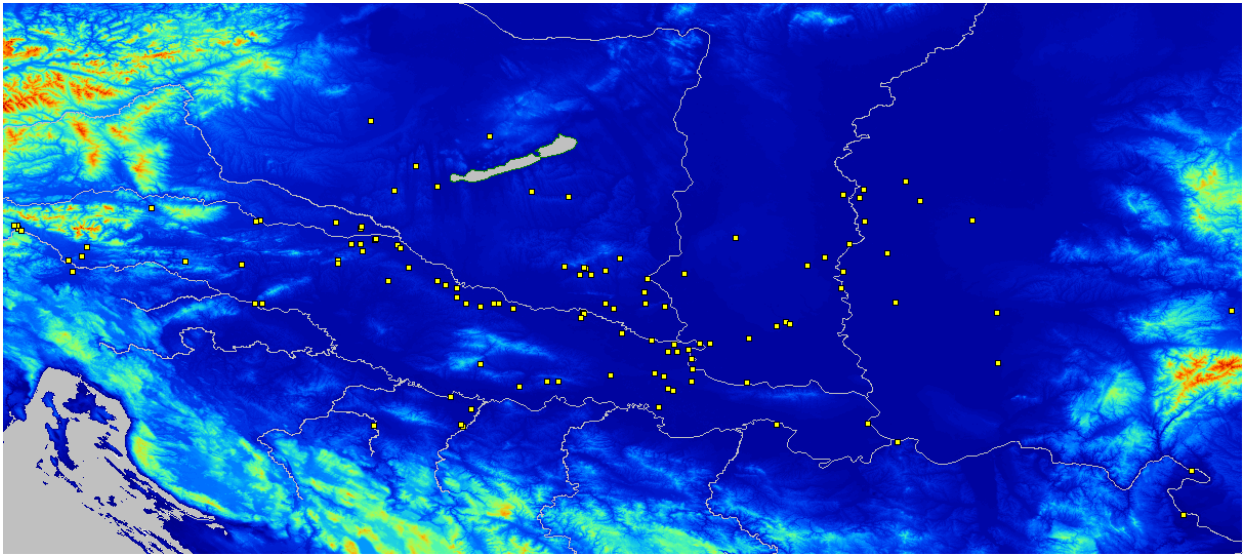


Figure 3.4. Ninth through twelfth century cemeteries in southern Pannonia.

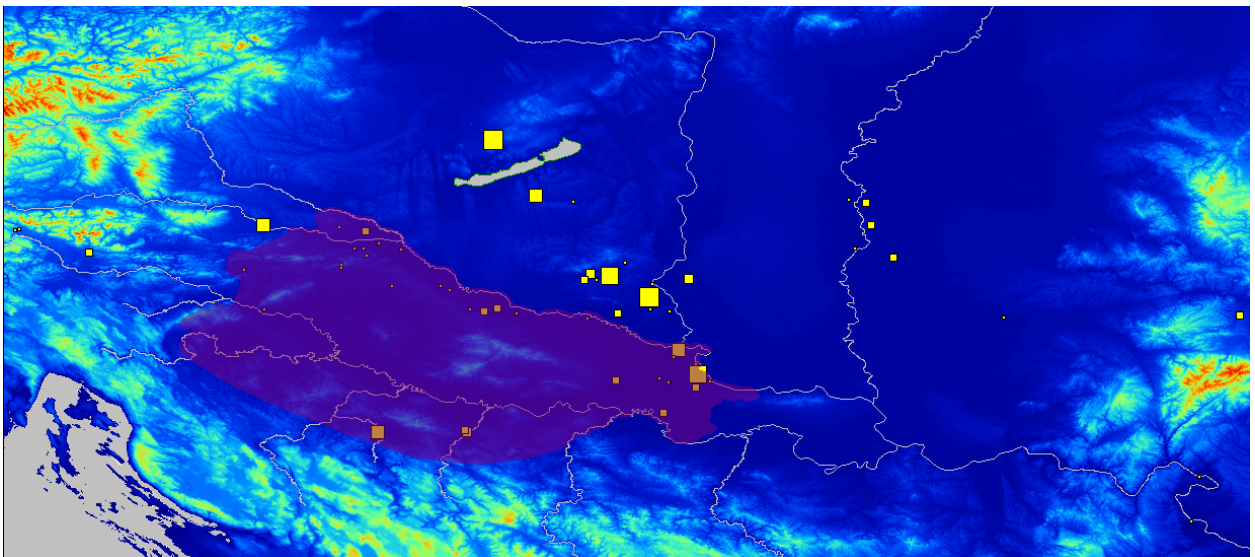


Figure 3.5. Tenth- and eleventh-century cemeteries in Southern Pannonia with the shadow of Slavonia in the background. The sizes of each square are in proportion to the number of burials.

While historians have referred to Slavonia in the tenth and eleventh centuries as a “no man’s land,”⁷⁴ the archaeological evidence provides a wholly different view. Florin Curta, for example, cites evidence from medieval cemeteries to suggest that an “explosion of population” occurred in the area beginning in the middle of the tenth century.⁷⁵

⁷⁴ See page 5, footnote 12 in the last chapter for examples.

⁷⁵ Curta, *Southeastern Europe in the Middle Ages*, 191-193, 252-254.

In general, the location of these cemeteries reflects the locational preferences of the people who lived in the region (see Figure 3.4). These cemeteries are usually found in lowland areas, near rivers, yet just out of reach of floods. An analysis of the cemetery size also sheds some light on the distribution of the population “explosion” Curta describes (see Figure 3.5).

Grave Goods

Of course, these material cultures are largely defined by grave goods. In particular, the burial assemblages of these graves are defined by certain types of jewelry. However, in defining these material cultures it is easy lose sight of the great variability of jewelry items found over both time and space. This variability is caused by the multiple influences on these funerary dress items as well as the multiple places of production. Therefore, I have chosen to analyze two categories of artifacts: those which have wide distribution beyond the natural borders of the Carpathian Basin, and those artifacts that have a smaller, more localized distribution.

Other scholars have already established typological systems for classifying these artifacts, therefore, I feel no need to create a new system myself. Rather, the typology of tenth through eleventh century jewelry (particularly Bijelo Brdo), first established by Jochen Giesler⁷⁶ for the whole Carpathian Basin and since modified by Željko Tomičić in respect to his studies in Southern Pannonia, will be used here. For a list of the artifacts in this typology, see Appendix B.

⁷⁶ Giesler, "Untersuchen zur Chronologie der Bijelo-Brdo Kultur," Tomičić, "Nova istraživanja bjelobrske culture."



Figure 3.6. S-shaped circlets from the Vukovar-Lijeva bara cemetery (Demo, *Vukovar*, 88).

S-shaped circlets

The jewelry item most commonly associated with the Bijelo Brdo is the circlet with S-shaped ends.⁷⁷ Usually made out of silver or bronze, this jewelry item has been found as far east as Transylvania, as far north as Slovakia, as far west as Slovenia and as far south as the Adriatic coast;⁷⁸ they have been found in burials dated to all periods of the Bijelo Brdo culture.⁷⁹ Furthermore, they also appear more frequently than any other Bijelo Brdo type. Out of 128 sites analyzed in this study, S-shaped loops have been found in exactly half of them.⁸⁰ Their actual importance in daily life is unknown, but their importance in the funerary rites of the dead is indisputable. At the Gomjenica-Baltine bare site in northern Bosnia, for example, archaeologists found 230 such earrings in only 67 graves.⁸¹

⁷⁷ Giesler type I and II.

⁷⁸ Curta, *Southeastern Europe in the Middle Ages*, 192 and Giesler, "Untersuchen zur Chronologie der Bijelo-Brdo Kultur."

⁷⁹ Tomičić, "Istraživanje kronologije ranosrednjovjekovnog groblja u Mahovljanima kraj Banja Luke" [Investigation of the Chronology of the Early Medieval Cemetery in Mahovljani near Banja Luka], *Prilozi arheološkog instituta u Zagrebu* 17, no. 1 (2000): 32, [hereafter: Tomičić, "Mahovljanima"].

⁸⁰ At least one S-shaped hoop earring has been found in at least 64 sites from southern Pannonia sites dated to between the ninth and twelfth centuries.

⁸¹ Tomičić, "Gomjenica," 158.

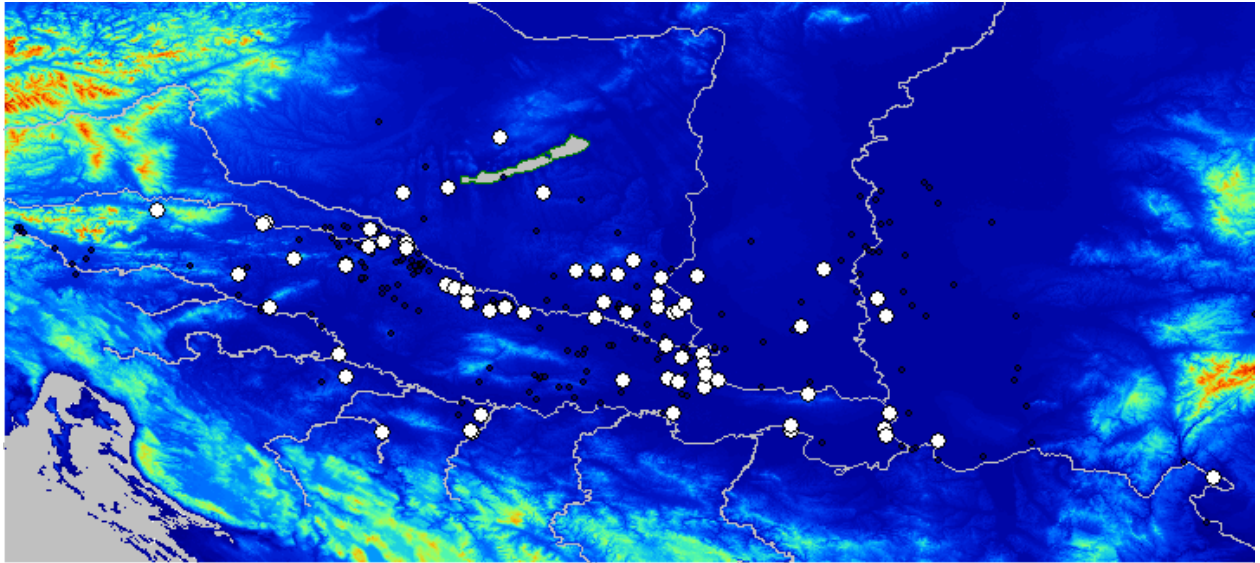


Figure 3.7. Distribution of S-shaped earrings (white) with other sites in background (blue). See Appendices A and C for list of sources and sites for this data.

While Jochen Giesler performed a variety of measurements to identify 2 main types of S-shaped circlets (I and II) and many sub-types, for this study it is enough to focus on the overall spatial distribution of this class of earrings (both Giesler's types I and II together). As shown in Figure 3.7, S-shaped circlets have been found in sites throughout southern Pannonia.

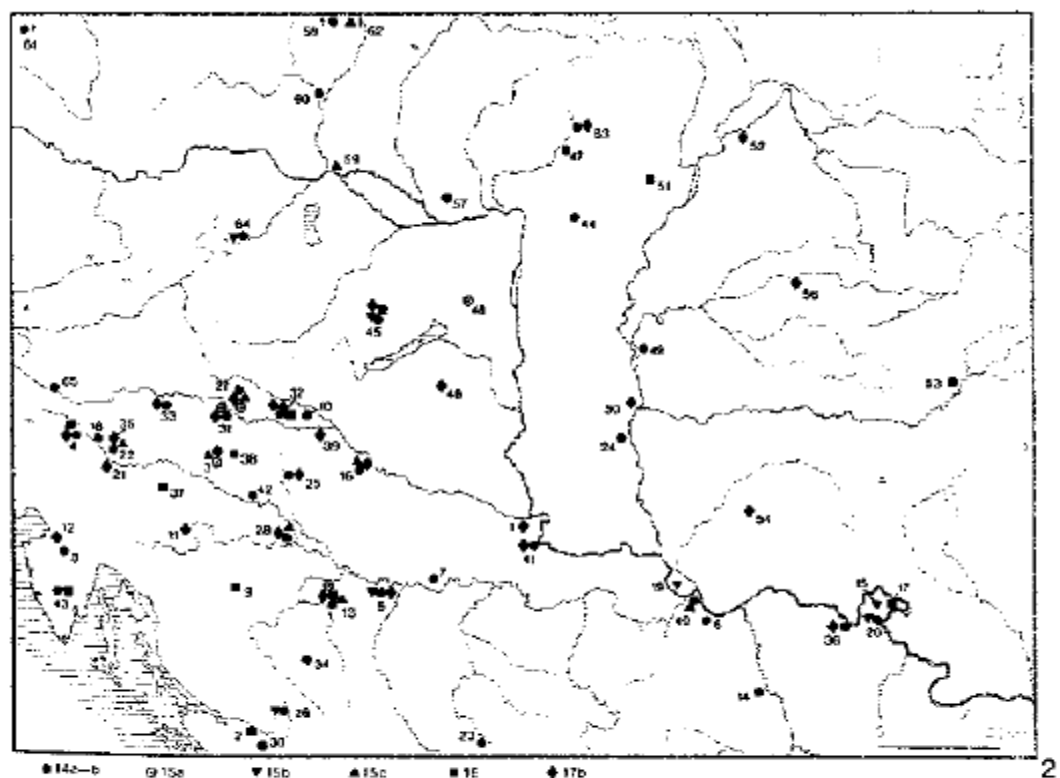
Grape-like pendant earrings

In 1912, one of the more interesting discoveries for early medieval Croatian history was made along the banks of the Kupa River. There a limestone mold was found containing the negative carvings of a “grapelike” earring on one side and of a cross on the other.⁸² Along with the S-shaped circlets, grape-like (or raceme) earrings are another hallmark of the Bijelo Brdo culture. This mold – reported by Zdenko Vinski in his 1971 article on early medieval finds from Sisak – together with several incomplete and discarded grapelike earrings, indicates the presence of a jewelry workshop in the town.⁸³

⁸² Zdenko Vinski, “O postojanju radionica nakita starohrvatskog doba u Sisku” [On the existence of a jewelry workshop in the early medieval period in Sisak], *Vjesnik arheološkog muzeja u Zagrebu* 3 (1971): 50 (hereafter: Vinski, “O postojanju radionica... u Sisku”).

⁸³ Vinski, “O postojanju radionica... u Sisku,” 49.

While no other such molds have been discovered in the region, miscast earrings found elsewhere, including at Sotin (Croatia), Novi Banovci, and Sremska Mitrovica (both in Serbia) suggest the existence of other workshops in these areas.⁸⁴ According to Zdenko Vinski, the grapelike earrings produced in these workshops are imitations of Byzantine prototypes.⁸⁵ However, others argue for Greater Moravian influences⁸⁶, which – however – Vinski dismisses as a product of a “Greater Moravian fascination.”⁸⁷



1 Verbreitung von Armringen 8 (dazu Liste 5). 2 Verbreitung von Kopfschmuckringen 14–16, 17b (dazu Liste 6).

Figure 3.8. Jochen Giesler’s spatial distribution map of grape-like (raceme) earrings in the Carpathian Basin (Giesler, “Untersuchungen zur Chronologie der Bijelo-Brdo Kultur,” Table 51.2).

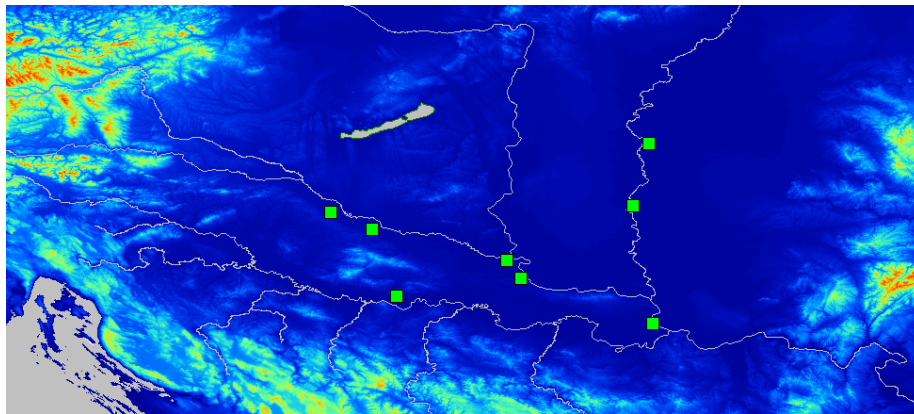
⁸⁴ Curta, *Southeastern Europe in the Middle Ages*, 192.

⁸⁵ Vinski, “O postojanju radionica... u Sisku,” 56 and 70.

⁸⁶ See for example Tomičić’s discussion of this idea in “O nekim vezama...,” 154.

⁸⁷ Vinski, “O postojanju radionica... u Sisku.”

Following the typology created by Giesler (and supplemented by Tomičić),⁸⁸ there are four main types of cast grape-like earrings found in southern Pannonia: the classic grape-cluster/raceme earrings (Giesler type 14), crescent shaped earrings (type 15), beaded earrings (type 16), and Volin-type earrings (type 17). An analysis of the spatial distribution of these earrings demonstrates great intra-regional variability. Although Giesler charted the discovery of these earrings throughout the Carpathian Basin, they seem to appear in the greatest numbers in Slavonia, particularly in the western part of this region along the upper Sava, Drava, and Mura rivers (see Figure 3.8). This pattern is further confirmed if one looks at the quantities of grape-like pendants found in the regions surrounding the upper Sava and Drava rivers. For example, particularly large numbers of these earrings have been found at Gomjenica-Baltine bare in northern Bosnia and according to Zdenko Vinski, Ptuj-Grad in Slovenia contains by far the most examples of grape-like earrings in all of Transdanubia.⁸⁹ In contrast, according to Zdenko Vinski, few of these earrings have been found in earlier cemeteries to the east, and are completely absent from more recent cemeteries.⁹⁰



⁸⁸ Giesler, “Untersuchungen zur Chronologie der Bijelo-Brdo Kultur” and Tomičić, “Nova istraživanja bjelobrdске culture u Hrvatskoj.”

⁸⁹ Although I have found significantly more of these earrings at Gomjenica – Baltine bare (106) than at Ptuj – Grad (67). Of course, Vinski may be referring to just the classic grape-shaped earrings, of which there are more at Ptuj – Grad. See Table 4.3 in Chapter 4. Vinski, “O postojanju radionica... u Sisku,” 76 and 78.

⁹⁰ Vinski, “O postojanju radionica... u Sisku,” 76.

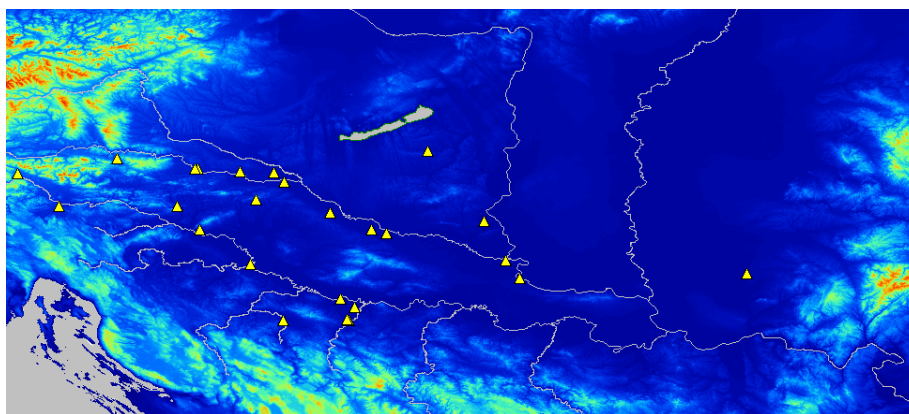


Figure 3.9. The spatial distribution of finely-granulated cast Volin-type earrings reflects their eastern origins (green – above), while the western orientation of rustic Volin type earrings (yellow – bottom) supports theories of their local production in workshops such as the one in Sisak.

The primary exception to this pattern is found with Volin-type earrings (17). Jochen Giesler identified two sub-types of Volin-type earrings, finely granulated earrings (17a) and rustic cast earrings (17b). The former are believed to have been produced along the Volin river in Kievan Rus⁹¹, while the latter appear to be rough imitations produced locally in Slavonia. The distribution of these earrings seems to support this belief (see Figures 3.9).

This rustic re-production of more finely crafted jewelry created elsewhere seems to be a common pattern in tenth and eleventh century southern Pannonia. Lunar cast pendants (15c) appear to mimic finely crafted granulated versions produced in the Byzantine Empire as well as Greater Moravia in the ninth century. The origins of these earrings are still hotly debated. Just as Vinski derided the “Greater Moravian fascination” of some archaeologists, Tomičić⁹² argues for Byzantine – and against Greater Moravian – origins of these earrings, although earlier, ninth-century, versions of these earrings have been found in Moravia. Tomičić argues that the granulated grape-like earrings of Greater Moravia had Byzantine origins as well.⁹³ Further, he goes on to argue that after the arrival of the Hungarians in the Carpathian Basin, connections between Greater Moravia and Slavonia were severed, and

⁹¹ Vinski, “O postojanju radionica... u Sisku,” 59 and 66.

⁹² Tomičić “O nekim vezama,” 155.

⁹³ Tomičić “O nekim vezama,” 155.

therefore the appearance of cast varieties of these earrings in the cemeteries of Slavonia and *Međurječja* are imitations of Byzantine jewelry rather than that of Greater Moravia. In his interpretation, therefore, the similarities between Slavonian and Moravian grape-like pendants are due to the influence of traveling Byzantine goldsmiths to both these regions, not to any direct contact between the two regions.⁹⁴ The argument of both these archaeologists seems to lack any solid supporting evidence. They seem to be using their beliefs about the history of the region to guide their interpretations, rather than the evidence itself.

In a 2003 article about these lunar cast earrings, Tomičić uses these earrings to argue for a connection between Dalmatia and Slavonia (see Figure 3.10). While their appearance in both regions certainly supports the rather logical conclusion that trade and communication did take place between Dalmatia and Croatia in the tenth and eleventh centuries, the suggestion of a special link between these two non-contiguous parts of modern-day Croatia may be over-stated.

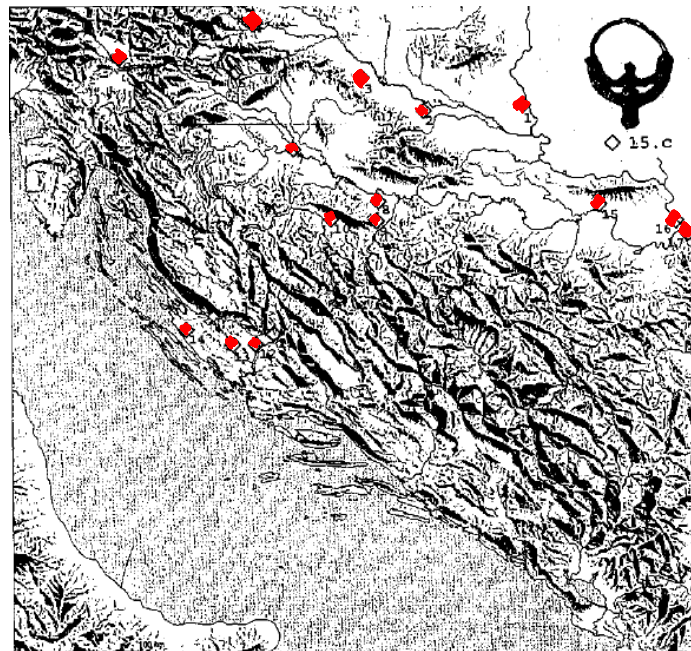


Figure 3.10. Spatial distribution map of cast lunar earrings (15c) created by Željko Tomičić. Tomičić uses this distribution to argue for connections between southern and northern Croatia. Due to the poor quality of the map, I have colored in the locations of these earrings in red (Tomičić 2003: 140).

⁹⁴ Tomičić “O nekim vezama,” 155.

To illustrate, Tomičić himself cites examples of cast lunar earrings with grape-like pendants in regions as dispersed as Greece, Albania, Romania, Czechoslovakia, and Serbia.⁹⁵ Yet, with the exception of the Serbian region of Syrmia, these regions are conspicuously absent from the map he produced to demonstrate this *special* connection between Slavonia and Dalmatia (Figure 3.10). A wider regional map would show that the similar finds of cast lunar earrings in Slavonia and Dalmatia suggest nothing unusual or unique for the time period.

In addition, while Tomičić is quick to emphasize the absence of cast lunar earrings on present-day Hungarian territory,⁹⁶ he does acknowledge the discovery of a damaged or modified example from Batina.⁹⁷ While Batina is within the borders of present-day Croatia, its position over 35 kilometers north of the confluence of the Drava and Danube contradicts several of Tomičić's statements. For example, presumably conscious of the argument by some historians that early medieval Croatia extended as far north as the Drava long after the death of King Tomislav in AD 928, Tomičić argues that the "complete absence of cast earring 15c in the region from the Danube in the north to the Drava in the south" supports his belief that these earrings originated from the south (via the Byzantine empire). This, of course ignores the "modified" example from Batina. The importance of this find is in showing that if indeed the Drava was a border between Hungary and Croatia in the tenth and eleventh centuries, it certainly cannot be corroborated by the archaeological evidence.

⁹⁵ Tomičić "O nekim vezama," 154.

⁹⁶ Tomičić "O nekim vezama," 154.

⁹⁷ Tomičić "O nekim vezama," 141.

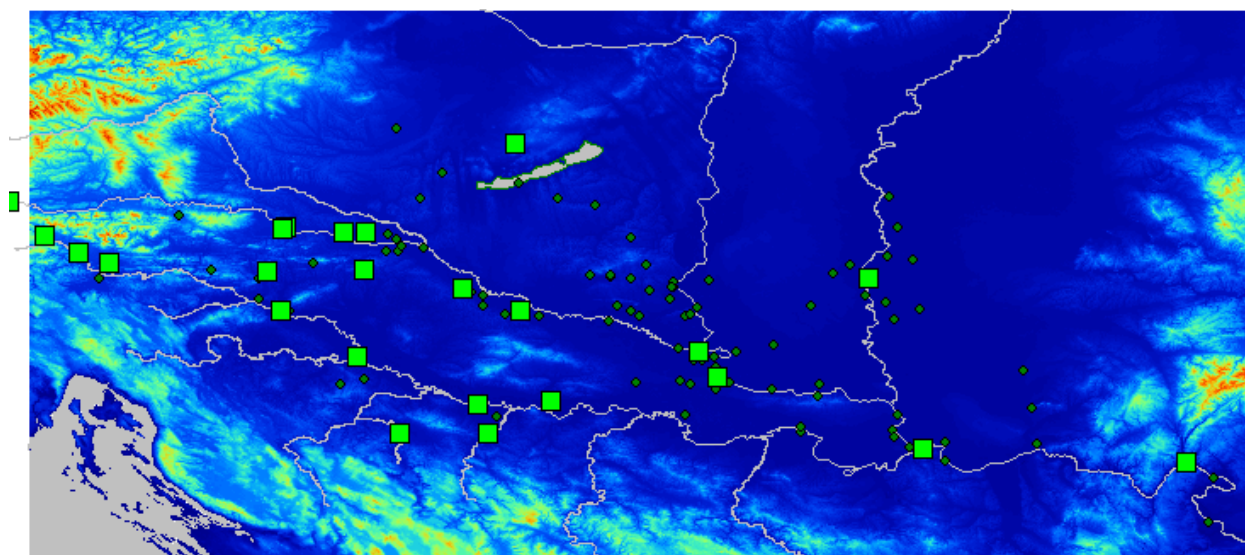


Figure 3.11. Spatial distribution of raceme grape-like pendant earrings (type 14 – bright green squares) with sites lacking this artifact in dark green.

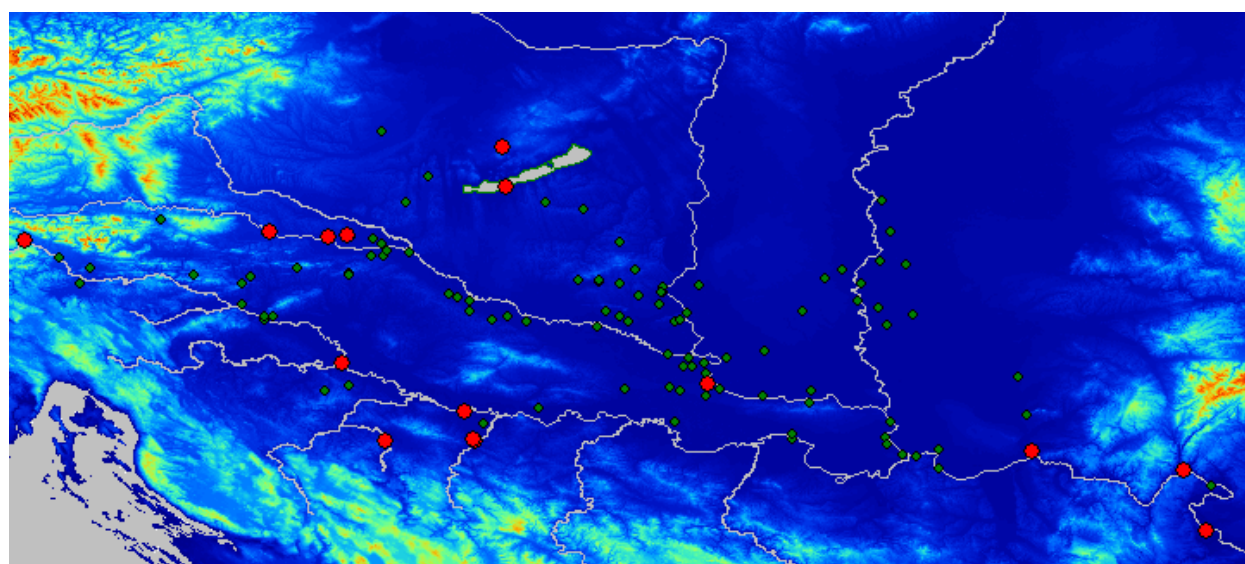


Figure 3.12. Distribution of beaded grape-like pendant earrings (type 16 in red)

Other grape-like pendant earrings, such as raceme earrings (14) and beaded earrings (16) also appear on both sides of the Drava. While spatial distribution maps of each type (Figures 3.11 and 3.12) indicate a particular concentration of finds in western Slavonia and in Slovenia, particularly along the upper Sava and the Drava west of the Mura, they also show the presence of such jewelry far north of the Drava.

Necklaces (42) and two-part pendants (9)

The maps on the following page demonstrate the complexity of charting the distribution of artifact types. The color map at the top shows the distribution of two-part pendants (type 9) in Southern Pannonia. As is readily observed, this decorative ornament has been recorded in all parts of Southern Pannonia. Moreover, widening our scope of study would reveal their appearance all across the Carpathian Basin and even beyond. However, a closer look at these pendants shows the truth to not be so simple. Noticing the many different decorative styles of these two-part pendants, Željko Demo categorized two-part pendants into eighteen sub-types.⁹⁸ A brief glance at these sub-types highlights the complexity of the Bijelo Brdo material culture as well as material cultures in general. Some forms, not unlike the S-shaped circlets, are fairly ubiquitous across the Carpathian Basin. Demo's sub-type 13 (Figure 3.14 - map on the bottom left) is found throughout the region. Others, however, appear more often in one part of the region than another, much like the grape-shaped earrings. For example, archaeologists have recorded the discovery of eighty-two two-part pendants with the lower part designed in the shape of a bird's head (Demo sub-type 6 – Figure 3.14 - map on upper left).⁹⁹ Of these eighty-two examples, sixty-five were found south of the Sava, and all but two were found south of the Drava river. Demo observed a similar southern orientation for sub-type 16 (Figure 3.14 – map on lower right). However, in this case, the most examples of this type of pendant were found in the cemetery at Ptuj – Grad (Slovenia).¹⁰⁰

⁹⁸ Željko Demo, "Bjelobrdski privjesci u Jugoslaviji" [Bijelo Brdo pendants in Yugoslavia] *Podravski zbornik* 1983: 271-301.

⁹⁹ Demo, "Bjelobrdski privjesci," 282-284.

¹⁰⁰ Demo, "Bjelobrdski privjesci," 291.

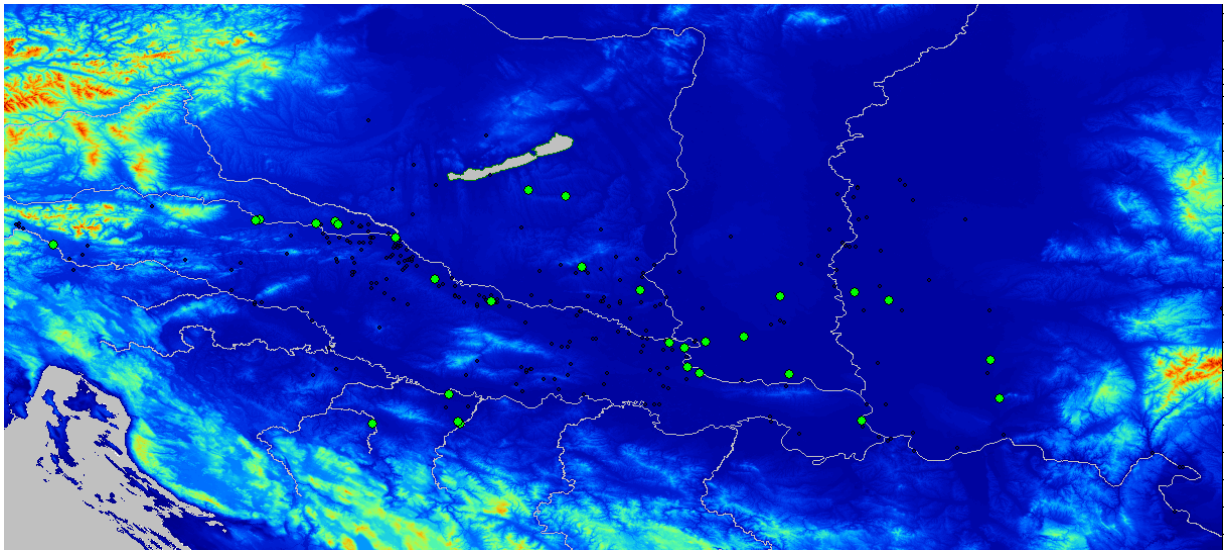


Figure 3.13. Distribution of two-part pendants (type 9) in Southern Pannonia

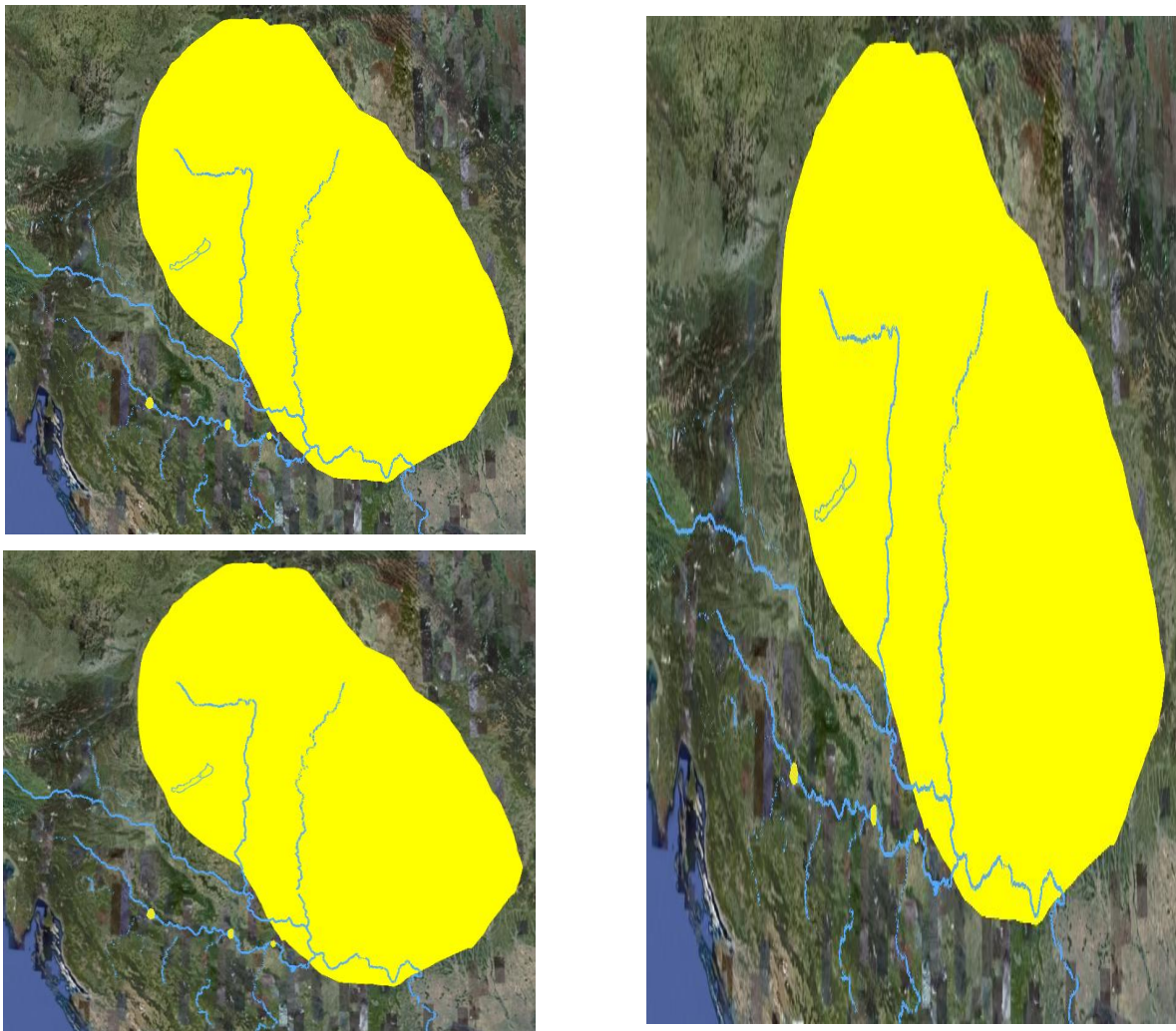


Figure 3.14. Top – Distribution map showing all two-part pendants in Southern Pannonia. Bottom – Three maps showing the distribution of sub-types of two-part pendants, as classified by Željko Demo.

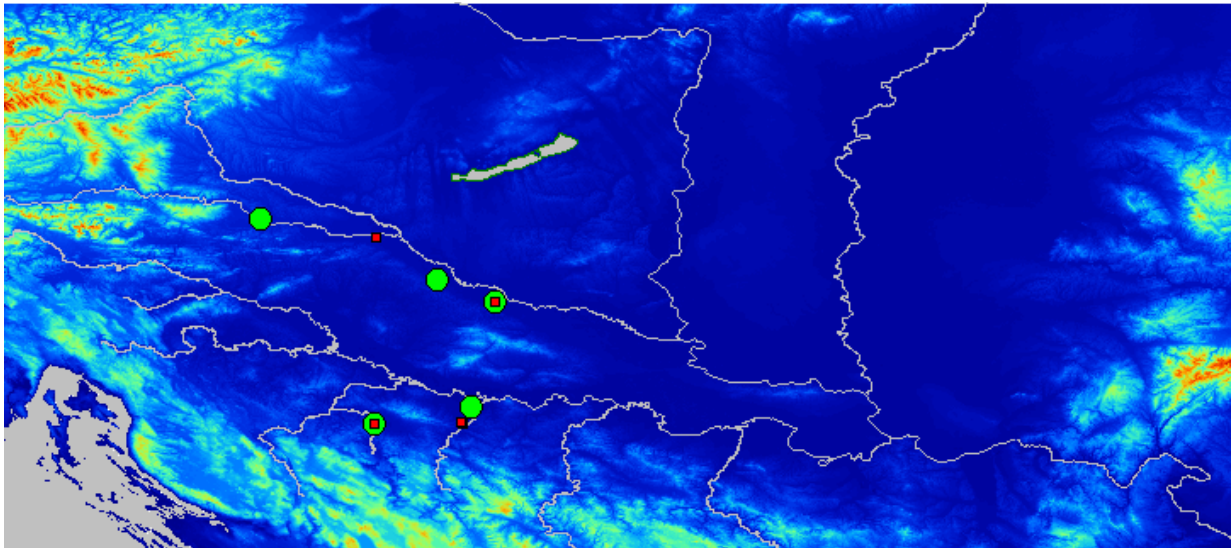


Figure 3.15. Distribution of necklaces adorned with two-part pendants (42a - green) and with bells (42b – red).

Part of the reason for the large numbers of these pendants, particularly below the Drava, is that they occasionally were worn as accessories to necklaces and hair-rings. These necklaces appear (type 42), like grape-like earrings, almost exclusively in western Slavonia (Figure 3.15). As a result of this distribution pattern, Tomičić logically argues for the local production of these necklaces as is believed with the grape-like earrings.¹⁰¹

These examples provide an important reminder about material culture. While they show the widespread influence of a cultural tradition of adorning the dead with certain types of jewelry – in this case two-part pendants – they also show the great variability within such a (material) culture tradition. Different styles of pendants were popular in different areas, with necklaces even appearing to the south and west of Southern Pannonia. This variation could be attributed to a combination of factors, including most notably the presence of multiple local production centers rather than one great central workshop, as well as the influence of both local and individual preference.

¹⁰¹ Tomičić, “Mahovljanima,” 34.

Serpent-head bracelets



Figure 3.16. Serpent-head bracelet from Vukovar – Lijeva bara (Demo, *Vukovar – Lijeva bara*).

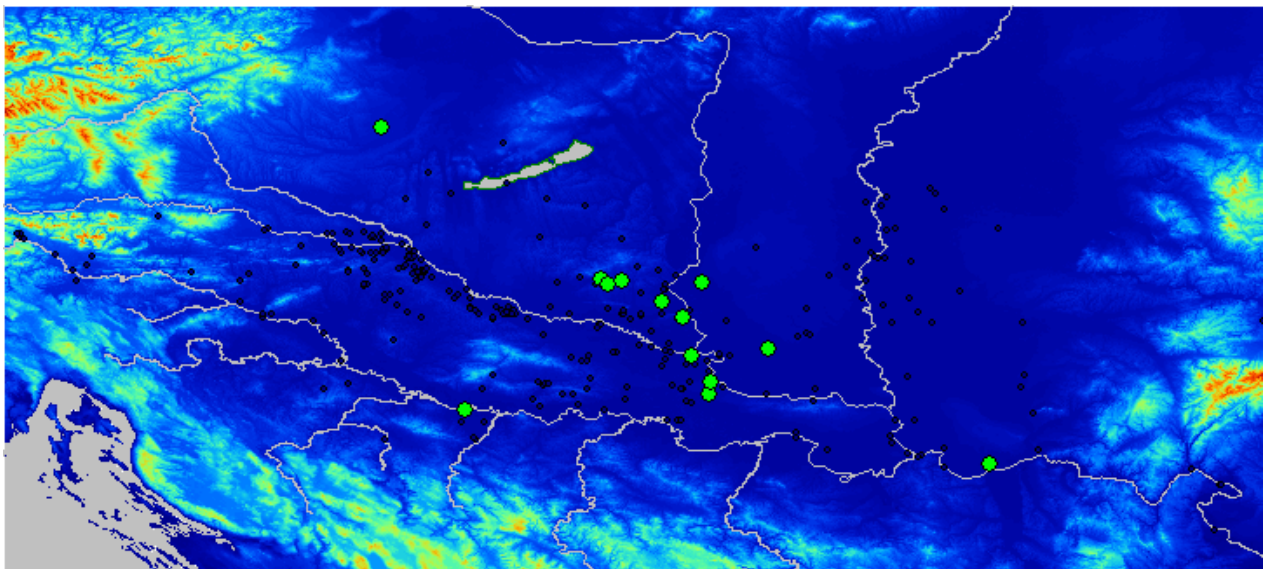


Figure 3.17. Map showing the distribution of animal-head bracelets in Southern Pannonia. See Appendix A for sources.

In his excavation of the largest tenth to eleventh century cemetery in the Carpathian Basin, Attila Kiss recorded the discovery of seven serpent-head bracelets at Majs – Udvari rétek.¹⁰² The highly stylized and highly symbolic serpent-head bracelets, not unlike the bird-head two-part pendants discussed above, appear in great concentrations in one part of Southern Pannonia. South of Lake Balaton, these serpent-head bracelets are found predominantly in the proximity of Majs – Udvari rétek, that is near the confluence of the Danube and Drava rivers (see map above). Although the distribution with Southern Pannonia

¹⁰² Site #3001 in Appendix A. Kiss, *Baranya Megye X-XI. Századi Sírleletei*.

shows a highly localized distribution, it should be noted that expanding this picture shows that animal-head bracelets were fairly common throughout the northern half of Pannonia. Jochen Giesler charted many of these objects all along the upper Danube and Tisza rivers.¹⁰³ What does this tell us about the concentration in Southern Pannonia? Perhaps, it demonstrates that the region around the Drava-Danube confluence (on all sides) was in the tenth and eleventh century in greater contact with the north than with the south. Similarly, this pattern may just be an illustration of the importance of the Danube and Tisza as trade and communication routes. However, before further speculation, the distribution of other artifacts should be explored to see if they show similar ties between the Drava-Danube area and northern Pannonia.

Ring 38a

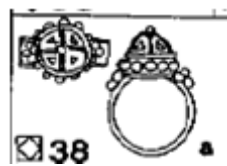


Figure 3.18. Luxurious ring with crown (type 38a)

Like the serpent-head bracelets, Károly Mesterházy documented a similar distribution pattern for another seemingly luxurious item: the luxurious silver ring with a crown (type 38a). According to the map provided by Mesterházy, this ring is especially concentrated near the Drava-Danube confluence, as well as along the upper Danube and Tisza. However, while the evidence I have found confirms this pattern, I have discovered several examples of a similar ring (type 38b).

¹⁰³ Giesler, "Untersuchungen zur Chronologie der Bijelo-Brdo Kultur,"

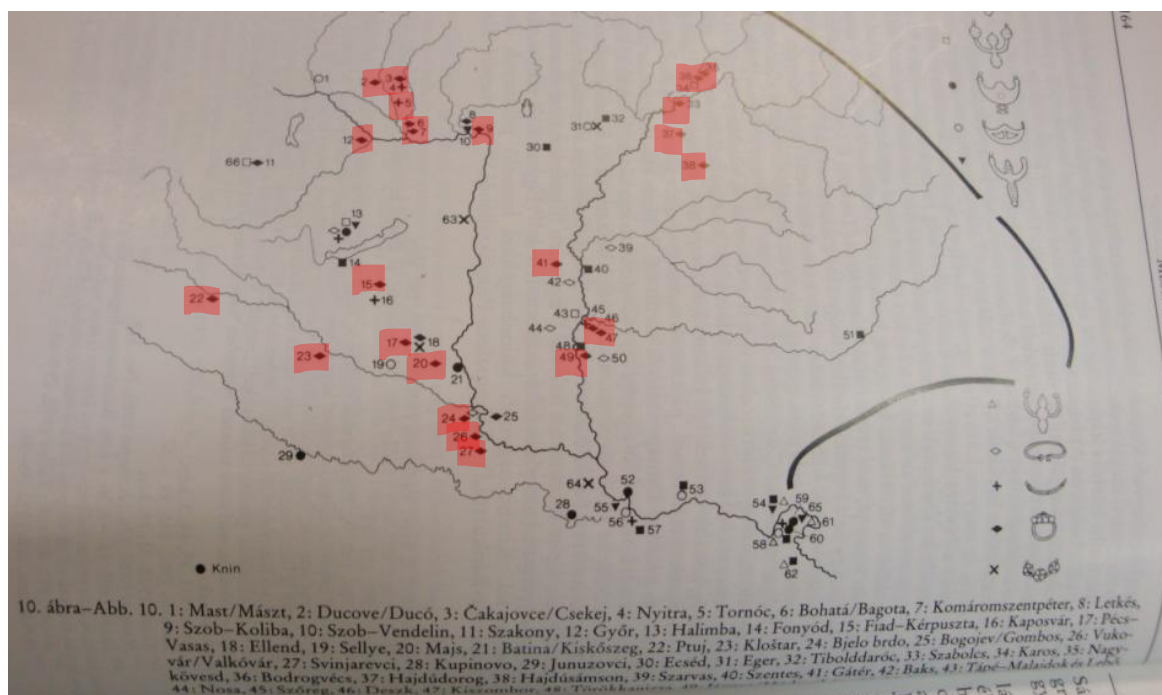


Figure 3.19. Map of a variety of Bijelo Brdo jewelry items from Mesterházy, "Bizánci és Balkáni Eredetű," 164. Luxurious ring, type 38a, is highlighted in red.

Coins

Besides jewelry, coins are the most important burial item found with the deceased in tenth and eleventh century graves in southern Pannonia. They are attractive both because of their usefulness for dating sites as well as what they tell us about the economy of the Middle Ages (at least when found in hoards). Archaeologists have found very few coin hoards from this period and a small number of surface finds of coins; thus, most of the tenth through eleventh century coins found in this region have been discovered in graves. The importance of these coins is twofold: first, coins clearly provide a *terminus post quem* ("later than") date for graves, and second, the distribution of these coins has been used as an indicator of "influence." The former is fairly straightforward, while the latter is problematic.

Analysis of coin distribution is problematic because of the many (often misleading or just plain wrong) ways it can be interpreted. For example, in Vinski's 1971 article on Sisak, he argued for two unique complexes of the Bijelo Brdo cultural complex in southern Pannonia. He correctly points out some differences in the artifact assemblages found to the

west (roughly from the Eastern Alps to the western half of Slavonia) from those found in the east (from eastern Slavonia to Syrmia).¹⁰⁴ However, he also emphasizes the absence of any eleventh century Árpáadian coins in the western part of *Međurječja* and Slavonia.¹⁰⁵ Continuing on, Vinski again correctly asserts that Árpáadian coins in eastern Slavonia and Syrmia certainly do not by themselves indicate Hungarian presence in the area;¹⁰⁶ however, he does not assert the opposite: that the absence of Árpáadian coins to the west does not necessarily indicate the absence of Hungarian influence. Two problems emerge from this argument. First, by choosing to emphasize that evidence which supports his already-developed conceptions about eleventh-century history in the region – and by largely ignoring contradictory evidence, Vinski’s argument misleads the reader into thinking that the distribution of coins supports his historical view. In reality, the presence of a relatively small number of coins in a particular region – by themselves -- certainly does not mean that the two regions (the place of origin and the place of discovery) had any sort of direct contact. Nor can the opposite case be made. Second, since 1971, a small number of Árpáadian coins have indeed been discovered further west. Although the discovery of a late-eleventh century coin of Ladislaus I (1077-1095) at Zvonimir-Veliko polje¹⁰⁷ does not necessarily contradict Vinski’s argument, the four drilled silver denars of Andrew I (1046-1060) found in a child’s grave at Ciganka-Mesarna might.¹⁰⁸

¹⁰⁴ Vinski, “O postojanju radionica... u Sisku,” 73-78.

¹⁰⁵ Vinski, “O postojanju radionica... u Sisku,” 74-78.

¹⁰⁶ Vinski, “O postojanju radionica... u Sisku,” 74-75.

¹⁰⁷ Site #336.

¹⁰⁸ The four coins were found in grave #9 at the site of Ciganka Mesarna (Site #709) according to Tomičić, *Panonski periplus*, 190.

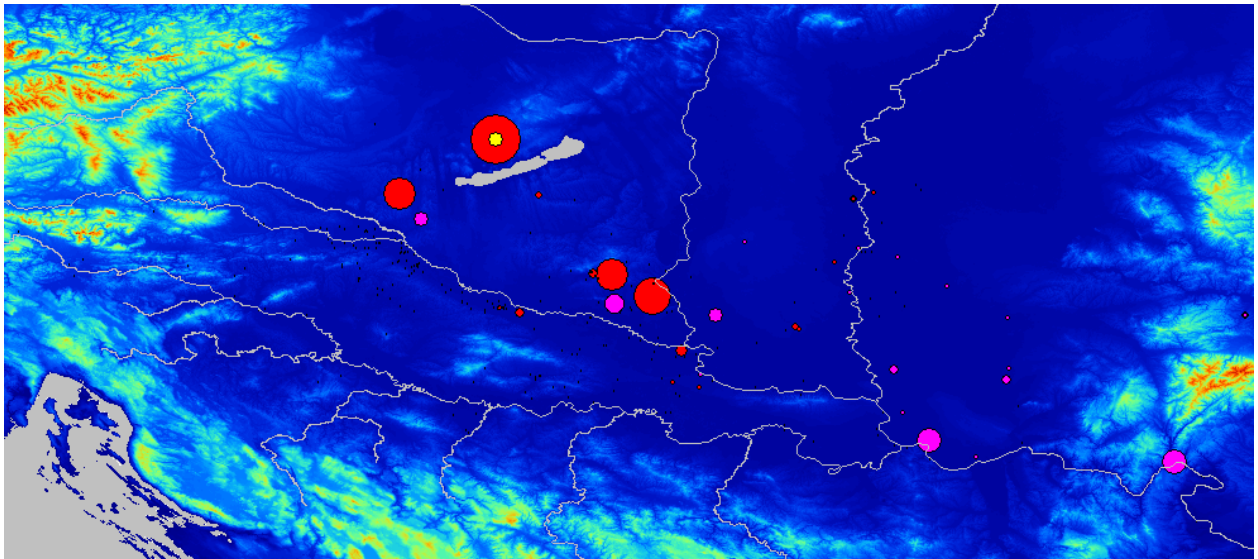


Figure 3.20. Distribution map of early Árpadian coins (RED - from Stephen I [1000-1038] to Ladislaus II [1162-1163]), Byzantine coins (PINK – from Theophilus / Michael II / Constantine [830-840??] to John Tzimiskes [972-976]¹⁰⁹), and western coins (YELLOW – Hugh of Provence [926-945]). See Appendix A for sources.

Given these problems, what can be deduced from spatial distribution patterns of coins? It is hard to say, because as already stated the presence of coins in a certain place (absent any particularly meaningful contextual clues) does not necessarily indicate any direct contact, nor does it suggest the actual monetary use of such coins.¹¹⁰ Coins can provide useful clues, however, to the nature of trade, communication, and cultural transmission in the region if the archaeological contexts in which these coins are found are taken into consideration as well as their place within broader regional patterns. A look at the types of coins found in the region that are dated from the ninth to twelfth centuries (Figure 3.20) suggests some questions. First, the frequency of Byzantine coins found along and north of the lower Danube does corroborate, to some extent, the greatest extent of the Byzantine empire in southeast Europe during the Middle Ages. However, the distribution of these coins may also be the result of the trade of salt.¹¹¹ Second, while archaeologists have documented a

¹⁰⁹ Alternately John Tzimiskes

¹¹⁰ See, for example, the discussion above in this chapter about the fairly common use of antique Roman coins as perforated necklace pendants in the medieval graves of the Bijelo Brdo cultural complex.

¹¹¹ József Laszlovszky (personal communication)

few coins of Andrew I and Ladislaus I in north-central Slavonia (Ciganka – Mesarna), the absence of any eleventh century Árpadian coins further to the south and west does in general confirm Vinski's general observation about the lack of such coins in the area (if not in detail).¹¹²

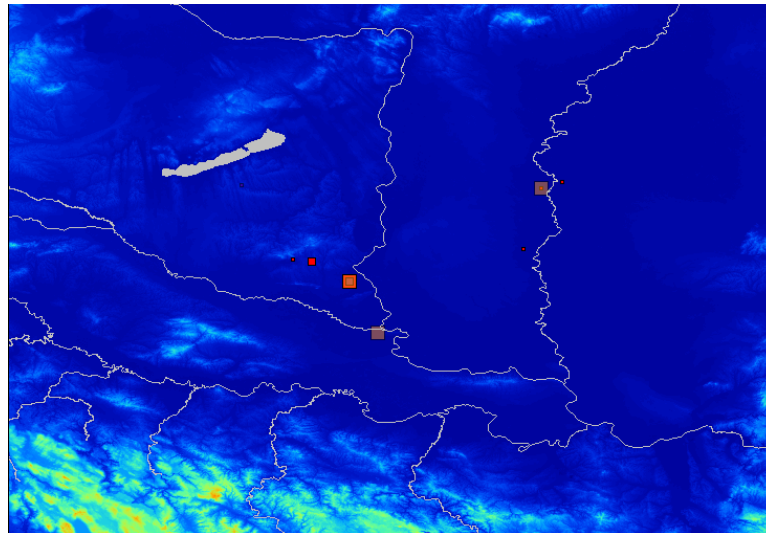


Figure 3.21. Map of Árpadian coins from the first half of the eleventh century (from Stephen I [1000-1038] to Peter I [1044-1046])

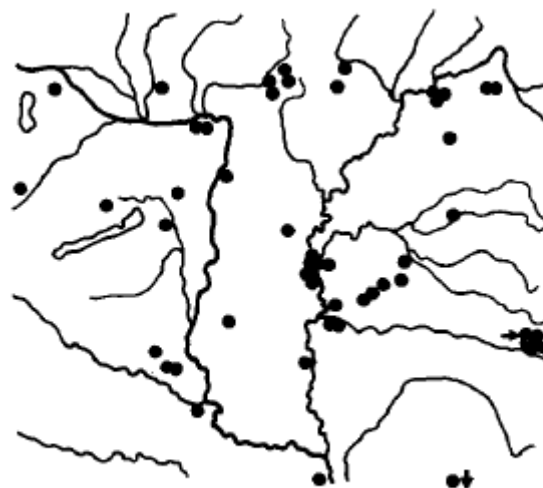


Abb. 46. Verbreitung der als Obolus gebrauchten Münzen mit der Inschrift „Stephanus rex“

Figure 3.226. This distribution map by Csanád Bálint of coins of Stephen I (1000-1038) throughout the Carpathian Basin confirms the patterns in my Figure 3.21 (the only Stephen I coins that appear in

¹¹² Professor Laszlovszky asked me to confirm this using Kovács work, *A kora Árpád-kori pénzverésről* (Budapest: Varia Archaeologica Hungarica VII, 1997), 131-137. This book does confirm this, although it does show, in addition to the Andrew I coins in north central Slavonia, a coin of Béla dux (1048-106) at Alsólendva on the left bank of the Mura river which forms the boundary between northwest Croatia and southwest Hungary.

Međurječja appear to be those found at Bijelo Brdo and in Syrmia. (Bálint, *Südungarn im 10. Jahrhundert*, 176).

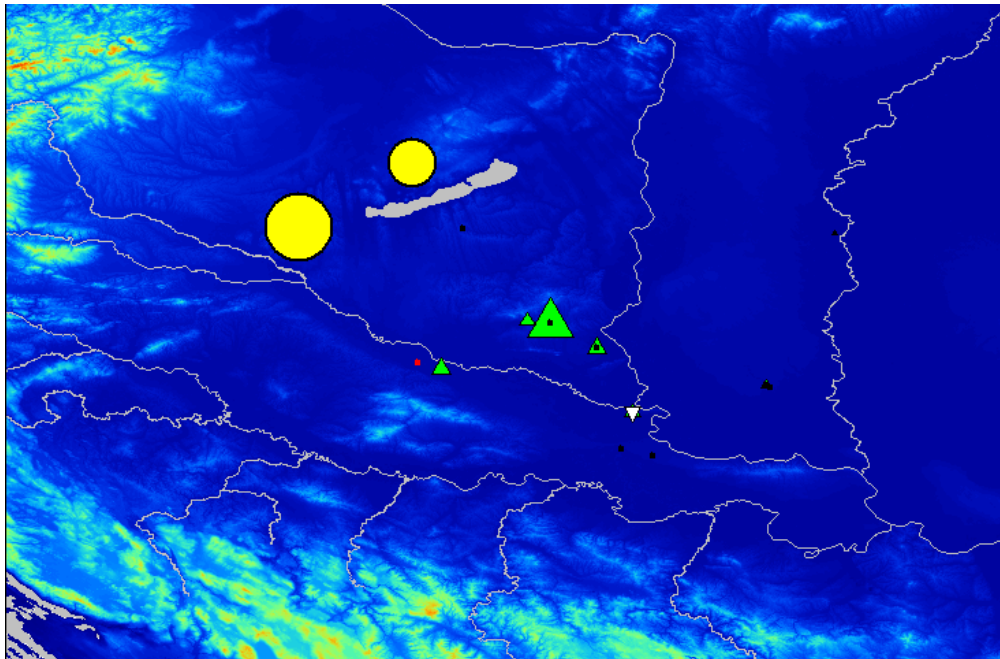


Figure 3.23. Map of Árpadian coins from the second half of the eleventh century (from Andrew I [1046-1060] to Ladislaus I [1077-1095]). See Appendix A for sources.

Breaking down these early Árpadian coins by time period does reveal a little more. Árpadian coins from the first half of the eleventh century are found in concentrations near the confluence of the Drava and the Danube as well as along the Tisza, whereas coins from the second half of the century are further dispersed.

Coins & Chronology

Beyond the rather vague clues that coin distributions provide about the apparently growing material or economic influence of early Hungary, coins for this period are far more useful in helping to date the particular archaeological context in which they were found. This more straightforward benefit of coins can be problematic as well, however, if the researcher tries to assume too much from these coins. These problems can be seen particularly in previous efforts to establish chronologies for Bijelo Brdo cemeteries.

In regards to research on sites in continental Croatia in recent decades, there have been two major figures behind the establishment of a chronology tenth and eleventh century Bijelo Brdo sites. The first is a German archaeologist – Jochen Giesler -- who has published his detailed examination of grave goods found in Bijelo Brdo cemeteries throughout the Carpathian Basin.¹¹³ His importance for the southern Pannonian sub-region of the Bijelo Brdo culture is in the great influence his chronological schemes have had upon the subsequent scholarship in the region. The most notable example is Željko Tomičić's use and adaptation of Giesler's chronology in his own work. Tomičić is the second major figure who has contributed to the creation of a chronology for the region.¹¹⁴

After first establishing a relative chronology using Giesler's typological classification of artifacts, Tomičić then uses coins to create an absolute chronology. Giesler had established an absolute chronology as well, but Tomičić has refined it with a particular focus on northern Croatia. The discovery of a coin in a particular grave is applied to the relative chronology of other artifacts found in the grave. Coins then help define an absolute time span for each part of the relative chronology.

¹¹³ In this examination he established both a relative and an absolute chronology for over 100 Bijelo Brdo sites in the region. Jochen Giesler, "Untersuchen zur Chronologie der Bijelo-Brdo Kultur: Ein Beitrag zur Archäologie des 10. und 11. Jahrhunderts im Karpatenbecken," *Praehistorische Zeitschrift* 56 (1981): 3-169.

¹¹⁴ Since his first publication forty-two years ago, Tomičić has spent the better part of his career studying the manifestation of the Bijelo Brdo Culture in the region between the Drava and Sava rivers as well as the neighboring regions of southern Hungary and northern Bosnia. He has identified twenty-one important Bijelo Brdo cemeteries in the region and has established a chronology for each site as shown in Appendix E. See, for example: Željko Tomičić, "Nova istraživanja bjelobrdске culture"; Tomičić, "Gomjenica"; Tomičić, "Mahovljanima"; Tomičić, "Velikom Bukovcu"; Tomičić, "Ranosrednjovjekovno groblje u Sv. Jurju u Trnju u Međimurju – prinos datiranju nalazišta" [An early medieval cemetery in Sv. Jurji in Trnje in Međimurja], *Prilozi arheološkog instituta u Zagrebu* 15/16, no. 1 (1999): 25-56, [hereafter: Tomičić, "Sv. Jurju u Trnju"]; Tomičić, "Na Tragu Bjelobrdске Culture u Kalničkom Prigorju" [On Traces of the Bijelo Brdo Culture in the Kalnik Region], *Starohrvatska Prosvjeta* 21/1991 (1995): 99-115, [hereafter: Tomičić, "Kalničkom Prigorju"]; Tomičić, "Baranja u svjetlu arheoloških svjedočanstava bjelobrdске culture. Prilozi analizi ranosrednjovjekovnog groblja Majs-Udvar" [Baranja in the light of archaeological evidence of the Bjelo Brdo culture. Contribution to the analysis of the early medieval cemetery of Mays-Udvar], *Prilozi arheološkog instituta u Zagrebu* 11/12, no. 1 (1994-1995): 71-98, [hereafter: Tomičić, "Majs-Udvar"]; Tomičić, "Prilog istraživanju kronologije srednjovjekovnog groblja na položaju Lijeva bara u Vukovaru" [Contribution to research on the chronology of the early medieval cemetery at Lijeva bare in Vukovar], *Starohrvatska prosvjeta* 20, ser. III (1991): 111-189, [hereafter: Tomičić, "Lijeva bara"]; Tomičić, "Bijelo Brdo II"; and idem, "Tragom novijij istraživanja bjelobrdске culture u slavonskom dijelu Podravine" [Recent Investigations of the Bijelo Brdo Culture in the Slavonian Podravina (Drava Valley)], *Prilozi Instituta za arheologiju u Zagrebu* 7, no. 1 (1990): 85-106, [hereafter: Tomičić, "Podravine"].

While this may seem simple enough, there are some inherent problems with such a method. By themselves, coins can only attest to a *terminus post quem* for a specific archaeological context. Hence, the find of antique Roman coins in some Bijelo Brdo graves, or any medieval context for that matter, is useless in any effort to identify an absolute chronology.¹¹⁵

Yet, when analyzed in conjunction with the relative chronology of other artifacts in the grave, coins can be helpful. For example, in grave 165 of the Bijelo Brdo II site, Tomičić notes that a silver denar of the Hungarian king, Andrew I, was placed with the burial along with rings with S-shaped endings (types I and II) and a silver ring (type 30). In comparing this burial to others using the artifact combination table, Tomičić observed the relatively late appearance of the silver ring. He argued, therefore, that the type 30 ring is “chronologically determined by the silver denar of King Andrija [Andrew] I (1046-1061).”¹¹⁶ While no exact *termini* – earliest or latest possible dates – can be determined for the ring, it would be reasonable to assume that the silver ring first appeared sometime during – or shortly after -- the reign of Andrew I, from 1046 to 1060, *if* it is corroborated by other evidence in the relative chronology.

In trying to use coins to supplement his relative chronology and place it into a absolute chronology, however, Tomičić’s efforts are at other times rather curious. As explained earlier, coins are primarily useful for setting a *terminus post quem*, but, Tomičić repeatedly uses coins as evidence of a *terminus post quem non*. For instance, at the Bijelo Brdo II site, Tomičić uses a coin find of Bela I (1060-1063) as a marker of the *terminus post quem non* for the site, which essentially means that he is dating the end of the site as occurring “not later than” 1063. He argues this because this coin was found in a part of the cemetery that he has classified as belonging to the last phase of burials. This conclusion may

¹¹⁵ Many of these Roman coins have been found perforated and used as pendants for necklaces.

¹¹⁶ Tomičić. “Bijelo Brdo II.” 116.

be reasonable if this coin was found in a grave with artifacts that had been placed at the very end of the relative chronology, but this is not the case. The coin was the only artifact discovered in grave number 199.¹¹⁷ How can such a lone find be used to argue for the end of the site's use?

This whole discussion on the use of coins as chronological indicators is important in that it has often been the main and only method used to establish absolute dates for tenth and eleventh century cemeteries. So much of what we know, or think we know, about the cemeteries of Southern Pannonian during this time period, is based on this use of coins. Grave goods, such as the jewelry items of the Bijelo Brdo material culture, provide clues about the relative chronology of these cemeteries, but they have only been assigned dates with the corroboration of numismatic evidence. This is a very useful dating method, but with three important caveats. First, coins are only useful in establishing a *terminus post quem* for a particular burial. Second, since only one or a few coins were found in many of the cemeteries of Southern Pannonia, the sample size should always be kept in mind. Third, the archaeologists must keep in mind the possibility proposed by Szőke and others: that differences in burial goods and customs may be the result of social differences rather than chronological differences.

Other changes in burial customs, such as the orientation of graves, the adoption of coffins, the presence or absence of tools and weapons, and the transition to churchyard cemeteries, all are also used as chronological indicators. One example of this approach to dating is seen in Josip Korošec's efforts to date the medieval row cemetery on the castle hill at Ptuj – Grad in Slovenia.¹¹⁸ First, he identified the coins found in the cemetery to establish a chronological time-frame. Second, he used other, somewhat circumstantial, evidence to corroborate this time-frame. He dated the cemetery to have been in use between the second

¹¹⁷ Tomičić, "Bijelo Brdo II," 113-115 and Table 27 on page 147.

¹¹⁸ Site #4001 in Appendix A.

halves of the tenth and eleventh century, respectively, citing the use of planks but not coffins in the graves, the “almost complete absence” of ceramics, the presence of buttons in two graves (which he says is unknown in Bohemia before the late tenth century), as well as other grave goods found with the deceased.¹¹⁹ Korošec then concludes by writing, “There is no need of more details.”¹²⁰

Patterns, Analysis, and Interpretations

Mapping the spatial distribution of artifacts, such as the grave goods analyzed here, does provide a picture of the complexity of the Bijelo Brdo and other material cultures found in Southern Pannonia. On one hand, the great regional variability of some grave goods, such as grape-like earrings and two-part pendants, indicates that Bijelo Brdo was not just one large, monolithic culture. Furthermore, the frequent influence of external elements – such as Volin-type earrings, as well artifacts attributed to the Köttlach and “Old Croatian” material cultures – betrays the somewhat arbitrary nature of classifying material evidence into one group or another. The boundaries of these groups are fluid and overlapping rather than static and linear.

The regional differences observed in grave goods allows the identification of “sub-regional networks” which can be set apart from one another by the frequent appearance of certain grave goods. As discussed earlier, Zdenko Vinski argued for two Bijelo Brdo cultural circles in Southern Pannonia: a western and an eastern complex.¹²¹ My analysis of the distribution of jewelry items in the region supports his claim, most significantly with the concentrations of grape-like earrings and certain types of two-part pendants in the west. Interestingly, Vinski also argued that the placement of pottery in graves was a common

¹¹⁹ Korošec, *Ptujskem gradu*, 343.

¹²⁰ Korošec, *Ptujskem gradu*, 343.

¹²¹ Vinski, “O postojanju radionica... u Sisku.”

feature only in the eastern group.¹²² However, a careful comparison with sites outside Slavonia and *Međurječja* shows that many other “sub-regional networks” can be identified as well on the basis of burial goods. Emphasizing one of these networks at the expense of the other could provide a misleading - and overly simplistic - view of the true complexity of medieval material culture in Southern Pannonia (see Chapter 6 for a more detailed explanation).

On the other hand, the similarities within these cemeteries are in many ways greater than the differences. As just one example, in every single cemetery from the tenth and eleventh centuries that I have studied, the dead are buried oriented from west to east (head to toe). Likewise, the preponderance of S-shaped circlets throughout the Pannonian Plain implies some degree of uniformity in the burial customs of the region. A closer look at a few notable medieval cemeteries in should provide more clarity to the observed regional variation within the graveyards of Southern Pannonia.

¹²² Vinski, "O postojanju radionica... u Sisku," referenced in Tomičić, "Bijelo Brdo II," 117.

IV:

CITIES OF THE DEAD:

THE CEMETERIES OF SOUTHERN PANNONIA COMPARED

In the late 1940's, at the cemetery on the castle hill of Ptuj (Slovenia), archaeologists discovered a strange sight when excavating two over-lapping burials. They found typical jewelry items for the tenth and eleventh century cemetery, but in this case these items were not placed on the body, but, rather, inside the deceased's skull. Josip Korošec, the lead archaeologist of this excavation, theorized that the medieval grave-diggers of the more recent burial had accidentally opened the older grave, and out of respect for the disturbed skeleton had taken the goods found in that grave and placed them inside the deceased's skull after drilling a large hole into it.¹²³

On the other side of the Carpathian Basin, outside my research area, but interesting nonetheless, archaeologists found a princely burial in Zemplín, Slovakia filled with millet seeds. They concluded that, fearing the dead, the people who had buried this medieval prince with millet seeds, believed that "the deceased would not be able to leave the grave until he had counted them all between midnight and the first cock crow."¹²⁴

Although dealing with spatial distribution maps and artifact counts does provide an effective way to identify patterns in the material culture of a region, the stories of the two burials above does indicate some of what is missed with such a broad survey. Furthermore, conducting such an extensive and comprehensive survey also has its limits even for the more generalized goals of this work. Thus far, in this analysis, some patterns have already emerged that appear to indicate that there was great variability within the funerary material culture of tenth and eleventh century Southern Pannonia. However, in observing the

¹²³ Korošec, *Ptujskem gradu*, 339.

¹²⁴ László Révész, "The Cemeteries of the Conquest Period," in *Hungarian Archaeology at the Turn of the Millennium* (Budapest: Ministry of National Cultural Heritage, 2003), 339.

distribution patterns of these grave goods it can at times be difficult to observe similarities and differences between these cemeteries. For a meaningful sample, I have chosen five large cemeteries: three from the fringes of Southern Pannonia: Ptuj – Grad (Slovenia) from the upper Drava valley, Gomjenica – Baltine bare from northern Bosnia, and Halimba – Cseres which – just north of Lake Balaton is technically part of northern Pannonia; and two cemeteries from the heart of the region: Majs – Udvari rétek from Baranya (Hungary) and Vukovar – Lijeva bara from the Croatian banks of the Danube.

In performing this comparison, I intend to look at any aspect of these cemeteries that reflects the preferences of the community, whether these decisions are made for cultural, economic, or other reasons. Therefore, the location where people buried their dead, the way in which they constructed their cemeteries, and the objects which they placed with the deceased all fall under the scope of this study. However, other quantitative studies, such as anthropometric analyses, will not be considered because they do not reflect the deliberate decision-making of the local population.

The purpose of this comparison is to two-fold. First, I would like to identify both common and unique characteristics of each cemetery. Then, I will attempt to determine the causes of these similarities and differences. For example, are any unique patterns observed between sites caused by local cultural preferences, the local presence or absence of certain natural resources, or external trade influences? Or are they the result of chronological incongruities between the sites? Second, I will contrast any observable patterns with those I found in my more extensive study of spatial distribution patterns in Chapter 3. Do these case studies confirm or contradict those patterns?

I chose these five cemeteries for a few simple reasons. All five of these cemeteries are medieval row cemeteries that date to the tenth and eleventh centuries. Most of these graveyards are relatively large: they all contain more than 100 burials. And, perhaps most

importantly, archaeologists have excavated and written extensively about all five cemeteries. Finally, since larger cemeteries contain both a greater variability of grave goods and generally indicate a longer use period, it is easier to observe cultural processes and change.

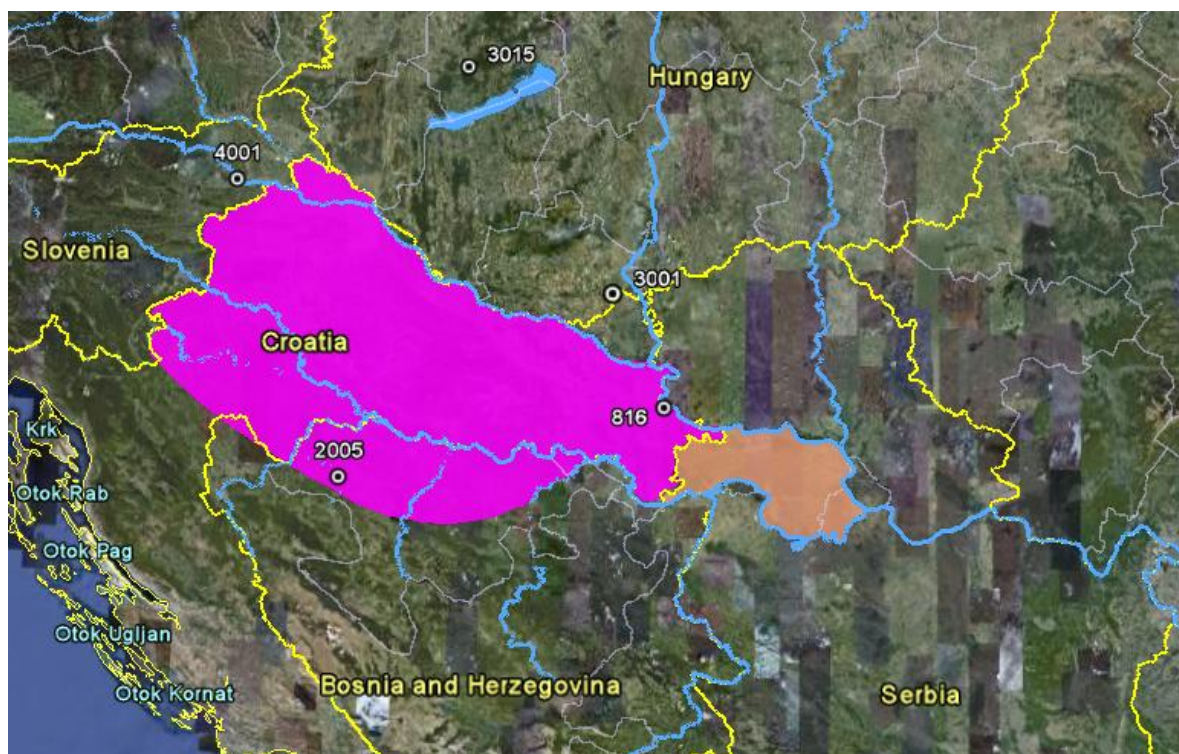


Figure 4.1. Google Earth map showing the location of the five medieval cemeteries included in these case studies: #816) Vukovar – Lijeva bara (Croatia), #2005) Gomjenica – Lijeva bara (Bosnia), #3001) Majs – Udvari rétek (Hungary), #3015) Halimba – Cseres (Hungary), and #4001) Ptuj – Grad (Slovenia). Slavonia is shown in pink and Syrmia in tan.

Site #	Site	No. of graves	Location	Chronology
816	Vukovar – Lijeva bara	437	Northeast Slavonia / Croatia along the Danube	~950-1020 AD ¹²⁵
2005	Gomjenica – Baltine bare	246	Northwest Bosnia near the Sana	940 – 1085 AD ¹²⁶
3001	Majs – Udvari rétek	1130	Southwest Hungary (Baranya)	940 – 1100 AD ¹²⁷
3015	Halimba – Cseres	932	Central Hungary just west of Lake Balaton	Before 950 – After 1100 AD ¹²⁸
4001	Ptuj - Grad	377	Slovenia along the upper Drava	Second half of 10th century – Second half of 11th century ¹²⁹

Table 4.1. List of the five large cemeteries analyzed here. For sources see Appendix A.

¹²⁵ Demo, *Vukovar – Lijeva bara*, 116.

¹²⁶ Tomićić, “Gomjenica.”

¹²⁷ Tomićić, “Gomjenica.”

¹²⁸ Török, *Halimba*, 123.

¹²⁹ Korošec, *Ptujskem gradu*, 337 and 343.

As you may notice in the map above, none of the aforementioned cemeteries can be found in the western portions of northern Croatia. The largest cemetery in the western half of Croatian Slavonia appears to be Stenjevec - Župni voćnjak (The Parish Orchard) with only ninety-one burials.¹³⁰ Therefore, due to the smaller sample size of these graveyards, I have decided to also include an examination of several of these smaller cemeteries together in order to contrast the region of western Slavonia (excluding northern Bosnia) with the regions that surround it.

Vukovar – Lijeve bara

Rising above the steep banks of the Danube at the northeastern edge of Slavonia, the battered water tower of Vukovar remains standing as a monument to the Yugoslav Wars and the perseverance of its people. A very short walk from this tower, past some residential homes, vestiges of Vukovar's more distant past lie below the surface. Here lied an early medieval cemetery, which is still, to this day the largest excavated cemetery from the period in all of northern Croatia and Slavonia.¹³¹ Containing 437 graves, the Vukovar – Lijeve bara¹³² cemetery is also one of the largest cemeteries of its kind in all of southern Pannonia.¹³³ Željko Demo, author of the most extensive modern study of the cemetery,¹³⁴ dated it from the second half of the tenth century to the first decades of the eleventh.¹³⁵

¹³⁰ Katica Simoni reports the discovery of 91 medieval burials in "Rezultati dosadašnjih istraživanja srednjovjekovnog groblja u Stenjevcu" [Results of an Earlier Investigation of the Medieval Cemetery in Stenjevec]. *Izdanja Hrvatskog arheološkog društva* 17 (1992): 73-78, [hereafter: Simoni, "Stenjevcu"]. In her 1995 catalogue of archaeological sites in northern Croatia, Tajana Sekelj Ivančan reported no tenth or eleventh century cemetery west of Bijelo Brdo larger than Stenjevec (see Figure 3.5 for a graphic representation of this phenomenon). In my own research of more recent archaeological literature, I have found no evidence to contradict this. Sekelj Ivančan, *Catalogue of Medieval Sites in Continental Croatia*.

¹³¹ Željko Demo described this site as the "largest early mediaeval cemetery ever excavated to the present in northern Croatia," in his 1996 book about the Vukovar – Lijeve bara site. To my knowledge, this is still the case. Demo, *Vukovar – Lijeve bara*, 114.

¹³² Site # 816 in Appendix A.

¹³³ To my knowledge, the largest excavated medieval cemeteries dated to the period in southern Pannonia are Majs-Udvari rétek with 1130 graves and Halimba – Cseres with 932 graves. Cemetery sizes from Tomičić, "Majs - Udvar," and Giesler, "Untersuchungen zur Chronologie der Bijelo-Brdo Kultur."

¹³⁴ Željko Demo, *Vukovar - Lijeve bara*.

¹³⁵ Demo, *Vukovar - Lijeve bara*, 117.

These burials contain at least 60 different types of artifacts, including many of the most common items of the Bijelo Brdo material culture. However, Demo did observe several unique patterns. First and foremost, Demo noted a surprising paucity of the most characteristic Bijelo Brdo form: the S-shaped circlets (see Table 4.2 below).¹³⁶ This is unusual given the size of the cemetery, and the frequent appearance of this form across all of Southern Pannonia and throughout all periods of the Bijelo Brdo Culture. In contrast, archaeologists have unearthed 230 S-shaped circlets (types I and II) at Gomjenica – Baltine bare, which is half the size of the Vukovar cemetery, as well as 54 examples from the relatively tiny Zvonimirovo – Veliko polje cemetery.

Site #	Site	No. of graves	No. of S-shaped Circlets (Types I-II)	Ratio of circlets : graves
3	Stenjevec - Župni voćnjak (The Parish Orchard)	91	10	.11
123	Sv. Juraj u Trnju - Osnovna škola	40	11	.275
336	Zvonimirovo – Veliko polje	39	54	1.38
816	Vukovar – Lijeva bara	437	12	.03
2005	Gomjenica – Baltine bare	246	224	.92
3001	Majs – Udvari rétek	1130	709	.627
3015	Halimba – Cseres	932	585	.628
4001	Ptuj - Grad	323	221	.684

Table 4.2. Quantity and ratio of S-shaped circlets in Southern Pannonian cemeteries.

Second, Demo noted a similarly unusual lack of raceme or grape-shaped earrings, particularly those made of bronze.¹³⁷ One of the most common elements in Slavonia, only six raceme earrings appear at Vukovar.¹³⁸ Unlike S-shaped circlets, however, raceme earrings are not a universal artifact of the Bijelo Brdo material culture across the span of time and space. Rather, these earrings (types 14, 15, 16, and 17b) appear most commonly in the western half of Slavonia and *Međurječja* and both Giesler and Tomičić have dated all but one of these forms to have appeared in the mid-tenth century and to have disappeared sometime

¹³⁶ Demo, *Vukovar – Lijeva bara*, 116.

¹³⁷ Demo, *Vukovar – Lijeva bara*, 116.

¹³⁸ Demo, *Vukovar – Lijeva bara*, 105 and Tomičić, "Lijeva bara."

around AD 1030.¹³⁹ The one exception is the rustic-cast Volin-type earring (17b), which lasted longer, although there is disagreement about exactly how much longer.¹⁴⁰ Nonetheless, given Demo's argument that the Vukovar – Lijeva bara remained in use until ca. 1020 AD, this relative dearth of raceme earrings is rather curious. If this phenomenon cannot be explained by the chronology of the site, then perhaps it can be explained by its geography. A preliminary glance at the artifact inventory of the eponymous Bijelo Brdo – Ulica Venicije cemetery supports this hypothesis. Less than twenty-five kilometers to the northwest, Bijelo Brdo has few classic grape-like earrings (type 14) and rustic Volin-type earrings (17b), while it completely lacks any crescent shaped earrings (type 15) or Volin-type earrings.

Majs – Udvari rétek



Figure 4.2. Digital satellite photo of the Majs – Udvari rétek medieval cemetery (from Google Earth). Notice the remnants of meanders of the Danube that once flowed much closer to the site.

¹³⁹ Giesler, "Untersuchungen zur Chronologie der Bijelo-Brdo Kultur," Table 53 and Tomičić, "Gomjenica," Table 1.

¹⁴⁰ In his 1981 comprehensive assessment of the chronology of Bijelo Brdo forms, Jochen Giesler proposed a duration of approximated half a century, from roughly AD 1000 – 1050, for the rustic-cast Volin-type earrings. However, in a subsequent work, Tomičić suggests that this form had remained a part of the Bijelo Brdo funerary rite into the twelfth century. Giesler, "Untersuchungen zur Chronologie der Bijelo-Brdo Kultur," and Tomičić, "Nova istraživanja bjelobrdске culture."

Following the Danube upriver, as it winds between Croatian and Serbia, the largest known tenth and eleventh century cemetery in Southern Pannonia can be found about 12 kilometers inland from the west bank of the Danube lying near the border of Croatian and Hungarian Baranya. With 1130 burials, the excavation of Majs – Udvari rétek¹⁴¹, begun in the 1960s, showed that it eclipsed the previous title-holder, Halimba - Cseres, by almost 200 burials.¹⁴² Unlike many of the settlement and cemetery sites of the region, Majs – Udvari rétek does not today lie near a major river, although it is within a day's walk (13 km) from the Danube. Digital satellite imagery suggests that this has not always been the case, however. It appears that at one time a meander of the Danube flowed within a few kilometers of the cemetery, or perhaps less (see Figure 4.2 above). Since floods were an ever-present risk, it is worthy to point out that the local medieval population buried their dead on the crest of a small hill, ten meters above the river's current water level. This desire to live near this great river, but out of reach of its floods was a delicate balance for medieval settlers. The founding populations of settlements further down the Danube – such as those people who buried their dead at Bijelo Brdo – Ulica Venicije (#754) and Vukovar – Lijeva bara – were fortunate enough to find steep hills near the river which provided both the proximity to and protection from the river they desired for their cemeteries (and presumably their settlements as well). However, the banks of the Danube further to the north (in Croatian and Hungarian Baranya) provided less protection, therefore, few sites are found within sight of the river.

Like Vukovar – Lijeva bara, the cemetery at Udvari rétek contains many artifacts other than the typical Bijelo Brdo jewelry items of the periods. Giesler referred to these graves – which contained objects such as knives, arrowheads, horse spurs, and belt buckles –

¹⁴¹ Site #3001 in Appendix A.

¹⁴² Kiss, *Baranya megye X-XI. századi sírleletei*, 73-236. Tomičić states that Majs – Udvari rétek is, in fact, the largest cemetery of its time in the entire Carpathian Basin. Tomičić, "Majs - Udvar," 71.

as “Old Hungarian” burials.¹⁴³ I have already discussed some of the debates about this interpretation in the introduction to chapter 3. Regardless of whether or not these graves represent earlier burials or contemporaneous burials of a different social class, these types of grave goods re-appear at several cemeteries.

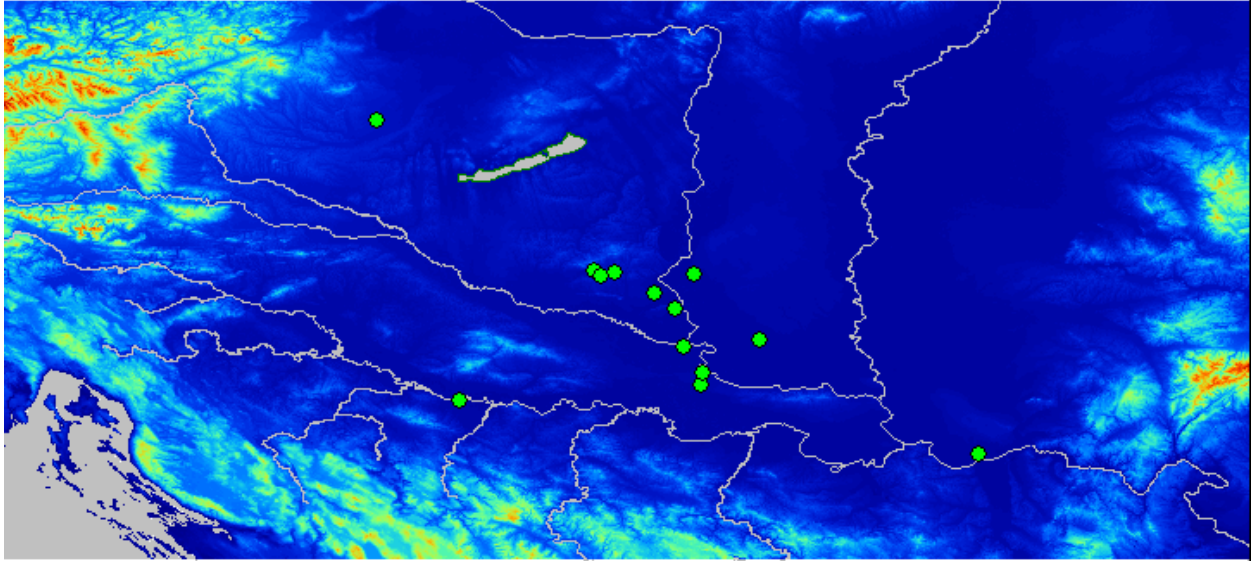


Figure 4.3. Distribution of serpent-head bracelets (type 8).

Due to its size, Majs – Udvari rétek is understandably rich in grave-finds. Besides typical Bijelo Brdo finds, Attila Kiss found weapons, belt buckles, fibulae, pearls, bone sequins, sheep and goat bones, and a ring with the word “PAX” engraved into it.¹⁴⁴ Fitting its status as the largest Bijelo Brdo cemetery of the Carpathian Basin, Kiss found over 700 S-shaped circlets at Majs.¹⁴⁵ He also found a great variety of typical Bijelo Brdo bracelets, necklaces, and rings. One element – whose frequent appearance in Baranya Kiss documented – that is somewhat rare in Southern Pannonia, is the highly symbolic serpent-head bracelet (see Figure 4.3). In Southern Pannonia at least, this zoomorphic bracelet is almost exclusively found in Baranya.¹⁴⁶ However, as noted earlier, in northern Pannonia the

¹⁴³ Giesler, "Untersuchungen zur Chronologie der Bijelo-Brdo Kultur," 19-33.

¹⁴⁴ Tomičić, "Majs - Udvar," 73.

¹⁴⁵ Kiss, *Baranya megye X-XI. századi sírleletei*, 307-429.

¹⁴⁶ Some exceptions: Two examples have been found in southwest Hungary, one at Sorokpolány – Berekalja (site #3008 - shown on map above) and another at Ikervár – Virág (site #3063 - not shown due to late discovery

distribution of this object was much more widespread (see Chapter 3). Majs – Udvari rétek itself has seven of these bracelets in contrast to the solitary finds at Vukovar – Lijeva bara and Halimba – Cseres, and the almost complete absence of this form in Slavonia west of Bijelo Brdo.

Site	# of graves	14a	14b	14c	15a	15b	15c	15d	15e	16a	16b	17b	Total	No. per grave
Stenjevec (3)	91	0	0	0	0	0	0	0	0	0	0	2	2	.020
Sv. Juraj u Trnju (123)	40	0	0	0	0	0	0	0	0	0	0	1	1	.025
Zvonimirovo – Veliko polje (336)	39	1	0	0	7	2	5	0	0	0	0	14	22	..667
Vukovar – Lijeva bara (816)	437	2	2	0	1	0	0	0	0	0	1	3	7	.016
Gomjenica – Baltine bare (2005)	246	8	0	0	28	0	26	1	0	12	6	52	106	.430
Majs – Udvari rétek (3001)	1130	0	0	0	0	0	0	0	0	0	0	12	12	.011
Halimba – Cseres (3015)	932	9	0	0	2	2	0	0	0	5	0	4	20	.022
Ptuj – Grad (4001)	323	17	3	1	3	1	1	1	0	0	1	23	67	.015

Table 4.3. Finds of raceme (grape-like) earrings in Southern Pannonian cemeteries

The other most notable difference between the inventory Majs – Udvari rétek and other sites in the region is in what is lacking from this huge cemetery. First, as already alluded to, Majs contains rather few grape-like earrings. In fact, besides twelve rustic Volin-type imitation earrings (17b), not a single other type of grape-like earring appeared in the cemetery (see Table 4.3 above). Mapping the spatial distribution of the two varieties of Volin-type earrings – the original finely-granulated type (17a) and the rustic imitations (see Figure 3.9 in Chapter 3) shows that Majs – Udvari rétek lies at the eastern edge of the distribution of the rustic variety (17b). Although archaeologists found a dozen examples of this earring, this is still relatively a small number given the size of this cemetery. In contrast, these earrings appeared with much greater frequency to the south and west.

of this data). Gábor Kiss, *Vas megye 10-12. századi sír- és kincsleletei* [Vas County: 10th – 12th Century Grave- and Treasure-finds] (Szombathely: Szignatúra Nyomda és Kiadó Kft., 2000).

The second most notable absence from Majs is its general lack of two-part pendants. Out of the thousands of artifacts discovered in its graves, only one single two-part pendant appeared. Although I have observed a greater concentration of these pendants to the south and west in my survey of Southern Pannonia (Figures 3.13-3.15), Željko Demo charted two-part pendants as far north as Slovakia.¹⁴⁷

Halimba – Cseres

After Majs – Udvari rétek, the next largest cemetery of the period is found near the Hungarian town of Halimba, west of Lake Balaton. Located along the slopes of the Bakony Hills, Halimba – Cseres¹⁴⁸ was the final burial ground for at least 932 people during the Middle Ages. Gyula Török, the archaeologist that led the investigation of Cseres, identified five phases of burials in the cemetery, with the most burials dated to the middle three phases which lasted approximately from AD 950 to 1100.¹⁴⁹ Interestingly, it was during this time that King Stephen I (1000-1038) founded a Benedictine monastery at Bakonybél just thirty kilometers northeast of Cseres. According to the *Gesta Hungarorum* by Simon of Keza, it was here that St. Gerard (Szent Gellért) spent time as a hermit before being martyred in Pest in 1046.¹⁵⁰ Despite his hermitage, it is interesting to wonder if the well-known saint may have encountered some of the seemingly faceless people buried at Halimba – Cseres while he resided in Bakonybél.

While not located near any rivers, the hill-slopes in the area provide it with bountiful run-off water that forms a variety of small lakes and ponds in the vicinity. The burials found here contain similar assemblages to that found in Majs – Udvari rétek, 150 kilometers to the

¹⁴⁷ Demo, "Bjelobrski privjesci."

¹⁴⁸ Site #3015 in Appendix A.

¹⁴⁹ Gyula Török did not provide a specific beginning date for the first phase nor a specific ending date for the late phase of Halimba – Cseres burials. Rather, he just argues that the first people were buried at Cseres sometime before AD 950 and the last sometime after AD 1100. Török, *Halimba*, 123.

¹⁵⁰ *Simonis de Kéza: Gesta Hungarorum* [Simon of Kéza: The Deeds of the Hungarians], edited and translated by László Veszprémy and Frank Schaer with a study by Jenő Szűcs (Budapest: Central European Press, 1999), 124-127.

southeast. The cemetery at Halimba – Cseres does contain a few more grape-like earrings and less animal-head bracelets than did Majs – Udvari rétek, but this fits in with the already observed patterns. The animal-head bracelets are found almost exclusively in Baranya, whereas grape-like earrings are predominantly found towards the southwestern edge of the Carpathian Basin (see the sections on Ptuj – Grad and Gomjenica – Baltine bare this chapter). Otherwise, Halimba – Cseres and Majs – Udvari rétek produced very similar grave goods.

Gomjenica – Baltine bare



Figure 4.4. 3D Visualization of the medieval row cemetery Gomjenica – Baltine bare within its natural surroundings.¹⁵¹

A striking contrast to the lowland large medieval cemeteries found in the Pannonian Plain, is the Gomjenica – Baltine bare¹⁵² cemetery which was discovered nestled amongst the hills of northwest Bosnia near the Sana river. At first glance, it may seem surprising that at 246 burials, Gomjenica – Baltine bare is one of the largest medieval cemeteries in the region, despite its distance from the major rivers, trade routes, and fertile lowlands of the plains.

¹⁵¹ Created by the author using LandSerf 2.3.

¹⁵² Site # 2005 in Appendix A.

However, it appears that this site was in an advantageous position for both trade and subsistence factors. The first clue lies in its toponym, “Baltine bare,” as *bara* in Bosnian means swamp. Satellite photos confirm the proximity of Gomjenica – Baltine bare to a large water basin that collects runoff water from the hills that encircle it (see 3D visualization above). The natural surroundings of Baltine bare certainly seem to suggest that this area would have been a productive and fertile landscape for agriculture.

Furthermore, Željko Tomičić suggests another reason for this site’s location. First of all, he argues that the Una River –downriver from Baltine bare’s location along its tributary, the Sana – served as a natural transport route between the Adriatic coast and Pannonia.¹⁵³ However, at 35 kilometers upriver from the Una, that would be quite a detour. But, Tomičić continues by citing the rich natural mineral deposits found in the Japra river valley, which lies in the hills between the Sana and the Una.¹⁵⁴ In this respect, Tomičić hypothesizes that perhaps a jewelry workshop once existed nearby – similar to the one believed to have existed in Sisak – that exploited the availability of local mineral ores for the production of the finely-crafted jewelry that we now find so abundantly in their cemeteries.¹⁵⁵ Nada Miletić, who led the excavation at Baltine bara in the 1960s, shed some further light on the subject when she identified the location of an old Roman road that once ran from Kristanje (just inland from Šibenik, Croatia) to Sisak.¹⁵⁶ According to Miletić, this ancient road runs along the Sana river from Sanski Most (Sana Bridge), right alongside the Gomjenica – Baltine bare cemetery, to Prijedor.

This cemetery is dated to have survived nearly the entire duration of the Slavonian interlude between Tomislav’s death in AD 928 and the arrival Ladislaus I in the region ca.

¹⁵³ Tomičić, “Gomjenica,” 170.

¹⁵⁴ Tomičić, “Gomjenica,” 170.

¹⁵⁵ Unfortunately, Tomičić is unable to cite any direct evidence to support his hypothesis of local mining and production; rather he refers instead to circumstantial evidence of the unique jewelry assemblages found in the cemetery. Tomičić, “Gomjenica,” 167.

¹⁵⁶ Miletić, “Gomjenici,” 140.

1090.¹⁵⁷ In some ways, Baltine bare very much resembles the other cemeteries in this study. In other ways, it is very unique, particularly in comparison to the graveyards of the northern and eastern parts of Southern Pannonia. First of all, Miletić found 224 S-shaped circlets which is an approximate ratio of 1 circlet per grave which corresponds to the ratios found at the two large Hungarian cemeteries (see Table 4.2).¹⁵⁸ In addition, like the Hungarian cemeteries and Vukovar – Lijeva bara to the north, Baltine bare possesses large numbers of simple circlets (type 13) and O-shaped circlets (type O).¹⁵⁹ It appears that all three types of circlets are fairly universal throughout the Bijelo Brdo cultural sphere, hence throughout the Carpathian Basin.

Beyond the common occurrence of circlets, several unique patterns emerge within the burials of this cemetery. Gomjenica contains an abnormal abundance of raceme or grape-like earrings, two-part pendants, as well as a wealth of “Old Croatian” forms. The frequent appearance of grape-like earrings in western Slavonia and upper *Međurječja* – certainly represent different sub-regional patterns from those found in southern Hungary. As discussed in Chapter 3, the grape-like forms commonly found in upper *Međurječja* include the classic grape-cluster/raceme earrings (Giesler type 14), crescent-shaped earrings (type 15), beaded earrings (type 16), and rustically cast Volin-type earrings (type 17b). The finely granulated Volin-type earrings (17a) – of which the rustic cast variety are imitations – originate in Kievan Rus and are subsequently predominantly found in the eastern portions of the Carpathian Basin (see map in Figure 3.9). Thus, eliminating the granulated earrings from the

¹⁵⁷ Nada Miletić broadly dated Gomjenica – Baltine bare to the tenth and eleventh centuries, while Tomičić refined these dates to 940-1085 AD using the absolute chronology he had created for the artifacts of the Bijelo Brdo material culture. For a further explanation of his chronology, see the section on “Coins and Chronology” in Ch. 3. Miletić, “Gomjenici,” 144-145; Tomičić, “Gomjenica,” Table 3.

¹⁵⁸ Miletić, “Gomjenici,” inset.

¹⁵⁹ Miletić counted 77 simple or plain circlets (type 13) from Gomjenica – Baltine bare. I could not derive an accurate count for the Hungarian cemeteries due to the difficulty of classifying such unremarkable artifacts from the pictures available in the site reports. It is hard to distinguish these plain circlets from other simple forms of rings. However, I did count at least 25 of these circlets at Halimba – Cseres (#3015) and over 100 at Majs – Udvar i rétek (#3001), although I am sure I only counted a fraction of the total for each site. Miletić, “Gomjenici,” inset.

east, produces some stark contrasts in the grave inventories of the region. Miletić found one raceme earring (type 14-16 and 17b) per every 2.3 graves. Contrast that to Vukovar – Lijeva bara, and the two Hungarian cemeteries, in which only one such earring was found per every 45-95 burials. This pattern is observed at other cemeteries in the region (see Table 4.3 and Figures 3.8-3.12). Just as interesting, is the discovery of 26 examples of one variety of crescent-shaped earrings, type 15c. As explained in Chapter 3, this form, perhaps more than any other, demonstrates a material connection between the Croatian sites of Dalmatian Croatia and the Bijelo Brdo sites of Southern Pannonia.¹⁶⁰

Other connections between the Adriatic Coast and Southern Pannonia are found at Baltine Bare. In her excavations at Baltine bare, Miletić unearthed large numbers of beaded earrings considered to be a part of the Old Croatian material culture. Most notably, this includes the discovery of roughly 200 hair-loops with one bead (type III) and 64 three-bead hairpins (type IV). The frequent discovery of these two types in northwest Bosnia has led Tomičić to suggest the local production of these forms using the abundant mineral resources found in the hills and mountains of this area.¹⁶¹

Finally, one other common artifact found in large numbers at Gomjenica – Baltine bare is the two-part pendant. Miletić counted 73 of these pendants, meaning that they appeared in one of every three graves at Baltine bare.¹⁶² This is a shocking number compared to the other cemeteries of this study. Vukovar – Lijeva bara, Majs – Udvari rétek, and Halimba – Cseres have only four examples total, despite having 2,499 burials between them.

¹⁶⁰ See Tomičić, "O nekim vezama."

¹⁶¹ Tomičić, "Mahovljanima," 31.

¹⁶² Miletić, "Gomjenici," inset.

Ptuj – Grad



Figure 4.5. 3D Visualization of Ptuj – Grad using satellite imagery from Google Earth.

In the foothills of the Slovenian Alps, visitors to a 12th century castle can look down from their perch into the waters of the Drava river below. Archaeologists have dated a large medieval row cemetery found on the western side of this castle-hill to the tenth through eleventh centuries.¹⁶³ Although its location, within view of the Alps and over 40 meters above the Drava, makes the cemetery at Ptuj more visibly dramatic, it does in fact fit the general pattern. Like many of the other cemeteries, the one at Ptuj - Grad¹⁶⁴ was placed near a major waterway but on higher and drier ground. Also, like the other cemeteries of this period, the medieval population of Ptuj buried their deceased in rows with nearly all graves oriented west-to-east (head to toe).¹⁶⁵

¹⁶³ Korošec, *Ptujskem gradu*, 337.

¹⁶⁴ Site #4001 in Appendix A.

¹⁶⁵ Korošec, *Ptujskem gradu*, 337-340.

Yet, there are some unique features of Ptuj-grad that set it apart from its contemporaries in Southern Pannonia. First, its location near the foot of the Alps places it at the perimeter of the Pannonian Plain. This location between the Alps and the plains perhaps explains the synchronous appearance of jewelry artifacts of the Bijelo Brdo and Köttlach culture in the graves of this cemetery. Second, Josip Korošec – the lead archaeologist of the excavation of the cemetery in the 1940's - describes the presence of a “Slav heathen sanctuary” in the middle of the cemetery.¹⁶⁶ In addition, Korošec notes the discovery of two hearths found within the cemetery, which he attributes as “altars for burnt offerings” for funerals.¹⁶⁷ If his hypothesis is correct, this would be an interesting discovery as I know of no other cemeteries with similar findings. Third, this cemetery is also unique in that it actually provides evidence about how medieval people viewed the dead. By studying some disturbed graves, Korošec concluded that in the Middle Ages some locals, in burying their own, accidentally exposed an older grave. Rather than ignore it or steal its contents, the grave-diggers instead collected all the grave goods from this old grave and placed them into a hole “intentionally made” in the skull of the old skeleton.¹⁶⁸ If Korošec’s hypothesis is correct, it certainly reveals something about the way in which medieval people revered the dead. The last noteworthy unique feature of Ptuj – Grad are the wooden planks found under twenty-nine of the corpses. Charred remains of planks have been found under an additional ninety-one bodies. While archaeologists only found two coffins in the cemetery, the planks appear to represent a transition phase toward the use of coffins which became widespread in the region in the eleventh century.¹⁶⁹

¹⁶⁶ Korošec, *Ptujskem gradu*, 343.

¹⁶⁷ Korošec, *Ptujskem gradu*, 343-344.

¹⁶⁸ Korošec, *Ptujskem gradu*, 339.

¹⁶⁹ Korošec, *Ptujskem gradu*, 343.

Including the sixty-six graves unearthed at the beginning of the twentieth century, Korošec recorded 377 burials at Ptuj – Grad.¹⁷⁰ However, noting evidence of some disturbed skeletal remains found at the fringes of this cemetery, Korošec estimates that at least 500 people had once been buried there.¹⁷¹ Of these, he counted 139 graves that contained “gifts.”¹⁷² Befitting its location between two different eco-regions (the Pannonian Plains and the Alps) and at the borders of the Holy Roman Empire in the Carinthian March, the cemetery at Ptuj contains elements of both the Bijelo Brdo and the Köttlach material cultures.¹⁷³ Just like the previously discussed cemeteries, the grave goods of Ptuj – Grad both conform to some common regional patterns and demonstrate some unique local circumstances.

With 221 S-shaped circlets, this seemingly ubiquitous form again reveals its popularity for the time – even at the fringes of the Carpathian Basin (see Table 4.2 this chapter). Explaining their popularity, Josip Korošec reasoned that the S-shaped circlets “were not used only as temporal rings, but also pendants, or even as finger-rings.”¹⁷⁴ Setting Ptuj – Grad apart from the other cemeteries in this study, however, is the fact that the medieval people of Ptuj adorned their dead with a broad range of other circlets besides the common S-shaped forms. While circlets with O-shaped ends, as well as simple circlets are common finds in tenth and eleventh century Pannonian graves and are considered precursors to those with S-shaped ends, Korošec also documented finds of circlets with spiral-ends, hooks, cones, and a variety of combinations of the above. All in all, ninety-three circlets were found at Ptuj – Grad in addition to the 221 loops of the S-shaped variety.¹⁷⁵

¹⁷⁰ Korošec, *Ptujskem gradu*, 13.

¹⁷¹ Korošec, *Ptujskem gradu*, 13.

¹⁷² Korošec, *Ptujskem gradu*, 340.

¹⁷³ Korošec, *Ptujskem gradu*, 343. For a brief overview of the combination of Bijelo Brdo and Köttlach elements at Ptuj - Grad see Curta, *Southeastern Europe in the Middle Ages*, 194-195. For a more detailed examination see Paola Korošec, “Ungarische Elemente aus der Nekropole auf der Burg zu Ptuj,” *Arheološki Vestnik* 36 (1985): 337-350.

¹⁷⁴ Korošec, *Ptujskem gradu*, 340.

¹⁷⁵ Korošec, *Ptujskem gradu*, 138.

Like the other graveyards, Ptuj – Grad also shows some regional variation in both the types and the quantity of grape-shaped earrings found here. Behind only Gomjenica – Baltine bare's 106, Ptuj – Grad has the second most grape-shaped earrings of any cemetery in this study with sixty-seven (see Table 4.3 this chapter). It has by far the most examples of classic grape-shaped earrings (type 14), with a total of twenty-one, more than double the number found at Gomjenica – Baltine bare and Halimba – Cseres. Since both these sites are found in the western half of the Carpathian Basin, it would be reasonable to presume that these earrings were produced in this region, perhaps in one or several workshops near Ptuj. For lunar cast grape-like earrings (type 15) and Volin-type imitation earrings (type 17b), Ptuj – Grad also ranks second in quantity behind only the cemetery at Baltine bare. In addition to grape-shaped earrings, these two cemeteries are also similar in their abundance of two-part pendants (see Table 4.4). Similar to the grape-shaped earrings, the smaller cemetery of Zvonimirovo – Veliko polje is the only site that approaches the number of two-part pendants found at Ptuj – Grad and Baltine bare.

Site #	Site	No. of graves	No. of 2-part pendants (type 9)	Ratio of pendants : graves
3	Stenjevec - Župni voćnjak (The Parish Orchard)	91	0	0
123	Sv. Juraj u Trnju - Osnovna škola	40	0	0
336	Zvonimirovo – Veliko polje	39	9	.23
445	Popovec - Breg		0	0
816	Vukovar – Lijeva bara	437	3	.007
2005	Gomjenica – Baltine bare	246	73	.30
3001	Majs – Udvari rétek	1130	1	.001
3015	Halimba – Cseres	932	0	0
4001	Ptuj - Grad	377	36	.11

Table 4.4. Two-part pendants (see Appendix A for sources).

However, before arguing that these similarities indicate that Ptuj – Grad and Gomjenica – Baltine bare share the same material culture, the differences between the two should be identified. For one, Nada Miletić identified twenty-six cast crescent-shaped earrings (type 15c) at Baltine bare, while archaeologists only found one such example at Ptuj.

Given the southern orientation of this type of earring, this is not a surprise, but should be a good reminder of the many external cultural and economic influences on the material culture of Southern Pannonia. Just as Köttlach forms are found in some number at Ptuj, so too are “Old Croatian” forms – as well as cross-over forms such as the cast crescent-shaped earrings – found in some number at Gomjenica.

Cemeteries of western Slavonia

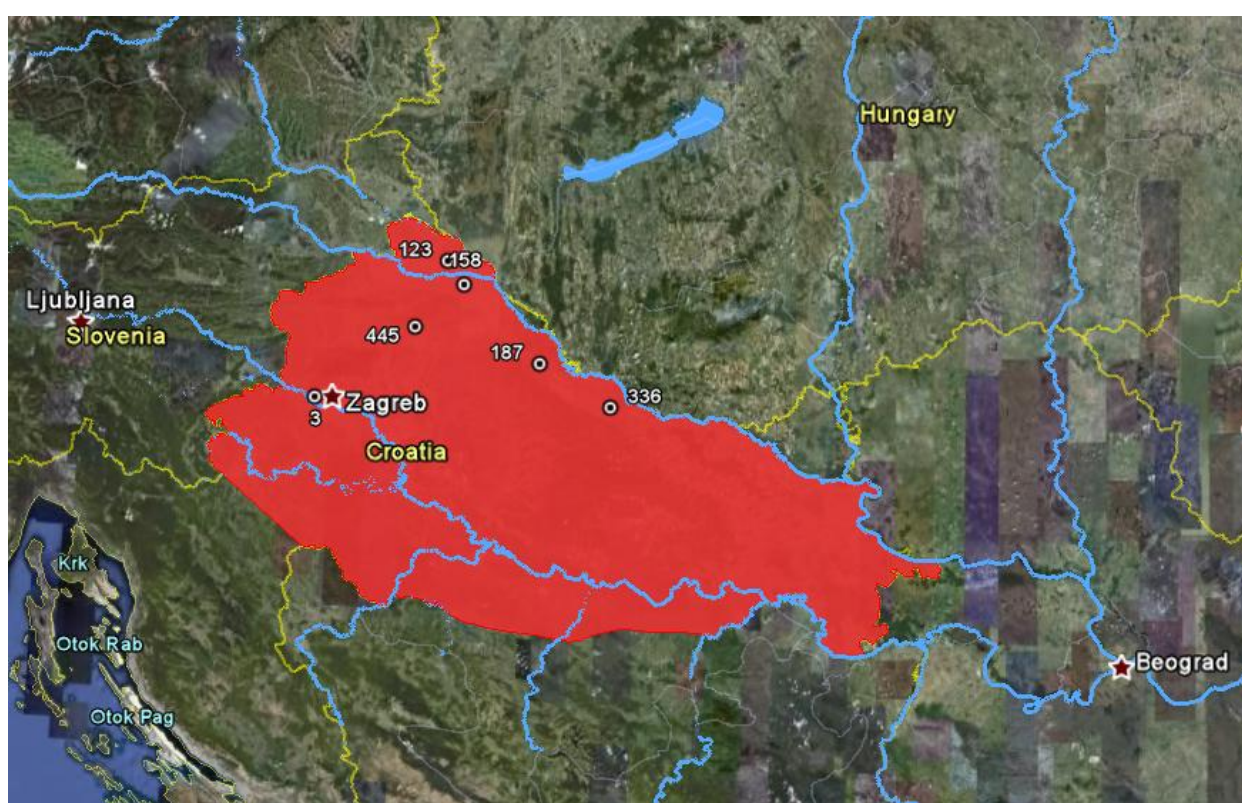


Figure 4.6. Map of the cemeteries of western Slavonia included in this study (see Table 4.5 below)

With the exception of northern Bosnia¹⁷⁶, archaeologists have yet to find any large cemeteries from the tenth and eleventh centuries in the western half of Slavonia. It is interesting that the largest burial grounds in this portion of Southern Pannonia are found at the fringes of the region: particularly Ptuj – Grad in Slovenia (377 burials) and the cemeteries

¹⁷⁶ As discussed in Ch. 2, medieval Slavonia included portions of what is now northwest Bosnia.

on the Bosnian side of the Sava.¹⁷⁷ As already mentioned, the cemetery containing the most graves from the tenth and eleventh century in this region is – to my knowledge – Stenjevec - Župni voćnjak (Parish Orchard) with its 91 burials.¹⁷⁸ Due to the smaller sample-size of these sites, I decided to take a look at multiple graveyards in this region for my comparison.

#	Site	Location
3	Stenjevec – Župni voćnjak (Parish Orchard)	Southwestern Slavonia
123	Sv. Juraj u Trnju – Osnovna škola	In Međimurje about halfway between the Drava and the Mura rivers
158	Veliki Bukovec - Dvorac Drašković (Drašković's Castle)	Northwestern Slavonia just south of the Drava
187	Kloštar Podravski – Peski	North-central Slavonia between #158 and #336
336	Zvonimirovo – Veliko polje	North-central Slavonia in the Drava valley
445	Popovec-Kalnički - Breg	The highlands of western Slavonia midway between the Sava and Drava

Table 4.5. List of sites from western Slavonia analyzed here (for a list of sources for each site see Appendix A).

Not surprisingly, the sites of western Slavonia have an over-representation of grape-like earrings (type 14-17b), and two-part pendants (type 9) in comparison to the Vukovar – Lijeva bara (#816) and the two sites of Hungary (#3001 and #3015). In contrast, like Ptuj – Grad (#4001) and Gomjenica – Baltine bare (#2005), no animal-head bracelets have been discovered in the six sites of western Slavonia. In fact, I have not find evidence of a single animal-head bracelet in Međurječja, west of Bijelo Brdo.

¹⁷⁷ Along with the 246 burials discovered at Gomjenica – Baltine bare (#2005), archaeologists have also discovered 95 graves at Mahovljani – Kužno groblje (#2004) and 161 graves in the cemetery of Petoševci – Bagruša (#2002).

¹⁷⁸ Site #3 in Appendix A. For more information, see Simoni, "Stenjevec," 73-78.

Site	Gr's	I-II	14-17b	14	15c	17b	9	8	
6 West Slavonia Sites*	200+	87+ (6)	40 (6)	3+ (3)	6+ (2)	23+ (6)	10+ (2)	0 (0)	
816	437	12	7	4	0	3	3	1	
2005	246	230	106	8	26	52	73	0	
3001	1130	709	12	0	0	12	1	7	
3015	932	585	20	9	0	4	0	1	
4001	377	221	67	21	1	23	36	0	
* Due to the damaged burials of the Kloštar Podravski cemetery, all counts for the six sites of western Slavonia are incomplete. Therefore, the numbers here are the minimum for each category but could be slightly higher. The second number in parentheses (6) represents the number of these six cemeteries that has that particular artifact. Therefore, according to this table, a total of at least 87 S-shaped circlets have been recovered from these six sites and all six sites had at least one circlet.									

Table 4.6. Comparison of grave goods from the smaller cemeteries of western Slavonia with the larger cemeteries found at the fringes of Southern Pannonia.

Conclusions

Returning to the original question: just how much variation exists between the tenth and eleventh century cemeteries of Southern Pannonia? Significant variation across the region is fairly easy to identify. But, it should be mentioned that all of these cemeteries do share some characteristics in common. First, they are all part of a broader trend of *Reihengräberfeld*, meaning all of these cemeteries were laid out in rows with the deceased oriented from west to east (head to toe). These burials also are typically lacking any grave architecture, however the evidence of 120 wooden planks and two coffins at Ptuj – Grad does provide a notable exception. These graves do include a variety of weapons, tools, and other objects, however, they are most known for the many jewelry and adornment ornaments found within them. The most common artifact found in these burials is the S-shaped circlet, which is indeed found in every one of the cemeteries discussed here.

Nonetheless, a careful comparison of the grave goods of these cemeteries does reveal some notable and important differences. Even among the ubiquitous S-shaped circlets some interesting regional variations appear. While many of the cemeteries surveyed here contained almost as many S-shaped circlets as burials, Vukovar – Lijeva bara, with its 437 graves, only

produced twelve such examples. Since this cemetery is dated to have been in use during the same period that S-shaped circlets were common this appears to be the result of some unique local circumstances rather than any chronological differences between the cemeteries.

Many of the regional variations of grave goods identified in Chapter 3 have been both corroborated and further illustrated by these case studies. A graphic display of the artifacts found in the cemeteries studied here (Appendix D, Table 1) offers an interesting visual comparison. Although there are multiple sub-regional patterns, the easiest to observe in these tables is the contrast between the cemeteries of the west and south (Ptuj – Grad, Gomjenica – Baltine bare, and the agglomeration of west Slavonia sites) and those found to the north and east (Halimba – Cseres, Majs – Udvari rétek, and Vukovar – Lijevo bara).

The first noticeable difference is the absence of most types of bracelets (types 2-8) generally. According to Giesler's chronology, some of these bracelets are associated with the "Old Hungarian" or preliminary phase (types 2-5) of the Bijelo Brdo culture, while others (types 6-8) are estimated to have appeared during the late "Old Hungarian" phase and disappeared during the early part of the first phase of the Bijelo Brdo culture (roughly AD 940-1035). I have already discussed, in some length: seven zoomorphic serpent-head bracelets found at Majs – Udvari rétek appear to be indicative a particular concentration of these bracelets in the cemeteries of Hungarian and Croatian Baranya and the immediately surrounding areas. This pattern does not seem to have spread to western Slavonia.¹⁷⁹ It is interesting to notice similar patterns for simple bracelets (types 2-7). The overall low representation of these bracelets should be noted, however, as I have only counted on average only about six or seven locations for each of these types.

In direct contrast, is the pattern observed in the spatial distribution of grape-shaped earrings (see Figures 3.8-3.13 and Appendix D). The average of one grape-shaped earring

¹⁷⁹ See Chapter 3.

(types 14-16 and 17b) per one to five burials at Ptuj – Grad, Gomjenica – Baltine bare, and Zvonimirovo – Veliko polje certainly reinforces the hypothesis that these earrings were produced locally in western Slavonia and *Međurječja*. The few variants of these earrings as well as the limited overall numbers found at the large cemeteries of Halimba – Cseres, Majs – Udvari rétek, and Vukovar – Lijeva bara, stands in stark contrast to the large numbers of these items found at the smaller cemeteries of Ptuj – Grad, Gomjenica – Baltine bare, and western Slavonia (Appendix D). Other forms that are predominantly found in this region are certain sub-types of the two-part pendant (type 9 – sub-types 6 and 16). This suggests the presence of one trade or material culture network that extended west-to-east from Slovenia to central Slavonia and south-to-north from the region south of the Sava to as far north as the Drava and even up to the Mura. Whether or not this network extended north of the Mura into southwestern Hungary is still unclear¹⁸⁰; however, the almost complete lack of grape-shaped earrings in Vas County (Hungary) and the total lack of two-part pendants characteristic of western Slavonia (sub-types 6 and 16) indicates that this network did not stretch too far north of the Mura.¹⁸¹

Lastly, while I have mainly discussed jewelry forms attributed to the Bijelo Brdo material culture complex, objects of other material cultures also appear frequently in these cemeteries. Objects of the so-called “Old Hungarian” culture appear most frequently in eastern Slavonia and – of course – Hungary. Likewise, “Old Croatian” jewelry items have been found in large numbers in Gomjenica – Baltine bare and other sites in southern Slavonia. The abundance of these forms at cemeteries in northern Bosnia suggests a link between the Adriatic and the Sava valley. But, it should be noted, the similarities between

¹⁸⁰ I was only able to find data for a few tenth-eleventh century sites in southwestern Hungary.

¹⁸¹ Gábor Kiss recorded the discovery of two rustic Volin-type earrings (17b) in Vas County and no examples of two-part pendants sub-types 6 and 16. It is interesting to note, however, that the two Volin-type earrings he recorded were found at Répcelak, which is at the far northern edge of Vas County, well north of the 47° parallel northern limit of this study. Kiss, *Vas megye 10-12. századi*.

Baltine bare and the Adriatic are no greater than those between Baltine bare and Majs – Udvari rétek, for example.

Finally, the same can be said for Ptuj – Grad, as its mix of Bijelo Brdo and Köttlach forms suggests. A more in-depth study of the tenth and eleventh century cemeteries of Slovenia would help to illuminate this mixture of material cultures. Did Bijelo Brdo forms disappear and Köttlach forms become more dominant as one goes further into the Alps? Or did the passage of time have a greater effect on the prevalence of each of these material cultures in relation to each other?

In summary, a closer look at a few cemeteries in and around Southern Pannonia reinforces some of the patterns observed in the previous chapter. However, it also reveals mortuary burial practices that were overall more similar than different. This indicates that regardless of whatever factors served to divide the region (warfare, political borders, migrations, etc.), the factors that tended to unite this region were stronger (trade and communication networks, spirituality).

scattered remnants of a hearth there do not necessarily clearly signal the presence of a settlement to the un-trained eye. Since many archaeology sites, even today, are discovered by the general public, bones and metal artifacts are much more likely to capture their attention than potsherds and hearths. Furthermore, the sites of many early medieval settlements were used continuously or intermittently for centuries making the signs of their earliest occupants really difficult to see. Illustrating the difficulty archaeologists have had in identifying these early settlements is their frequent allusions to potential settlement locations in their literature on burial sites. Often, in respect to tenth and eleventh century cemeteries, archaeologists have hypothesized about the possible location of settlement(s) in which the deceased once lived. For instance, when describing the medieval cemetery at Popovec Bregi, Tomičić writes, “In the vicinity of that cemetery was obviously also a settlement of an agricultural population which were existing somewhere in the second half of the 11th century. To that large community, gravitated obviously small satellite communities located in the surrounding hamlets.”¹⁸³ But, these hypotheses are usually nothing more than educated guesses. In 2001, for example, Tajana Sekelj Ivančan noted bluntly: “as far as systematic excavation of early medieval settlements is concerned, it can be said that there were almost none.”¹⁸⁴ She goes on to describe the limitations of these few settlement excavations in northern Croatia:

“The only systematic rescue excavations were carried out in the area presently occupied, which destroys layers leaving almost no stratigraphy. A typical examples is an archaeological excavation in Vinkovci, lasting for years, which very rarely provides an intact cultural layer, which otherwise could be 3 metres thick. In other cases of rescue sustematic investigations the emphasis was placed on the excavation of certain architecture as is the case with Čečavac – RUDINA or Erdut – GRADINA, where the lowestest [sic] layers are attributed to the period older than the 13th century, though other material shows the characteristics of an earlier period....”¹⁸⁵

¹⁸³ Tomičić, *Panonski periplus*, 129.

¹⁸⁴ Tajana Sekelj Ivančan, *Early Medieval Pottery in Northern Croatia: Typological and Chronological Pottery Analyses as Indicators of the Settlement of the Territory Between the Rivers Drava and Sava from the 10th to 13th centuries AD*, BAR International series, 914 (Oxford: Archaeopress, 2001), 8.

¹⁸⁵ Sekelj Ivančan, *Early Medieval Pottery in Northern Croatia*, 8.

Glimpses of the daily life of the medieval people of Southern Pannonia, however, are beginning to emerge. A greater interest in early medieval settlements in the region – aided by aerial photography and satellite imagery – has led to many new discoveries in recent years.¹⁸⁶ Increasingly, archaeologists of northern Croatia and the surrounding areas are looking at pottery – an artifact of daily life found only rarely in burials. Petrographic analysis is being conducted on ceramics.¹⁸⁷ Artifacts previously ignored are now becoming topics of interest. Since the study of simple settlements is still in its infancy, I will look at two aspects of settlement archaeology that have attracted the most attention: forts and pottery.

Forts of the Tenth and Eleventh Centuries

In his broad survey of early medieval southeastern Europe, Florin Curta describes two unsolved problems regarding tenth and eleventh century in Slavonia. First, he questions the cause of an “explosion of population” in mid-tenth century Slavonia – an explosion that manifested itself with the appearance of cemeteries with Bijelo Brdo artifacts.¹⁸⁸ I explored this problem in some depth in the previous chapters. Second, in reference to the discovery of some fortified villages in medieval Slavonia, Curta wonders “who exactly was the enemy against whom the inhabitants of the Slavonian villages tried to defend themselves by erecting massive fortifications of earth and timber.”¹⁸⁹ While he gets most of his facts wrong

¹⁸⁶ Sekelj Ivančan, Tajana, Tatjana Tkalčec, and Bartul Šiljeg. "Rezultati analize ranosrednjovjekovnih nalaza i nalazišta u okolici Torčeca" [Results of the Analysis of Early Medieval Finds and Sites in the Vicinity of Torčec] *Prilozi arheološkog instituta u Zagrebu* 20, no. 1 (July 2003): 113-130. This article describes how archaeologists first identified settlements in the area of Torcec using aerial photography and second, how they studied the topography of these sites in order to develop new methods for finding and identifying new sites.

¹⁸⁷ See for example: Sekelj Ivančan, Tajana, Tatjana Tkalčec, Dragutin Slovenec, and Boško Lugović. "Analiza keramike s ranosrednjovjekovnog naselja na položaju Ledine kod Torčeca" [Ceramic Analysis of Early Medieval Settlements on the Location of Ledine near Torčec]. *Prilozi Instituta za arheologiju u Zagrebu* 22, no. 1 (Sept 2005): 141-186.

¹⁸⁸ Curta, *Southeastern Europe in the Middle Ages*, 191-193.

¹⁸⁹ Curta, *Southeastern Europe in the Middle Ages*, 253-254.

regarding the details of these discoveries¹⁹⁰, he is right to pose this question. Unfortunately, this question remains unanswered. Mrsunjski Lug is still the only tenth or eleventh century fort from Slavonia about which we have some knowledge, and the Archaeological Museum of Zagreb excavated this site over half a century ago in 1949.¹⁹¹ While Florin Curta asks about enemies, evidence of similar forts in east-central Europe indicates that early medieval people did not just construct these earth-and-timber forts for defense from an external enemy. Rather, they may have constructed these sites as seats of feudal power, as trading centers, or even symbols of social prestige of the local community as a whole.¹⁹²

Evidence illustrating our ignorance about these forts is found in Tajana Sekelj Ivančan's catalogue of archaeological sites in northern Croatia. Out of 390 medieval settlements, Sekelj Ivančan identified 132 "fortified settlements."¹⁹³ Few of these fortified settlements have been dated and even fewer have been excavated.

¹⁹⁰ Curta wrongly identifies the location of the fort of Mrsunjski Lug as being found "near Bjelovar, not far from the Croatian - Hungarian border," when in fact it is located closer to the Bosnian border on the Sava near Brodski Stupnik. Second, he wrongly places a fort survey of Željko Tomičić in central and southern Slavonia, when Tomičić's survey really took place in northwest Croatia. Curta, *Southeastern Europe in the Middle Ages*, 253-254.

¹⁹¹ Zdenko Vinski, "Mrsunjski Lug," in *Katalog izložbe* (Zagreb: Arheološki muzej u Zagrebu, 1950).

¹⁹² For theories about the construction of earth-and-timber forts see: Paul Barford, "Silent Centuries: The Society and Economy of the Slavs," in *East Central & Eastern Europe in the Early Middle Ages*, edited by Florin Curta, 60-99 (Ann Arbor: University of Michigan Press, 2005); Paulo Squatriti, "Moving Earth and Making Difference: Dikes and Frontiers in Early Medieval Bulgaria," in *Borders, Barriers, and Ethnogenesis: Frontiers in Late Antiquity and the Middle Ages*, edited by Florin Curta, 59-90 (Turnhout, Belgium: Brepols, 2005); For the symbolic importance of forts see Walter Pohl, "Frontiers and Ethnic Identities: Some Final Considerations," in *Borders, Barriers, and Ethnogenesis*, 255-265. For circular forts of the Carolingian and Ottonian marches see Joachim Henning, "Civilization versus Barbarians? Fortification Techniques and Politics in Carolingian and Ottonian Borderlands," in *Borders, Barriers, and Ethnogenesis*, 23-34. For circular forts of see Matthias Hardt, "The *Limes Saxoniae* as Part of the Eastern Borderlands of the Frankish and Ottonian-Salian Empire," in *Borders, Barriers, and Ethnogenesis*, 35-50. For the purpose and evolution of forts in medieval Bulgaria see Rasha Rashev, "Remarks on the Archaeological Evidence of Forts and Fortified Settlements in Tenth-Century Bulgaria," in *Borders, Barriers, and Ethnogenesis*, 51-58. For the geographic positioning of forts see Sara Nur Yildiz, "Reconceptualizing the Seljuk-Cilician Frontier: Armenians, Latins, and Turks in Conflict and Alliance during the Early Thirteenth Century," in *Borders, Barriers, and Ethnogenesis*, 91-120. For an example of a Transylvanian fort serving as the guardian of a valuable salt mine see Alexandru Madgearu, "Salt Trade and Warfare: The Rise of the Romanian-Slavic Military Organization in Early Medieval Transylvania," in *East Central & Eastern Europe*, 106-108. For a basic overview of tenth and eleventh century forts in Hungary see Mária Wolf, "Earthen Forts," in *Hungarian Archaeology at the Turn of the Millennium* (Budapest: Ministry of National Cultural Heritage, 2003), 328-331.

¹⁹³ Sekelj Ivančan, *Catalogue of Medieval Sites in Continental Croatia*, 14.

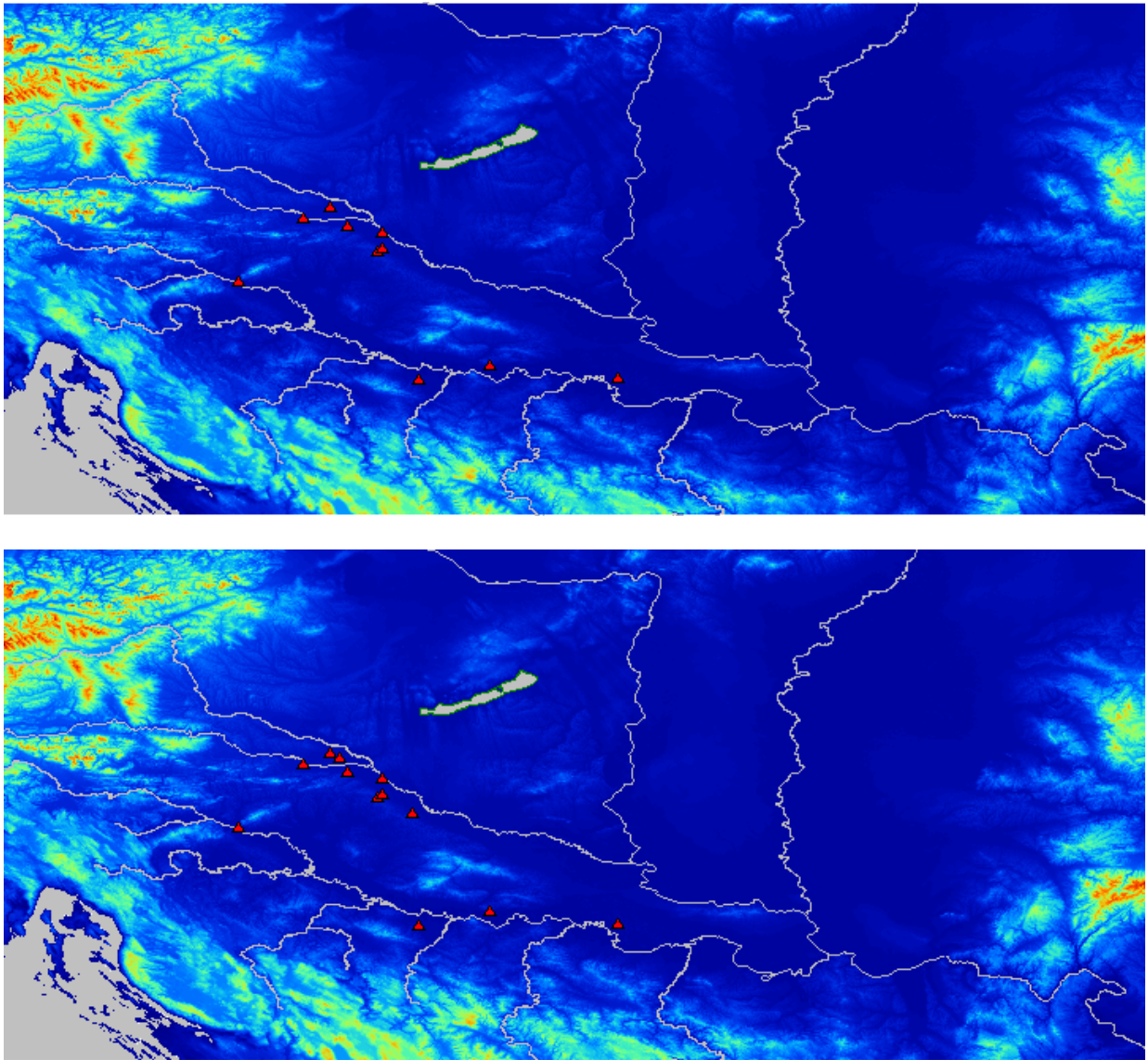


Figure 5.2. Distribution of tenth century (top) and eleventh century forts in Slavonia. Note: This map only includes sites from northern Croatia and northern Bosnia. Widening this sample to include sites in Slovenia, Hungary, and other surrounding countries certainly would change this picture (Data from Sekelj Ivančan, *Catalogue of Medieval Sites in Continental Croatia*).

Despite the limited information about the Slavonian forts of the tenth and eleventh centuries, a few preliminary observations can be made. First, a look at the distribution of fortified sites from this period indicates a bi-modal distribution (see Figure 5.2 above). The first cluster of forts appears in the northwestern portions of Slavonia / Croatia and the second in south-central and south-eastern Slavonia.

The presence of the former can, in part, be explained by two different surveys conducted by D. Pribakovic and Željko Tomičić in northwestern Croatia.¹⁹⁴ However, these surveys only account for three out of eight of these sites.¹⁹⁵ Another possible explanation could be that more forts were built in this region of northwest Croatia because more people lived there (see the distribution pattern of sites in Figure 2.1 in Chapter 2). However, this theory does not explain why no archaeological evidence of tenth and eleventh century forts has been found in northeast Slavonia, when some of the largest cemeteries have been found there.¹⁹⁶ If these forts were indeed built as borderlands defenses, it is possible that these forts marked the boundary between Slavonia and the Carinthian March. Yet again, the forts of northwest Slavonia could be strongholds of localized power rather than regional defense systems.

Even more curious is the presence of forts in south-central Slavonia, an area that has provided less evidence of human activity than just about any other part of Southern Pannonia. Often historians try to tie the construction and use of these forts to particular historical events, such as the Hungarian incursions into Syrmia and eastern Slavonia which culminated with the occupation of the region in 1071 by King Solomon and Duke Géza of Hungary.¹⁹⁷ Of course, this is where verifying the chronology of these sites becomes especially important. Zdenko Vinski broadly dated Mrsunjski Lug – the only excavated fort in northern Croatia believed to

¹⁹⁴ D. Pribakovic, “Neki podaci o gradištima severozapadne Hrvatske” [Some Data about the Forts of Northwestern Croatia], *Vjesnik Vojnog muzeja Jugoslavenske armije* 3: 107-141; Željko Tomičić, “Rezultati ranosrednjevjekovnih arheoloških istraživanja u Međimurju i varaždinskoj regiji” [The results of research on the early medieval sites in the Mura valley and the Varaždin region], *Izdanja Hrvatskog arheološkog društva* 2 (1978): 209-222.

¹⁹⁵ According to Sekelj Ivančan, Pribakovic was the first archaeologist to record the presence of the forts at Belica- Gradište (#110) and Petar Ludbreški – Kolibe (#150), while Tomičić was the first to investigate a fort at Dvorišće – Gradišće-Močvare II (#115). Sekelj Ivančan, *Catalogue of Medieval Sites in Continental Croatia*, Catalog No’s 110, 115, and 150.

¹⁹⁶ For example, the cemeteries of Vukovar – Lijeva bara (#816) and Bijelo Brdo – Ulica Venecije (#754).

¹⁹⁷ Ivo Goldstein, “Between Byzantium, the Adriatic, and Central Europe,” in *Croatia in the Early Middle Ages: A Cultural Survey*, edited by Ivan Supićić (London: Philip Wilson Publishers and Zagreb: AGM, 1999), 177. Also, with slightly different dates: “Anno MLXVIII. Civitas Bulgarorum (Belgradum) a Rege Salomone capitur; rursumque ab iisdem Bulgaris et Graecis dolo recipitur. – Anno MLXXII. Salomon Rex Bulgarense regnum invasit.” *Codex diplomaticus Hungariae ecclesiasticus ac civilis*, vol. 7, no. 4, 53.

be from the period – to the tenth to thirteenth centuries.¹⁹⁸ He did so on the basis of the artifacts discovered there: pottery, jewelry items (including Bijelo Brdo), and even wrought iron nails. Yet, it is impossible to try to fit such a vaguely dated site to historical events, about which there still is much unresolved debate.

Future excavations and surveys must be conducted in northern Croatia to reveal the real circumstances of the construction and use of these forts in the tenth and eleventh centuries. Although typically labeled “earthen forts” – due in large part to their appearance today – many of these forts had been constructed with timber walls placed on the ramparts, which required the use of a tremendous amount of timber. While much of these walls have long since rotted away, one would think that enough fragments may have survived to allow the dating of these forts through dendrochronology. If true, then the accurate dating of the se forts may go a long way in our understanding of their place in the medieval history of the region. Furthermore, comparisons with the forts of the surrounding regions can help to determine whether the Slavonian forts fit into a broader regional pattern or if they indicate a unique development. Similar comparisons of the artifacts of forts with those of settlements, along with the spatial relationship between the two, will help to explain the purpose of these forts. For example, if a spatial analysis of the area reveals that the typical fort was surrounded by numerous settlements in all directions, then that would lend credence to the argument that these forts served as local centers and displays of power. However, if it is discovered that a row of forts stood between a no-man’s-land, or natural barrier such as a river, and a series of settlements, this may support the more traditional view of forts as frontier defense systems. I hypothesize that the former is closer to the truth, but only more research on these sites can allow such conclusions to be made.

¹⁹⁸ Vinski, “Mrsunjski Lug.”

Pottery

In general, pottery is the most frequently used artifact of pre-modern daily life that can survive the passage of centuries. While clothing, food, and other objects disintegrate quickly, pot-sherds can survive for millennia. With the general lack of written records for the tenth and eleventh centuries in Slavonia, pottery can tell us much about the daily life of its people. Unfortunately, archaeologists in northern Croatia have only just begun to examine the medieval pottery of the region.

Underscoring just how little we know about the daily life of people in medieval Slavonia, is the fact that the first comprehensive survey of medieval pottery in northern Croatia was published in 2001. Tajana Sekelj Ivančan conducted an extensive survey of pottery found in northern Croatia, in which she created a typological and chronological classification of ceramics believed to date between the tenth and thirteenth centuries.¹⁹⁹ Besides the creation of the first survey of the region's ceramics, her primary goal was to “establish the existence of [early medieval] settlements” in both space and time. In addition to those few settlements which have been positively dated to this period, Sekelj Ivančan used the location of chance finds of medieval pottery as well as the known location of cemeteries to create a hypothetical map of settlements in Slavonia from the tenth to thirteenth centuries (see Figure 5.3 below).

¹⁹⁹ Sekelj Ivančan, *Early Medieval Pottery in Northern Croatia*.

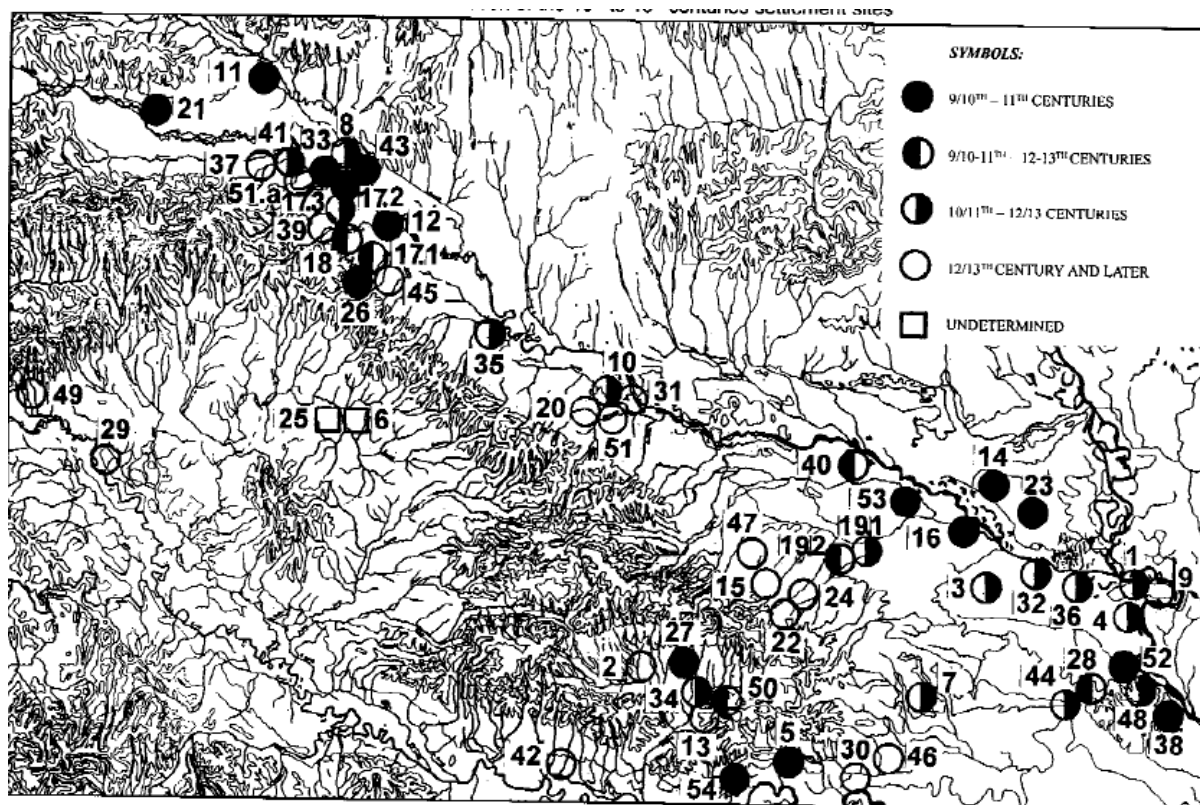


Figure 5.3. Sekelj Ivančan's map of ninth through twelfth century settlement sites in northern Croatia (*Early Medieval Pottery*, 111).

Lacking any previous such efforts in northern Croatia, Sekelj Ivančan analyzed ceramic studies from other parts of the Carpathian Basin, particularly from Slovakia. Modeling her work on these other studies, Sekelj Ivančan classified pottery by its size, material and methods of production, form and function, and decoration. For each of these broader categories, she looked at some more specific attributes.

Once Sekelj Ivančan had sorted the pottery, the next step was to place these various forms into some sort of chronological scheme/paradigm. This is where the lack of knowledge about the provenance of many of these finds created a problem. She had to rely largely on a comparison with other ceramic studies in the Carpathian Basin. Along with this other studies, Sekelj Ivančan was able to create an estimated chronology for each type using the archaeological context of those sherds and pots whose provenance was known.

Due to the present state of ceramic studies in northern Croatia, the effectiveness of analyzing spatial distribution patterns of pottery is somewhat limited. This is in part due to the small sample size of ceramics for the region, which makes it difficult to draw any conclusions on the available data. Further, pottery seems to differ less over space than do other artifacts such as jewelry. It appears, therefore, that most differences in pottery assemblages from site to site are the result of differences in time rather than space. The decoration of medieval pottery in northern Croatia – which one may expect to vary the most from one region to another – shows little spatial variation (see maps at the end of this chapter in Figure 5.4). It is hypothesized that some variation would emerge if the relatively small sample size of potsherds analyzed here was enlarged not only spatially but also in quantity. In addition, studies of specialized ceramic vessels, such as Miklós Takács’s study of clay cauldrons²⁰⁰, should provide some more distinctive patterns of distribution (see Figure 5.5 at the end of this chapter).²⁰¹

Other Artifacts

The increased interest in the archaeology of daily life has produced some tantalizing finds that should provide great opportunities for future research. The discovery of fish skeletons at Vukovar – Lijeva bara and iron fish hooks and net weights at Kostol (Serbia) reveals the importance of fishing to early medieval villagers along the Danube.²⁰² In addition to the fish hooks and weights, Gordana Marjanović-Vujović’s research at the Kostol site in northeast Serbia has revealed bone tools, pottery loom weights, ploughshares, sickles,

²⁰⁰ Tonkessel in German.

²⁰¹ Miklós Takács, *Die Arpadenzeitlichen Tonkessel in Karpatenbecken*, Varia archaeologica Hungarica (Budapest: Institut für Archäologie der Ungarischen Akademie der Wissenschaften, 1986).

²⁰² Archaeologists found fish and animal skeleton held clutched to the deceased’s chest in the burials of Vukovar – Lijeva bara. Demo, *Vukovar – Lijeva bara*, 115; Gordana Marjanović-Vujović, “Kostol: Medieval Settlement and Cemetery,” *Arheološki pregled* 1986: 86-87.

cooking pots, stone ovens, simple wooden furniture, and hoards of iron tools.²⁰³ She has also found a wide variety of eco-facts, including bones of a variety of domesticated and wild animals.²⁰⁴ Željko Demo recently completed a study of bone and horn tools from the Archaeological Museum of Zagreb.²⁰⁵

Other older finds, providing some hints about daily life, still need to be researched further. In the early 1980s, Zorko Marković investigated a blacksmith's workshop that has been dated to sometime between the eighth and tenth centuries.²⁰⁶ Already mentioned is the fort of Mrsunjski Lug from south-central Slavonia. Although excavated by Zdenko Vinski and the Archaeological Museum of Zagreb in 1949, I believe modern methods and new questions could help us learn more from this site. Besides finding pottery, he also cited the discovery of ovens, many wrought iron nails, jewelry, and spurs, to name a few.²⁰⁷

Conclusions

Originally, I had intended for this study of the archaeology of settlements and daily life to be a core part of this thesis. Unfortunately, reality has a tendency of tempering one's goals. The limited amount of published research in this field makes it difficult to draw any broad conclusions about the region as a whole based on such limited evidence. Rescue archaeology, in many ways, is perhaps the greatest hope for providing new information on the daily life of tenth through eleventh century people in Slavonia. Likewise, the increased interest in the field by a new generation of archaeologists is increasing our knowledge of medieval settlements at an exponential rate.

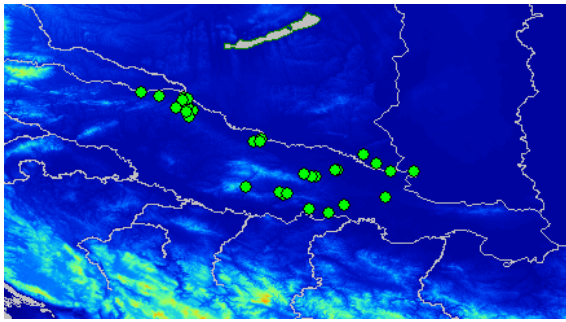
²⁰³ Marjanović-Vujović, "Kostol," 86.

²⁰⁴ Marjanović-Vujović, "Rural Settlements in the 9th and 10th centuries in the Danube valley in Serbia," in *From the Baltic to the Black Sea: Studies in Medieval Archaeology*, edited by David Austin and Leslie Alcock (London: Unwin Hyman, 1997), 236-246.

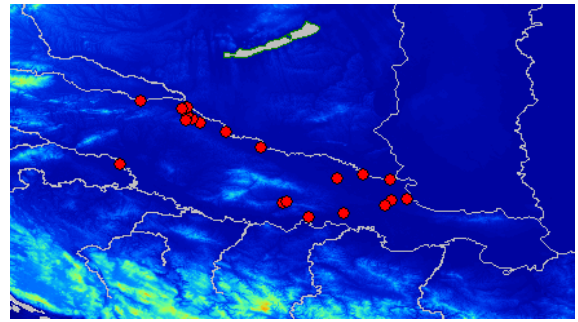
²⁰⁵ Željko Demo, "Early Medieval Objects of Bone and Horn in the Archaeological Museum in Zagreb," *Starohrvatska prosvjeta* 3, no. 34 (2007): 137-149.

²⁰⁶ Zorko Marković, "Seče: Koprivnički Bregi, Koprivnica – prehistoijsko i srednjovjekovno naselje" [Seče: Koprivnički Bregi, Koprivnica – A Prehistoric and Medieval Settlement," *Arheološki Pregled* 23 (1982): 37-38.

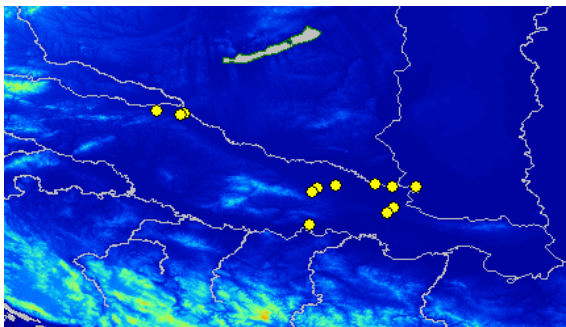
²⁰⁷ Vinski, "Mrsunjski lug."



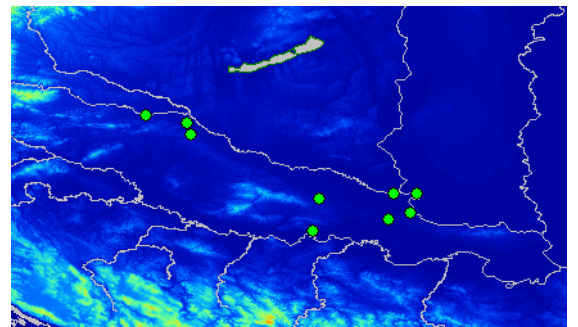
A. Single or double wavy line



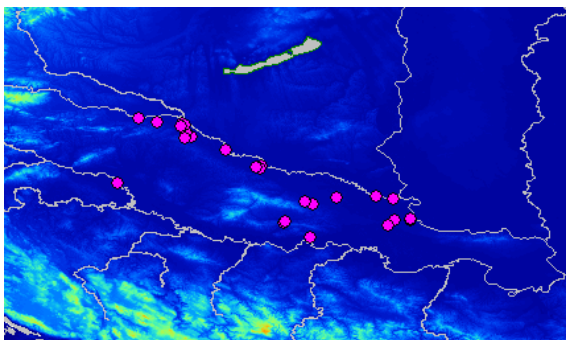
B. Combed wavy line



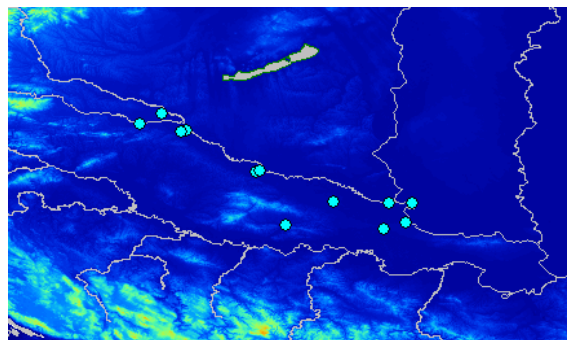
C. One or two wavy lines



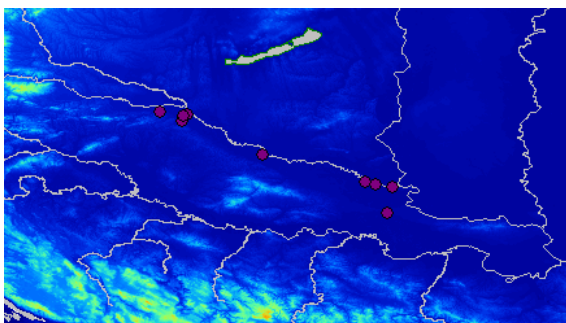
D. Multiple horizontal lines



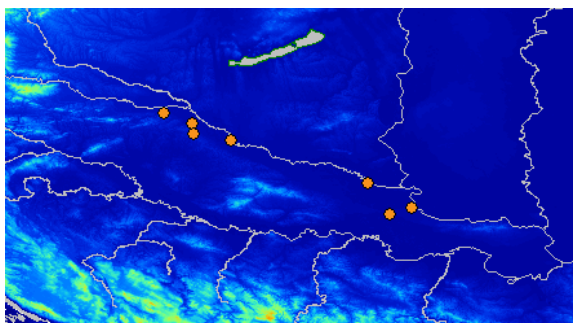
E. Comb. of wavy & horizontal lines



F. Rouletting



G. Decoration with a blunt instrument



H. Comb. of impressed & other decoration

Figure 5.4. Distribution of pottery decoration types in northern Croatia. Note: no pottery data from outside northern Croatia was included (Data from Sekel Ivančan, Early Medieval Pottery in Northern Croatia).

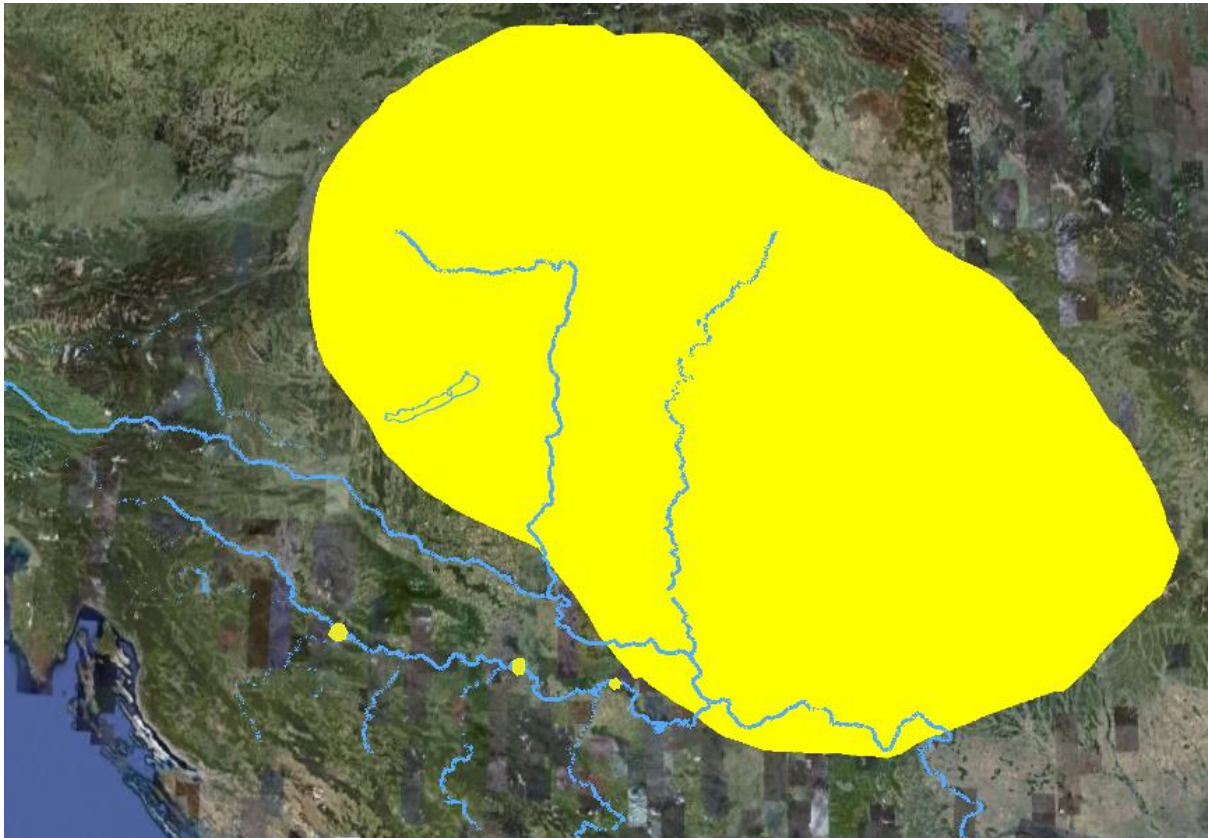


Figure 5.5. Map showing a rough approximation of the extents of the clay cauldron (large yellow polygon) with a few outliers along the Sava (small yellow circles). Miklós Takács, *Die Arpadenzeitlichen Tonkessel in Karpatenbecken*, *Varia archaeologica Hungarica* (Budapest: Institut für Archäologie der Ungarischen Akademie der Wissenschaften, 1986), inset maps.

CONCLUSION

In the past, much of the archaeological research done in Southern Pannonia has focused on the most visible evidence of the medieval past in the region: cemeteries.²⁰⁸ Besides the obvious study of burial practices, these cemeteries have primarily been used to answer the questions of *where* and *when*. However, in trying to answer the question of *where*, I believe that mapping the distribution patterns of artifacts such as grave goods can also provide some clues about the living. Not only do they tell us about the burial culture of a particular community, but these distribution patterns can at least provide some hints about the trade, communication, and even spiritual networks that existed in the Middle Ages. This means that beyond questions of *where* and *when* the dead were buried, these cemeteries can also provided answers to questions such as what was the nature of human interaction and activity. In seeking an answer to this question, archaeologists look for patterns. However, this still leaves out what David Hurst Thomas calls the “ultimate objective” of archaeology: identifying cultural processes.²⁰⁹ According to Stanton W. Green and Stephen M. Perlman this step “simply describes *how* a human activity is expected to occur.”²¹⁰ The dilemma, then, is how to try to answer these latter two questions when the evidence available most obviously lends itself to the former two.

As Green and Perlman argue, it can be difficult for archaeologists to observe directly *how* cultural processes occur, thus they first seek out patterns, as I have done here.²¹¹ The danger, however is in the way patterns are sought. According to them, establishing a

²⁰⁸ In northern Croatia at least, a younger generation of archaeologists have begun to explore other types of sites, ask new questions, and employ new technologies in the last two decades. Two of the most notable are Tajana Sekelj Ivančan and Tatjana Tkalčec.

²⁰⁹ David Hurst Thomas, *Archaeology: Down to Earth* (Fort Worth: Harcourt Brace Jovanovich College Publishers, 1991), 50-56.

²¹⁰ In “Frontiers, Boundaries, and Open Social Systems” Green and Perlman describe and contrast the roles of pattern and process in archaeology. In *The Archaeology of Frontiers and Boundaries*, edited by Stanton W. Green and Stephen M. Perlman (Orlando: Academic Press, 1985), 4-6.

²¹¹ Green and Perlman, “Frontiers,” 5-6.

typology in order to identify patterns “implicitly” carries a “closed concept of culture.”²¹² However, human interactions, and therefore cultural processes, do not happen in a closed system. The problem then arises when archaeologists define material culture groups and establish their geographical limits with somewhat arbitrary boundaries. This provides the perception of a closed system, when in fact, in most cases, patterns of human interaction are much more complex and fluid.

Further exacerbating this tendency to create boundaries, and therefore creating a “closed view” of culture, is that the interpretation of both the historical and the archaeological evidence is often colored by modern perspectives of nation-states. I believe that this phenomenon has influenced both the research of historians as well as archaeologists. We very readily observe differences and perceive borders. Due to the nature of the sources, medieval historians are particularly perceptible to this. Historical sources, often written by the powerful ruling or religious classes expressing some facet of a struggle for power, easily lend themselves to such a view.

Medieval archaeology has the potential to present a fuller picture of the past. Archaeological evidence often contradicts the historical, as “commoners” – rich graves notwithstanding – are just as likely to leave evidence behind as the rich, powerful, and educated. The archaeological evidence found along borderlands – as identified by the historical sources – often show very little, if any, differences across these perceived borders. Regardless of any real or perceived differences in the authority of political or religious entities, the similarities in both artifact assemblages and sites suggests that these regions were characterized more by contact than conflict. Economic and social networks bridged gaps more than political, religious, or ethnic differences made them.

²¹² Green and Perlman, “Frontiers,” 6.

However, archaeologists also share the tendency of historians to draw borders. This is further exacerbated by the emphasis on classifying and delineating groups and identifying differences. It is of course fine to say that the medieval people of Baranya buried their dead with somewhat different adornments than did the people of western Slavonia. Yet it becomes a problem if these differences are exaggerated while similarities are ignored. Furthermore, the tendency to divide regions into material culture zones can really become a problem when material evidence is used to draw conclusions that it cannot. In medieval archaeology, this tendency particularly manifests itself when artifacts are used as indicators of ethnicity. In her recent master's thesis at Central European University, Dóra Mérai, wrote a withering critique of one archaeologist's use of certain types of cemeteries and certain artifacts to identify "Slavic" people.²¹³ While seemingly more pronounced in Europe, this association of material culture with perceived ethnic qualities is also found in North America. For example, archaeologists in the American Southwest for a long time had this notion that the Pueblo people were inherently peaceful people, while their neighbors were violent and nomadic. Therefore, any evidence of sedentary life – from fixed settlements to pottery – often was automatically classified as "Pueblo."

With these limitations and concerns in mind, I have strived to identify spatial patterns without confining myself to any pre-conceived notions of boundaries. The spatial patterns that emerged revealed that a very complex level of exchange took place in medieval Southern Pannonia. In particular, the rivers - which are often viewed as the natural borders of the region - appear to have been conduits for trade and interaction rather than barriers of separation. The role of rivers as meeting places and transportation routes can especially be seen near the confluence of the Drava and Danube. Here archaeologists have not only identified a dense concentration of sites, but also sites that lie on all three sides of the

²¹³ Dóra Mérai, "*The true and exact dresses and fashion*": *Ethnic and Social Aspects of Archaeological Remains of Clothing in Early Modern Hungary* (Budapest: Central European University, master's thesis, 2007).

confluence (see map in Figure 2.1). In addition, the similarity of the artifacts found at sites lying on opposite sides of this confluence is often greater than between sites on the same side of the river. For example, I have already observed greater similarities between the sites of eastern Slavonia and Baranya (i.e. Vukovar – Lijeva bara and Majs – Udvari rétek) than between western and eastern Slavonian sites (see Tables 1 and 2 in Appendix D). Others have observed the placement of sites near strategic river-crossings indicating the importance of transfluvial trade routes.²¹⁴

Given these observed patterns, just what was medieval Slavonia's role as a "place between"? Such places are often labeled as frontiers or borderlands. While seemingly similar, historians have approached these two conceptions in different ways. Frontiers are linear boundaries which divide different ethnic groups, nations, religions, or socio-cultures (ie. sedentary v. nomadic). Procopius described the Danube of Antiquity in such a way when he wrote, "When the river Ister gets close to Dacia, for the first time it clearly forms the boundary between the barbarians, who holds its left bank, and the territory of the Romans, which is on the right."²¹⁵ This idea of linear borders between "Us" and "Them" or between the "Civilized" and "Barbarians" became popular in modern historiography with Frederick Jackson Turner's thesis about the importance of the frontier in American history.²¹⁶ The idea often assumes a low level of interaction took place on the "frontier," and often what contact took place was perceived to be hostile in nature.

²¹⁴ In regard to several sites, Tomičić has noted the importance of a nearby river crossing to the location of the site. For example, in discussing the medieval "cemetery near the village of Josipovo," referred to in the archaeological literature as the site "Ciganka – Mesarna" (#709), he noted the proximity of a river "passage" over the Drava. Tomičić, *Panonski periplus*, 190. Likewise, Sekelj Ivančan describes the importance of river crossings to the development of a concentration of sites in the areas surrounding Donji Miholjac and Vitrovica. Sekelj Ivančan, *Early Medieval Pottery in Northern Croatia*, 116.

²¹⁵ Procopius quoted by Curta in his introduction to *Borders, Barriers, and Ethnogenesis: Frontiers in Late Antiquity and the Middle Ages*, edited by Florin Curta (Turnhout, Belgium: Brepols, 2005), 1. Originally from Procopius, *Buildings* 4.5, edited by J. Haury, English translation by H. B. Dewing (Cambridge MA, 1940), 267.

²¹⁶ Frederick Turner, "The Significance of the Frontier in American History," *Annual Report of the American Historical Association* (1893): 199-227.

The application of the concept of “frontier” to medieval European history has come under attack, just as it did in the United States where the idea was popularized. Florin Curta, for instance, has criticized the continuous re-appearance of “frontier stereotypes” in Late Antiquity studies, reinforced by “text-driven archaeology.”²¹⁷ He describes how today historians view Procopius’ “frontier-as-barrier” idea as propaganda.²¹⁸ Walter Pohl agreed, as he argued that frontiers – and their physical markers such as dykes, walls, barriers, and forts - were more often than not symbolic rather than defensive.²¹⁹ While the complex history of tenth and eleventh century Slavonia is generally outlined in more nuanced terms, the influence of the frontier concept is readily visible. For instance, Tomičić often emphasizes the presence of “autochthonous” Slavs. In his description of the population buried in the Popovec – Bregi cemetery in the Kalnik Hills,²²⁰ he writes: “that population, undoubtedly autochthonous Slavs, should be identified with the Croatian population which settled that historic area of central Croatia.”²²¹ It is unclear what provides Tomičić with this confidence. The power of maps - the way in which they implicitly convey arguments and their ability to influence perception - should not be ignored either. Maps commonly depict the Drava and Sava as borders that separate rather than connect Slavonia with its neighbors and similarly and frequently show the Drava as a border between Hungary and Croatia, without explaining what evidence supports these assumptions.

A similar conception, which supposes even less interaction, is the concept of a “no man’s land” or a “buffer zone.” Several Croatian historians have described Slavonia in this

²¹⁷ Curta, “Introduction,” in *Borders, Barriers, and Ethnogenesis*, ” 1.

²¹⁸ Curta, “Introduction,” in *Borders, Barriers, and Ethnogenesis*, ” 1-2.

²¹⁹ Walter Pohl, “Frontiers and Ethnic Identities,” 255-265.

²²⁰ Site #445 in Appendix A.

²²¹ Tomičić, “Kalničkom Prigorju,” 122. At other points, Tomičić identifies differences in the Bijelo Brdo complex of eastern Slavonia with that of Hungary as evidence of “autochthonous” development. Similarly, with the Hungarian cemetery of Majs, he argues that the different types of burials goods indicate – not separate social classes as Attila Kiss had argued – but two separate ethnic groups: an “autochthonous” Slavic population and an “Old Hungarian” settlement. See, respectively: Tomičić, “Bijelo Brdo II,” 117 and “Majs-Udvar,” 85.

way.²²² Although these terms generally are used to describe the low population levels of “places between,” they also imply separation and difference much like the frontier concept. Moreover, the concept of “buffer zone” implies that the low activity levels are intentional for defensive or military reasons and not the result of any geographic or economic circumstances in the region. While tenth and eleventh century Slavonia did have low levels of population, the population levels were not that low compared to the surrounding regions. Some parts of Slavonia - especially along the Drava and Danube in northern Croatia – were actually quite populated for the time period.

In contrast to the concept of frontier, the idea of “borderlands” suggests high levels of interaction within *places that lie between*. Rather than focus on these areas as peripheral areas to centers of population and power, borderlands studies view these marginal areas as center of interaction and exchange. Goods, ideas, and beliefs are exchanged in borderlands. In his ground-breaking work on the borderlands of French and English colonial America, Richard White called these places “middle grounds” where something new could be created.²²³ Not only new goods and new ideas would be created, but also even new (syncretic) religions and ethnic groups.

It is my conclusion that tenth and eleventh century Slavonia was a borderland and a place of exchange rather than a frontier or no man’s land. The archaeological evidence shows that artifacts – as well as material preferences and production methods associated with these artifacts – were found in equal measure on opposing sides of alleged borders. The medieval people of western Slavonia buried their dead with very similar grave goods as did those who lived in the Carinthian march. Likewise, the burial goods of northern Bosnia share

²²² Tomičić used the term “tampon proctor” or buffer zone to describe the region, while Sekelj Ivančan described Slavonia as a “no man’s land” or *terra nullius*. Meanwhile, Nada Klaić described eleventh century Slavonia as a land of “chaos.” Curta also used the term “no man’s land,” however he was primarily referring to the area north of the Kupa river, which is now part of west-central Croatia. Tomičić, *Panonski periplus*, 25; Sekelj Ivančan; Curta, *Southeastern Europe in the Middle Ages*, 256.

²²³ Richard White, *The Middle Ground: Indians, Empires, and Republics in the Great Lakes Region, 1650-1815*, Cambridge studies in North American Indian history (Cambridge: Cambridge University Press), 1991.

many similarities both with Adriatic sites and Slavonian sites, and likewise with the already cited similarities between eastern Slavonian sites and Baranya. Differences between sites seem to be in direct proportion to the distances between them rather than to any possible borders.

Were there borders? Certainly, but not to the degree that historians often presume based on historical evidence. Just as Procopius now stands accused of hyperbole and propaganda in his descriptions of the Roman frontier, so too is it likely that many early medieval authors exaggerated differences. Raymond d'Aguiliers highly stereotyped depiction of the “brigands” of “Slavonia” that the Crusaders encountered (which I quoted in Chapter 1) most probably tells us more about the biases and motives of the author than it does about the actual people of the Balkans. Even if some clearly defined ethnic, political, or religious borders did exist in early medieval Southern Pannonia – and I am not willing to hypothesize the existence of any well-defined borders in the region, the archaeological evidence demonstrates that these borders did in no way disrupt economic exchange. In addition, the inherent spiritual significance of burial goods also seems to indicate that these borders did not interrupt religious and cultural exchange as well.

So far, I have discussed the great similarities that existed across ethnic, political, and religious groups in Southern Pannonia. Yet, I identified several important regional differences in the material culture of the area in Chapters 3 and 4. These differences are important, but not in the typical ways they are used: that is to emphasize ethnic or religious divides, or as an attempt to support a particular historical interpretation. Rather, these differences indicate the presence of a complex network of social, cultural, and economic exchange; a network influenced by natural obstacles, trade routes, centers of production and exchange, and even historical ties.

While the Bijelo Brdo material culture dominated the burial assemblages of the tenth and eleventh centuries found throughout the Carpathian Basin, the spatial variability in the appearance of some forms presents the possibility to identify some sub-material cultures. In Chapters 3 and 4, I observed several overlapping zones of exchange. These zones are presented in the maps below (Figures 6.1 – 6.5).

The first map shows a very rough approximation of the extents of some major tenth and eleventh century material cultures in the region. This map provides an overly simplistic representation of much more complex patterns of exchange. Below that, the other maps showing the distribution of a variety of artifacts demonstrates that not only were these artifacts found across ethnic, political, and religious borders, but across material culture borders often assumed by archaeologists.

The second map (Figure 6.2) shows the distribution of serpent-head bracelets which I discussed in some detail in Chapter 3. I observed a particular concentration of these artifacts centered around the confluence of the Drava and Danube, which is represented by the smaller blue sphere. However, expanding my map to include northern Pannonia shows that this concentration was just the southernmost extent of a very wide distribution pattern that covered much of northern Pannonia. Nonetheless, this map does indicate the link between the sites of eastern Slavonia and those of Baranya. The distribution of the luxurious crowned finger-ring (type 38a) supports this observation (Figure 6.3).

Showing a different, but equally important pattern is the distribution map of grape-like earrings (types 14-17b). With two exceptions, grape-like earrings are overwhelmingly found in western Slavonia, as well as the upper reaches of *Međurječja* (i.e. Ptuj - Grad), and northwest Bosnia (i.e. Baltine bare) (see Figure 6.4 – purple). Tomičić hypothesized that mineral ore was mined in the mountains of northern Bosnia and then crafted in local artisan workshops in the region. Given the concentration of these objects at Ptuj – Grad, similar

mining activity can presumably be hypothesized for the eastern Alps as well. The two exceptions to this network are found in two sub-variants of grape-shaped earrings: a particular type of cast crescent earrings (15c) believed to have originated along the Adriatic and granulated Volin-type earrings (17a) believed to have been produced in Kievan Rus. The distribution of cast crescent earrings indicates not only connections between Dalmatian Croatia and Slavonia, as Tomičić argued, but also stretching to the east into Syrmia, and even a few examples found in Romania and Albania (Figure 6.4 – yellow).²²⁴ Finally, the original, finely granulated Volin-type earrings are evidence of a long-distance network of exchange extending from eastern Slavonia all their place of origin in western Ukraine (Figure 6.4 – red).

Further supporting a particular network of exchange in western Slavonia are some varieties of two-part pendants and necklaces predominantly found in the region (Figure 6.5 – red and purple). However, to set apart western Slavonia and to argue for the unique trade connections of this region would be to overly simplify the picture. Other types of pendants, while found in western Slavonia, also are found as far south as the Adriatic and as far north as Lake Balaton (Figure 6.5 – blue). The emerging picture is one of a complex system of overlapping and dynamic cultural and economic exchanges zones.



In conclusion, the distribution of artifacts in Southern Pannonia indicates the existence of a variety of exchange networks in the region during the tenth and eleventh century (see for example, Table 4.8 as well as the maps at the end of this chapter). These exchange networks cut across political borders, potential natural borders (i.e. rivers), and ethnic groups, demonstrating a more complex situation than the historical sources – and many modern historical interpretations – portray.

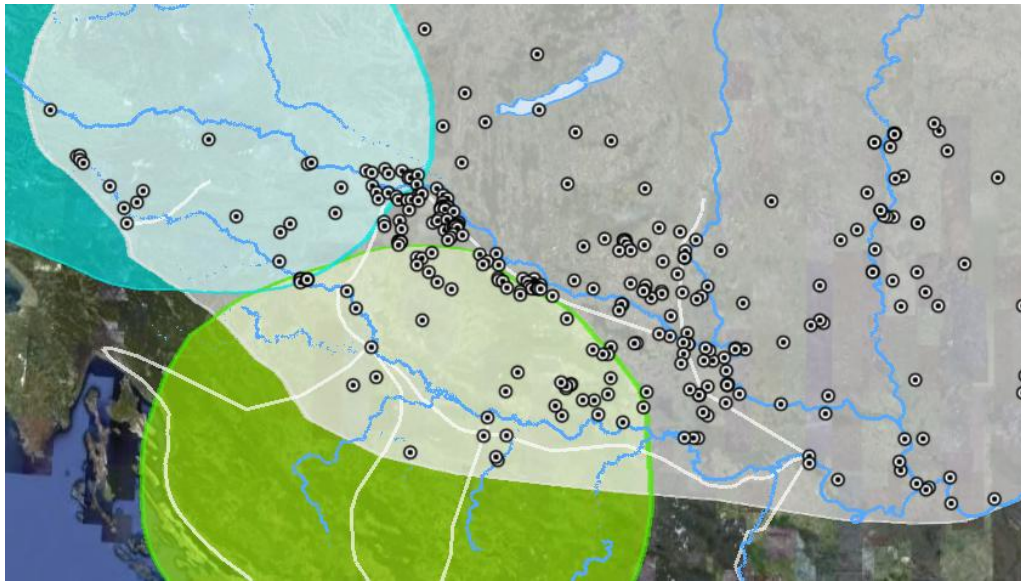
²²⁴ Tomičić, “O nekim vezama,” 154.

In terms of material culture, the core area of this study, Slavonia, was neither a linear frontier that divided clearly distinct groups, nor was it a no man's land. Rather, tenth through eleventh century Slavonia was a borderland – a place where trade and exchange flourished. However, I believe it would be a mistake to use a few vague references from historical sources to argue that Slavonia was a cohesive region, unique from its neighbors. The observed exchange networks in Southern Pannonia, as noted particularly in Chapter 4, more often than not served to connect Slavonia with its neighbors.

Similarly, despite the many regional variations in the material culture of the region observed here, it should be emphasized that overall Slavonia shared more similarities with its neighbors than differences. These similarities simultaneously expose the faults in both historical and archaeological evidence from the period. The historical sources, written by the powerful few, seem to over-emphasize the importance of political events. Likewise, one could argue that archaeological evidence under-represents political events. These political events, at least in medieval Slavonia, are not reflected by the material evidence. While I have already explained the error in acquainting material culture with ethnicity, material culture does in many ways serve as evidence of daily life. If this is so, then the artifacts of tenth through eleventh century Slavonia indicate that the daily life of its people was not affected in any great way by the political turmoil depicted in the historical sources. However, this is not to suggest that these political changes lacked significance to the people of the region; rather, it just appears that these events did not radically alter the daily life of people because political centers of power did not seem to wield as much power and influence in the early to central Middle Ages as people today often imagine.

This study began with the modest endeavor to trace links between the material culture of tenth and eleventh century Slavonia with its neighbors in the surrounding regions of Southern Pannonia. The result certainly has not completely lifted the fog that obscures this

place and time in history. However, the picture that has begun to emerge – one of multiple exchange networks and production centers but also many similarities across hundreds of kilometers – indicates much greater complexity than a traditional historical study could possibly reveal. The launch of new archaeological investigations and the employment of more modern and more varied methods should begin to produce new pieces of the puzzle. This will in turn allow more extensive studies than possible here, which by taking into account a diverse body of historical, archaeological, and scientific evidence, can begin to put these pieces together. Only then, can we begin to see medieval Slavonia for what I believe it really was: a complex center of exchange and interaction largely impervious to the political struggles being waged on its behalf.



Figures 6.1. A very rough approximation of the core areas of the Bijelo Brdo (white), “Old Croatian” (green), and Köttlach (blue) material cultures. Please note that forms from all three of these material cultures are found outside these zones. As just one of many examples, Köttlach forms have been found as far east as Romania. These colored polygons are meant merely as general indicators of the locations where these material culture items most frequently appear.

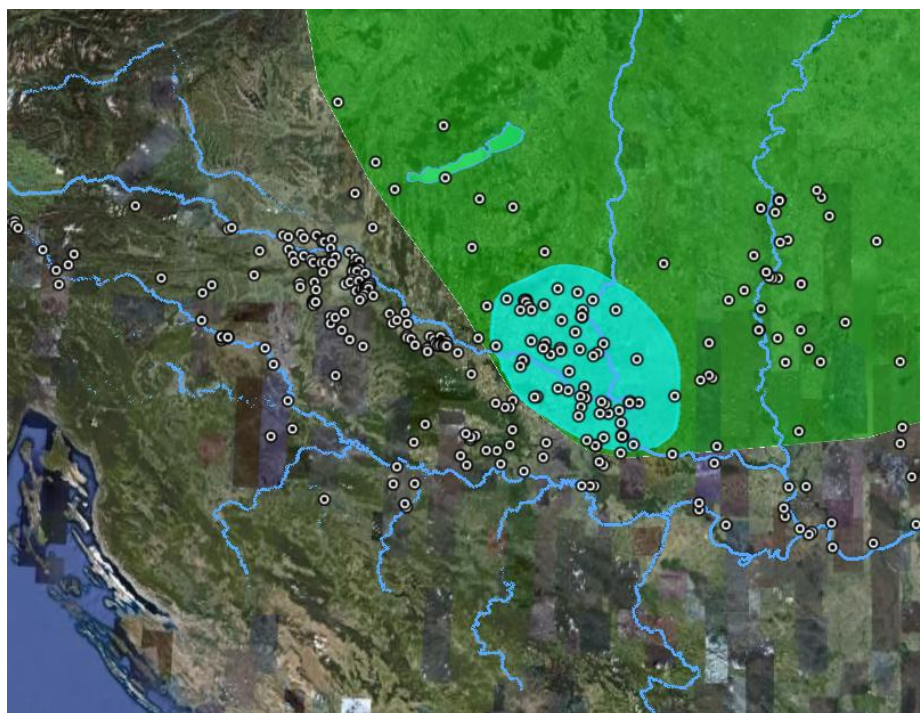


Figure 6.2. Map showing the extent of serpent-head bracelets (type 8). The blue polygon represents the dense concentration of these bracelets I observed in Baranya and eastern Slavonia, while the green sphere represents the larger distribution area of this artifact charted by Giesler (“Untersuchungen zur Chronologie der Bijelo-Brdo Kultur,” Table 51.1). See Appendix A for sources and Appendix C for list of sites with this artifact.

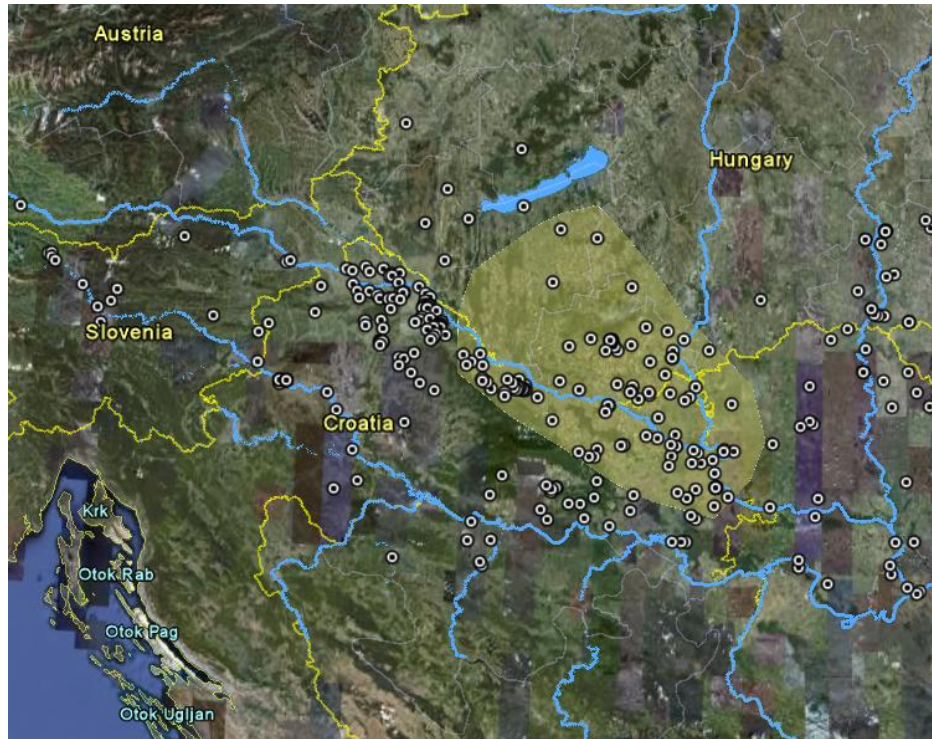


Figure 6.3. Map showing the extent of luxurious finger-ring type 38a. The concentration of this artifact near the confluence of the Drava and the Danube is very similar to that of the serpent-head bracelets, shown above. See Appendix C for locations.

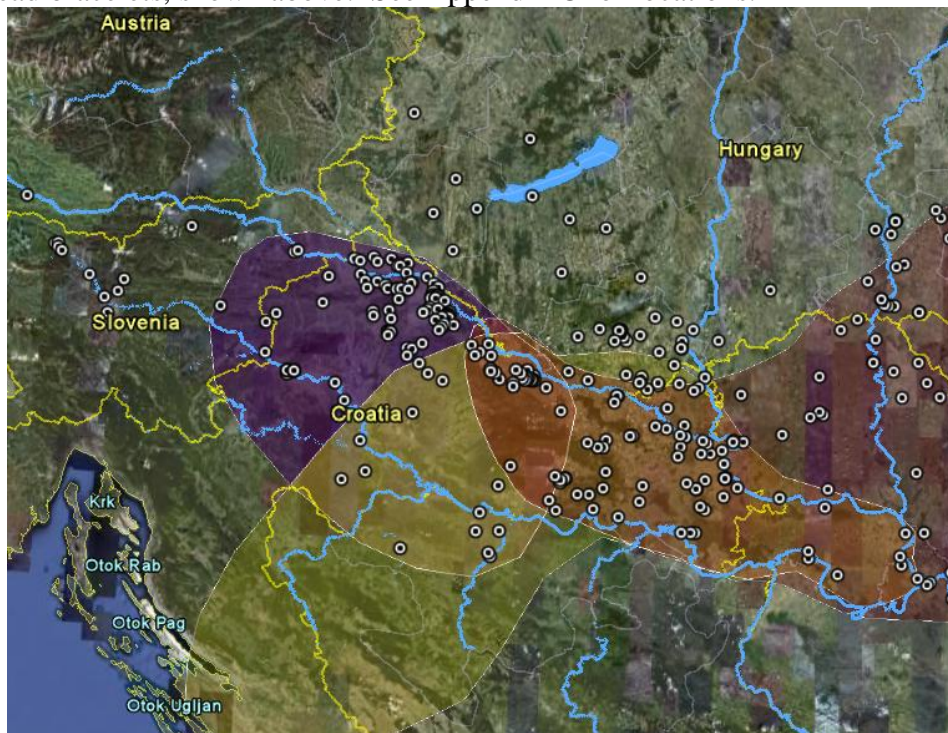


Figure 6.4. Map showing the extent of grape-like earrings. In Chapter 3 I identified the clearly western orientation of most grape-like earrings (types 14, 15, 16, and 17b - purple) – with the exception of cast crescent earrings (type 15c – yellow) which show links with the Adriatic – and the eastern orientation of granulated Volin-type earrings originating from Kievan Rus (type 17a – red).

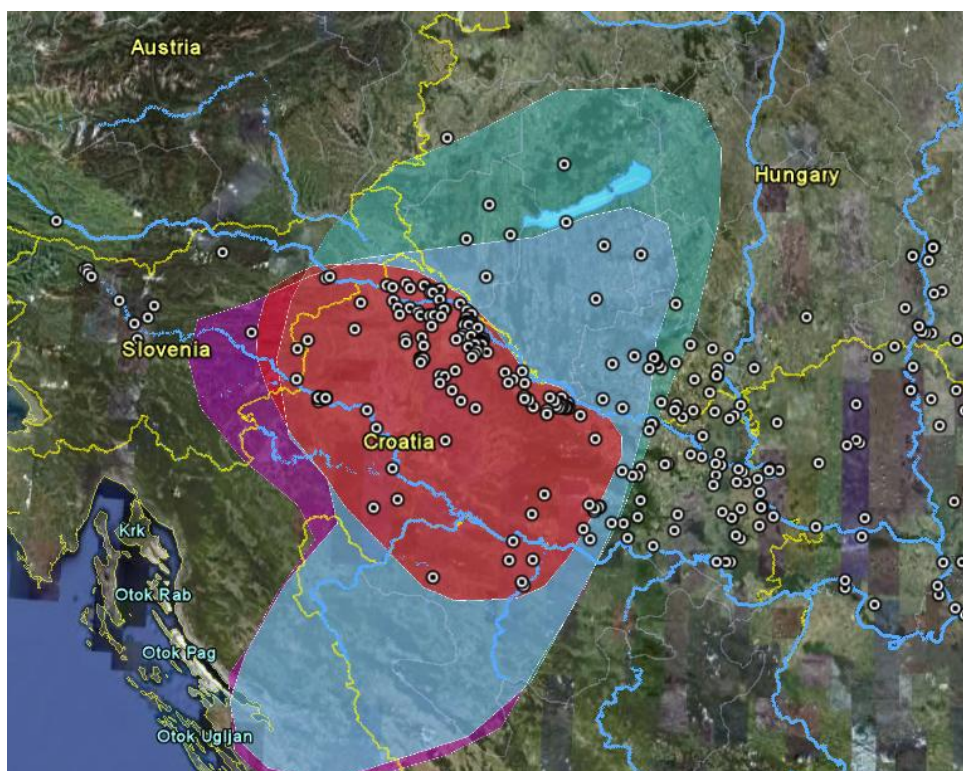


Figure 6.5. Map showing the extents of different variations of two-part pendants (type 9) including: Demo sub-type 6 (purple), Demo sub-type 16 (blue), and necklaces adorned with two-part pendants (red).

APPENDICES

Appendix A: The Sites

For practical, rather than historical reasons, all archaeological sites used in this study are classified first according to their present-day country. Sites #1-822 were catalogued by Tajana Sekelj-Ivančan in her 1995 book entitled, *Catalogue of Medieval Sites in Continental Croatia*. Therefore, I used her numbering and classification system for these sites. The rest of the sites I numbered myself, including other Croatian sites which have since been discovered (#1001-#1076), Bosnian sites north of the Dinaric Alps (#2001-#2008), Hungarian sites generally south of the 47 parallel and/or the northern tip of Lake Balaton (#3001-#3062), Slovenian Sites (#4001-#4016), northern Serbian sites (#5001-#5040), as well as one Austrian site (#6001) and a few select Romanian sites (#7001-#7006) at the very edges of this study. This list includes settlements (S), forts (F), and cemeteries (G), however the majority of sites studied outside of northern Croatia are cemeteries.

Sites in present-day Croatia:

Site #	Site Location	Toponym	Location	Type of Site	Sources – Site Information	Sources – Artifact Information
3	Stenjevec	Župni voćnjak (The Parish Orchard)	A2	G	Sekelj-Ivančan 1995; Simoni 1981:156, Simoni 1994	Mirnik 2005; Simoni 1981:156, Simoni 1994
4	Stenjevec	Župni vrt (Parish Garden)	A2	G	Sekelj-Ivančan 1995; Simoni 1994	Simoni 1994
5	Stenjevec	Cirkvišće	A2		Sekelj-Ivančan 1995;	
6	Susedgrad	Susedgrad	A2	G, F	Sekelj-Ivančan 1995;	
8	Zagreb	Gradska vijećnica	A2		Sekelj-Ivančan 1995; Simoni 1981: 166	Simoni 1981: 166
10	Zagreb	Kaptol (Bakačeva kula / tower)	A2	G	Ercegović 1960: 250; Sekelj-Ivančan 1995; Simoni 1981: 163;	Simoni 1981: 163;
21	Novaki Nartski	Šljunčara (Pebble exploiting area) (?)	B2		Sekelj-Ivančan 1995;	
23	Kravljak	Tušćak		F	Sekelj-Ivančan 1995;	
65	Velika Horvatska	Velika Horvatska	A1	G	Sekelj-Ivančan 1995; Simoni 1981: 165, 1986: 219, 224;	Simoni 1981: 165, 1986: 219, 224;
82	Voća Donja	Vindija	B1	S	Sekelj-Ivančan 1995;	
102	Lobor	Sv. Marija Gorska (St. Mary of the Hill)	B1	F	Sekelj-Ivančan 1995;	Filipec 2003;
110	Belica	Gradište	B1	F	Pribaković 1956: 136; Sekelj-Ivančan 1995; Tomičić 1978: 210, 220;	Tomičić 1978: 210, 220;
111	Cirkovljan	Sv. Lovre (St.	B1	G	Sekelj-Ivančan 1995;	

		Laurence)				
113	Donja Dubrava	Donja Dubrava	B1	S	Sekelj-Ivančan 1995;	
115	Dvorišće	Gradišće - Močvare II	B1	F	Sekelj-Ivančan 1995;	
116	Goričan	Zupni vrt (Parish Garden)	B1	S	Sekelj-Ivančan 1995;	
117	Goričan	Gorica	B1		Sekelj-Ivančan 1995;	
118	Goričan	Gudlinov vrt (Gudlin's Garden)	B1	G	Sekelj-Ivančan 1995;	
121	Modošan	Velika Gorica	B1		Sekelj-Ivančan 1995;	
122	Juraj u Trnju	Kroščić	B1	G	Sekelj-Ivančan 1995;	
123	Juraj u Trnju	Osnovna škola	B1	G	Sekelj-Ivančan 1995; Tomičić 1998	Tomičić 1998
125	Mala Subotica	Župna crkva (The Parish Church)	B1	G	Sekelj-Ivančan 1995;	
132	Šenkovic	Sv. Helena (St. Helen)	B1	G	Tomičić 1978: 210, 215-6; 220; Bojčić 1984: 219; Sekelj-Ivančan 1995;	Tomičić 1978: 210, 215-6; 220; Bojčić 1984: 219;
135	Čakovec	Buzovec	B1		Sekelj-Ivančan 1995;	
140	Ludbreg	Crkva Presvetog Trojstva (The Church of the Holy Trinity)	B1	G	Simoni 1984: 73; Sekelj-Ivančan 1995; Tomičić 1999 (? <i>Panonski periplus</i>);	Simoni 1984: 73; Tomičić 1999 (<i>Panonski periplus</i>);
141	Ludbreg	Gmajna	B1	F	Simoni 1984: 73; Sekelj-Ivančan 1995; Tomičić 1999 (<i>Panonski periplus</i>);	Simoni 1984: 73; Tomičić 1999 (<i>Panonski periplus</i>);
146	Martijane c	Koznišćak	B1		Sekelj-Ivančan 1995;	
150	Petar Ludbreški	Kolibe	B1	F	Pribaković 1956: 138; Sekelj-Ivančan 1995; Tomičić 1978: 210; Tomičić 1999 (<i>Panonski periplus</i>);	
153	Sigetec Ludbreški	Loke (Kroglice)	B1	S	Sekelj-Ivančan 1995;	
158	Veliki Bukovec	Dvorac Drašković (Drašković's Castle)	B1	G	Sekelj-Ivančan 1995; Tomičić 2000 (Veliki Bukovec);	Tomičić 2000 (Veliki Bukovec);
163	Kneginec Gornji	Sv. Marija Magdalena	B1	F	Sekelj-Ivančan 1995; Djurić 1981a: 53;	
167	Varaždin	Brezje	B1	S	Sekelj-Ivančan 1995;	
168	Varaždin	Stari Grad (The Old Town)	B1	F	Ilijanić 1967: 8-9; Sekelj-Ivančan 1995; Tomičić 1978: 210-211;	Tomičić 1978: 210-211;
187	Kloštar Podravski	Peski, Pjesci, Pijesci, Pesak	B2	G	Karaman 1956: 133; Ercegović 1958: 182; Sekelj-Ivančan 1995;	Karaman 1956: 133; Ercegović 1958: 182;
194	Otrovanec	Kopačevac, Selišće, Črlena Klisa	B2	G	Đrsović, Begović 1982: 91-92; Begović 1989: 112-116; Sekelj-Ivančan 1995;	Đrsović, Begović 1982: 91-92; Begović 1989: 112-116;
208	Stari Gradac	Kranjčev Breg	B2	G	Sekelj-Ivančan 1995; Vinski 1970: 80; Lovrenčević 1985: 177;	
211	Velika Črešnjevica	Vaktarna	B2	F	Sekelj-Ivančan 1995;	
214	Virje	Mačkovića, Volarski brijeg	B1			
226	Delovi	Grede I	B1	S	Marković 84; Sekelj-Ivančan 1995;	Marković 84
227	Delovi	Grede II	B1		Marković 84; Sekelj-Ivančan 1995;	Marković 84
228	Delovi	Grede III	B1		Marković 84; Sekelj-Ivančan 1995;	Marković 84
229	Delovi	Grede IV	B1		Marković 84; Sekelj-Ivančan 1995;	Marković 84
230	Delovi	Grede V	B1		Marković 84; Sekelj-Ivančan 1995;	Marković 84
231	Delovi	Grede VI	B1		Marković 84; Sekelj-Ivančan 1995;	Marković 84
232	Delovi	Keljače	B1		Marković 84; Sekelj-Ivančan 1995;	Marković 84
233	Delovi	Poljane	B1	S	Marković 84; Sekelj-Ivančan 1995; Kolar 1976: 106, 112	Marković 84
252	Javoravac	Poljan Grad	B1	F	Lovrenčević 1985: 168-169; 178; Sekelj-Ivančan 1995;	
255	Jeduševac	Staro selo (The Old Village)	B1	S	Kolar 1976: 112; Sekelj-Ivančan 1995;	
258	Koprivnica	Cerine III - Vratnec	B1	S	Sekelj-Ivančan 1995;	
262	Koprivnica	Drugi Slap –	B1		Sekelj-Ivančan 1995;	

		Ledare				
276	Koprivnički Bregi	Seče	B1	S	Marković 1982: 37-38; Sekelj-Ivančan 1995;	Marković 1982: 37-38;
292	Novigrad Podravski	Paligačev Mlin (Bunarić ?)	B1	F	Sekelj-Ivančan 1995	
293	Novigrad Podravski	Pavetićev mlin (Pavetić's Mill)	B1	G, F	Sekelj-Ivančan 1995	
304	Sigetec	Grad	B1	F	Kolar 1976: 113; Sekelj-Ivančan 1995	Kolar 1976: 113;
322	Đelekovec	Gornji Batijan I, Rebrowo	B1		Kolar 1976: 108; Demo 1983: 271; Sekelj-Ivančan 1995	Kolar 1976: 108; Demo 1983: 271;
325	Đelekovec	Jagnjeda, Jegeneš, Tursko Groble	B1			
327	Đelekovec	Ščapovo	B1	G, S	Mirnik 2005; Šmalcelj 1975: 130-133; Kolar 1976: 111-112; 1981: 33-39; Demo 1983: 271; Sekelj-Ivančan 1995	Mirnik 2005; Šmalcelj 1975: 130-133; Kolar 1976: 111-112; 1981: 33-39; Demo 1983: 271;
328	Bačevac	Mosr prema Kiselici Bridge towards Kiselica	B1	S	Sekelj-Ivančan 1995	
329	Borova Suhopoljska	Dabrovica	B1	S	Sekelj-Ivančan 1995	
333	Gačište	Japaga and Dolina	B1		Sekelj-Ivančan 1995	
334	Gačište	Okrugljak	B2		Sekelj-Ivančan 1995	
335	Gačište	Rečina	B2		Sekelj-Ivančan 1995	
336	Zvonimirovo / Gačište	Veliko polje	B2	G	Sekelj-Ivančan 1995; Tomićić 1996-7; Tomićić 2003; Tomićić 2005;	Tomićić 1996-7; Tomićić 2003; Tomićić 2005;
338	Gradina	Duljine	B2	F	Sekelj-Ivančan 1995;	
339	Gradska Brezovica	Ivanja	B2	F	Sekelj-Ivančan 1995;	
340	Jasik		B2	S	Sekelj-Ivančan 1995;	
341	Kapan	Ivanac	B2	F	Sekelj-Ivančan 1995;	
342	Korija		B2	S	Sekelj-Ivančan 1995;	
343	Lozan	Lendava	B2	G, F	Sekelj-Ivančan 1995;	
345	Orešac	Brana	B2	G, F	Sekelj-Ivančan 1995;	
347	Stari Grad	Dvorine or Svetinja	B2	G, F	Ercegović 1958: 181; Sekelj-Ivančan 1995;	
348	Suhopolje	Kliškovac	B2	G, S	Sekelj-Ivančan 1995; Tomićić 2005; Tomićić 2006; Tomićić & Jelinčić 2007;	Tomićić 1999 (Veliki Bukovec); Tomićić 2005; Tomićić 2006; Tomićić & Jelinčić 2007;
372	Gudovac	Gradina	B2	F	Pribaković 1956: 116-118; Sekelj-Ivančan 1995;	
373	Kobasičari	Šuma Kozarevac Kozarevac Forest	B2	G	Sekelj-Ivančan 1995;	
385	Obrovica	Šuma Dobravina Dobravina Forest	B2	F	Pribaković 1956: 120; Sekelj-Ivančan 1995;	
424	Glogovnica	Sv. Marija Saint Mary	B1		Sekelj-Ivančan 1995;	
433	Križevci	Dvorište župnog ureda The courtyard of the Rectory	B1		Sekelj-Ivančan 1995;	
435	Križevci	Križevci	B1	F	Sekelj-Ivančan 1995;	
438	Križevci	Tomislavova Tomislav's Street	B1		Sekelj-Ivančan 1995;	
439	Križevci	Trg Maršala Tita Marshal Tito's Square	B1		Sekelj-Ivančan 1995;	
440	Križevci	Ulica braće Radić The Radić brothers street	B1		Sekelj-Ivančan 1995;	
441	Križevci	Zavrtnica	B1		Sekelj-Ivančan 1995;	
442	Obrež Kalnički	Prekrižje	B1	G	Tomićić 1988: 25-26, 1988c: 153-155; 1989a: 154-155; Sekelj-Ivančan 1995;	Tomićić 1999 (Veliki Bukovec);
445	Popovec Kalnički	Breg	B1	G	Ercegović 1959: 105-107; Homen 1984: 49-52; Sekelj-Ivančan 1995; Tomićić ShP	Tomićić ShP 1995, Tomićić 1999 (<i>Panonski</i>

					1995, Tomičić 1999 (<i>Panonski periplus</i>);	<i>periplus</i>);
468	Sisak	Sisak	B2	S	Vinski 1971; Ercegović 1960: 250; Sekelj-Ivančan 1995; Simoni 1988: 79-86; Simoni 1989: 107-134; Vinski 1971;	Vinski 1971; Tomičić 1999 (Veliki Bukovec); Giesler 1981; Tomičić 2003 (O nekim vezama);
480	Podgarić	Garić Grad (Stari Grad)	B2	F	Krubek 1972: 3-10; Sekelj-Ivančan 1995;	
514	Paučje	Gradina	C2	F	Sekelj-Ivančan 1995;	
515	Ratkov dol	Radanovac	C2	F	Sekelj-Ivančan 1995;	
526	Cernik	Cernik	B2	F	Sekelj-Ivančan 1995;	
534	Brodski Drenovac	Plana	B2	G	Sekelj-Ivančan 1995;	
546	Čečavac	Rudina	B2	G	Sekelj-Ivančan 1995;	
555	Brodski Stupnik	Mrsunjski Lug - Gradište	B2	F	Vinski 1949b: 239, Vinski, Vinski 1950: 18-19; Ercegović 1958: 182; Sekelj-Ivančan 1995;	Vinski 1950; Giesler 1981;
620	Oprisavci	Gajna	C2	S	Sekelj-Ivančan 1995; Sekelj-Ivančan 2001	Sekelj-Ivančan 2001
623	Orlovčić	Sv. Benedikt	C2	G	Sekelj-Ivančan 1995	
667	Zdenci	Crkva Sv. Petra (The Church of St. Peter)	B2	G	Sekelj-Ivančan 1995	
674	Donji Mihaljac	Borik (Janjevci)	C2		Bojčić 1984: 212, 218-219; Sekelj-Ivančan 1995	Sekelj-Ivančan 1995; Tomičić 1999 (Veliki Bukovec);
676	Donji Mihaljac	Ribnjak (The Fishpond)	C2	G	Sekelj-Ivančan 1995	
682	Rakitovica	Staro selište	C2	G, F	Sekelj-Ivančan 1995	
709	Ciganka	Mesarna	B2	G	Sekelj-Ivančan 1995; Tomičić 1990: 85-105;	Tomičić 1990: 85-105; Tomičić 1999 (Veliki Bukovec);
714	Miljevci	Miljevci	B2	F	Sekelj-Ivančan 1995	
743	Popovac	Breg	C2	G	Sekelj-Ivančan 1995; Tomičić 1989: 26-29;	Sekelj-Ivančan 1995
754.1	Bijelo Brdo II	Ulica Venecije (Venice St)	C2	G	Mirnik 2005; Vinski 1949a: 226-233, 1951: 304-311; Ivaniček 1949: 111-144; Karaman 1956: 133; Ercegović 1958: 165-186; Bulat 1968a: 17, 1969: 42; Bojčić 1984: 211; Sekelj-Ivančan 1995; Simoni 1986: 219, 223-224; Tomičić 1990; Tomičić 1991; Tomičić 1992	Tomičić 1990; Tomičić 1991; Tomičić 1992; Giesler 1981; Mesterházy 1991;
756	Dalj	Ciglane (The Brick-field)	C2	G	Bojčić 1984: 214; Sekelj-Ivančan 1995	Demo 1983; Tomičić 1999 (Veliki Bukovec);
762	Erdut	Erdut	C2		Vinski 1949: 30; Sekelj-Ivančan 1995	
763	Erdut	Gradina - teren oko kule Hillfort -	C2	G, F	Sekelj-Ivančan 1995	
767	Ernestino vo	Orlovnjak	C2		Dukat, Mirnik 1978: 206; Sekelj-Ivančan 1995	
769	Kolodvar	Kolodvar	C2	F	Sekelj-Ivančan 1995	
778	Osijek	Ulica Sare Bertić (Sara Bertić St)	C2	G	Bulat 1968: 11-21; Sekelj-Ivančan 1995	Bulat 1968: 11-21;
779	Osijek	Vjenac B. Kidriča	C2	G	Bulat 1968: 11-23; Sekelj-Ivančan 1995	Bulat 1968: 11-23;
790	Samatovci		C2	G	Ercegović 1958: 181; Vinski, Ercegović 1958: 152; Sekelj-Ivančan 1995	
793	Jarmina	Borinci-Crkvište	C2	G	Bojčić 1984: 212; Sekelj-Ivančan 1995	Tomičić 1999 (Veliki Bukovec);
795	Otok-Privlaka	Gradina (C2	G	Sekelj-Ivančan 1995	
796	Privlaka	Gole Njive	C2	G	Šmalcelj 1973: 117-119, 1976: 127-128; 1981: 143-144; Bojčić 1984: 212; Sekelj-Ivančan 1995	
802	Vinkovci	Meraja	C2	G	Mirnik 2005; Bojčić 1984: 212; Iskra-Janosić 1997; Sekelj-Ivančan 1995	Iskra-Janošić 1997; Tomičić 1999 (Veliki Bukovec); Tomičić 1991 (Vukovar);
809	Borovo	Gradac	C2	G, F	Vinski 1949a: 235; Bojčić 1984: 215; Sekelj-Ivančan 1995	Tomičić 1999 (Veliki Bukovec);
811	Klisa	Kliško groblje	C2	G	Dorn 1978: 30-32, 1978a: 130-133; Bojčić 1984: 212, 217, 219; Sekelj-Ivančan 1995	Tomičić 1999 (Veliki Bukovec);

814	Svinjarevc i	(Studenac or Sarviz - I 01?)	C2	G	Mirnik 2005; Karaman 1956: 133; Bojčić 1984: 219; Sekelj-Ivančan 1995	Giesler 1981; Mesterházy 1991; Tomičić 1999 (Veliki Bukovec);
815	Vera	Vera (Tursko groblje? See I 01)	C2	G	Ercegović 1958: 181-183; Sekelj-Ivančan 1995	Tomičić 1999 (Veliki Bukovec);
816	Vukovar	Lijeve Bara - Gradac	C2	G	Demo 1996; Mirnik 2005; Tomičić 1991 - Prilog; Vinski 1949a: 235; Karaman 1956: 133; Ercegović 1958: 171; Demo 1983: 271; Bojčić 1984: 212, 215; Sekelj-Ivančan 1995	Demo 1996; Tomičić 1991 (Vukovar); Tomičić 1992; Giesler 1981; Tomičić 1991 (Veliki Bukovec);
819	Županja	Ulica Šantova (Šantova St)	C2		Vinski 1949: 29; Ercegović 1960: 249; Ercegović 1961: 225; Sekelj-Ivančan 1995	
821	Bošnjaci	Daraž - Ciglana	C2	G	Vinski 1949: 28; Ercegović 1960: 251; Ercegović 1961: 225, 226, 230; Čečuk, Dorn 1968: 395-417; Bojčić 1984: 212; 217; Sekelj-Ivančan 1995	Ercegović 1961; Čečuk, Dorn 1968: 395-417; Tomičić 1991 (Veliki Bukovec);
822	Bošnjaci	Virgrad	C2	F	Minichreiter 1970: 173-176; Sekelj-Ivančan 1995	

Other sites in northern Croatia (not listed in Sekelj-Ivančan 1995):

Site #	Site Location	Toponym	Location	Type of Site	Sources – Site Information	Sources – Artifact Information
1001	Đakovo	Đakovo	C2	G, S	Šlaus & Filipec 1998; Filipec 2003, Filipec 1995-1997 (I2001)	Šlaus & Filipec 1998; Filipec 2003, Filipec 1995-1997 (I2001)
1005	Velika - Majur		B2	F	Tkalčec 2007	Tkalčec 2007
1006	Velika - Ladinec Čatrnja		B2		Tkalčec 2007	Tkalčec 2007
1007	Velika - Zukve		B1		Tkalčec 2007	Tkalčec 2007
1009	Osijek Vojakovački	Mihalj	B1	F	Tkalčec 2007	Tkalčec 2007
1012	Vukovar - Sotin		C2	S	Ilkic 2008	Ilkic 2008
1013	Torčec	Prečno Pole 1	B1	G, S	Sekelj-Ivančan 2007	Sekelj-Ivančan 2007
1018	Torčec	Ledine	B1		Sekelj-Ivančan 2005; Sekelj-Ivančan et al 2003 (CPU)	Ivančan 2005; Ivančan et al 2003 (CPU)
1019	Torčec	Blažovo Pole 1	B1	S	Sekelj-Ivančan et al 2003	Sekelj-Ivančan et al 2003
1025	Torčec	Pod Panje 3	B1	S	Sekelj-Ivančan et al 2003	Sekelj-Ivančan et al 2003
1026	Torčec	Rudičevo	B1		Sekelj-Ivančan et al 2003	Sekelj-Ivančan et al 2003
1029	Donja Vrba - Gornja Vrba	Vrbsko polje - Bukovlje	C2	S	Miškić 1994	
1030	Hlebine	Velike Hlebine	B1		Ivančan 2001: 23 (pottery);	Ivančan 2001: 23 (pottery);
1031	Ivandvor	Šuma Rebar	B2		Ivančan 2001: 23 (pottery);	Ivančan 2001: 23 (pottery);
1032	Jagodnjak	Ciganska Pošta	C2		Ivančan 2001: 23 (pottery);	Ivančan 2001: 23 (pottery);
1033	Jelisavac	South of the Graveyard	C2		Ivančan 2001: 23 (pottery);	Ivančan 2001: 23 (pottery);
1034	Josipovac	Brodareva Njiva	C2		Ivančan 2001: 23 (pottery);	Ivančan 2001: 23 (pottery);
1035	Koprivnica	Bašća / Florijanski Bastion	B1	F	Ivančan 2001: 27 (pottery);	Ivančan 2001: 27 (pottery);
1036	Koška	Cer	C2		Ivančan 2001: 30 (pottery);	Ivančan 2001: 30 (pottery);
1037	Koška	Pjeskana I	C2		Ivančan 2001: 30 (pottery);	Ivančan 2001: 30 (pottery);

1038	Macinec	Kod groblja	B1		Ivančan 2001: 32 (pottery);	Ivančan 2001: 31 (pottery);
1039	Markovac	Lapovac II	C2		Ivančan 2001: 32 (pottery);	Ivančan 2001: 32 (pottery);
1040	Mece	Kraj Željezničke Stanice	C2	S	Ivančan 2001: 32 (pottery);	Ivančan 2001: 32 (pottery);
1041	Našice	Klara	C2	S	Ivančan 2001: 33 (pottery);	Ivančan 2001: 33 (pottery);
1042	Nova Rača	Logor	B2		Ivančan 2001: 33 (pottery);	Ivančan 2001: 33 (pottery);
1043	Novoselci Jakšički	Šikara, Pašnjak	B2		Ivančan 2001: 35 (pottery);	Ivančan 2001: 35 (pottery);
1044	Nuštar	Sajmište	C2		Ivančan 2001: 36 (pottery);	Ivančan 2001: 36 (pottery);
1045	Oborovo	oko Crkve	B2		Ivančan 2001: 36 (pottery);	Ivančan 2001: 36 (pottery);
1046	Orešac	Luka I	B2		Ivančan 2001: 38 (pottery);	Ivančan 2001: 38 (pottery);
1048	Orešac	Luka III	B2		Ivančan 2001: 38 (pottery);	Ivančan 2001: 38 (pottery);
1049	Osijek	Dom Narodnog Zdravlja	C2		Ivančan 2001: 38 (pottery);	Ivančan 2001: 38 (pottery);
1050	Peteranec	Vratnec II	C2	S	Ivančan 2001: 38 (pottery);	Ivančan 2001: 38 (pottery);
1051	Pleternica- Gradac	Crkvište na Markovcu	B2		Ivančan 2001: 41 (pottery);	Ivančan 2001: 41 (pottery);
1052	Podravske Sesvete	Crlenika	B2		Ivančan 2001: 42 (pottery);	Ivančan 2001: 42 (pottery);
1053	Sarvaš	Gradac	C2		Ivančan 2001: 42 (pottery);	Ivančan 2001: 42 (pottery);
1054	Starigrad	Gregeljev Mlin	B1		Ivančan 2001: 44 (pottery);	Ivančan 2001: 44 (pottery);
1055	Šemovec	Šarnjak	B1	S	Ivančan 2001: 45 (pottery);	Ivančan 2001: 45 (pottery);
1057	Torčec	Međuriče	B1		Ivančan 2001: 46 (pottery);	Ivančan 2001: 46 (pottery);
1058	Vinkovci	Duga Ulica 19-63 (8)	C2	GS	Sekelj-Ivančan 2001 (Vinkovcima); Sekelj-Ivančan 2001: 46 (pottery); Iskra- Janošić 1996	Sekelj-Ivančan 2001 (Vinkovcima); Sekelj-Ivančan 2001: 46 (pottery); Iskra- Janošić 1995 & 1996
1059	Vrpolje	Bilo	C2		Ivančan 2001: 58 (pottery);	Ivančan 2001: 58 (pottery);
1060	Vučjak Feričanački	Jezero	C2		Ivančan 2001: 59 (pottery);	Ivančan 2001: 59 (pottery);
1061	Vukovar	Desna bara	C2		Ivančan 2001: 59 (pottery);	Ivančan 2001: 59 (pottery);
1062	Vukovar	Dunavski Bajer	C2		Ivančan 2001: 60 (pottery);	Ivančan 2001: 60 (pottery);
1063	Vukovar	Šamac	C2		Ivančan 2001: 60 (pottery);	Ivančan 2001: 60 (pottery);
1066	Zarilac	Grabarje	B2			
1067	Zarilac	Grabarečke Livade (Šuma Vražjak)	B2			
1068	Zvonimirov o	Vrt Kuće Broj 34	B2	S		
1069	Borovljani	Srednje Brdo	B1	S	Ivančan 2001: 63 (pottery);	Ivančan 2001: 63 (pottery);
1071	Sisak	Veliki Grada	B2			Giesler 1981
1072	Suza		C2		Tomičić 1999 (Veliki Bukovec);	Tomičić 1999 (Veliki Bukovec);
1073	Zmajevac	2 sites: Kígyós, Csatár	C2	G	Kiss 1983; Tomičić 1999 (Veliki Bukovec);	Kiss 1983; Tomičić 1999 (Veliki Bukovec);
1074	Batina		C2		Tomičić 1999 (Veliki Bukovec);	Tomičić 1999 (Veliki Bukovec);
1075	Spišić Bukovica		B2		Tomičić 1999 (Veliki Bukovec);	Tomičić 1999 (Veliki Bukovec);
1076	Velika Gradusa		B2		ZT Tomičić 1999 (Veliki Bukovec); 1999- 2000	Tomičić 1999 (Veliki Bukovec);

Sites in present-day Bosnia:

Site #	Site Loca-tion	Topo-nym	Locatio-n	Type of Site	Sources – Site Information	Sources – Artifact Information
2002	Petoševci	Bagruša	B2	G	Žeravica 1985/1986	Demo 1983; Tomičić 1991 (Vukovar); Žeravica 1985/1986
2004	Mahovljani (Banja Luka)	kužno groblje	B2	G	Miletić 1980; Tomičić 2000;	Miletić 1980; Tomičić 1991 (Vukovar); Tomičić 2000 (Mahovljani); Tomičić 2003 (Vezama);

2005	Gomjenica	Baltine Bare	B2	G	Miletić 1967; Tomičić 2007	Demo 1983; Giesler 1981; Miletić 1967; Tomičić 1991 (Vukovar); Tomičić 2007
2006	Tučić	Junuzovci	B2	G		Giesler 1981; Tomičić 1991 (Vukovar); Tomičić 2000 (Mahovljani); Tomičić 2003 (Vezama); Tomičić 2003 (Zvonimir);
2007	Bosanski Gradiška	Junuzovci	B2	G		Giesler 1981; Mesterhazy 1991
2008	Berek		B2	F		

Sites in present-day Hungary:

Site #	Site Location	Toponym	Location	Type of Site	Sources – Site Information	Sources – Artifact Information
3001	Majs	Udvari rétek	C2	G	Kiss 1983;	Kiss 1983; Mesterházy; Tomičić 1991 (Vukovar); Tomičić 1994 (Majs);
3002	Csátalja	"Vágotthegy"	C1	G, S	Sós 1971	Sós 1971
3003	Ellend	"Nagyödör," and "Szilfa,"	C1	G	Kiss 1983	Giesler 1981, Kiss 1983; Mesterházy; Tomičić 1991 (Vukovar); Tomičić 2000 (Mahovljani);
3004	Fiad	Képuszta	B1	G	Kiss 1983	Giesler 1981, Kiss 1983; Mesterházy; Tomičić 1991 (Vukovar);
3005	Koppányszántó		C1	G		Giesler 1981;
3006	Palotabozsok	Kirchengrund, Vasúti Pályá	C1		Kiss 1983	Giesler 1981; Kiss 1983
3007	Pécs	Vasas / Somogy	C1	G	Kiss 1983	Giesler 1981; Kiss 1983
3008	Sorokpolány		B1	G		Giesler 1981
3009	Zalavár	2 sites	B1	G		Giesler 1981; Tomičić 2000 (Mahovljani)
3010	Nagykapornak		B1	G		Giesler 1981
3011	Mohács	Téglagyár	C2	G	Kiss 1983	Kiss 1983
3012	Siklósnagyfalu	Újhegy	C2	G	Kiss 1983	Kiss 1983
3013	Pusztaszentlászló		B1	G		Tomičić 1991 (Vukovar), 1999 (Veliki Bukovec);
3014	Beremend		C2	G	Kiss 1983	Kiss 1983; Tomičić 1999 (Veliki Bukovec)
3015	Halimba-Cseres		B1	G	Török 1962	Giesler 1981; Török 1962
3016	Fonyód		B1	G	Mesterházy 1991	Mesterházy 1991
3017	Kaposvár		B1	G	Mesterházy 1991	Mesterházy 1991
3018	Sellye		B2	G	Mesterházy 1991, Kiss 1983	Mesterházy 1991, Kiss 1983
3019	Batina /Kiskőszeg		D1	G	Mesterházy 1991; Kiss 1983	Mesterházy 1991; Kiss 1983
3020	Szóreg	Homokbánya	D1	G	Bálint 1991, Mesterházy 1991	Bálint 1991, Mesterházy 1991
3021	Deszk		D1	G	Mesterházy 1991	Mesterházy 1991
3022	Kiszombor		D1	G	Mesterházy 1991; Kovacs 1983, Huszar 55: 87; FEK 48;	Mesterházy 1991; Kovacs 1983, Huszar 55: 87; FEK 48;
3023	Törökkanizsa		D1	G	Mesterházy 1991	Mesterházy 1991
3024	Szentes	Szent László	D1		Vinski 1971, Giesler	Vinski 1971, Giesler
3025	Hódmezővásárhely		D1		Vinski 1971, Giesler	Vinski 1971, Giesler
3026	Bakonya		C1	G	Kiss 1983: 43	Kiss 1983: 43
3027	Bóly	Téglásrét	C2		Kiss 1983: 51	Kiss 1983: 51
3028	Dunaszekcső		C1		Kiss 1983: 54	Kiss 1983: 54
3029	Hirics	Forrószög	C2		Kiss 1983	Kiss 1983
3030	Illocska	Magyarszko Groblje	C2		Kiss 1983	Kiss 1983
3031	Keszű	Tüskés-dűlő - tsz-Major	C1	G	Kiss 1983	Kiss 1983

3032	Kistapolca		C2		Kiss 1983	Kiss 1983
3033	Kozármisleny	Szarka Megye	C1	G	Kiss 1983	Kiss 1983
3034	Lapáncsa	Dreisnitz - dűlő	C2		Kiss 1983	Kiss 1983
3035	Lovászhetény	Állami Gazdaság	C1	G	Kiss 1983	Kiss 1983
3036	Mohács	Alsómező	C1		Kiss 1983	Kiss 1983
3037	Nagyváty		B1		Kiss 1983	Kiss 1983
3038	Pécs	Ágoston utca 23 (Domb ut.)	C1		Kiss 1983	Kiss 1983
3039	Pécs	Szent Istvan tér - Székesegyház	C1	G	Kiss 1983	Kiss 1983
3040	Pécs	Szent Istvan tér - Felsőstátér	C1		Kiss 1983	Kiss 1983
3041	Pécs	Széchenyi tér	C1		Kiss 1983	Kiss 1983
3042	Pécs-Nagyárpád	Hajmas – dűlő	C1		Kiss 1983	Kiss 1983
3043	Siklós	Csukma - dűlő	C2			
3044	Mohács	Csele-patak	C2		Kiss 1983	Kiss 1983
3045	Szárász	Szlavónia- dűlő	C1		Kiss 1983	Kiss 1983
3046	Szatymaz	Jánosszállás-Katonapart	D1		Bálint 1991	Bálint 1991
3047	Gádos	Bocskai utca	D1		Bálint 1991	Bálint 1991
3048	Eperjes	Tákacs-Tábla	D1	G	Bálint 1991; Fehér, Éry, & Kral 1962: 34	Bálint 1991; Fehér, Éry, & Kral 1962: 34
3049	Jánoshalma - Kistráta		C1	G	Kovacs 1983 coins; Huszar 1955: 80; FEK 1962: 44	Kovacs 1983 coins; Huszar 1955: 80; FEK 1962: 44
3050	Nagyharsány	Harsányhegy-Kopaszka	C2		Kovacs 1983 coins	Kovacs 1983 coins
3051	Szeged	Csóngradi út	D1	G	Kovacs 1983 coins	Kovacs 1983 coins
3052	Szeged	Felső	D1		Kovacs 1983 coins	Kovacs 1983 coins
3053	Nagykanizsa		B1		Kovacs 1983 coins	Kovacs 1983 coins
3054	Csanytelek	Dilitor	D1		Giesler	Giesler
3055	Csanytelek	Sirohegy	D1	G	Giesler; Kovacs 1983; Huszar 1955 70;l Fehér, Éry, & Kral 1962: 28	Giesler; Kovacs 1983; Huszar 1955 70;l Fehér, Éry, & Kral 1962: 28
3056	Szentes	Szent Simon	D1		Giesler	Giesler
3057	Csongrád	Vendelhalom	D1	G	Kovacs 1983 coins	Kovacs 1983 coins
3058	Kunágota		D1	G	Fehér, Éry, & Kral 1962: 29-30	Fehér, Éry, & Kral 1962: 29-30
3059	Orosháza-Belső	Monori tanyák	D1	G	Kovacs 1983 coins; Dienes 1965 150-151; FEK 1962: 60	Kovacs 1983 coins; Dienes 1965 150-151; FEK 1962: 60
3060	Szegvár	Orumdűlő	D1	G		
3061	Szentes	Borbásföld	D1	G	Kovacs 1983 coins; Huszar 104, FEK 72	Kovacs 1983 coins; Huszar 104, FEK 72
3062	Szentes	Nagyhegy	D1			
3063	Ikervár	Virág		G	G. Kiss 2000	G. Kiss 2000

Sites in present-day Slovenia:

Site #	Site Location	Toponym	Location	Type of Site	Sources – Site Information	Sources – Artifact Information
4001	Ptuj	Grad	A1	G	Korošec 1950	Korošec 1950
4002	Spodnja Hajdina?	Spodnja Hajdina?	A1	G	Tomičič 1992 cites Korošec 1947: 28.	Tomičič 1992 cites Korošec 1947: 28.
4003	Kranj	Križišče Iskra	A2		Bitenc-Knific 2001, 112, sl. 373/14-15.	Bitenc-Knific 2001, 112, sl. 373/14-15.
4004	Sv. Gore		A1		Tomičič 2003; Korošec 1969, Bitenc & Knific 2001	Tomičič 2003; Korošec 1969, Bitenc & Knific 2001
4005	Središče		A2		Korošec 1947	Korošec 1947
4006	Bled	Pristava II & Grad	A1	G	Knific 1986; Giesler 1981	Giesler 1981
4007	Laška Vas		A1	G	Giesler 1981	Giesler 1981
4008	Šmartno		A2	G	Giesler 1981	Giesler 1981
4009	Mengeš		A1	G	Giesler 1981	Giesler 1981
4010	Ljubljana		A1	G	Giesler 1981	Giesler 1981

4011	Slovenj-Gradec		A1	G	Tomičić 1999 (Veliki Bukovec);	Tomičić 1999 (Veliki Bukovec);
4012	Dobovo	Veliki Obrež	A2		Vinski 1971;	Vinski 1971;
4013	Dlesc pri Bodeščah		A1	G	Knific & Pleterski 1981	Knific & Pleterski 1981
4014	Kamnik		A1	G	Sagadin 2001	Sagadin 2001
4015	Žale		A1	G	Pleterski 1988	Pleterski 1988
4016	Spodnje Gorje		A1	G	Knific & Pleterski 1985	Knific & Pleterski 1985

Sites in present-day Serbia:

Site #	Site Location	Toponym	Location	Type of Site	Sources – Site Information	Sources – Artifact Information
5001	Mačvanska Mitrovica	Mačvanska Mitrovica	C2	G		
5002	Zemun	Kapela		G		Tomičić 2003
5003	Beograd	Karaburma	D2	G		Tomičić 2003
5004	Ritopek	Plavinački potok	D2			Tomičić 2003
5005	Bač, Bez, Bačka Palanka,		C2	G		
5006	Bogojevo			G		
5007	Novi Banovci		D2	G		Ercegović 1958
5008	Kikinda	Novi Kneževac	D1	G		Giesler 1981
5009	Ruski Krstur		C2	G		Giesler 1981
5010	Vrbas	Sekič	C2	G		Giesler 1981
5011	Vršac		D2			
5012	Kikinda	Banatsko Aranđelovo	D2	G		Giesler 1981
5013	Senta	Horgoš	C1	G		Giesler 1981
5014	Surduk		D2	G		Tomičić 1999
5015	Batajnica		D2	G		Tomičić 1999
5016	Rakovec			G		Tomičić 1999
5017	Srijemska Mitrovica		C2	G		Tomičić 1999
5018	Nosa		C1	G		Tomičić 1999
5019	Bočar		D2	G		Tomičić 1999
5020	Jazovo		D2	G		Tomičić 1999
5021	Senta		D2	G		Tomičić 1999
5022	Hrtkovci		C2	G		Tomičić 1999
5023	Kočićevo		C2	G		Demo 1983
5024	Rumenka		C2			
5026	Mokrin		D2	G		Mesterházy 1991
5027	Pančevo		D2	G		Mesterházy 1991
5028	Palánk		D2	G		Mesterházy 1991
5029	Kladovo		E2	G		Mesterházy 1991
5030	Prahovo		E2	G		Mesterházy 1991; Janković
5031	Kovin		D2			Kovacs 1983 coins
5032	Senta		D2			Kovacs 1983 coins
5033	Sombor		C2			Kovacs 1983 coins
5034	Zrenjanin		D2			Kovacs 1983 coins
5035	Opovo		D2			Kovacs 1983 coins
5036	Lovćenac		C2	G		Tomičić 1999
5037	Feketić		C2	G		Tomičić 1999
5038	Srpska Crnja		D2			Kovacs 1983 coins
5039	Beograd		D2	S		
5040	Kostol	Trajanov most (Pontes -	E2	G, S		Mesterházy, Apr 21 Marjanović-Vujović 1986

		Trajan's Bridge)				
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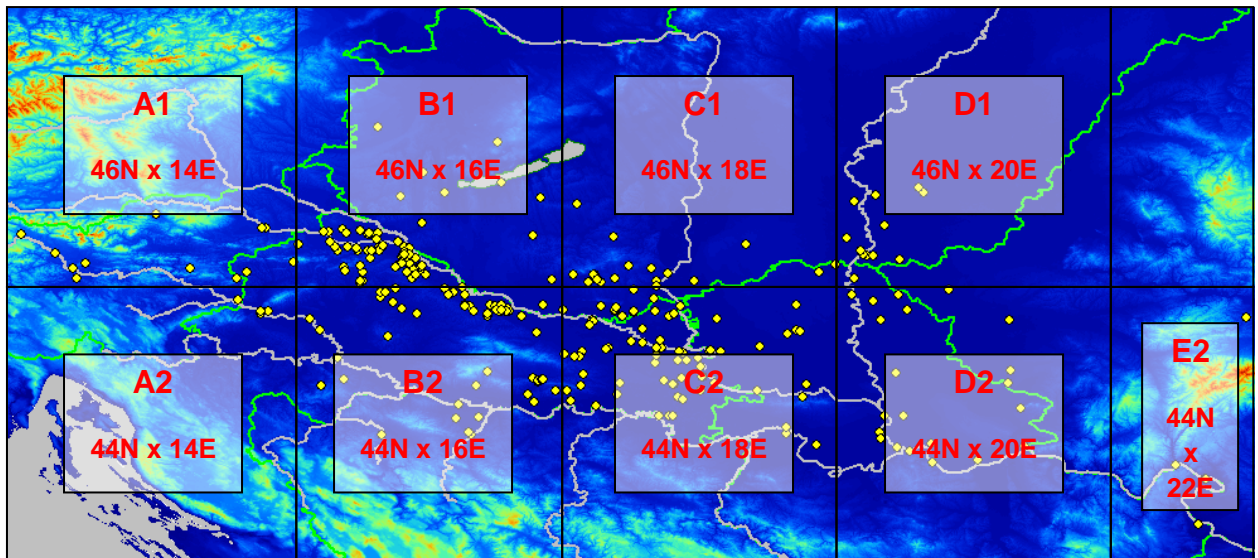
Sites in present-day Austria:

Site #	Site Location	Toponym	Location	Type of Site	Sources – Site Information	Sources – Artifact Information
6001	Villach-Judendorf	Statuarstadt		G		Giesler 1981

Sites in present-day Romania:

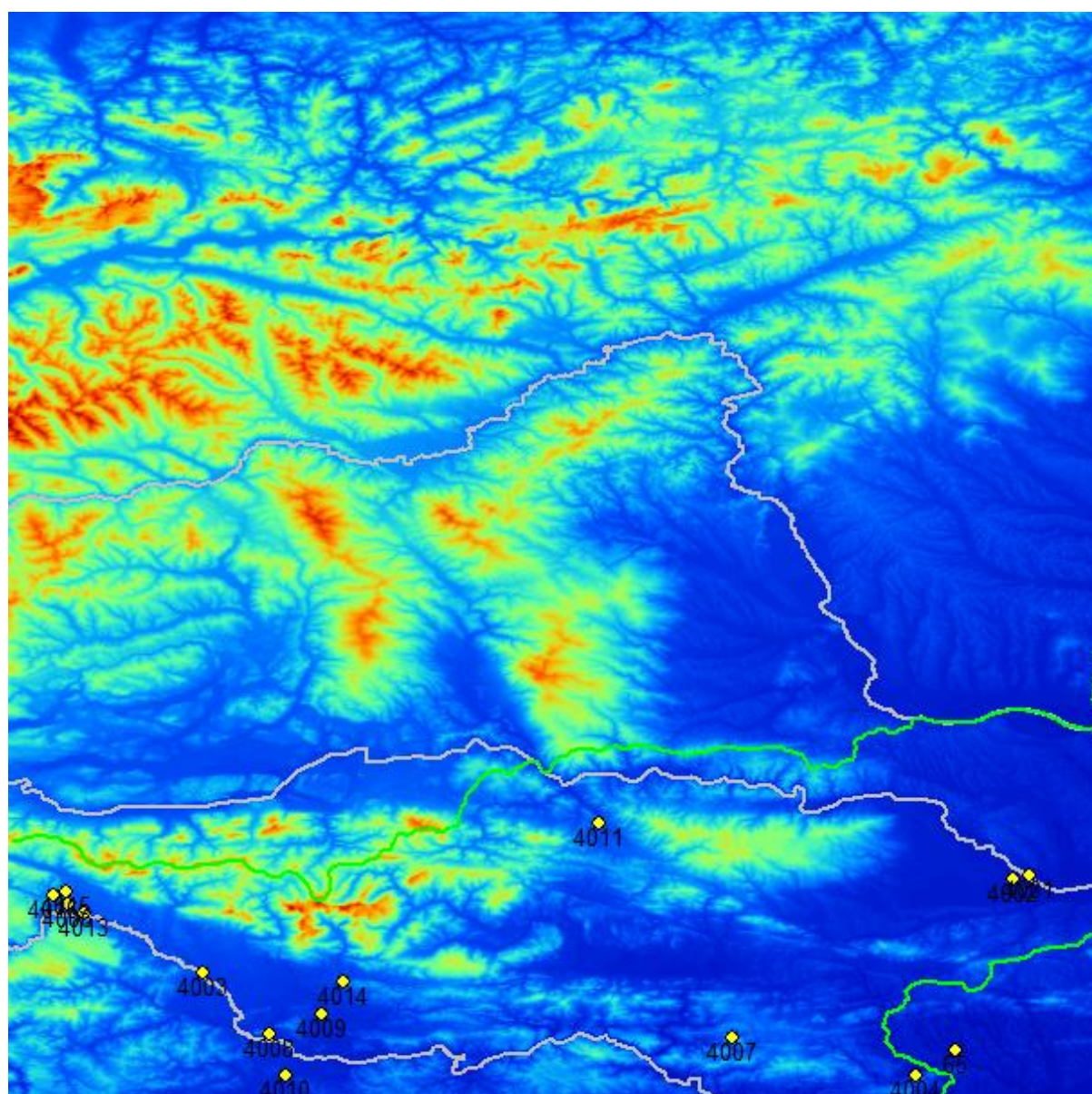
Site #	Site Location	Toponym	Location	Type of Site	Sources – Site Information	Sources – Artifact Information
7001	Deta		D2	G		Giesler 1981
7002	Orsova (vidéke)		E2			Mesterházy 1991; Kovács 1983 (coins)
7003	Gaiu Mic		D2			Kovács 1983 (coins)
7004	Lovrin		D2			Kovács 1983 (coins)
7005	Timișoara		D2	G		Kovács 1983 (coins)
7006	Hunedoara		E2	G		Kovács 1983 (coins)

Locations of Sites:

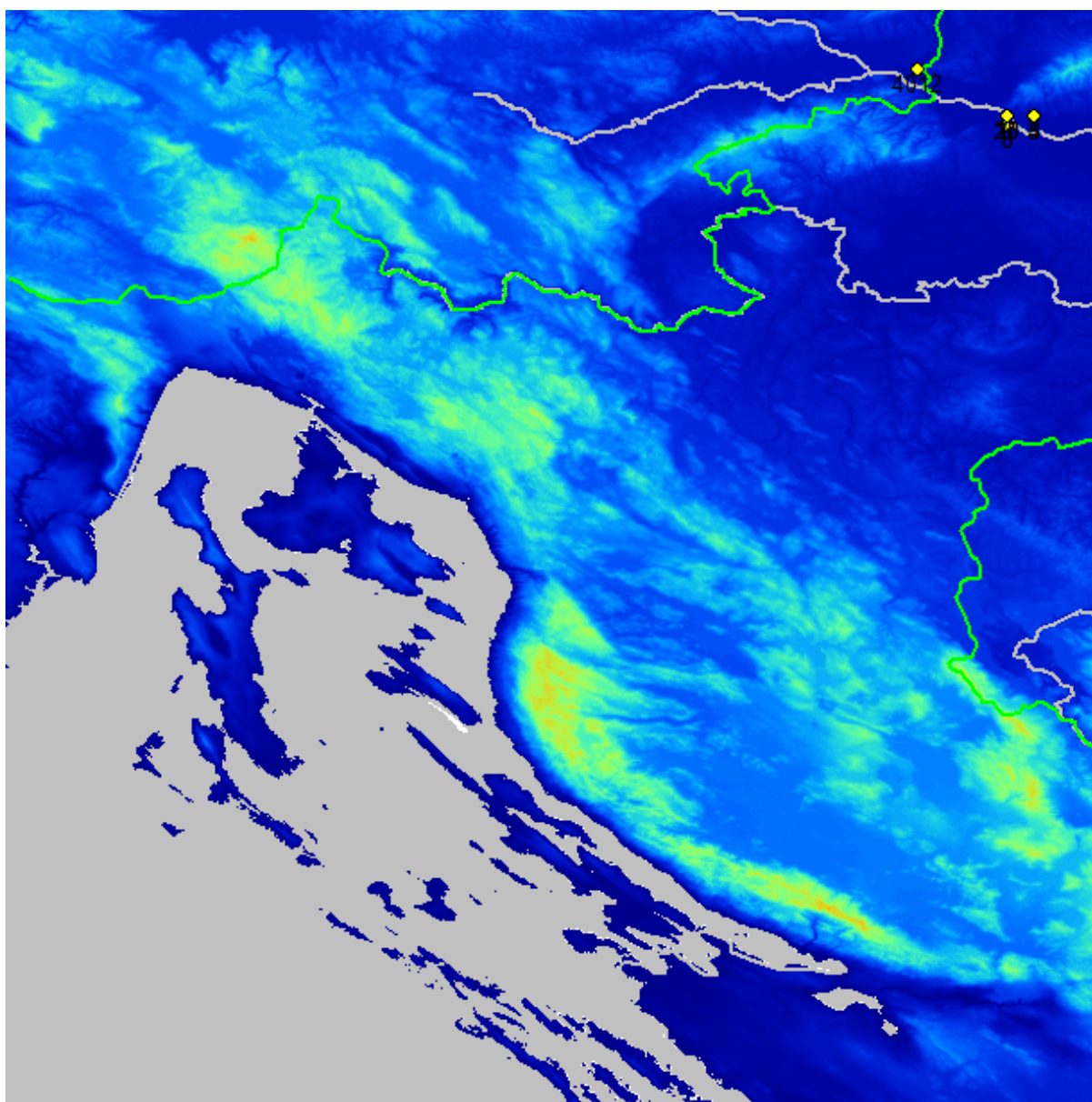


Grid map showing the locations of the nine larger-scale maps on the following pages. The coordinates in each grid-box represent the southwest corner of each $2^{\circ} \times 2^{\circ}$ grid-square.

A1: 46-48°N x 14-16°E

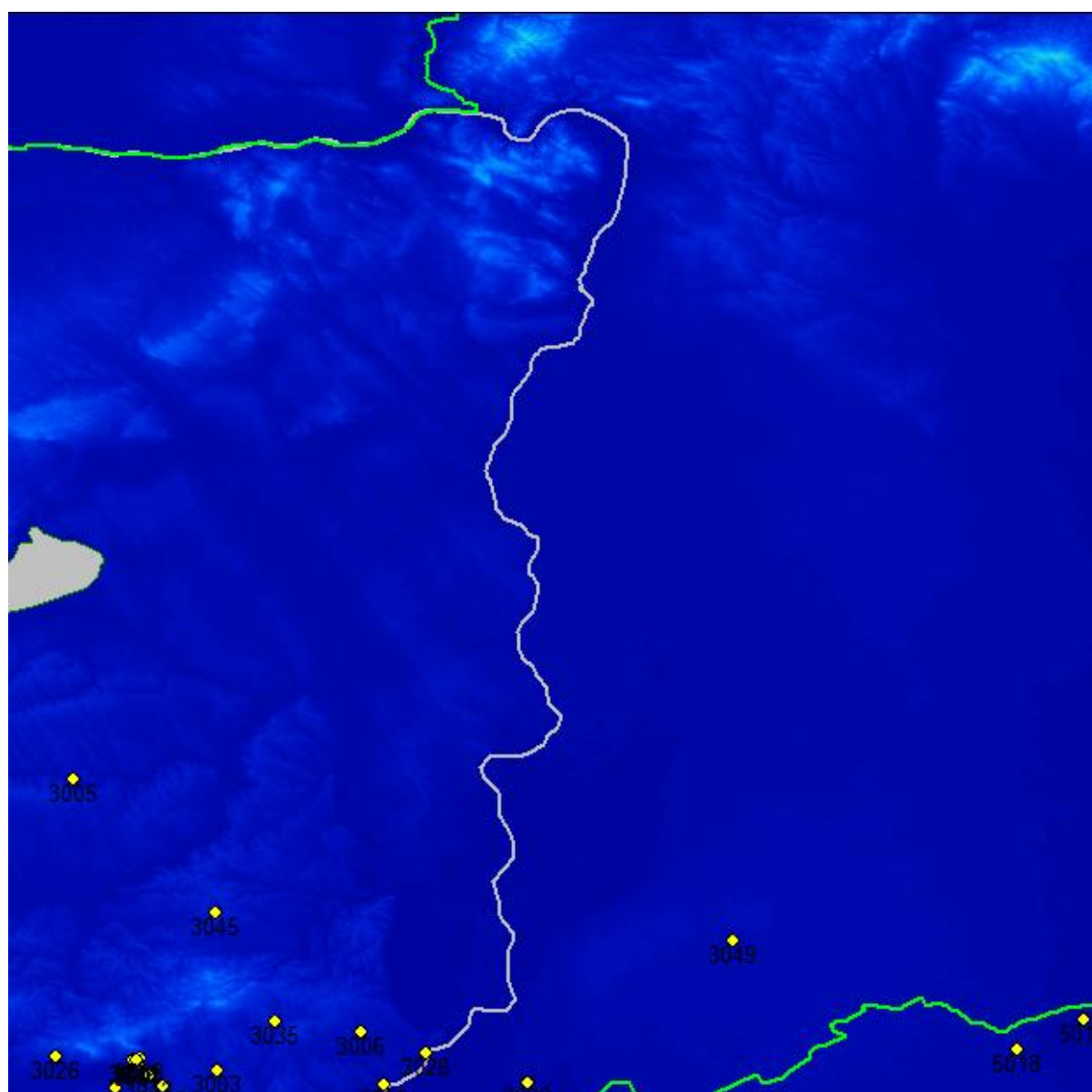


A2: 44-46°N x 14-16°E



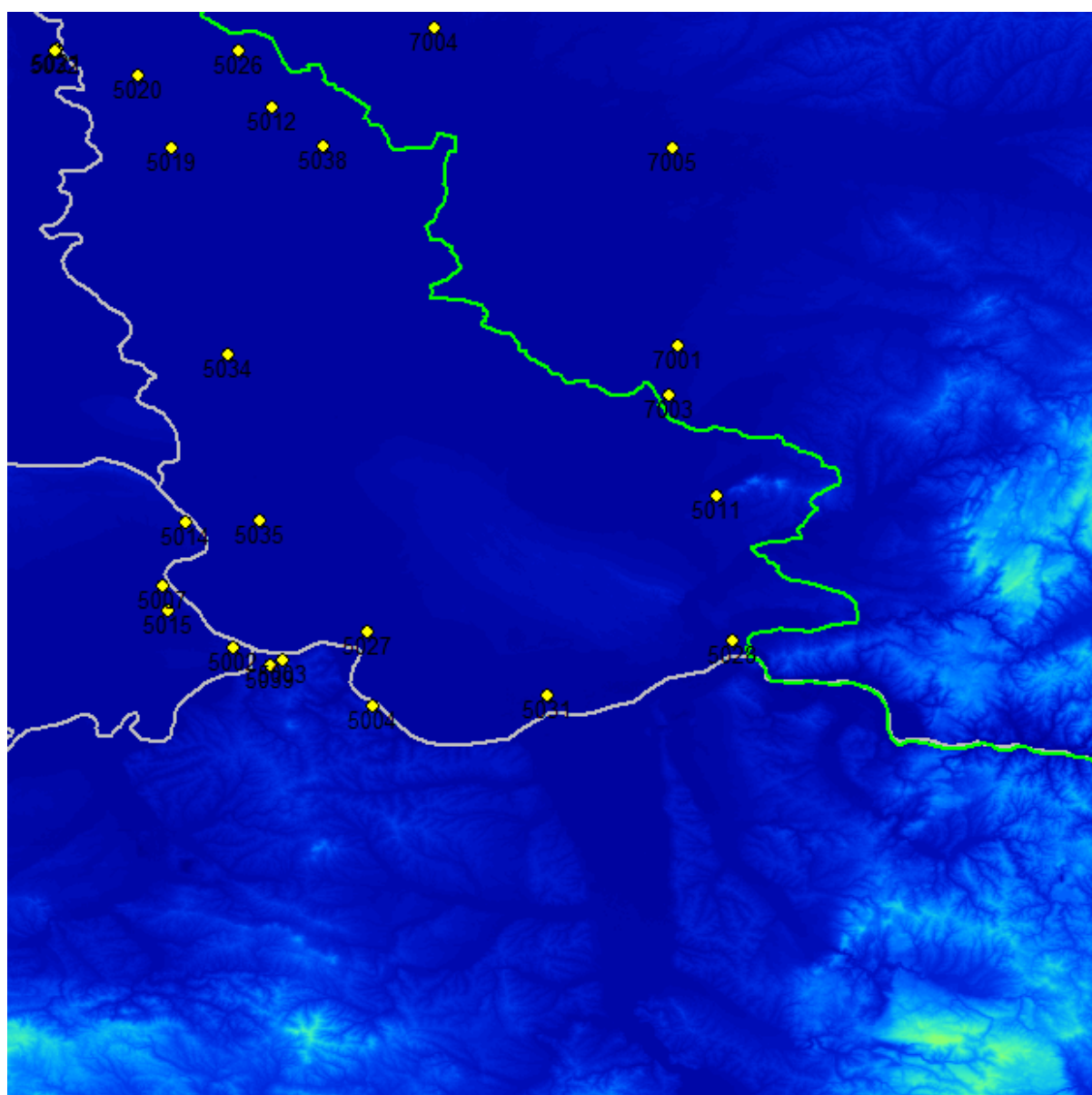
A topographic map of the study area, showing elevation contours and sampling points. The map is color-coded by elevation, with blue representing lower elevations and yellow/orange representing higher elevations. A network of white lines indicates the drainage system, with a prominent green line highlighting a specific watershed boundary. Numerous sampling points are marked with yellow dots and labeled with numerical values, such as 1007, 1005, 372, 309, 1042, 480, 1071, 1076, 2007, 2008, 2006, 2005, 2002, 546, 526, 534, 585, 667, 1043, 1048, 1049, 1050, 1051, 1052, 1053, 1054, 1055, 1056, 1057, 1058, 1059, 1060, 1061, 1062, 1063, 1064, 1065, 1066, 1067, 1068, 1069, 1070, 1071, 1072, 1073, 1074, 1075, 1076, 1077, 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099, 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1110, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1120, 1121, 1122, 1123, 1124, 1125, 1126, 1127, 1128, 1129, 1130, 1131, 1132, 1133, 1134, 1135, 1136, 1137, 1138, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1150, 1151, 1152, 1153, 1154, 1155, 1156, 1157, 1158, 1159, 1160, 1161, 1162, 1163, 1164, 1165, 1166, 1167, 1168, 1169, 1170, 1171, 1172, 1173, 1174, 1175, 1176, 1177, 1178, 1179, 1180, 1181, 1182, 1183, 1184, 1185, 1186, 1187, 1188, 1189, 1190, 1191, 1192, 1193, 1194, 1195, 1196, 1197, 1198, 1199, 1200, 1201, 1202, 1203, 1204, 1205, 1206, 1207, 1208, 1209, 1210, 1211, 1212, 1213, 1214, 1215, 1216, 1217, 1218, 1219, 1220, 1221, 1222, 1223, 1224, 1225, 1226, 1227, 1228, 1229, 1230, 1231, 1232, 1233, 1234, 1235, 1236, 1237, 1238, 1239, 1240, 1241, 1242, 1243, 1244, 1245, 1246, 1247, 1248, 1249, 1250, 1251, 1252, 1253, 1254, 1255, 1256, 1257, 1258, 1259, 1260, 1261, 1262, 1263, 1264, 1265, 1266, 1267, 1268, 1269, 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278, 1279, 1280, 1281, 1282, 1283, 1284, 1285, 1286, 1287, 1288, 1289, 1290, 1291, 1292, 1293, 1294, 1295, 1296, 1297, 1298, 1299, 1300, 1301, 1302, 1303, 1304, 1305, 1306, 1307, 1308, 1309, 1310, 1311, 1312, 1313, 1314, 1315, 1316, 1317, 1318, 1319, 1320, 1321, 1322, 1323, 1324, 1325, 1326, 1327, 1328, 1329, 1330, 1331, 1332, 1333, 1334, 1335, 1336, 1337, 1338, 1339, 1340, 1341, 1342, 1343, 1344, 1345, 1346, 1347, 1348, 1349, 1350, 1351, 1352, 1353, 1354, 1355, 1356, 1357, 1358, 1359, 1360, 1361, 1362, 1363, 1364, 1365, 1366, 1367, 1368, 1369, 1370, 1371, 1372, 1373, 1374, 1375, 1376, 1377, 1378, 1379, 1380, 1381, 1382, 1383, 1384, 1385, 1386, 1387, 1388, 1389, 1390, 1391, 1392, 1393, 1394, 1395, 1396, 1397, 1398, 1399, 1400, 1401, 1402, 1403, 1404, 1405, 1406, 1407, 1408, 1409, 1410, 1411, 1412, 1413, 1414, 1415, 1416, 1417, 1418, 1419, 1420, 1421, 1422, 1423, 1424, 1425, 1426, 1427, 1428, 1429, 1430, 1431, 1432, 1433, 1434, 1435, 1436, 1437, 1438, 1439, 1440, 1441, 1442, 1443, 1444, 1445, 1446, 1447, 1448, 1449, 1450, 1451, 1452, 1453, 1454, 1455, 1456, 1457, 1458, 1459, 1460, 1461, 1462, 1463, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1473, 1474, 1475, 1476, 1477, 1478, 1479, 1480, 1481, 1482, 1483, 1484, 1485, 1486, 1487, 1488, 1489, 1490, 1491, 1492, 1493, 1494, 1495, 1496, 1497, 1498, 1499, 1500, 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509, 1510, 1511, 1512, 1513, 1514, 1515, 1516, 1517, 1518, 1519, 1520, 1521, 1522, 1523, 1524, 1525, 1526, 1527, 1528, 1529, 1530, 1531, 1532, 1533, 1534, 1535, 1536, 1537, 1538, 1539, 1540, 1541, 1542, 1543, 1544, 1545, 1546, 1547, 1548, 1549, 1550, 1551, 1552, 1553, 1554, 1555, 1556, 1557, 1558, 1559, 1560, 1561, 1562, 1563, 1564, 1565, 1566, 1567, 1568, 1569, 1570, 1571, 1572, 1573, 1574, 1575, 1576, 1577, 1578, 1579, 1580, 1581, 1582, 1583, 1584, 1585, 1586, 1587, 1588, 1589, 1590, 1591, 1592, 1593, 1594, 1595, 1596, 1597, 1598, 1599, 1600, 1601, 1602, 1603, 1604, 1605, 1606, 1607, 1608, 1609, 1610, 1611, 1612, 1613, 1614, 1615, 1616, 1617, 1618, 1619, 1620, 1621, 1622, 1623, 1624, 1625, 1626, 1627, 1628, 1629, 1630, 1631, 1632, 1633, 1634, 1635, 1636, 1637, 1638, 1639, 1640, 1641, 1642, 1643, 1644, 1645, 1646, 1647, 1648, 1649, 1650, 1651, 1652, 1653, 1654, 1655, 1656, 1657, 1658, 1659, 1660, 1661, 1662, 1663, 1664, 1665, 1666, 1667, 1668, 1669, 1670, 1671, 1672, 1673, 1674, 1675, 1676, 1677, 1678, 1679, 1680, 1681, 1682, 1683, 1684, 1685, 1686, 1687, 1688, 1689, 1690, 1691, 1692, 1693, 1694, 1695, 1696,

C1: 46-48°N x 18-20°E

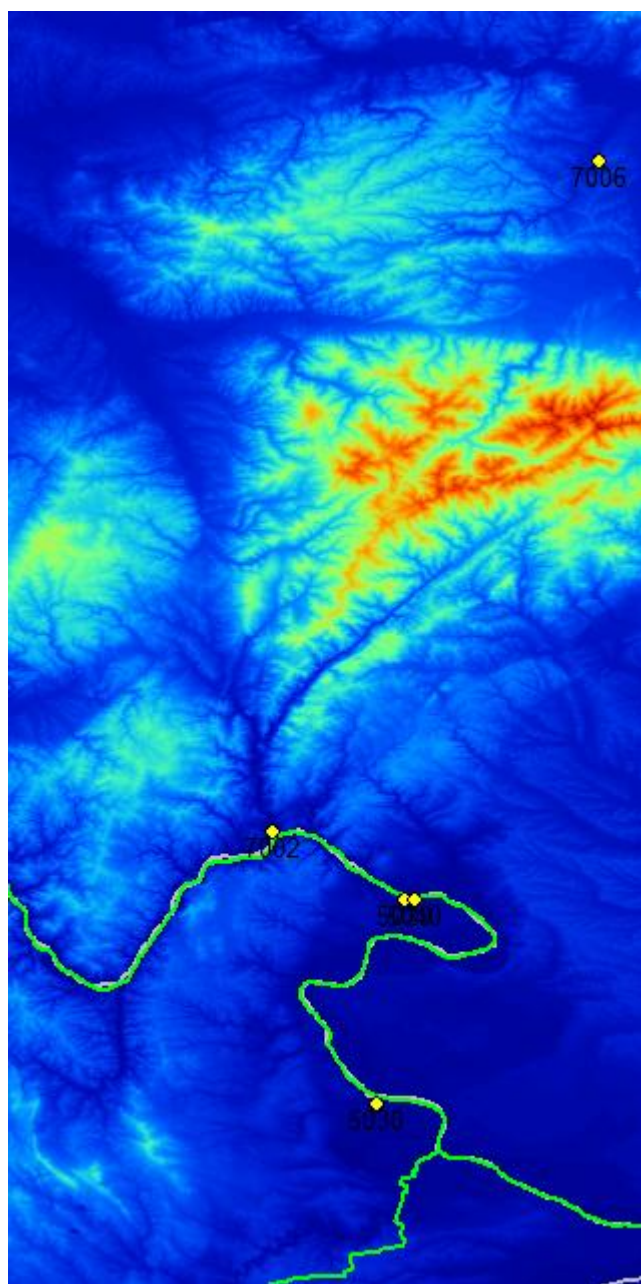


A topographic map of the study area, showing elevation contours and sampling points. The map is color-coded by elevation, with blue representing lower elevations and yellow/green representing higher elevations. The terrain is rugged, with numerous peaks and valleys. A network of roads or trails is visible, connecting various points across the landscape. Sampling points are marked with yellow dots and labeled with numbers, including 3027, 3044, 3001, 743, 1074, 1072, 5033, 5023, 5010, 5097, 5009, 5024, 5016, 5022, 5001, 5007, 5005, 1012, 814, 1062, 809, 755, 782, 5006, 1053, 1054, 1059, 769, 767, 1040, 1044, 793, 1062, 796, 819, 822, 620, 1029, 623, 515, 514, 1001, 1059, 10036, 1033, 104039, 1060, 682, 676, 3043, 3050, 3082, 3084, 3014, 3034, 3036, 3044, 3027, 3001, 743, 1074, 1072, 5033, 5023, 5010, 5097, 5009, 5024, 5016, 5022, 5001, 5007, 5005, 1012, 814, 1062, 809, 755, 782, 5006, 1053, 1054, 1059, 769, 767, 1040, 1044, 793, 1062, 796, 819, 822, 620, 1029, 623, 515, 514, 1001, 1059, 10036, 1033, 104039, 1060, 682, 676, 3043, 3050, 3082, 3084, 3014, 3034, 3036, 3044, 3027, 3001, 743, 1074, 1072, 5033, 5023, 5010, 5097, 5009, 5024, 5016, 5022, 5001, 5007, 5005, 1012, 814, 1062, 809, 755, 782, 5006, 1053, 1054, 1059, 769, 767, 1040, 1044, 793, 1062, 796, 819, 822, 620, 1029, 623, 515, 514, 1001, 1059, 10036, 1033, 104039, 1060, 682, 676, 3043, 3050, 3082, 3084, 3014, 3034, 3036, 3044, 3027, 3001, 743, 1074, 1072, 5033, 5023, 5010, 5097, 5009, 5024, 5016, 5022, 5001, 5007, 5005, 1012, 814, 1062, 809, 755, 782, 5006, 1053, 1054, 1059, 769, 767, 1040, 1044, 793, 1062, 796, 819, 822, 620, 1029, 623, 515, 514, 1001, 1059, 10036, 1033, 104039, 1060, 682, 676, 3043, 3050, 3082, 3084, 3014, 3034, 3036, 3044, 3027, 3001, 743, 1074, 1072, 5033, 5023, 5010, 5097, 5009, 5024, 5016, 5022, 5001, 5007, 5005, 1012, 814, 1062, 809, 755, 782, 5006, 1053, 1054, 1059, 769, 767, 1040, 1044, 793, 1062, 796, 819, 822, 620, 1029, 623, 515, 514, 1001, 1059, 10036, 1033, 104039, 1060, 682, 676, 3043, 3050, 3082, 3084, 3014, 3034, 3036, 3044, 3027, 3001, 743, 1074, 1072, 5033, 5023, 5010, 5097, 5009, 5024, 5016, 5022, 5001, 5007, 5005, 1012, 814, 1062, 809, 755, 782, 5006, 1053, 1054, 1059, 769, 767, 1040, 1044, 793, 1062, 796, 819, 822, 620, 1029, 623, 515, 514, 1001, 1059, 10036, 1033, 104039, 1060, 682, 676, 3043, 3050, 3082, 3084, 3014, 3034, 3036, 3044, 3027, 3001, 743, 1074, 1072, 5033, 5023, 5010, 5097, 5009, 5024, 5016, 5022, 5001, 5007, 5005, 1012, 814, 1062, 809, 755, 782, 5006, 1053, 1054, 1059, 769, 767, 1040, 1044, 793, 1062, 796, 819, 822, 620, 1029, 623, 515, 514, 1001, 1059, 10036, 1033, 104039, 1060, 682, 676, 3043, 3050, 3082, 3084, 3014, 3034, 3036, 3044, 3027, 3001, 743, 1074, 1072, 5033, 5023, 5010, 5097, 5009, 5024, 5016, 5022, 5001, 5007, 5005, 1012, 814, 1062, 809, 755, 782, 5006, 1053, 1054, 1059, 769, 767, 1040, 1044, 793, 1062, 796, 819, 822, 620, 1029, 623, 515, 514, 1001, 1059, 10036, 1033, 104039, 1060, 682, 676, 3043, 3050, 3082, 3084, 3014, 3034, 3036, 3044, 3027, 3001, 743, 1074, 1072, 5033, 5023, 5010, 5097, 5009, 5024, 5016, 5022, 5001, 5007, 5005, 1012, 814, 1062, 809, 755, 782, 5006, 1053, 1054, 1059, 769, 767, 1040, 1044, 793, 1062, 796, 819, 822, 620, 1029, 623, 515, 514, 1001, 1059, 10036, 1033, 104039, 1060, 682, 676, 3043, 3050, 3082, 3084, 3014, 3034, 3036, 3044, 3027, 3001, 743, 1074, 1072, 5033, 5023, 5010, 5097, 5009, 5024, 5016, 5022, 5001, 5007, 5005, 1012, 814, 1062, 809, 755, 782, 5006, 1053, 1054, 1059, 769, 767, 1040, 1044, 793, 1062, 796, 819, 822, 620, 1029, 623, 515, 514, 1001, 1059, 10036, 1033, 104039, 1060, 682, 676, 3043, 3050, 3082, 3084, 3014, 3034, 3036, 3044, 3027, 3001, 743, 1074, 1072, 5033, 5023, 5010, 5097, 5009, 5024, 5016, 5022, 5001, 5007, 5005, 1012, 814, 1062, 809, 755, 782, 5006, 1053, 1054, 1059, 769, 767, 1040, 1044, 793, 1062, 796, 819, 822, 620, 1029, 623, 515, 514, 1001, 1059, 10036, 1033, 104039, 1060, 682, 676, 3043, 3050, 3082, 3084, 3014, 3034, 3036, 3044, 3027, 3001, 743, 1074, 1072, 5033, 5023, 5010, 5097, 5009, 5024, 5016, 5022, 5001, 5007, 5005, 1012, 814, 1062, 809, 755, 782, 5006, 1053, 1054, 1059, 769, 767, 1040, 1044, 793, 1062, 796, 819, 822, 620, 1029, 623, 515, 514, 1001, 1059, 10036, 1033, 104039, 1060, 682, 676, 3043, 3050, 3082, 3084, 3014, 3034, 3036, 3044, 3027, 3001, 743, 1074, 1072, 5033, 5023, 5010, 5097, 5009, 5024, 5016, 5022, 5001, 5007, 5005, 1012, 814, 1062, 809, 755, 782,

D2: 44-46°N x 20-22°E



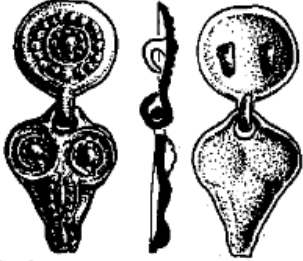

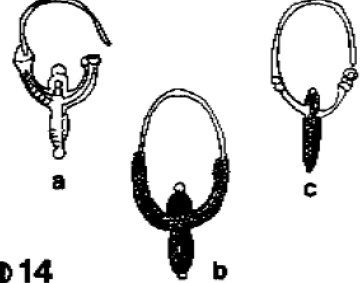


E2: 44-46°N x 14-16°E

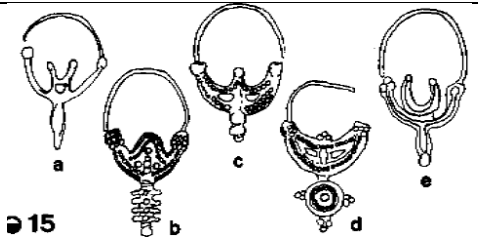
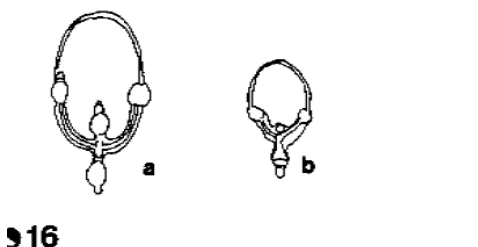
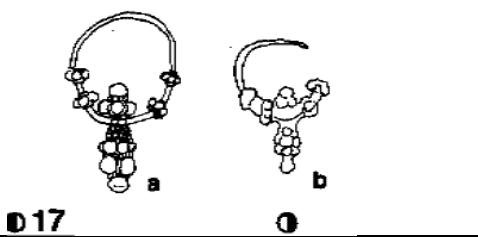
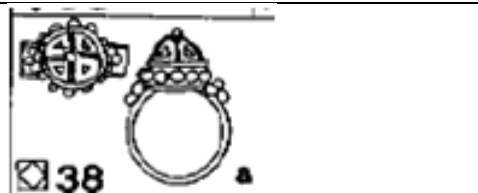






Appendix B: Typology of Artifacts

I based my typology of artifacts on the typology first established by Giesler in his 1981 survey of the Bijelo Brdo culture, which has since been modified and added to by Željko Tomičić (1992).

#	Artifact	Source(s)	Picture (all sketches are from Tomičić 1992 and all photos from Demo 1996 unless otherwise noted)
1a-c	Torque necklace of woven wire	Giesler 1991; Tomičić 1992	
2-7	Assorted bracelets	Giesler 1991; Tomičić 1992	
8	Serpent-head bracelets	Giesler 1991; Tomičić 1992	
9	Two-part pendants	Demo 1983; Giesler 1991; Tomičić 1992	
10	Bells	Giesler 1991; Tomičić 1992	
11	Buttons	Giesler 1991; Tomičić 1992	
12	Cast lunar pendants	Giesler 1991; Tomičić 1992	
13	Simple or plain circlets	Giesler 1991; Tomičić 1992	
14	"Classic" grape-like earrings ²²⁵	Giesler 1991; Tomičić 1992;	

²²⁵ Types 14-17b are all considered variants of grape-like earrings. Since type 14 has the "classic" or prototypical grape-cluster shape, I have added the term "classic" to distinguish this type from the other so-called grape-like earrings.

15	Cast crescent (grape-like) earrings	Giesler 1991; Tomičić 1992; Tomičić 2003 (type 15c)	
16	Beaded (grape-like) earrings	Giesler 1991; Tomičić 1992	
17a	Finely granulated Volin-type (grape-like) earrings	Giesler 1991; Tomičić 1992	
17b	Rustic-cast, imitation Volin-type earrings	Giesler 1991; Tomičić 1992	
19	Circlet with spiral-pendant	Giesler 1991; Tomičić 1992	
20-37	Assorted types of rings	Giesler 1991; Tomičić 1992	
38a	Luxurious crowned finger-ring	Giesler 1991; Tomičić 1992	
41	beads	Giesler 1991; Tomičić 1992	
42a-c	necklaces	Giesler 1991; Tomičić 1992	
44a	Perforated Roman coins (often worn as pendants)	Giesler 1991; Tomičić 1992	
44b	Byzantine coins	Giesler 1991; Tomičić 1992	
44c	Árpád coins	Giesler 1991; Tomičić 1992	
44d	Western coins	Giesler 1991; Tomičić 1992	
45	Cross-pendant	Giesler 1991; Tomičić 1992	
50	Pottery	Tomičić 1992	

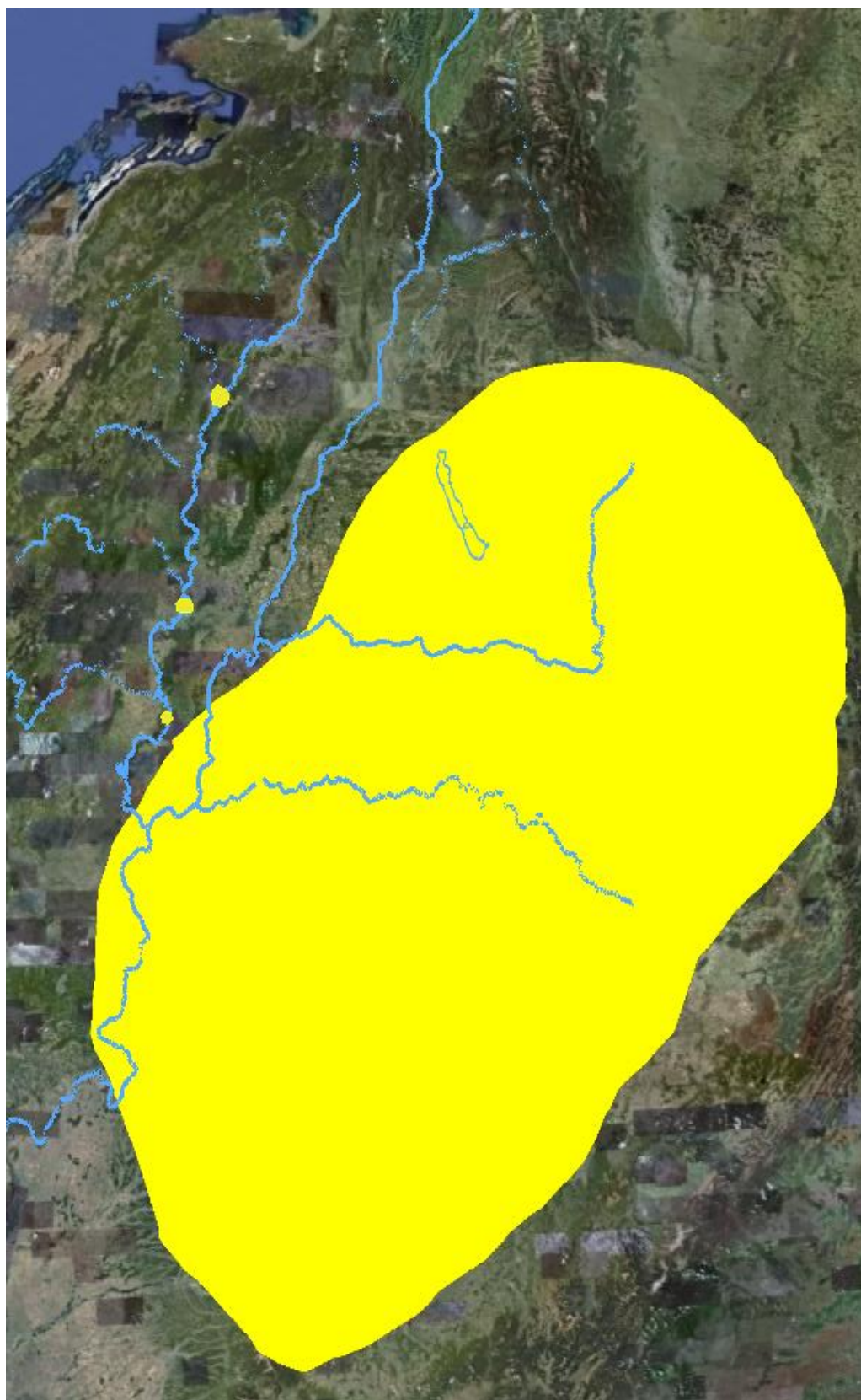
I	Large S-shaped circlets	Giesler 1991; Tomičić 1992		
II	Small S-shaped circlets	Giesler 1991; Tomičić 1992		
III	Circlet hairpin with one biconical bead	Miletić 1967; Tomičić 2000 and 2007		(Miletić 1967; Table 8)
IV	Circlet hairpin with three biconical beads	Miletić 1967; Tomičić 2000 and 2007		(Miletić 1967; Table 14)

Appendix C: Artifacts – Locations and Sources

This is just a short list of those few artifacts that were featured in this study. The site numbers for each site, in which each artifact is found, are given. See Appendix A for the name, location, and relevant sources for these sites.

<u>TYPE</u>	<u>DESCRIPTION</u>	<u>SITES #'S FOR THOSE SITES WITH THIS ARTIFACT</u>														
Type 8	Serpent-head bracelets	754	814	816	1073	2007	3001	3002	3003	3007	3008	3015	3033	3055	5009	5031
Type 14	"Classic" grape-shaped earrings	10	65	135	187	336	445	468	555	754	816	2002	2005	2007	3015	4001
		4002	4003	4005	4006	4009	5003	5008	6001	7002						
Type 15	Crescent-shaped earrings	187	336	468	1074	2004	2005	2007	3015	4001	4002	4003	4004	4005	4009	5002
		5003	5004	5017	5027	5029										
Type 16	beaded earrings	132	468	816	2002	2004	2005	2007	3015	3016	4001	4005	4006	5028	5030	7002
Type 17b	rustic Volin-type earrings	3	123	158	187	336	445	468	709	754	816	2002	2004	2005	2006	2007
		3001	3005	3015	4001	4002	4004	4005	4006	4010	4011	7001				
Type 17a	granulated Volin-type earrings	187	336	555	754	816	3024	5008	5014	5015	5031					
Type 9	Two-part pendants	132	135	187	322	336	754	756	816	1012	2002	2004	2005	2007	3001	3004
		3005	3007	4001	4002	4003	4005	5006	5007	5009	5011	5012	5020	5023	5024	7001
Type 38a	Luxurious ring	187	336	754	814	816	3001	3003	3004	3007	3021	3022	4001	5006	5020	
		3	102	123	140	158	187	194	208	322	327	336	348	442	445	468
		674	709	743	754	756	778	779	781	793	802	809	811	814	816	816
Type I-II	S-shaped circlets	821	1001	1011	1012	1072	1073	1074	1075	1076	2002	2004	2005	2006	3001	3002
		3003	3004	3007	3009	3013	3014	3015	3026	3035	3036	3040	3041	3043	4001	4002
		4004	4011	5001	5005	5006	5007	5012	5014	5015	5016	5017	5018	5019	5020	5027

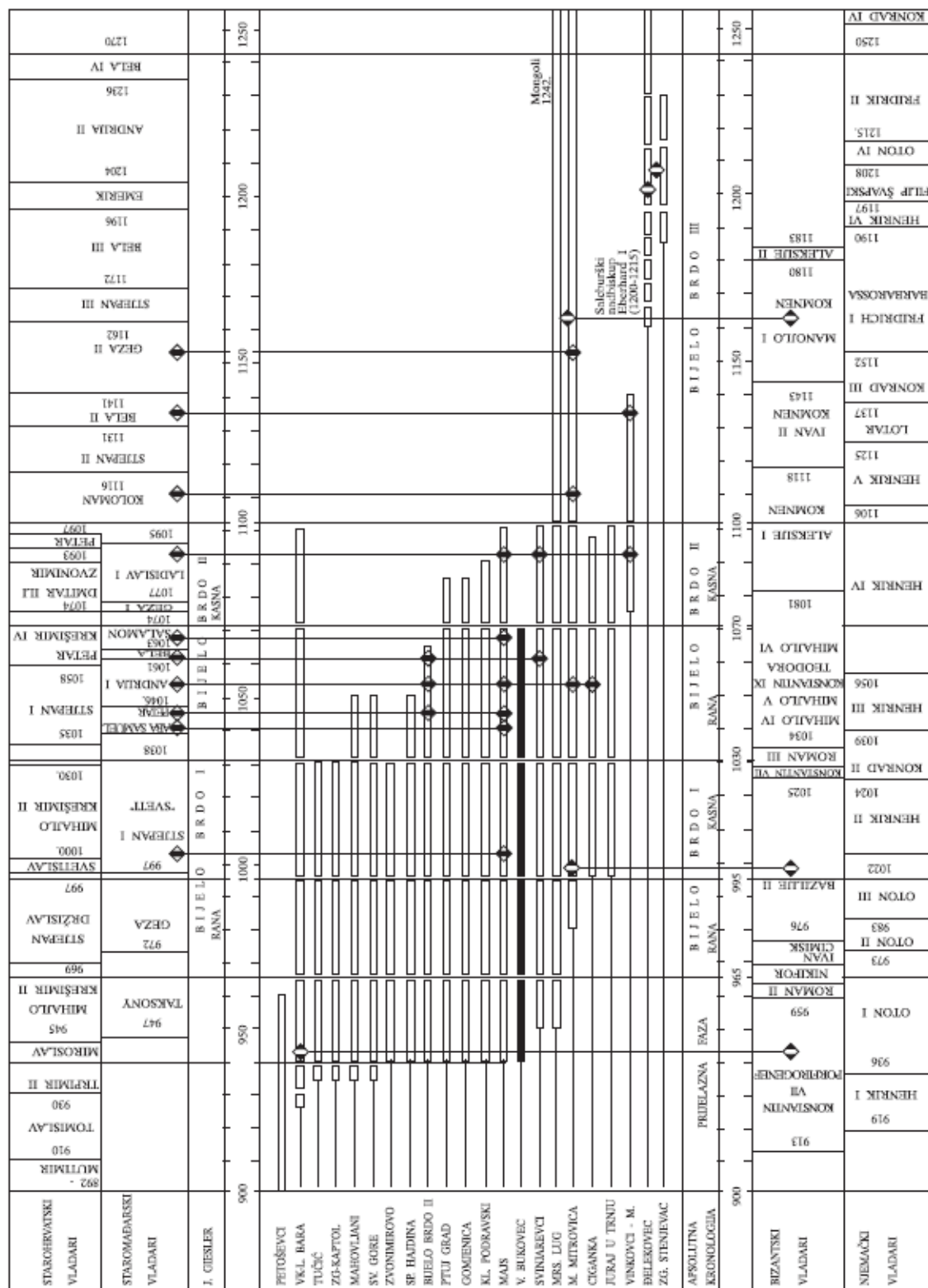
Appendix D: Artifact Comparison Tables



Appendix E: Chronology of Bijelo Brdo Sites in Northern Croatia

Željko Tomičić's chronological table for Bijelo Brdo sites in northern Croatia (from "Tomičić, "Prinos poznavanju kronologije... Gomjenica," 303).

Ž. Tomičić : » Ranosrednjovjekovno groblje u Velikom Bukovcu ... «, Opusc. archaeol. 23-24, 285-307 1999-2000.



Tablica III Položaj groblja Veliki Bukovec u sklopu apsolutno-kronologijske sheme bjelobrdske kulture. Crtaj: V. Ž.-J., d.i.a.

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