LEPENSKI VIR – SCHELA CLADOVEI CULTURE’S CHRONOLOGY AND ITS INTERPRETATION

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Abstract: This paper intends to discuss the new interpretation of Lepenski Vir – Schela Cladovei culture's chronology proposed by several researchers on the basis of the new data, in comparison and in addition to the previously known data.

Key words: Chronology, archaeological interpretation, Lepenski Vir - Schela Cladovei culture, Mesolithic, Early Neolithic.

Rezumat: Acest studiu discută cele mai recente interpretări ale cronologiei culturii Lepenski Vir – Schela Cladovei, interpretări propuse de cercetătorii pe baza noilor date de cronologie ce completează și compară sistemele cronologice mai vechi.

Cuvinte cheie: cronologie, intrepretări arheologice, cultura Lepenski Vir - Schela Cladovei, Mezolitic, Neolitic Timpuriu

Lepenski Vir – Schela Cladovei cultural seems to have its beginnings simultaneous with the debut of Holocene. This culture was formed in Mesolithic, and in its final stage of evolution it comes into contact with the Early Neolithic cultural complex of Starčevo-Criş.

In the last years, since 1997, the chronological data increased mostly by technological evolution and became somehow more reliable, adding new information to the existing archaeological data. The later, on the basis of stratigraphy, typology and contextual findings has determined at first the internal chronology of each site, and then the chronology of the culture as a whole. Nevertheless, the interpretations were various, as each of the archaeologists involved in the direct research of the sites had their own particular terminology to address the new discoveries. Thus, there were several periodizations proposed for the internal evolution of Lepenski Vir – Schela Cladovei culture. Therefore the recent research focused on AMS analyses of animal and human bones (while research continued on the whole archaeological findings) discovered in the sites of this culture, aiming, on the basis of the distribution of this materials within the settlements and the spatial relation they bear with the archaeological structures, to obtain a more accurate interpretation of the later, and so, of the whole chronology of this culture

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1 This terminology is used, as such, accordingly to their time of appearance in archaeological terminology, as first it was Lepenski Vir culture that was defined, then Schela Cladovei was defined. Later on, it was noticed the similitude between the two, so that the double terminology began to be in use, either as Schela Cladovei – Lepenski Vir culture or as Lepenski Vir – Schela Cladovei culture.

2 I use this term, for Romanian readers, as it is well grounded in Romanian archeological terminology.

3 See Bonsall et al. 1997.

4 Because a lot of data is being disregarded on the basis of either it had not been tested with the latest method of age determination, either the archaeological context from where the data was taken it’s not a clear one.


The main site on which the most recent chronological analyses have focused on, is Lepenski Vir, the eponymous site, the one that, apparently, raised the most difficulties for scientists, through its *uniqueness* within the settlements of Lepenski Vir – Schela Cladovei culture, and mostly by its chronology, that is the moment when it was in use, moment which coincides largely with the appearance, throughout south-central Europe, of the Early Neolithic cultural complex of Starčevo-Criş. In the same time, new chronological data were obtained for the majority of the sites, be that by correction of the old data, or by obtaining fresh new ones. Direct archaeological research, in the field, continued at Schela Cladovei (the project is still ongoing) and at Vlasac (between the years 2006–2008), as also in the proximity of Lepenski Vir site, at the site Aria Babi (between the years 2004-2005) situated on the Košobordo Hill, where the remains of an Early Neolithic settlement were discovered (Borić 2006, 13; Borić 2008, table 1).9

The research on the material excavated and preserved within museums and archaeological institutes’ collections (both Serbians and Romanians) offered new archaeological, anthropological, zoological and chronological data. Based on this new data, the author discusses some of the recent proposed interpretations for the chronology of Lepenski Vir – Schela Cladovei culture.

From the start I will point out the fact that, not one single radiocarbon or AMS date can be considered as stable and/or certain, because the technology that is being used to obtain this data is continuously evolving, thus, as it happened before, some data can suffer significant modifications, processed by alternative and improved technologies. Further more, as already stressed out before by the researchers themselves, who had obtain these new data, some of the samples were not from clear archaeological contexts or were not verified using the latest technology available.10 Therefore, I will underline the fact that the chronological data must be considered rather markers to which we relate when trying to fit in time the archaeological discoveries.

The way that these discoveries were researched, recorded and published – a fact that is underlined in the majority of articles having this culture as subject – is important in trying to establish the chronology of a site or of a culture as a whole. And since there are all those discrepancies in the archaeological field research of the sites assigned to Lepenski Vir – Schela Cladovei culture (not only for these ones in the whole archaeology!), stated more or less even by the archaeologists that excavated the sites in the first place and later on by their followers, and by the way the material itself was and still is published or more likely unpublished, then the reconstruction of the chronology was and will be scanty. But there are notable efforts from both sides of the Danube to increase the volume of data, as the publications grew more in number after 2000.

Therefore this paper is interested in the available data and will not take its safety measure on the one waiting to see the light of day.

**The current chronological data**

An important paper which provides chronological data for all the sites from the Romanian banks of the Danube is *The Mesolithic at the Danube’s Iron Gates: new radiocarbon dates and old stratigraphies* (Dinu et al. 2007). The latest and almost complete paper which presents the current chronological data for the majority of the sites from both banks of the Danube is *The Mesolithic of the Iron Gates* (Bonsall 2008). Another new paper is *Absolute Chronology and Stratigraphy of Lepenski Vir* (Borić and Dimitrijević 2009) which provides the data for the eponymous site itself. Another effort regarding Lepenski Vir – Schela Cladovei culture’s chronology was made in unpublished (for now) PhD thesis (A.Boroneanţ 2010), presented in 2010, having (with an approximate translation) the title as *Transition Period from Mesolithic to Early Neolithic at the Iron Gates*.11 This paper presents unpublished field data, and it is the last attempt to provide a broader view for the past of this region.

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8 Although sites such Padina, which was so often used in comparison with Lepenski Vir when discussing their internal chronology, is in my opinion a site that also raises problems. Especially with the data so poorly published, and especially because it was used (and probably will be still) as an argument when discussing Lepenski Vir site.

9 Thus begging to fulfill the desiderate of some scientists that the field research should focus on the upper hills of the Danube in the Iron Gates region, in order to find more data to compare it to the old one founded in the years ’60s–’80s of last century, and thus recreate a broader view for the past of this region.

10 Absolute dating by using Accelerator Mass Spectrometry (AMS) on human and animal bone samples, corrected for the freshwater reservoir effect (see Bonsall et al. 1997, Cook et al. 2002, Whittle et al. 2002)

11 I leave the author, evidently, the right of having the correct translation of it, as my intention is just to provide the english reader with a possible translation, and thus to help him understand what the thesis is about.
reports of the excavations carried on the Romanian banks of the Danube in the last half of 20th century; therefore its importance is of maximum value. And this effort was followed by the same author in her latest publication, namely The Mesolithic in Banat (A.Boroneanţ 2011) which capitalizes the work done in her PhD thesis.

In the first publication mentioned above, the authors proposed a 7-stage chronology for the Romanian banks of the Danube, as follows:

1- cca. 8800-8300 cal BC – Icoana, Alibeg;
2- cca. 8300-7800 cal BC – Icoana, Răzvrața;
3- cca. 7800-7300 cal BC – Icoana, Schela Cladovei, Ostrovul Banului, Ostrovul Corbului;
4- cca. 7300-6800 cal BC – Icoana, Schela Cladovei, Ostrovul Banului, Ostrovul Corbului, Ostrovul Mare;
5- cca. 6800-6300 cal BC – Icoana, Ostrovul Banului, Ostrovul Corbului;
6- cca. 6300-6100 cal BC – Icoana, Alibeg;
7- cca. 5700-4800 cal BC – Schela Cladovei, Icoana (Dinu et al. 2007, 48).

In the second publication, the author proposed a 4-stage periodization, for both banks of the Danube:

1- Early Mesolithic (cca. 13000-7200 cal BC) - Cuina Turcului, Lepenski Vir, Padina, Vlasac;
2- Late Mesolithic (cca. 7200-6300 cal BC) - Hajdučka Vodenica, Icoana, Ostrovul Banului, Ostrovul Corbului, Schela Cladovei, Vlasac;
3- Final Mesolithic (cca. 6300-6000 cal BC) - Lepenski Vir;
4- Early Neolithic (cca. 6000-5500 cal BC) - Cuina Turcului, Lepenski Vir, Padina, Schela Cladovei, Vlasac (Bonsall 2008, 252, Table 10.2.).

In the third publication, the authors proposed a new periodization of the Lepenski Vir site (see figure 1).

In the last publication mentioned, the author A. Boroneanţ states that Lepenski Vir – Schela Cladovei chronology is compressed between 7200-6000 cal BC (Boroneanţ 2011, 113).

All these papers will be addressed in the paragraphs below.

Discussion on the interpretations of the new chronological data

The purpose of interpreting all data obtained archaeologically was and still is to establish the periodization of the Lepenski Vir – Schela Cladovei culture, as a Mesolithic or/and Neolithic culture. The conclusions that most of the new researchers came to, on the basis of the new data obtained in the last years of research, is that this culture appears in the Mesolithic period evolving into the Early Neolithic period, being one of the best examples of the so-called Mesolithic-Neolithic transition in Europe.

First discussion
One first problem that concerns chronological data is that authors often use, in the same paper the two terminologies BP (before present) and BC (before Christ). It would be a desiderate that scientists will choose one of the two.

Second discussion
A second problem would be the terminology, which after all, it is just terminology. But some authors regard them as self-explanatory words, and even more, somehow trying to find data to enforce a particular terminology. We should provide clear support for a certain terminology.

Thus, regarding the period called Mesolithic-Neolithic transition, there are authors that use the expression transformational phase (see figure 1).

The argument for transformational phase would be that elements related to Neolithic way of life were found within some of the settlements of Lepenski Vir – Schela Cladovei culture. But, they were not in use by the whole community, thus no major transformation of life appeared within these communities. The one site which brought about this proposed interpretation, was Lepenski Vir itself, where 15 trapezoidal buildings (Borić 1999, 41-42)14, out of c. 40 (the number differs from author to author, this would be the sum of the buildings assigned to LI or LV II phases) contained pottery, and a more reduced number of them, 8, contained stone tools characteristic of the Neolithic tradition (Antonović 2006, 129). And from all the other sites, just for the one of Padina III site was mentioned the presence of ceramics, in 8 out of the 17 trapezoidal buildings (Radovanović 1996, 280-281) assigned to Padina B phase. Regarding this last site, the evidence is not that clear as some authors would like to believe. On the current data, namely the photographs that show the ceramics in situ at Padina, we have to state that the evidence is

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12 Because some of the researchers, such as D. Srejović and V. Boroneanţ, engaged before in the research of this culture, and came to the same conclusion years ago, with less data available.
13 This is my presumption, since no account was ever made on why such expression is being used.
14 And also see bibliography quoted there.
not supportive for the statement that the ceramics are related with the trapezoidal buildings. If we take an example, namely the photos at figure 8 from D. Borić (1999), one can see, when enlarging the right photograph (see fig.2) that in fact the whole pot is situated about at least 5 cm above the platform of the house 18. And as far as I know, in situ should not be regarded as an artifact situated in a site, but as an artifact clearly integrated in a structure or a cultural level. In this case, the pot is not on the platform of what would be the floor of the structure labeled house 18. If it had been, then the pot would have been with its bottom firmly resting on it, and not on a pedestal as it is clearly shown in the picture. And this is just one example of a trapezoidal building from Padina site, I use here to discuss such statement - abundant Early Neolithic pottery is clearly associated with trapezoidal buildings at Padina (Borić 2002, p.1026). This example should question the validity of using such expressions as the one quoted. Moreover, the last publication on this site, done by the excavator himself, B. Jovanović also states the uncertainty in relating the pottery with the Lepensi Vir – Schela Cladovei cultural layer (Jovanović 2008, 303), which enforces my argument.

As for the other material aspects specific to Neolithic way of life, they are poorly present and/or archaeological discovered and recorded – that is their spatial relation within the archaeological structures and levels is not clear – since all of these sites present a clear Neolithic phase which overlays the Mesolithic phase. Then what would be clear here? The cause of the problem is the fact that the living structures of Neolithic communities were dug deep into the ground, disturbing the former cultural layers and destroying the previous structures which belonged to Lepensi Vir – Schela Cladovei culture.

And when discussing domesticated animals associated with Neolithic communities, they seemed not to be identified within the levels assigned to Lepensi Vir – Schela Cladovei sites, even though, initially (Bököny 1970) they were for the eponymous site, but the recent studies had proved that the first determination was incorrect (Borić and Dimitrijević 2008). As for domesticated plants, they seem to lack. This could be by archaeological reasons (methods of research), or by simply not existing.

When discussing a transformation, which would imply the adoption of a new way of life by a community (economic and religious) while continuing to use the same area, the same archaeological structures, in time evolving into a new culture. This is not the case when referring to Lepensi Vir – Schela Cladovei culture, as the majority of its sites show the appearance of a new and different kind of communities, the ones of the cultural complex of Starčevo-Criş. And the elements which define Lepensi Vir – Schela Cladovei culture are just in a small scale transmitted onwards into the Neolithic communities, that is the use of the horns of deer as (presumably) mattocks. The way that Starčevo-Criş communities built their living structures is different to the Lepensi Vir – Schela Cladovei. The mortuary rites are, as well, different. The art, the one that made the site Lepensi Vir in the first place so famous in archaeology, has some resemblance into some other sites of the same culture. But regarding the transmission of this into the Neolithic communities, in all the space attributed to Starčevo-Criş cultural complex, in just one site, that is Gura Baciului I, there were reported (Vlassa 1972, p.231-251) some vague similarities. Some which could show retardation (term used so freely by N.Vlassa, when referring to Lepensi Vir – Schela Cladovei culture) from artistic point of view, within the Neolithic communities. The association of the boulders from Gura Baciului I with the inhumations discovered here, resemble somehow Lepensi Vir – Schela Cladovei funeral rite, but it is just that the record of it, as also stated by the excavator himself, was so poorly done, that it lacks evidence. Perhaps a future investigation on that site could provide more secure data on this matter.

Upon current research, all the sites assigned to Lepensi Vir – Schela Cladovei culture preserved the moment of the end of its inhabitations by the communities of this culture. Even though the evidence suggested a relatively short time span between that moment and the one of the arrival of Starčevo-Criş communities, the remains of the last, do not offer sufficient archaeological data, on the basis of which we could presume that they were...
conscious of the previous inhabitation. In fact, quite the opposite, since so many of their living structures had affectively destroyed the ones of Lepenski Vir – Schela Cladovei culture.

In the light of the information I discussed above, the term contact phase would be more correct when referring to the period when Lepenski Vir – Schela Cladovei communities begin to use new artifacts which were of a Neolithic tradition, but continued, at the same time, to rely heavily on their own specific tools.

Third discussion

As previously stated, the one site that focused the new research to establish its chronology, and thus, somehow of the culture itself, is the eponymous site of Lepenski Vir. In recent studies D. Borić and his collaborators (Borić 1999, 2002; Borić and Dimitrijević 2009) proposed a new interpretation of the stratigraphy of the site, and so, of its chronology, that LV I is LV II, labeled it as LV I-II. Now, let us follow their arguments, which were first stated in 1999, then repeated in 2002 and in 2009.

The arguments are as follows: Existing photos from Lepenski Vir misleadingly show these semi-subterranean dwellings and their floors placed on flat terrace, whereas they were actually dug down some 0.5-1.5 m (see FIGURE 4) and this has not previously been recognized. It is also necessary to take into account the rows of stone that bordered the sides and the rear of the building floor, casting doubt on the identification of layer/phase Lepenski Vir II. This phase was described by the excavator as consisting of rows of stone in a trapezoidal shape without central hearts (FIGURE 8) and overlaying trapezoidal buildings of phase I. By superimposing trapezoidal buildings of LV I (FIGURE 7) with stone walls of Phase LV II (FIGURE 8) it becomes obvious that construction stones of Phase LV II encircles limestone floors of Phase LV I (FIGURE 9) and are especially pronounced in the steeper terrain of the rear of the settlement.

This evidence suggests that architectural features previously identified as Lepenski Vir II are stone footings and walls that surrounded the dug-in sides of the Lepenski Vir I post-framed buildings (Borić 2002, 1035). But exactly the main argument which is put forward, namely the superimposing of the plans (Borić 2002, fig.7-9) of LV I on LV II, clearly shows the fact that some buildings of LV I (nr.1, 2, 63-633, 5, 6, 64, 7, 8, 9, 11, 10, 12) are not overlaid by buildings of LV II, and that some buildings of LV II (nr. XXXIII, XL, XXVI, XXVIII) do not overlap any LV I building (see fig.3, 4, 5).

Furthermore, another argument is the one that states that the buildings of LV I and LV II were dug into the slope and that this has not previously been recognized (Borić 2002, 1035). But this argument is invalid since the archaeologist who excavated the site, namely D. Srejović, had previously recognized it, as we can read, when he discusses the building of complexes of LV II: In order to find room for the backs of the houses it was no longer necessary to cut into the slopes of the shelf...(Srejović 1972, 74). In the same publication, speaking about the contours of the LV II buildings, he mentions that they were marked the same way as the ones of LV I: Since the trapezoidal shape was well known, the contours of the foundations were marked out at once, as earlier, by a border of broken stone (Srejović 1972, 75). And what is more important, the discoverer of Lepenski Vir stated that there was a clear difference between the two types of structure as the stone blocks that sustained the pillars of the upper part of the constructions, were placed vertically for LV I buildings and horizontally for LV II (Srejović 1972, 75; Radovanović 1996, 329).

In the same quoted text of D. Borić we find yet another error, namely the one that claims that the excavator described LV II buildings as being without central hearths (Borić 2002, 1035) since D. Srejović had stated it, as such: the position and shape of the hearth remains the same (i.e. as in the previous phase LV I) and the stone receptacle is in its usual place; the hearth construction is however no longer in the ratio 1:3 but most frequently in the ratio 1:2 and the stone receptacles become wide and heavy. The houses did not change their external form, but their interior looked different, they were no longer floored with limestone mortar. As the subsoil was not ideally level and there was no firm floor, the building construction in the interior of the house could not be made up, as earlier (i.e. LV I), of small and light stone slabs, but only of a large and heavy stones which frequently had amorphous forms. The irregular shape of the stones gave the houses of settlement II uneven edges and inaccurate proportions (Srejović 1972, 75) Therefore not only that there were hearths, but they were built in a different ratio, not 1:3 as for LV I but 1:2, and from stone blocks bigger and heavier than the ones used for the previously phase.

As for the stone walls that would be part of the limestone mortar floors as D. Borić states, what would seem as a new argument, that they are
especially pronounced in the steeper terrain of the rear of the settlement (Borić 2002, 1035) this aspect was also pointed out previously by D. Srejović: for the great stone blocks which support the high terrace in the western part of the settlement (i.e. in the rear of the settlement) weighed several cwt. each. There was the constant danger too that landslides from the higher terraces might crush the backs of the houses. Directly behind them, therefore, arched supporting walls of stone blocks and slabs were set up to a height of about one metre. These constructions, executed in a dry-stone technique, are solidly built and in some layers have been preserved complete (Srejović 1972, 74), and this quote continued the one above, in which was described the construction technique of the buildings of LV II, and which would at least deserve a quote mark by D. Borić.

Moreover, another strong argument, that maintains the periodization proposed by D. Srejović for the LV I and LV II as being two separate phases, is the stratigraphic one, according to which the cultural level of LVI was formed into a brown soil, which corresponds to the climatic Preboreal period, and that LVII level was identified within a light-yellow soil, which corresponds to Boreal period (Marković, Marjanović 1972, 182-184; Radovanović 1996, 328).

If one reads only the quotes from D. Srejović presented here, one can clearly see all the facts that point to two different phases/levels. And such detail account used by the excavator cannot leave such suspicion that he would not observe if the stone walls were directly built from the limestone mortar floors! And there are the other details mentioned, such as the different ratio of the hearths (if there had truly been no hearths assigned to LV II then D. Borić would have had a solid argument, but that is not the case), the way the pillars of the upper part of buildings were sustained, and last but not least there is the difference of the soil in which LV I was build and LV II was built.

Furthermore, a recent article on the matter, recognized two different phases, on another argument, namely the one of the presence of ceramic in the buildings, which would divide the period from 6300 to 5500 cal BC into an ‘aceramic’ phase characterized by plaster-floored buildings and stone sculptures, and a ‘ceramic’ phase beginning c.6000 cal BC when Starčevo pottery became an important component of cultural inventory. Interestingly, the appearance of A-features beside hearths, which I. Radovanović (1996) regarded as a relatively late architectural development at Lepenski Vir, also coincides with ceramic phase (Bonsall 2007, 58).

In the light of what I discussed above, the arguments used by D. Borić and his collaborators fall short when trying to propose that LV I is LV II, and in fact there are a number of arguments that support the phasing of the site into LVI and LVII.

Fourth discussion
Now regarding the main (somehow) problem that this site has raised: the fact that its LV I phase started in the same time with the appearance of Early Neolithic throughout South-central Europe and that LV II ends its existence not so long before an Early Neolithic community settled on this site. This fact was the main one that started the debate over whether the community who built LV I and LV II was Mesolithic or a Neolithic one. This, however, is just a matter of paradigm bearing and labeling, as one can see that archaeologists tend to perceive things from their own specialization, be that on Palaeolithic, Mesolithic and/or Neolithic periods.

The first point I would like to make is that the neighboring site Vlasac (situated a few kilometres downstream from Lepenski Vir) had the prototype of buildings for the ones of LVI (Srejović and Letica 1978; Srejović 1972) and its living usage had come to an end in the same time that LVI started its existence, but continued to be in use as a funeral site (Borić 2006; Borić et al 2008; Borić et al 2009). And the neighbouring site of Padina, seem to have had less activity in the same period of the appearance of LV I (situated a few kilometers upstream from Lepenski Vir), and which also on its III-ed sector exposed buildings that resemble those of Lepenski Vir II which seemed younger in date17. Therefore, taking this evidence into account, one should not perceive the appearance of LV I as a settlement of an out of the blue community, rather of one that had previously lived in the same conditions (i.e. on the banks of the Danube) and which had previously experimented in construction techniques, reaching with LVI their best. From the current evidence, it seemed that the communities from both Vlasac and Padina came together at Lepenski Vir (a site situated somehow at the middle of the distance that separates the two) and built what was to be named LVI, leaving behind their previous settlements, but not abandoning them. And later on, Lepenski Vir II

17 I use the word seemed because the data is not of a clear context, see Borić and Miracle 2004.
architecture influenced the building of Padina B from sector III. And secondly, already expressed above, the elements which would make us label LV I and LV II communities as Neolithic ones, are not all presented, and even the ones that were discovered, proportionally speaking, are poorly represented in numbers compared to the ones specific for a Mesolithic community.

Thirdly, the dating of the buildings of the site is far from complete, as researchers previously stated. Therefore, even though Lepenski Vir site starts its trapezoidal phase, that is LVI, in the same time as the spread of Neolithic culture in south-central Europe, that should not be regarded in itself as evidence to consider it as a Neolithic manifestation. On the current evidence Lepenski Vir site was build by a Mesolithic community.

Fifth discussion
The periodization that C. Bonsall proposed at table 10.2 from the article quoted before, has in my opinion 2 flaws. The first one would be the period labeled in the table Early Mesolithic (c. 13000-7200 cal BC) where the sites Cuina Turcului, Lepenski Vir, Padina and Vlasac were assigned. Interestingly enough, the chronological data presented by the same author in the same paper (Bonsall 2008, table 10.1), shows that Cuina Turcului has dates between c. 13000 to 10.000/9500 cal BC while the rest of the sites have the earliest dates as follows: Lepenski Vir – OxA-11715 (8445-7953 cal BC), Padina – OxA-11102 (9760-9307 cal BC), Vlasac – OxA-5824 (9861-8838 cal BC), making the association of this all 4 sites rather difficult on the account of just chronological data, as the last 3 mentioned fall between c. 10000/9500 to 7200 cal BC.

As for the time period labeled in the table Final Mesolithic (c.6300-6000 cal BC) the same author mention above designated only the site Lepenski Vir. As far as available data, it indicates that along with Lepenski Vir also Icoana, Alibeg, Padina and Vlasac (Borić, Miracle 2004, Borić 2006, Dinu et al 2007) were in use, one way or another, in the time frame c.6300 – 6000 cal BC.

Sixth discussion
A. Boroneanț in her latest publication, as mentioned above, states that Lepenski Vir – Schela Cladovei culture (Schela Cladovei – Lepenski Vir culture as she use the terminology) existed between 7200-6000 cal BC, without any account of why she used these time limits. And what is most intriguing, is that in the same paper, the same author stated: Between 9500 – 6300 cal BC there seemed to be very few changes in subsistence, architecture, lithic and bone/antler assemblages. It is only after 6300 cal BC that new features are seen in the Iron Gates: the carved boulders, burials under the floor of the houses, plastered floors, pottery fragments (?), polished stone artefacts (A. Boroneanț 2011, 137). Thus the time limit of this culture should be lowered from 7200 to 9500 cal BC, especially if we consider the available chronological data, and the arguments highlighted in the quoted paragraph, and also added with the fact that: Mortuary practice are fairly consistent throughout the period (Bonsall 2008, 276). Because these are what a culture is all about, namely material and spiritual aspects determine one or another. It is fair to ask then why the ending time of this culture would be c. 6000 cal BC and not 6300 cal BC since from then on there appeared features not previously recorded. First of all because, that is the main problem, namely the record of itself, as discussed before. And because the new architecture that appears – the trapezoidal house form is not clearly documented before the Late Mesolithic (i.e. before 7200 cal BC); although such structures may have been built earlier... (Bonsall 2008, 276), thus allowing the assumption that the interpretation proposed for the trapezoidal houses from the site Vlasac as being the prototype for the ones of Lepenski Vir (Srejović and Letica 1978), might be correct – had been previously used, in a more simple way. Secondly, the subsistence and burial rite continued to be the same. As for the lithic and bone/antler assemblages continued to be in use, with new tools made from yellow-spotted flint and polished stone axes (associated by archaeologist with Neolithic life style). But it must be underlined that the percent of these tools is far outnumbered by the older type of tools. Thirdly, only from c. 6000 cal BC the whole material and spiritual aspect seemed to change consistently to what was labeled Starčevo-Criş cultural complex. The term consistently was used here because some archaeologists imply that the trapezoidal buildings continued to be erected at sites in the Iron Gates gorge with no major change in form and size until

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18 New and more data would be a desiderate one needs in order to have a unquestionable data. But until then, one should not disregard a data just because it is one single or uncorrected or from an unclear archaeological context, as the data in itself implies a human activity at a certain moment in time, as in this case we are interested in the time period and not on the cultural aspect of the data.
the end of the Early Neolithic c. 5500 cal BC (Bonsall 2008, 276). But in the latest paper on this matter, it seems that trapezoidal buildings might have been abandoned around 5900 cal BC (Borić Dimitrijević 2009, 50). And since the rest of the aspects of material and spiritual cultural manifestations were proven to have changed around 6000 cal BC, it remains to establish more precisely the time of use of trapezoidal buildings. Thus, for now, until this last aspect will be further investigated, the upper time limit of Lepenski Vir – Schela Cladovei culture could be c. 6000 cal BC.

The same author named above, judging from bibliography, and from the table (A. Boroneanţ 2011, 113) where she divided the Iron Gates Mesolithic (one which was largely taken from Bonsall 2008, with one improvement, namely that she added the site Alibeg at the period labeled Late Mesolithic but using a “(?)”), she missed out D. Borić and his collaborators articles on Vlasac (Borić 2006, Borić et al 2009). She also disregarded the data available in the paper of A. Dinu and his collaborators (Dinu et al 2007) as follows: The isolated skull was dated 6530-6390 cal BC (AA66368) but without having been corrected for the fresh water reservoir effect, and thus the date should be disregarded (A. Boroneanţ 2011, 125). Which would imply that all the data was disregarded, and probably that is why the data for Icoana site that I mention before, was not even taken into consideration with a question mark as it was the one for Alibeg site.

Nevertheless, the author implies that Ostrovu Banului and Ostrovu Mare sites could also belong to Final Mesolithic period, on the basis of the old radiocarbon data and some of their cultural features (A. Boroneanţ 2011, 132). The available radiocarbon and AMS data (Dinu et al 2007, table 1 and table 2; Bonsall 2008, table 10.1.) does not support such affirmation. Further analysis should offer a clear data.

As I am trying to point out, we should take into consideration the data as it is, and ask for its improvement, if that should be the case. Or if the data is altogether incorrect, than that should be proven, so that future research will get more precise.

And as previously stated, alongside Lepenski Vir in the time of its flourishing activity (c.6300 – 6000 cal BC), also sites such Padina, Vlasac, Icoana, Alibeg were in use. If the dates are incorrect, that remains to be verified, until then they should be regarded as such.

Conclusion

Chronological time limits of Lepensi Vir – Schela Cladovei culture are, in the light of the newly radiocarbon and AMS dates, between c. 9500 – 6000 cal BC.

From the all the data discussed above, and from the bibliography, one could divide the internal chronology of this culture into 3 main phases: 1- Phase I (cca. 9.500-7200 cal BC) – Alibeg, Padina, Lepensi Vir, Vlasac, Râvârta, Icoana, Ostrovu Banului, Schela Cladovei, Ostrovu Corbului;

2- Phase II (cca.7200-6300 cal BC) – Padina, Vlasac, Hajdučka Vodenica, Icoana, Ostrovu Banului, Schela Cladovei, Ostrovu Corbului, Ostrovu Mare;

3- Phase III (cca.6300-6000 cal BC) – Alibeg, Padina, Lepensi Vir, Vlasac, Icoana19.

Where phase I would represent the appearance of the first settlements of this culture, with the debut of the Holocene, and their stage formation, as an evolution from the previous forms of cultural manifestations within the given geographical space of the so called Iron Gates region.

Phase II corresponds to Late Mesolithic period, and would represent the appearance of new settlements and abandon of others, while majority continued their existence.

And the last one, phase III would be the contact phase between the Mesolithic communities of this culture with the Neolithic ones, and also the architectural development of the trapezoidal buildings at Lepenski Vir site and the appearance of its specific boulder – sculptures.

Interesting enough, old researchers, relying on few, and as proven, more or less incorrect radiocarbon data, had previously assigned this culture to a time spam comprising 9th-5th millennium BC (Srejović and Letica 1978, 158; Boroneanţ 2000, 227). This culture exhibits a change around c. 6300 cal BC, mostly in architecture (as well as in art) which from our perspective is more of an evolution of the old forms, and by all means was triggered by environmental changes that occur at the same time, the cooling of temperature, as has been already highlighted by researchers (Bonsall et al. 2002; Bonsall 2008, 277; A. Boroneanţ 2011, 137). The argument would be that humans respond to environmental change by adapting their way of living. And I do not disregard the suggested possibility that the changes in architecture were

19 The settlements are arranged according to their position on Danube’s banks, starting from upstream of the river.
done as a contact with new cultural knowledge of architecture (i.e. brought by the Neolithic communities). But if that were the case, then shouldn’t this type of a feature be documented for the whole area of south-central Europe which was the area of the Starčevo – Criş cultural complex?

Even when all the dating analysis is done for all the sites, namely not one item that can be dated will be omitted, still what should concern us when trying to establish chronology for an archaeological culture would have to be defining first its material and spiritual aspects. And in the case of the Lepenski Vir – Schela Cladovei culture, one can see specific types of expressing these aspects, different from the previous culture from which it originated in the first place, and different from the one with which in its later phase it came into contact.

Since the aim of this paper was to establish the chronology of the Lepenski Vir – Schela Cladovei culture and the correctness of its interpretation, let us look for another perspective on the meaning of chronological data. That would be that it cannot on its own make us consider a culture Mesolithic or Neolithic. Actually what Lepenski Vir – Schela Cladovei culture stands for is exactly this, since it is a culture that appeared in Mesolithic and evolved into Early Neolithic.

We should consider a date as valid until proven otherwise, and not freely dismiss them as invalid on the basis of the lack of a type of analysis, since, that same analysis could prove that the dates were actually valid.

It seems all that the new chronological dates do is to reinforce the views of the culture itself as they were established by its discoverers, namely V. Boroneanţ who led the majority for the excavations on the Romanian side of the Danube, and who named the new discoveries Schela Cladovei culture, and D. Srejović who led the excavations at Lepenski Vir and Vlasac, and who named the new discoveries Lepenski Vir culture. The last-named researcher has the merit of being the first to observe similarities between these archaeological-named cultures, and the first one has the merit to accept this and to be the first to use the double terminology when addressing this culture.

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Bonsall et al. 2000

Bonsall et al. 2002

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Bonsall et al. 2008


Boroneanţ 2000  Boroneanţ Vasile, Paleolithique superieur final at Epipaleolithique dans la zone des Portes de Fer, ed. Silex, Bucureşti (2000).


<table>
<thead>
<tr>
<th>Year</th>
<th>Authors</th>
<th>Title</th>
<th>Venue</th>
</tr>
</thead>
</table>
Lepenski Vir – Schela Cladovei Culture’s Chronology and its Interpretation


Mihailović 2008

Radovanović 1996

Radovanović 1999

Radovanović 2000

Radovanović 2006

Roksandic 2008

Roksandic 2008

Roksandic et al. 2006

Srejović 1966

Srejović 1968

Srejović 1971

Srejović 1972

Srejović 1989

Srejović 2001

Srejović, Letica 1978

Stefanović, Borić 2008

Voytek, Tringham 1989

Vasić 2008

Vlassa 1972
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<table>
<thead>
<tr>
<th>Period</th>
<th>LV phase</th>
<th>cal BC @ 2 s.d.</th>
<th>Material culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle Neolithic</td>
<td>III</td>
<td>6002-5752 (A) (6 dates)</td>
<td>Pits, domed ovens, domesticates, zubigeons (?), Middle Neolithic</td>
</tr>
<tr>
<td>(c. 5900-5500 BC)</td>
<td></td>
<td>6076-5478 (H) (6 dates)</td>
<td>Starčevo style pottery, polished stone axes, 'Balkan' flint, crouched, diarticulated &amp; some extended (? b</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>burials, <em>Spondylus</em> beads</td>
</tr>
<tr>
<td>Transformational /</td>
<td>I-II</td>
<td>6240-5845 (A) (20 dates)</td>
<td>Trapezoidal buildings, sculpted boulders, extended burials parallel to the river,</td>
</tr>
<tr>
<td>Early Neolithic</td>
<td></td>
<td>6216-5746 (H) (9 dates)</td>
<td>meander burials, Early Neolithic Starčevo style pottery, polished stone axes, 'Balkan' flint</td>
</tr>
<tr>
<td>(c. 6300-5900 BC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late Mesolithic</td>
<td>-</td>
<td>-</td>
<td>Non-existent at LV?</td>
</tr>
<tr>
<td>(c. 7500-6300 BC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early Mesolithic</td>
<td>Proto-L V 2</td>
<td>7580-7190 (H) (1 date)</td>
<td>Stone-lined rectangular hearths, extended &amp; disarticulated burials, sitting burial w/crossed legs</td>
</tr>
<tr>
<td>(c. 9500-7500 BC)</td>
<td></td>
<td>8218-7587 (A) (3 dates)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proto-L V 1</td>
<td>9441-9150 (A) (3 dates)</td>
<td>Occupation residues, hearths (?), burials (?)</td>
</tr>
</tbody>
</table>

**Figure 1.**

**Figure 2.**