Stašo FORENBAHER

"NAKOVANA CULTURE:" STATE OF RESEARCH

UDK 903 (497.5) "636"
Primljeno/Received: 1999. 10. 15.
Prihvaćeno/Accepted: 1999. 11. 12.

Stašo Forenbaher
HR-10000 Zagreb
Institut za antropologiju
Ilica 1/VII

The term "Nakovana culture" came into use a quarter of a century ago, as a label for a distinctive assemblage of Eastern Adriatic Copper Age channeled pottery. "Nakovana" ware has been reported from 25 sites along the Eastern Adriatic littoral. Most of the early research and interpretation focused on typochronological issues, based on formal analogies. More recently, this ware, firmly embedded within the late "Hvar culture" tradition, has been dated by radiocarbon to the second half of the fourth millennium B.C. Issues other than pottery typology and dating barely have been investigated. Consequently, sociocultural background for this pottery style remains virtually unknown.

Key words: Copper Age, Nakovana culture, Adriatic, culture history, pottery typology, radiocarbon dating

1. DEFINITION

"Nakovana culture" is a term that was coined in late 1970's by Nikša Petrić and Stojan Dimitrijević (Petrić 1976: 305; 1980b: 36, footnote 48; Dimitrijević 1979: 370-371). It refers to a distinctive pottery style that characterizes the earlier Copper Age of the Eastern Adriatic. As seen by the original researchers, this "archaeological culture" (in a Childean sense) can be equated to the people who inhabited the region during the period in question.

The content of "Nakovana culture" is limited exclusively to the diagnostic pottery assemblage. The most characteristic vessel types are two kinds of bowls: conical bowls with rounded shoulders, cylindrical necks and slightly everted rims, decorated at the shoulder by vertical channelling (*e.g.*, Dimitrijević 1979: Pl. 48: 1, 2, 6), and similar bowls with low, angular shoulders and slightly conically converging necks, decorated by short vertical channeling or grooving along the shoulder and plastic ribs that run radially down the lower conical part of the vessel (*e.g.*, Dimitrijević 1979: Pl. 48: 3, 8). The former are often very dark brown or black and highly burnished, while the latter are usually lighter brown or mottled, with smoothed surfaces. There is some variation in shape (height and angle of neck, shoulder profile), as well as in decoration (channelling can be wide or narrow, deep or subtle and, in coarser examples, grooving or incising may be applied instead - *e.g.* Marijanović 1981: Pl. 33: 6-12). Vertically perforated lugs appear occasionally, as well as vertical perforations that pierce internally thickenned shoulders. It is an open question wether any of these traits are universally temporally sensitive. The accompanying coarse ware is barely, if at all, distinguishable from the plain Late Neolithic ("Hvar culture") pottery (Dimitrijević 1979: 373; Marijanović 1981: 33).

2. RESEARCH HISTORY

The channelled pottery, which lies at the core of the present discussion, was first described in detail almost three decades ago (Dimitrijević 1970). This description was based on finds coming from three major cave sites on Central Dalmatian islands that were excavated after the second world war, two of them on Hvar (Markova and Grapčeva spilja), the third on Korčula (Vela spilja). While work at Vela spilja was only beginning at that time (Čečuk 1975; Gjivoje 1955;

Novak 1954), the two sites on Hvar already have been extensivelly excavated, and the finds published in great detail (Novak 1955, 1959, 1962, 1967, 1968). Unfortunately, however, these finds were accompanied by only the most basic information about their stratigraphic context. As a consequence, when Dimitrijević set out to explain the appearance of channelled pottery within "Hvar culture," he had to base his arguments exclusivelly on typological criteria.

Dimitrijević was working within the tradition of Milojčić's school, which saw all change in European prehistory taking place under direct or indirect influence of the "more advanced cultures" of the Central and Eastern Balkans, the Aegean, Anatolia and, ultimately, Mesopotamia. He saw the channelled ware as a "foreign element" in the Adriatic. Since channelling was well known as one of the most common decorative techniques within the Neolithic of the Central and Eastern Balkans, he considered the Dalmatian examples of such pottery to be either direct imports from those "more powerful cultures," or local products made under their influence (Dimitrijević 1970: 114). Following this logic, the technologically best made and most carefully decorated vessels were interpreted as imports from "Vinča culture" (Dimitrijević 1970: 106, 110), while other channelled and grooved ware, that did not have direct analogies at Vinča, was either considered as imported from some (hypothetical) "peripheral area of Vinča culture," or as local replicas of Vinčan prototypes (Dimitrijević 1970: 107, 111).

In his early work, Dimitrijević considered the Eastern Adriatic channelled pottery to be coeval with his late C and D1 phases of "Vinča culture," that is, with the Late Neolithic of the Central Balkans (Dimitrijević 1970: 114; for his periodisation of "Vinča culture," see Dimitrijević 1971: 49-52, 65). Results of excavations at two caves, both located on Pelješac peninsula, were soon to cause a revision of such chronological positioning.

During early 1970's, Petrić excavated a couple of test trenches in Spila at Nakovana, near the western tip of Pelješac. He found "a small, but significant assemblage" of channelled pottery, stratified between the Late Neolithic and the Early Bronze Age levels, and ascribed it to the "first phase of the Copper Age" (Petrić 1975: 65; 1977: 22). In a more extensive article on prehistory of Pelješac (Petrić 1976), he linked these finds to the material recovered from layer 5 of Gudnja. The finds from this important stratified cave site, located at the opposite end of the peninsula and excavated a decade earlier, still remain unpublished, but Petrić had the opportunity to see them, as well as the accompanying contextual information. He was reassured that the channelled ware here also followed after the Late Neolithic "Hvar culture," and predated the Late Copper Age "Cetina 1" horizon[1] (Petrić 1976: 303-304).

He linked this further to the already mentioned channelled pottery finds from Hvar and to similar finds from a couple of Albanian sites (Maliq and Tren), all arguably datable to the Early Copper Age. For this diagnostic pottery assemblage he proposed the term "Pelješac culture." On Dimitrijević's suggestion, this term was soon replaced by "Nakovana culture" (Dimitrijević 1979: 370-371; Petrić 1980b: 36, footnote 48), which remains in common usage among most (but not all) archaeologists working in the region. Petrić asserted its development through two phases, the first one "transitional from Hvar culture", the second "characterized by developed pottery forms" (Petrić 1976: 305), but did not elaborate upon that concept. Following Dimitrijević, he acknowledged links to Vinča and other "cultures" of the Central Balkans, but at the same time stressed its autochtonous roots.

Dimitrijević incorporated these new findings into his preliminary overview of the Eastern Adriatic Copper Age (Dimitrijević 1979). He maintained his position that the (typologically) earliest channelled pottery from Markova cave was directly imported from "Vinča culture," and correlated temporally to his "Vinča phace C (late)." Clearly, in his opinion, channelling could not have been invented independently by the local Late Neolithic population, but must have been introduced from the outside (Dimitrijević 1979: 373). After this early introduction of channelling from the Central Balkans, a "Proto-Nakovana horizon" would follow, considered to be a "symbiosis" of late "Vinča" and late "Hvar" (Dimitrijević 1979: 373). This was characterized by technologically inferior "local copies" of Vinča D1 (late) and D2 conical bowls with angular shoulders, decorated by short vertical channelling or grooving at the shoulder, and by plastic ribs that ran radially down the lower part of the vessel (Dimitrijević 1979: 371-372, 376). Finally, the "Vinča-inspired local development" would culminate in "Nakovana horizon," characterized by irregular, crude grooving, as well as by the appearance of bowls with rounded shoulders, very much reminescent of "Baden culture" wares that belong to the earlier Copper Age of the Middle Danubian Basin (Dimitrijević 1979: 372). Dimitrijević explicitely stated, however, that his recognition of "Proto-Nakovana" and "Nakovana" horizons was based exclusivelly on typological criteria, and could not be verified stratigraphically (Dimitrijević 1989: 371).

Roughly contemporaneous to the publication of Dimitrijević's overview are several articles published by

[1] In recent publications there is a tendency to view the so-called "Adriatic type of Ljubljana" pottery as an integral, or even a defining, part of "Early Cetina culture" or "Cetina 1" assemblage (Forenbaher and Kaiser 1997: 18; Govedarica 1989: 200; Marović and Čović 1983: 210-211; Milošević and Govedarica 1986: 63-64). The same position has been adopted here, and shall be followed consistently throughout this text.

Petrić, in which he drew attention to an assemblage of similarly looking channelled pottery from Brijuni, an archipelago near the northern end of the Eastern Adriatic littoral. For this group of finds, he proposed the label "Northern Adriatic type of Nakovana culture" (Petrić 1978a: 448; 1979a: 218; 1980b: 28).

This series of articles, published over the decade of 1970's, essentially defined "Nakovana culture" and established it as the representative of the earlier part of the Copper Age in the Eastern Adriatic. Later fieldwork added to the number of sites with Copper Age channelled pottery along the coast and its hinterland. Two of those later contributions may be singled out for providing important new insights.

At Ravlića pećina, a cave located in the hinterland of Central Dalmatia, excavations confirmed the general stratigraphic position of "Nakovana" ware between the Late Neolithic ("Hvar") and and the Late Copper Age ("Cetina 1") (Marijanović 1981: 33-37). As its excavator pointed out, however, the stratigraphy here was incompatible with the phasing proposed by Dimitrijević – in fact, the diagnostic sherds of "Proto-Nakovana" and "Nakovana" type showed up in reverse stratigraphic order from what was to be expected (Marijanović 1981: 49). Consequently, Marijanović rejected Dimitrijević's connection with Vinča. Instead, he regarded the channelled pottery as an integral part of "Hvar culture" (more precisely, its latest stage), thus rejecting Petrić's "Nakovana culture" label (Marijanović 1981: 50-52). In essence, however, there was nothing radically new in his argument: The channelled potery was still seen as foreign, and its origin was sought not in "Vinča culture", but in "Baden" and other, even more distant Copper Age "cultures" of the Central and Eastern Balkans (Marijanović 1981: 51-52).

At Buković-Lastvine in Northern Dalmatia, an open air setlement attributable to "Nakovana culture" was excavated in mid 1980's. A wide range of data that was collected from this site (a large pottery and a smaller lithic assemblage, a big faunal collection, macrobotanical samples, radiocarbon dates, etc.) provided the first opportunity to expand our

No.	Site name	Attribution	Type	Location	Approximate date range
1	**Brijuni**	**certain**	**open-air**	**island**	
2	**Buković-Lastvine**	**certain**	**open-air**	**mainland**	**3350-3000 B.C.**
3	**Grapčeva spilja**	**certain**	**cave**	**island**	**3500-3100 B.C.**
4	Grotta delle Galerie	possible	cave	mainland	
5	Grotta Azzura	possible	cave	mainland	
6	**Gudnja**	**certain**	**cave**	**mainland**	
7	Jami na Sredi	possible	cave	island	
8	Lisičići	possible	open-air	hinterland	
9	Maliq	possible	open-air	hinterland	
10	**Markova spilja**	**certain**	**cave**	**island**	
11	Odmut	possible	cave	hinterland	? - 3000 B.C.
12	**Oporovina**	**certain**	**cave**	**mainland**	
13	Pokrivenik	possible	cave	island	
14	Pupićina peć	possible	cave	hinterland	
15	**Ravlića pećina**	**certain**	**cave**	**hinterland**	
16	Smilčić	possible	open-air	mainland	
17	**Spila (Nakovana)**	**certain**	**cave**	**mainland**	
18	**Spila (Perast)**	**certain**	**cave**	**mainland**	**3650 - ? B.C.**
19	Škarin samograd	possible	cave	hinterland	
20	Tradanj	possible	cave	mainland	
21	Tren	possible	open-air	hinterland	
22	Varvara	possible	open-air	hinterland	
23	**Vela spilja**	**certain**	**cave**	**island**	
24	**Vlaška peć**	**certain**	**cave**	**mainland**	
25	Zelena pećina	possible	cave	hinterland	

Table 1. List of sites with "Nakovana" ware

understanding of the Eastern Adriatic Copper Age beyond purely typo-chronological concerns. While some summary information from this excavation has been published (Chapman et al. 1990; 1996: 198-210), a full report has yet to appear.

3. GEOGRAPHIC DISTRIBUTION AND SITES

Channelled pottery attributable to the Copper Age has been reported from 25 sites along the Eastern Adriatic, but only from 11 of those sites enough diagnostic material has been recovered (or published) to allow their safe identification as "Nakovana sites" (Table 1). Most of them are caves (9, possibly 19), located near the coast on the mainland (5, possibly 8) or on the islands (3, possibly 5), while a few are farther away from the coast in the hinterland (1, possibly 6). Open-air sites are much less common (2, possibly 6 altogether), but this characterizes all prehistoric periods earlier than the Bronze Age, when the appearance of masive hillfort architecture and burial mounds tips the chances of detection in their favor. The relatively insubstantial earlier sites were easily rendered archaeologically invisible by the intensive erosion and colluviation that characterizes the region (Shiel and Chapman 1988). The sample that we have is, therefore, quite certainly biased in favor of caves.

Sites are scattered all along the Eastern Adriatic littoral, from Istra (or, possibly, from Triestine Karst) in the northwest, to the Bay of Kotor (or, possibly, to Albania) in the southeast, but apparently do not penetrate more than a few dozen kilometers inland. The available evidence suggests that all can be regarded as generalized occupation sites.

3.1 NAKOVANA

The eponymous site is a cave, simply called "Spila,"[2] near Nakovana village,[3] some 7 km east of the western tip of the Pelješac peninsula. It is located near the summit of Kopinje hill (elevation 490 m a.s.l.), overlooking the sea channels between Pelješac, Korčula, Hvar and the mouth of Neretva river to the south, west, and north. Closer by, the plateaus of the Upper and Lower Nakovana spread out a couple hundred of meters below the cave entrance. The 15 m wide, 2 m high opening faces south-east. Beyond it is a roughly triangular-shaped chamber, some 15 m deep. Dry-stone walls that partially enclose the entrance testify of its use by shepherds. According to the written sources, sheepherding was a subsistence activity of prime importance in the area at least since the Middle Ages, (Fisković 1956: 219, footnote 7), and probably since much earlier.

Fisković was the first to note the presence of prehistoric potsherds in front of the cave (Fisković 1959: 219). During the 1950's, Novak excavated a small test trench. His only published reference to it is a single sentence, saying that he "established [the cave's] use during the Bronze and Iron Ages" (Novak 1973: 131; Petrić 1975: 65). Petrić excavated two more test trenches over two field seasons during the early 1970's (Petrić 1975: 65; 1977: 22). One was located in the "northern (right)" part of the cave, the other one near the middle of the chamber; both are still visible. Below the topmost half meter of sediment that contained Roman and Iron Age pottery, he found a layer containing the Early Bronze Age pottery which he considered contemporary with, but somewhat different from, the clasic "Cetina" ware (Petrić 1976: 306). Below this was a layer containing the channelled ware which he used to define "Nakovana culture" (Petrić 1976: 305). Still deeper, he hit a "Hvar culture" layer, but apparently discontinued the excavation without reaching bedrock, at a depth of over 2 m below the surface (Petrić 1976: 304). Apart from pottery, numerous animal bones and a few flaked stone artifacts were also recovered (Petrić 1975: 65).

Numerous finds, belonging to different periods, have been reported from various locations on the Nakovana plateau below the cave. Over a century ago, Vuletić-Vukasović described the masive Iron Age hill-fort that ocupies the prominent flat-topped hill, known as "Grad," which rises near the plateau's center (Vuletić-Vukasović 1892: 98).[4] He also described a pollished stone ax which he acquired in the village (Radić and Vuletić-Vukasović 1890: 73-74). Another similar ax was found during the 1930's, but is now lost (Petrić 1976: 295). The architectural remains on the hill-fort belong to the Iron Age and later (Roman and Medieval) periods (Fisković 1956: 220; Petrić 1978b: 37-39), but Petrić also reports presence of later Bronze Age pottery, as well as a single diagnostic sherd of a "Hvar culture" vessel (Petrić

[2] "Spila" is one of the Croatian dialectal variants of the word for "cave".

[3] There is some confusion about the propper form of the name of the village. In his overview of the area's archaeology, Fisković wrote: "This village is usually called "Nakovanj." I call it, like its present-day inhabitants, "Nakovana" (Fisković 1956: 219, footnote 7). This form - "Nakovana," rather than "Nakovanj" - was adopted by Petrić and Dimitrijević for the name of the Copper Age "culture." It continues to be used today by the single family that inhabits the village.

[4] His picturesque description is worth quoting in full: "Desetak minuta dalje od Nakovana je tako rečeni Grad, al' tu nema zidoderina, nego je naravsko, u vrh glavice, nepristupno pribježište, a sa strane pristupišta zgrađeno je nešto malo suhozidine osrednjim kamenjem. U gradu golem broj utoraka prethistoričkih vrčeva i slične ćeramike. Ovo je naravska obrambena glavica, da ih je malo ili nimalo takvih u svakolikoj našoj domovini."

1976: 307; 1978b: 40, 41, figs. 13-15). The plateau around the hill-fort (and elsewhere, particularly in an area known as "Piščina" - see Fisković 1956: 220) is dotted by burial mounds. Several of them have been opened or destroyed by illicit diggers (Fisković 1956: 220; Petrić 1978b: 39-40; 1980a: 200; 1981: 44).[5] A fragment of an Apulian painted vessel, dated between the 7th and the 5th centuries B.C., was found on the surface of one of the burial mounds (Petrić 1978b: 41, 42, fig. 16; 1980a: 199, Pl. 1: 1). The Hellenistic "Gnathia" ware is relatively common, and Roman potsherds appear in profusion on the hill-fort, as well as in other places on the plateau (Petrić 1978b: 42). Further architectural remains and artifact scatters have been reported on Nakovanić, a small flat-topped hill just west of "Grad" (Petrić 1978b: 39), and on Podlakti hill (Fisković 1956: 220).

3.2 OTHER "NAKOVANA CULTURE" SITES

Of the two open-air sites, the first to be discovered was the one on **Brijuni** islands. Early in this century it was explored by Gnirs and, more extensivelly, by Bačić after the World War II. The latter excavated at two locations some 50 meters apart, "Javorike" and "Gromače." It has been suggested that both these areas belonged to a single, relatively large open-air settlement (Petrić 1978a: 435). Bačić never published his finds. Batović attributed them to the "transition from Neolithic to the Copper Age, or Early Copper Age" (Batović 1975: 102-103). Petrić published a selection of pottery finds (Petrić 1979a: Pl. 13-17; 1980b: Pl. 12, 13) and proposed to label them "Northern Adriatic type of the Nakovana culture" (Petrić 1978a: 448; 1980b: 28). Part of the illustrated material is closely analogous to "Nakovana" ware from Dalmatia, while other examples of channelled bowls and jars are shaped somewhat speciffically. One should be cautious in lumping them all together with the diagnostic "Nakovana" finds, since the site reportedly continued to be occupied during the Bronze Age (Petrić 1978a: 435), and contextual information for these finds is not available.

Buković-Lastvine was discovered in early 1980's. The spatial extent of the site is signalled by a surface scatter covering approximately 12 hectares (300 x 500 m). Eight test trenches were excavated within this area in 1985 (Batović and Chapman 1986: 35; Chapman *et al.* 1996: 198, 201). Two occupational horizons attributable to the Copper Age (Buković 1 and 2) were exposed under the plowzone which contained some Late Bronze Age materials (Buković 3), but no structures were recovered. The excavators concluded that the dwellings must have been located on slightly elevated limestone ridges, while the explored deposits filled the depressions next to them, containing material that was either discarded or redeposited there (Chapman *et al.* 1996: 202, 210). The finds include over 3000 animal bone fragments, some mollusks, a macrobotanical sample, a flaked stone assemblage containing 100 artifacts, and an arsenic copper pin fragment (Chapman *et al.* 1996: 203-205, 209, 210). Only a small fraction of the 14,000 - piece pottery assemblage has been published so far. Most of the illustrated sherds look very much like the channelled "Nakovana" ware (Batović and Chapman 1986: fig. 1, 2; Chapman *et al.* 1990: fig. 5,6; 1996: fig. 143, 144) In addition to these, incised, grooved, impressed, and excised decoration, as well as wide strap handles reminescent of "Early Cetina" style, are mentioned (Batović and Chapman 1986: 36; Chapman *et al.* 1996: 206, 207). The assertion that the "channelled fine wares are consistently associated with those same coarse incised wares hitherto believed to be the sign of a different "culture group" and, consequently, that radiocarbon determinations from Buković date "the Nakovana facies and the pottery of Early Cetina style" (Chapman et al. 1990: 39, 41; 1996: 208, 210) has to be rejected, however. To the contrary, these two types of pottery consistently appear separately in a number of undisturbed stratified cave contexts, and their joint appearance at Buković should be attributed to post-depositional mixing (see below, section 4.2, for detailed discussion). The three radiocarbon determinations place the Copper Age occupation of Buković at around 3350 - 3000 B.C. (Chapman et al. 1990: 32-33; 1996: 202-203).

All the remaining sites are caves. **Grapčeva spilja,** on the island of Hvar, was early recognized as a major prehistoric site. Large-scale excavations that took place soon after the World War II led to the establishment of "Hvar culture" as the leading representative of the Late Neolithic in the Eastern Adriatic. A few fragments of channelled pottery were published among the numerous painted "Hvar" sherds (Novak 1955: Pl. 100: 1, 2, Pl. 101: 2, Pl. 106: 5), unfortunately, with inadequate stratigraphic information (see also Dimitrijević 1970: Pl. 1: 3-5, Pl. 3:2, Pl. 4: 1). Our recent and, as yet, unpublished small-scale excavation of the remaining intact deposits established the presence of diagnostic "Nakovana" sherds in several superimposed contexts that overlie "Hvar culture" levels. The earliest of these appear in context 1290, together with the classic "Hvar" pottery. The overlying contexts 1262 and 1250 contain more "Nakovana" sherds, but these are no longer accompanied by diagnostic "Hvar" wares. Contexts that follow above contain a few sherds decorated by incised or excised geometric motifs. Still higher are the levels with "Cetina 1" pottery and, finally, the full-blown

[5] They apparently contained cist burials. A few finds from one of those are in possession of the Pamić family from Nakovana. They include local prehistoric and imported Hellenistic pottery, an oil lamp, amber beads, a pin and a fibula fragment (Petrić 1981: Pl. 31).

Bronze Age levels. A couple of radiocarbon determinations date "Nakovana" contexts (1250 and 1262) between around 3500 and 3100 B.C., while a single determination would place "Hvar/Nakovana" context (1290) at around 4500 B.C. (see below, section 4).

Markova spilja, another major prehistoric cave site located on Hvar, was also excavated by Novak during the 1950's and 1960's. Occassional channelled potsherds appear among the numerous "Hvar culture" finds that were published over the course of the years, but with the same shortcoming of inadequate stratigraphic information (Novak 1959: Pl. 12: 1; 1962: Pl. 9: 7, 8; 1967: Pl. 7: 7; 1968: Pl. 11: 1-6; see also Dimitrijević 1970: Pl. 1: 1, 2, Pl. 2: 1-4, Pl. 3: 1, 3-5, Pl. 4: 2-9). If the number of published sherds is at all representative, "Nakovana" wares were more common here than in Grapčeva spilja.

Vela spilja, a spacious cave located on the neighboring island of Korčula, may be the richest stratified cave site in the Eastern Adriatic. It was first occupied no later than during the Mesolithic, and continued to be used until the end of prehistory without a major break. It was test-trenched by Gjivoje, Foretić and Ilakovac in 1950 (Gjivoje 1955: 2-3), and a year later by Novak (1954: 49-50). Extensive excavations, initiated by Novak and continued by Čečuk, began in 1970's and are still in progress, now under the supervision of Dinko Radić. Very little of this work has been published to this date. The presence of "Nakovana" ware is attested by a single potsherd published by Gjivoje (1955: Pl. 3: 9), a casual mention of channelled pottery by Čečuk (1994: 47) and a brief description of channelled pottery finds, accompanied by two photographs of potsherds, in Čečuk and Radić (1995: 36-37, figs. F 7 and F 23). "Nakovana" horizon is represented by a substantial layer that overlies a classic "Hvar" horizon, and underlies a horizon with "Cetina 1" pottery (Čečuk 1987: 33; 1989: 46).

Gudnja, located near the eastern end of Pelješac penninsula, is another major stratified cave site, with a sequence that covers the entire post-pleistocene period (Jelavić 1968). It was excavated in mid-1960's by Spomenka Petrak. The finds remain unpublished, but the sequence has been laid out by several authors who had the opportunity to inspect the recovered material as well as the accompanying stratigraphic information. All of them agree about the richness of the Copper Age layer (known as "Gudnja 5"), which directly overlies classic "Hvar" (Batović 1966: 96, 98; Čović 1983: 105; Dimitrijević 1979: 368; Petrić 1976: 304). Its lowest part is characterized by the channelled "Nakovana" ware. This is, apparently, followed by two more superimposed layers that are attributable to the later and final part of the Copper Age (Dimitrijević 1979: 368; Čović 1983: 105). Still higher lies the classic "Cetina culture" layer (Petrić 1976: 304).

Spila near Perast, in the Bay of Kotor, is currently the southernmost "Nakovana" site. Its Copper Age "layer II" likewise has been split in three superimposed units. The lowest of these, stratum IIa, which directly overlies a Late Neolithic layer, contains some "Nakovana" sherds (Marković 1985: 24, Pl. 8: 3; 10: 7). Stratum IIb has very little diagnostic material, while stratum IIc is characterized by incised and impressed decoration, finger-impressed plastic ribs on coarse pottery, and occasional strap handles (Marković 1985: 24-26). A single radiocarbon determination dates the contact between layers I and II – that is, the Neolithic to Copper Age transition – to around 3650 B.C. (Marković 1985: 27).

Ravlića pećina is located above the source of Tihaljina, a tributary of Neretva, some 20 km from the coast, in the hinterland of Central Dalmatia. Yet another stratified cave site, it was excavated by Marijanović during the late 1970's. The Late Neolithic levels, containing "Hvar-like" pottery, underlay the 30 cm thick Copper Age stratum IIc. Identified by the excavator as "Nakovana phase of Hvar culture," this stratum contains diagnostic channelled pottery, as well as occasional painted or incised sherds (Marijanović 1981: 33-35). A thinner stratum IIIa which overlies it contains more diagnostic "Nakovana" pottery – *e.g.,* deep bowls with radial plastic ribs along the lower part of the vessel (Marijanović 1981: Pl. 33: 5) – as well as similarly shaped bowls with vertical incision (in place of channelling) along the shoulder (Marijanović 1981: Pl. 33: 6-12). It also contains sherds decorated by incised, excised or impressed geometric motifs, as well as some characteristic "Cetina" sherds. Marijanović causes some confusion by identifying the combined contents of this stratum as "Early Cetina culture" (Marijanović 1981: 36). It seems more likely that it formed over a longer time period, by conflation of the later Copper age and the earliest Bronze Age levels into a single thin stratigraphic unit.

Vlaška peć, located on the coast between Novi Vinodolski and Senj, testifies of "Nakovana" presence in the northern Adriatic. The cave was first excavated in 1960's, when finds attributable to the Earlier Bronze Age were recovered (Mirosavljević 1974: 261, 266, footnote 5, fig. 1, 2). A later test excavation produced some diagnostic "Nakovana" sherds, from a context underlying a Middle Bronze Age horizon (Forenbaher 1987a: 7, Pl. 4: 7-10; 1979b: 66, fig.4, right; 1987c: 19).

Oporovina is currently the northernmost certain "Nakovana" site, and the only such located on Istrian mainland. Starac reports a rich Copper Age layer, some 60-80 cm thick, which contains diagnostic pottery attributable to "Northern Adriatic type of Nakovana culture" (Starac 1990: 225).

3.3 OTHER SITES WITH CHANNELLED POTTERY ATTRIBUTABLE TO THE COPPER AGE

In adition to the 11 sites overviewed above, 14 more are mentioned by various authors as possibly containing the channelled "Nakovana" ware. They are not considered as proven "Nakovana" sites here for one (or several) of the following reasons: 1)

Site name	Context	Lab. no.	bp	Cal. ages*	Cal. 1σ range*	Source
Buković	Buković 1	GrN 15241	4390±60	3020, 2990, 2930	3091-2915	Chapman et al. 1990: 32-33
Buković	Buković 2	GrN 15242	4520±60	3310, 3230, 3190, 3160, 3130	3350-3094	Chapman et al. 1990: 32-33
Buković	Buković 2	GrN 15244	4580±80	3350	3493-3107	Chapman et al. 1990: 32-33
Grapčeva	context 1250	Beta - 103479	4510±50	3303, 3233, 3179, 3163, 3111	3343-3094	previously unpublished
Grapčeva	context 1262	Beta - 103480	4700±100	3500, 3420 3380	3631-3356	previously unpublished
Grapčeva	context 1290	Beta - 103481	5650±100	4470	4581-4360	previously unpublished
Spila (Perast)	layer I/II (contact)	z-416	4886±110	3660	3780-3538	Marković 1985: 27
Odmut	layer IV (top)	z-410	4397±120	3010, 3000, 2930	3297-2885	Marković 1985: 44

* Calibrated after Stuiver and Reimer 1993.

Table 2. Radiocarbon dates for "Nakovana culture"

the channelled fragments are only generally analogous to the characteristic "Nakovana" ware; 2) only very few channelled sherds have been recovered, from contexts other than the Copper Age; or, 3) the relevant finds remain unpublished.

Beginning from the north, Petrić lists two of the caves in the Triestine Karst — **Grotta delle Galerie** and **Grotta Azzura** — as containing "Nakovana" pottery (Petrić 1979a: 218). **Pupićina peć** in Istria yielded a single characteristic fragment of a channaled "Nakovana" bowl. It was recovered during the 1998 field season (awaiting publication), from the contact between the Late Neolithic and the Bronze Age levels. It is so far the only indication of a Copper Age visit to that extensivelly excavated site. **Jami na Sredi,** a cave on the island of Cres, is mentioned by Petrić and Dimitrijević, who both had access to the finds and probably noted some channelled sherds among them (Petrić 1979a: 218; Dimitrijević 1979: 369). None have been published, however, in the original site report (Mirosavljević 1959).

In Northern Dalmatia, a few channelled sherds were recovered from the Neolithic open-air settlement at **Smilčić** (Batović 1962: 79, 86-87; fig. 21: 2, 5), but their decoration, as well as the shape of the vessels, do not correspond to the characteristic "Nakovana" types. A bit farther towards the south, two caves — **Tradanj** and **Škarin samograd** — alleghedly yielded channelled sherds (Petrić 1976: 304; 1979a: 218), but none of the characteristic "Nakovana" finds have been published in the rather sketchy reports (Brusić 1978; Marović 1984: 34). Another cave, **Pokrivenik,** located on the island of Hvar, is mentioned by Petrić as containing a few "Nakovana" sherds (Petrić 1979b: 10). Again, none of them were published in the original site reports (Mirosavljević 1952; Novak 1949: 150-157), and the recently renewed excavation failed to confirm their presence (Kaiser *et al.* 1992).

In the hinterland of Southern Dalmatia, **Zelena pećina,** a cave above the source of Buna, a tributary of Neretva, is mentioned as a potential "Nakovana" site (Petrić 1979a: 218), but none of the published finds support this claim (Benac 1957). Even deeper inland, occasional channelled sherds appear at the Late Neolithic open-air settlement of **Lisičići** (Benac 1958: 54, Pl. 15: 1, 2). Like those from Smilčić, they do not correspond too closely to the characteristic "Nakovana" types. More closely anologous to "Nakovana" are a few sherds recovered from thr Late Copper Age horizon A-1 of **Varvara** hill-fort, located at the source of Rama, another tributary of Neretva (Čović 1978: 47-48, Pl. 2: 2, 3; 1983: 105, Pl. 3: 9).

Some channelled sherds were recovered from the thick, but not particularly rich horizon IV of the **Odmut** cave, located in northeastern Montenegro. This horizon has been attributed first to the "final Neolithic," and then to the "transition to the Copper Age." Its topmost part has been dated by radiocarbon to around 3000 B.C. (Marković 1977: 10, Pl. 3:7; 1985: 34, 40, 44, Pl. 25: 5). Finally, two sites in southeastern Albania that yielded channelled Copper Age pottery — **Maliq** (Prendi 1966) and **Tren** (Korkuti 1971: 46, Pl. 3, Pl. 4) — have also been listed among "Nakovana" sites (Petrić 1976: 305).

4. DATING

Eight radiocarbon determinations are currently available from the contexts related to "Nakovana culture" (Table 2). Seven of them date the diagnostic "Nakovana" ware to the second half of the 4th millennium B.C. The eighth, an unusually early date from Grapčeva spilja (Lab. no. Beta - 103481), which comes from a context that contained both "Hvar" and "Nakovana" pottery, is here considered as abberant (see below, section 4.1). This makes "Nakovana" fully coeval with "Baden culture" of the Middle Danubian Basin (Forenbaher 1993: 246), and at least several centuries later than the latest "Vinča culture," ruling out any possibilities of contact with the latter. On the other hand, contemporaniety with "Baden," while allowing the possibility of contacts, does not automatically prove them. More importantly, the earliest dates for "Nakovana" are no later than the earliest dates for "Baden," leaving the question of the direction of any hypothetical "influences" open for discussion. For the moment, it may be safest to regard the channelled "Nakovana" ware as an Eastern Adriatic stylistic expression, on equal footing with other channelled pottery styles that characterize the earlier part of the Copper Age across a large part of Southeast Europe.

The question of duration of "Nakovana" style remains unresolved. Radiocarbon dates suggest that it covered a period of six or seven centuries, possibly from around 3600 to around 3000 B.C. Nothing, however, would currently contradict its duration throughout the 4th millennium or even longer, because the latest dates for its immediate predecessor, the Late Neolithic "Hvar culture," fall well before 4000 B.C., while the earliest dates for the Late Copper Age / Early Bronze Age "Early Cetina culture" follow a century or two after 3000 B.C.[6] This brings us to questions of predecessors and the aftermath of "Nakovana."

4.1 RELATION TO "HVAR CULTURE"

Little doubt remains about "Hvar culture" being the immediate predecessor of "Nakovana" along most (possibly, all) of the Eastern Adriatic. The continuity is indicated, among other, by the virtual identity of "Hvar" and "Nakovana" coarse wares (Dimitrijević 1979: 373; Marijanović 1981: 33). Furthermore, the channelled "Nakovana" sherds show up in the same stratigraphic contexts with the characteristically painted "Hvar" pottery in at least three stratified cave sites: Ravlića pećina (Marijanović 1981: 35), Spila at Perast (Marković 1985: 23) and Grapčeva spilja (context 1290 of our recent excavation, unpublished). While this association might be questioned on the grounds of posible post-depositional mixing, there can be no doubt about the several examples where typical "Nakovana" channelling appears together with "Hvar-style" decoration on one and the same sherd: either with geometric incised motifs, as in Markova spilja (Novak 1959: Pl. 12: 1, illustrated upside-down!) and Ravlića pećina (Marijanović 1981: 35, Pl. 30: 2), or with red painted designs, as in Ravlića pećina (Marijanović 1981: 35, Pl. 29: 3, 4) and Spila at Nakovana (Petrić 1976: 305, Pl. 2: 6). The question, therefore, is not whether "Nakovana" succeeds "Hvar," but how much do these two styles overlap temporally, and when does the new style, which usually is regarded as the marker of the Copper Age, become established.

There is a single radiocarbon determination available from "Hvar/Nakovana" context 1290 of Grapčeva spilja, which dates it around 4500 B.C. This would suggest that the transition took place very early, but given the fact that this date is out os sequence with the dates for the underlying classic "Hvar" contexts[7], and that the dates for the overlying "Nakovana" contexts are almost a thousand years later, it should not be given too much weight. The earliest available date for "Nakovana" may be the one from Spila (Perast). It is supposed to date the transition from the Neolithic to the Copper Age (Layer I/II interface) to around 3650 B.C. (Marković 1985: 27). Clearly, the sample may have come from either above or below the interface, but it remains unclear with which one of those two contexts it should be asociated. Consequently, the dating of "Hvar" to "Nakovana" transition remains an open question. Given the present state of research, it could have taken place at any time between 4200 and 3600 B.C.

4.2 WHAT COMES AFTER "NAKOVANA"?

The aftermath of "Nakovana" is an even vaguer issue. The first relativelly well-defined style that follows it is "Cetina 1," marked by the comb-impressed "Adriatic

[6] The only available dates come from our recent excavation in Grapčeva spilja. The latest of the 7 dates for "Hvar culture" is Beta - 103484: 5420±70 bp, or 4342-4164 B.C. (Cal. 1σ range), while the earlier of the two dates for "Cetina 1" is Beta - 103479: 4190±50 bp, or 2881-2628 B.C. (Cal. 1σ range).

[7] See footnote 6.

type of Ljubljana" ware. This horizon, however, still has not been reliably dated. Of the four available dates (Forenbaher and Kaiser 1997: 18; Skeates and Whitehouse 1994), two fall around 2700 B.C., while the other two are much later – around 2300 and 2100 B.C. This may sugest that "Cetina 1" horizon covers roughly the middle part of the 3rd millennium B.C., which would leave a gap of several centuries between "Nakovana" and "Cetina 1," as well as enough room for various speculations.

Contrary to what has been suggested by Chapman *et al.* (1990: 39, 41; 1996: 208, 210), diagnostic "Nakovana" pottery never appears together with "Cetina 1" sherds in the same reliable contexts. This impression may have originated from Marijanović's interpretation of the finds from stratum IIIa of Ravlića pećina as a single chrono-stratigraphic unit, attributed to "Early Cetina culture" (Marijanović1981: 36). According to the illustrated material, this thin stratum actually contains a mixture of "Nakovana" and "Cetina" sherds, as well as a variety of sherds bearing incised, excised, impressed and other kinds of decoration, and must have formed over a long time period.

Several lines of evidence, appart from the already mentioned radiocarbon dates, support the view that "Nakovana" and "Cetina 1" are two separate pottery styles that, most likely, do not overlap in time. Not a single channelled "Nakovana" sherd shows up among the finds recovered from hundreds of burial mounds around the upper course of Cetina river, the area where "Cetina culture" has been originally defined (Marović 1991), nor among the copious pottery finds from "Cetina 1" settlement at Otišić-Vlake (Milošević and Govedarica 1986). Likewise, several of the "Nakovana" sites, like Vlaška peć (Forenbaher 1987a), Oporovina (Starac 1990), or Brijuni (Petrić 1979a) do not contain any "Cetina 1" sherds. Most importantly, however, in those stratified cave sites that yielded both these kinds of pottery (with the exception of Ravlića pećina), "Nakovana" and "Cetina 1" horizons are clearly separate, with the first underlying the second. Indeed, often there seems to be another horizon that intervenes between the two.

Thus, at Gudnja, not one but "two horizons of the Adriatic type of Ljubljana culture" overlie "Nakovana" stratum (Dimitrijević 1979: 368); or, following another oppinion, a "transitional level" with certain "new, foreign elements" intervenes betwen "Nakovana" and "Cetina 1" (Čović 1983: 105). Similar stratigraphy is repeated at Vela spilja, where "Nakovana" levels are overlain by a layer containing, among other, the diagnostic "Cetina 1" pottery (Čečuk 1987: 33; 1989: 46; 1994: 47), but the details can not be discussed prior to the appropriate publication of the finds. Furthermore, at Spila (Perast), "Nakovana" stratum IIa is followed by the ill-defined stratum IIb (which, however, no longer contains channelled sherds), and then by stratum IIc, marked by the presence of strap handles, finger-impressed ribs on the coarse ware, and a variety of incised and impressed motifs; the diagnostic "Cetina 1" ware is absent (Marković 1985: 24-26). Very similar is the Copper Age sequence at Odmut, where the stratum IV, which contains some "Nakovana-like" channelled sherds, is followed by the ill-defined stratum V (again, lacking the channelled sherds), and then by the thick stratum VI, characterized by incised, excised and impressed decoration, including the cord-impressed ware (Marković 1977: 10-11; 1985: 34-35, 41-42). The pottery resembling "Cetina 1" ware appears only near the top of this stratum, which has been dated by radiocarbon to around 2900 B.C. (z-409: 4285±90 bp, Marković 1977: 11).

The general contemporaniety of "Nakovana" and "Cetina 1" styles, thus, is out of the question. What may be discussed is whether they overlap in time at all, or are they temporaly separated by another intervening style-defined horizon. Several authors speculated about the character of this hypothetical "Middle Copper Age" assemblage. Working in culture-historical tradition, they sought to explain it by invoking "penetrations" of its better known continental counterparts – "Lasinja culture" of the south-eastern corner of the Pannonian plain, "Vučedol culture" of the Sava-Drava-Danube confluence area, or "cord-impressed ware," coming in from the Eastern European steppes (Čović 1983: 106-109; Dimitrijević 1979: 376-378), or suggested that it should be defined as yet another "culture" (Petrić 1978a: 449). The available data suggest that such a pottery-style horizon, which would cover the centuries immediately after 3000 B.C., indeed may exist. There is enough chronological space for it between "Nakovana" and "Cetina 1" and the sites mentioned above provide some hints about what it may actually look like. More fieldwork will be necessary, however, before it can be coherently defined.

5. BEYOND POTTERY AND DATING

It is by now clear that, apart from a rather sketchy culture-history, very little is known about the earlier part of the Copper Age in the Eastern Adriatic. An idea about the scope of subsistence activities can be gained from the preliminary report on faunal and macrobotanical remains from Buković. The importance of sheepherding at that site is indicated by the predominance (58%) of ovicaprine bones (Chapman *et al.* 1996: 203). One could easily presume that many of the "Nakovana" cave sites were related to seasonal sheepherding, since most of them have a long ethno-historic tradition of such use, but archaeological evidence for it is not yet available. Relative abundance of cattle at Buković may be "attributed to the incipient exploitation of secondary products in Dalmatia and the value of bovine traction (carts, ploughs)" (Chapman *et al.* 1996: 204). Pigs are uncommon, and wild animals are virtually absent. A closely similar faunal assemblage has been recovered from the combined Copper Age stratum II at Spila (Perast), where domesticated animals make up 87% of the sample, and 82%of that are ovicaprines.

The relatively lower frequency of cattle is hardly surprising, since this site is located in a much more mountainous terrain than Buković. This may also explain the presence of some wild animals, primarily ibex and chamois (Marković 1985: 26). The macrobotanical sample indicates that the inhabitants of Buković utilized the surrounding arable lands for mixed farming. They grew emmer and einkorn wheat, oats and possibly barley, as well as a small-seaded legume (Chapman *et al.* 1996: 205).

The faunal assemblage from the stratum IV at Odmut presents a very different picture. Here, wild animals dominate with 71% (mostly deer, followed by ibex and wild boar), while ovicaprines are again the most common domesticated animals (Marković 1985: 41). Clearly, the subsistence activities at this cave site, located deep in the mountainous interior of Montenegro, were in sharp contrast to those of the contemporary coastal settlements.

Little can be said about technological skills of the earlier Copper Age inhabitants of the Eastern Adriatic littoral. One obvious but, so far, unexplored avenue of research is the study of "Nakovana" pottery technology. The only lithic assemblage worth mentioning is, again, the one from Buković, but only the briefest report on its contents is available (Chapman *at al.* 1996: 209). Metal artifacts are extremely rare. A single fragment of an undecorated pin made of arsenic copper, found at Buković, in a context dated to around 3300 B.C., is the only direct evidence testifying that metals were beginning to circulate in this region (Chapman *et al.* 1996: 210).

Organization of living space, size and internal structure of settlements, as well as settlement patterns, all remain utterly unknown. Not a single burial can be associated with "Nakovana" ware. As a consequence, social structure of the earlier Copper Age population can not be discussed. The same is true for other, more complex issues, the study of which requires categories of archaeological data which currently are not available. Included here are the favorite issues of the origin and ethnic affiliation of the people who left us their characteristic channelled pottery, as well as the nature of their interaction with the contemporary neighboring populations in Southeastern Europe. Much more high-standard fieldwork in the region will be necessary before we can begin meaningfully addressing such questions.

* * *

This contribution was written for the occasion of the seventieth birthday anniversary of Professor Marin Zaninović, who shares his native soil with the makers of "Nakovana" pots, and who himself contributed, in the early days of his field research, to the exploration of some of the sites here mentioned.

ABBREVIATIONS

AI - Archaeologia Iugoslavica, Beograd
AP - Arheološki pregled, Beograd / Ljubljana
ARR - Arheološki radovi i rasprave, Zagreb
AV - Arheološki vestnik, Ljubljana
GZM - Glasnik Zemaljskog muzeja (arheologija), Sarajevo
Izdanja HAD-a - Izdanja Hrvatskog arheološkog društva
Ljetopis JAZU - Ljetopis Jugoslavenske akademije znanosti i umjetnosti
PJZ - Praistorija jugoslavenskih zemalja, Sarajevo: Akademija nauka Bosne i Hercegovine
OA - Opuscula archaeologica, Zagreb
Obavijesti HAD-a - Obavijesti Hrvatskog arheološkog društva, Zagreb
VAHD - Vjesnik za historiju i arheologiju dalmatinsku, Split
VHAD - Vjesnik Hrvatskog arheološkog društva, Zagreb

BIBLIOGRAPHY

Batović 1962 Š. Batović, Neolitsko nalazište u Smilčiću, Diadora 2, Zadar 1962, 31-116.

Batović 1966 Š. Batović, *Stariji neolit u Dalmaciji,* Zadar 1966, Arheološko društvo Jugoslavije.

Batović 1975 Š. Batović, Odnos jadranskog primorja prema području jugoistočnih Alpa u neolitu i eneolitu, AV 24, 1975, 62-127.

Batović & Chapman 1986 Š. Batović & J. Chapman, Buković - Lastvine: Eneolithic settlement, AP 26, 1986, 52-53.

Benac 1957 A. Benac, Zelena pećina, GZM 12, 1957, 61-92.

Benac 1958 A. Benac, *Neolitsko naselje u Lisičićima kod Konjica,* Sarajevo 1958, Naučno društvo Bosne i Hercegovine.

Brusić 1978 Z. Brusić, Prethistorijski i ranoantički nalazi u šibenskoj okolici, in *Novija i neobjavljena istraživanja u Dalmaciji,* Izdanja HAD-a 3, Split 1978, 25-34.

Chapman *et al.* 1990 J. C. Chapman, C. Schwartz, J. Turner, and R.S. Shiel, New absolute dates for prehistoric and Roman Dalmatia, VAHD 83, 1990, 29-46.

Chapman *et al.* 1996 J. C. Chapman, R.S. Shiel, and Š. Batović. *The Changing Face of Dalmatia.* London 1996: Leicester University Press.

Čečuk 1975 B. Čečuk, Vela spilja kod Vele Luke, Korčula - prethistorijsko nalazište, AP 17, 1975, 64.

Čečuk 1987 B. Čečuk, Istraživanja u spilji Kopačini na otoku Braču i Veloj spilji na otoku Korčuli, Obavijesti HAD-a 19(3), 1987, 32-34.

Čečuk 1989 B. Čečuk, Vela spilja na Korčuli, višeslojno nalazište, AP 28, 1989, 44-46.

Čečuk 1994 B. Čečuk, Vela špilja pokraj Vele Luke, Luško libro 2, Vela Luka 1994, 41-50.

Čečuk & Radić 1995 B. Čečuk & D. Radić, *Vela špilja: pretpovijest otoka Korčule*, Vela Luka 1995: Centar za kulturu.

Čović 1978 B. Čović, Velika gradina u Varvari, I dio, GZM (New Series) 32, 1978, 5-175.

Čović 1983 Eneolitski supstrat, PJZ 4, 1983, 103-112.

Dimitrijević 1970 S. Dimitrijević, Zur Frage der Kannelierten Keramik in der Hvar-Kultur, in V. Mirosavljević, D. Rendić-Miočević, and M. Suić (editors), Adriatica Praehistorica et Antiqua, Zagreb 1970: Sveučilište u Zagrebu, 105-122.

Dimitrijević 1971 S. Dimitrijević, Das Neolithikum in Syrmien, Slawonien und Nordwestkroatien: Einführung in den Stand der Forschung, AI 10, 1971, 39-76.

Dimitrijević 1979 S. Dimitrijević, Problem eneolita na istočnoj jadranskoj obali, PJZ 3, 1979, 367-379.

Fisković 1956 C. Fisković, Arheološke bilješke s Pelješca, VAHD 55, 1956, 217-237.

Forenbaher 1987a S. Forenbaher, Vlaška peć kod Senja: Rezultati istraživanja 1986, OA 11-12, 1987, 1-15.

Forenbaher 1987b S. Forenbaher, Vlaška peć, prethistorijski pećinski lokalitet, AP 23, 1987, 66-67.

Forenbaher 1987c S. Forenbaher, Obnovljeno istraživanje Vlaške peći kod Senja, Obavijesti HAD-a 19(1), 1987, 18-19.

Forenbaher 1993 S. Forenbaher, Radiocarbon Dates and Absolute Chronology of the Central European Early Bronze Age, Antiquity 67, 218-20, 235-56.

Forenbaher & Kaiser 1997 S. Forenbaher & T. Kaiser, Palagruža, jadranski moreplovci i njihova kamena industrija na prijelazu iz bakrenog u brončano doba, OA 21, 1997, 15-28.

Gjivoje 1955 M. Gjivoje, Vela spilja na otoku Korčuli: novo prethistorijsko nalazište, Speleolog 3(1-2), Zagreb 1955, 1-11.

Gjivoje 1969 M. Gjivoje, *Otok Korčula* (2. izdanje), Zagreb 1969.

Jelavić 1968 J. Jelavić, Najstariji stanovnici južne Dalmacije, Slobodna Dalmacija 7176 (27.03.1968), Split 1968, 4.

Kaiser *et al.* 1992 T. Kaiser, N. Vujnović, M. Darmanin, S. Forenbaher, S. Frame and B. Marijanović, Istraživanje u Badnju (Veli Pokrivenik), 1991, Obavijesti HAD-a 24(2), 1992, 33-44.

Korkuti 1971 M. Korkuti, Vendbanimi prehistorik i Trenit, Iliria 1, Tirana 1971, 31-48.

Marijanović 1981 B. Marijanović, Ravlića pećina (Peć Mlini), GZM (New Series) 35-36, 1981, 1-97.

Marković 1977 Č. Marković, The Stratigraphy and Chronology of the Odmut Cave, AI 15, 1977, 7-12.

Marković 1985 Č. Marković, *Neolit Crne Gore,* Beograd 1985: Filozofski fakultet.

Marović 1984 I. Marović, Sinjska regija u prahistoriji, in *Cetinska krajina od prethistorije do dolaska Turaka,* Izdanja HAD-a 8, Split 1984, 27-63.

Marović 1991 I. Marović, Istraživanja kamenih gomila cetinske kulture u srednjoj Dalmaciji, VAHD 84, 1991, 15-214.

Marović & Čović 1983 I. Marović & B. Čović, Cetinska kultura, PJZ 4, 1983, 191-231.

Milošević & Govedarica 1986 A. Milošević & B. Govedarica, Otišić, Vlake — praistorijsko nalazište u vrtači I, Godišnjak, Centar za balkanološka ispitivanja 24(22), Sarajevo 1986, 51-71.

Mirosavljević 1952 V. Mirosavljević, Nalaz heladske kulture u spilji Pokrivenik na Hvaru,VAHD 53, 1952, 123-133.

Mirosavljević 1959 V. Mirosavljević, “Jamina Sredi”, prilog prethistorijskoj kulturi na otoku Cresu, ARR 1, 1959, 131-174.

Mirosavljević 1974 V. Mirosavljević, Gradine i gradinski sistemi u prethistorijsko i protohistorijsko doba, I dio: otoci Cres i Lošinj, ARR 7, 1974, 259-297.

Novak 1949 G. Novak, Izvještaj o prethistorijskim istraživanjima otoka Hvara, Ljetopis JAZU 55, 1949, 149-160.

Novak 1954 G. Novak, Arheološka istraživanja na otoku Korčuli i Hvaru, Ljetopis JAZU 59, 1954, 41-56.

Novak 1955 G. Novak, *Prethistorijski Hvar, Grapčeva spilja,* Zagreb 1955: Jugoslavenska akademija znanosti i umjetnosti.

Novak 1959 G. Novak, Markova spilja na otoku Hvaru: novo nalazište neolitske obojene keramike, ARR 1, 1959, 5-60.

Novak 1962 G. Novak, Markova spilja na otoku Hvaru II, ARR 2, 1962, 19-102.

Novak 1967 G. Novak, Markova spilja na otoku Hvaru III, ARR 4-5, 1967, 95-234.

Novak 1968 G. Novak, Markova spilja na otoku Hvaru IV, ARR 6, 1968, 61-179.

Novak 1973 G. Novak, Spilje na otocima srednjeg Jadrana kao prebivališta, skloništa i svetišta u prethistoriji, in *Actes du IVe Congrès International de Speleologie en Yougoslavie (1965)*, Ljubljana 1973: Fédération Yougoslave de Spéléoligie, 119-131.

Petrić 1975 N. Petrić, Spila kod Nakovane, Pelješac - prethistorijsko nalazište, AP 17, 1975, 65-66.

Petrić 1976 N. Petrić, Prethistorijske kulture Pelješca, Pelješki zbornik 1, Zagreb-Dubrovnik 1976, 295-313.

Petrić 1977 N. Petrić, Nakovana, Pelješac - prethistorijsko višeslojno nalazište, AP 19, 1977, 22-23.

Petrić 1978a N. Petrić, Prilozi pretpovijesti Istre, Jadranski zbornik 10, Rijeka 1978, 441-464.

Petrić 1978b N. Petrić, Gradina Grad u Nakovani na Pelješcu, in *Novija i neobjavljena istraživanja u Dalmaciji,* Izdanja HAD-a 3, Split 1978, 35-48.

Petrić 1979a N. Petrić, Introduzione alla preistoria dell’Istria, Atti, Centro di ricerche storiche (Rovigno) 9, Rovigno-Trieste 1979, 187-248.

Petrić 1979b N. Petrić, Badanj, Pokrivenik, O. Hvar - paleolitički nalazi, AP 20, 1979, 10-11.

Petrić 1980a N. Petrić, Prilozi poznavanju apulske geometrijske keramike na istočnom Jadranu, Diadora 9, Zadar 1980, 197-203.

Petrić 1980b N. Petrić, Komunikacije u prethistoriji Jadrana, Materijali Saveza arheoloških društava Jugoslavije 16, Zadar 1980, 21-42.

Petrić 1981 N. Petrić, Nakovana, Pelješac - ilirski tumul, AP 22, 44-45.

Prendi 1966 F. Prendi, La civilisation préhistorique de Maliq, Studia albanica 1, Tirana 1966.

Radić & Vuletić-Vukasović 1890 F. Radić and V. Vuletić-Vukasović, Predhistorički predmeti s otoka Korčule i poluotoka Pelješca u Dalmaciji, VHAD 12, 1890, 73-78.

Shiel & Chapman 1988 R. Shiel & J.C. Chapman, The Extent of Change in the Agricultural Landscape of Dalmatia, Yugoslavia, as a Result of 7,000 Years of Land Management, in J.C. Chapman, J. Bintliff, V. Gaffney, & B. Slapšak (editors), Recent Developments in Yugoslav Archaeology, Oxford 1988: BAR International. Series, 31-44.

Skeates & Whitehouse 1994 R. Skeates & R. Whitehouse, *Radiocarbon Dating and Italian Prehistory,* London 1994: British School at Rome.

Starac 1990 R. Starac, Općina Opatija: Rekognosciranje, AP 29, 1990, 223-225.

Stuiver & Reimer 1993 M. Stuiver & P.J. Reimer, Extended 14C Data Base and Revised Calib 3.0 14C Age Calibration, Radiocarbon 35, 1993, 215-230.

Vuletić-Vukasović 1889 V. Vuletić-Vukasović, Dopisi, U Korčuli, dne. 1 siečnja 1889, VHAD 11, 1889, 56-60.

SAŽETAK

“NAKOVANSKA KULTURA:” STANJE ISTRAŽIVANJA

Ključne riječi: eneolitik, nakovanska kultura, Jadran, kulturna povijest, tipologija lončarije, datiranje radioaktivnim ugljikom

Izraz “nakovanska kultura” uveli su tijekom sedamdesetih godina Nikša Petrić i Stojan Dimitrijević kao naziv za karakterističnu vrstu kanelirane lončarije ranijeg dijela istočnojadranskog eneolitika. Sadržaj “nakovanske kulture” ograničen je gotovo isključivo na dijagnostičku lončariju. Naročito su karakteristična dva tipa zdjela, konične zdjele oblog trbuha, cilindričnog vrata i blago razgrnutog oboda, ukrašene po ramenu uspravnim kaneliranjem, te slične zdjele oštrije profiliranog trbuha i lagano stegnutog vrata, ukrašene duž ramena kratkim uspravnim žljebovima ili kanelirama, te plastičnim rebrima koja se radijalno spuštaju niz trbuh. Prve su često sjajno glačane, tamnosmeđe ili crne boje, dok su druge obično tek zaglađene, svijetlosmeđe ili mrljave od neravnomjernog pečenja. Postoji izvjesna raznolikost unutar opisanih oblika (na primjer, u visini i nagibu vrata i profilaciji ramena) i ukrasa (kanelire mogu biti uže ili šire, dublje ili pliće, finije ili grublje izvedene), no otvoreno je pitanje jesu li te tipološke osobine općenito kronološki osjetljive.

Jadransku kaneliranu lončariju prvi je, prije gotovo tri desetljeća, opisao Dimitrijević, oslanjajući se na nalaze iz hvarskih i korčulanskih spilja, te je najprije doveo u vezu s kasnom Vinčom. Ubrzo nakon toga uslijedila su Petrićeva istraživanja Spile u Nakovani, gdje je kanelirana lončarija pronađena u sloju između kasnoneolitičke i ranobrončanodobne. Petrić ju je pripisao ranom eneolitiku, te je prvo nazvao “pelješkom”, a zatim “nakovanskom kulturom”. Dimitrijević je u svoj sažeti pregled istočnojadranskog eneolitika, koji je objavljen godine 1979. u trećem svesku “Praistorije”, uključio nove nalaze i tumačenja. Tom prilikom on je pokušao podijeliti kaneliranu lončariju na tri kronološke grupe. Zadržao je mišljenje da tipološki najstariju lončariju treba izravno vezati uz Vinču, no uz to je pretpostavio postojanje dvaju kasnijih nakovanskih horizonata, mlađi od kojih bi bio suvremen “badenskoj kulturi”. Ta se podjela, međutim, temeljila isključivo na tipološkim mjerilima, bez mogućnosti stratigrafske provjere.

Kasnija istraživanja povećala su broj nalazišta istočnojadranske kanelirane lončarije i pridonijela njenom potpunijem prostornom i vremenskom sagledavanju. Zanimljive rezultate dala su Marijanovićeva iskopavanja Ravlića pećine, gdje je potvrđen opći stratigrafski položaj takve lončarije između kasnog neolitika i ranog brončanog doba, ali se istodobno njena unutrašnja kronološka podjela (prema Dimitrijeviću) pokazala neodrživom. Naročito su važna bila iskopavanja naselja na otvorenom u Bukoviću. Ondje je kanelirana lončarija prvi put datirana putem radioaktivnog ugljika, a sustavno prikupljani uzorci vrlo raznolikih kategorija arheološkog materijala omogućili su da izučavanje istočnojadranskog eneolitika pođe korak dalje od tipokronologije.

Danas u literaturi postoje podaci o 25 nalazišta kanelirane keramike na istočnom Jadranu (tabela 1). Na 11 od njih pronađeno je i objavljeno dovoljno dijagnostičke lončarije da ih se sa sigurnošću može identificirati kao “nakovanska”. Ona su razasuta duž obale od Istre do Boke Kotorske (možda, od Krasa do Albanije). Uglavnom su to špilje, pretežno uz obalu ili na otocima, dok ih je nekolicina smještena nešto dublje u zaleđu. Nalazišta na otvorenom znatno su rjeđa, no to obilježuje sva prapovijesna razdoblja koja prethode brončanom dobu. To je vjerojatno posljedica intenzivne erozije, zbog čega je postojeći uzorak nalazišta znatno iskrivljen u korist špilja.

Za “nakovansku kulturu” raspolažemo s osam datacija radioaktivnim ugljikom (tabela 2). Sedam od njih padaju u drugu polovicu 4. tisućljeća prije Krista. Navedeni datumi ukazuju na vremensku usporednost nakovanske i badenske lončarije, te isključuju svaku mogućnost povezanosti s Vinčom. Treba, međutim, upozoriti da vremenska usporednost ne povlači automatski i zaključak o postojanju izravnih dodira, a još manje o tome da je jadranska kanelirana lončarija nastala “pod utjecajem” slične lončarije iz Podunavlja, naročito budući da najraniji datumi za “nakovanu” nisu ništa kasniji od najranijih datuma za “baden”.

Najranija kanelirana lončarija nesumnjivo se pojavljuje u zajedničkom kontekstu s kasnoneolitičkom hvarskom lončarijom. Postoji, štoviše, niz ulomaka koji nose kombinirani hvarsko-nakovanski ukras (urezane geometrijske motive ili crveno slikanje i kaneliranje). Zbog nedovoljnog broja apsolutnih datuma, pitanja njenog najranijeg pojavljivanja i dužine usporednog trajanja nakovanskih i hvarskih tipova ostaju otvorenim. Još je manje jasan kraj “nakovanske kulture”. Ima naznaka da između nje i najranije faze “Cetinske kulture” (Cetine 1, odnosno “Jadranskog tipa ljubljanske kulture”) postoji još jedan horizont definiran specifičnom lončarijom, no postojeći podaci nisu dovoljni za njegovo jasno definiranje.

Izuzev kulturno-povijesnog obrisa, o ranijem dijelu istočnojadranskog eneolitika znademo vrlo malo. Faunalni podaci s nekolicine nalazišta ukazuju na znatnu važnost stočarenja, posebice uzgoja ovaca i koza, a u izvjesnoj mjeri i goveda, u onim područjima gdje su za to postojali odgovarajući prirodni uvijeti. Za razliku od toga, čini se da je u planinskoj unutrašnjosti glavnina životinjskih proteina pribavljana lovom. Makrobotanički uzorak iz Bukovića govori o uzgoju pšenice, zobi, a možda i ječma, kao i neke sitnozrnate mahunarke. O organizaciji životnog prostora, veličini i unutrašnjem ustroju naselja, te o rasporedu naselja unutar krajolika ne znamo gotovo ništa. Ne postoji niti jedan ukop koji bi se mogao povezati s nakovanskom lončarijom. Zbog svega toga ne može se raspravljati o društvenom ustroju istočnojadranske rano-eneolitičke populacije. Isto vrijedi i za druga, složenija pitanja, kojima pripada - između ostalog - i porijeklo i etnička pripadnost ljudi koji su ostavili za sobom karakterističnu kaneliranu lončariju, kao i priroda njihovih odnosa sa suvremenim susjednim populacijama. Hvatanje u koštac s navedenim pitanjima pretpostavlja postojanje kategorija arheoloških podataka koje nam, barem za sada, ne stoje na raspolaganju.