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NEW LITHIC EVIDENCE OF THE AURIGNACIAN IN HUNGARY

György Lengyel[1], Sándor Béres[2] and László Fodor[3]

[1] *Herman Ottó Museum, 28 Görgey road, 3529 Miskolc, Hungary; lengyelgu@freemail.hu*
[2] *33 Bokros street, 2011 Budakalász, Hungary*
[3] *Dobó István Castle Museum, 1 Vár, 3300 Eger, Hungary; fodi@div.iif.hu*

Abstract

The Aurignacian in Hungary is characterized by abundant bone points. "Classic" Aurignacian stone tool types such as nosed and carinated endscrapers are not well-represented in these assemblages. Recently, two Aurignacian sites with high frequencies of these endscrapers were found near Nagyréde, in the area of Mátra Mountains in northeast Hungary. The stone tool kit composition of these sites signifies a typologically diverse and unique Aurignacian appearance in Hungary.

INTRODUCTION

The early Upper Paleolithic Aurignacian culture is known from few sites in Hungary (Dobosi, 2000). There are only two caves that clearly contain Aurignacian layers, Istállósklő and Peskő (Vértes, 1955, 1965).

Istállóskő Cave is located in the western region of Bükk Mountains at an elevation of 535 m asl (Fig. 1). Excavations recorded two Aurignacian layers (Kadić, 1934; Hillebrand, 1935; Vértes, 1955; Vörös, 1984; Ringer, 2002). Peskő Cave is also located in the Western Bükk, a few kilometers south of Istállóskő, at an elevation of 745 m asl (Fig. 1). The excavations retrieved Aurignacian material from two lower layers (Kadić, 1935; Vértes *et al.*, 1956; Vértes, 1965). On the basis of the bone point collection of Istállóskő Cave, the Aurignacian sequence was divided into two phases: Aurignacian I and II (Vértes, 1955). Aurignacian I (lower layer) is characterized by split base bone points and the Aurignacian II (upper layer) by Olschewa bone points (Vértes, 1955; Dobosi, 2002). The Peskő assemblage is designated Aurignacian II on the basis of similarities to Istállóskő upper layer (Vértes, 1965). Radiometric dates for the Aurignacian I are between ca 44 ka and 31 ka uncalibrated BP and for the Aurignacian II are between ca 35 ka and 28 ka uncalibrated BP in Istállóskő and Peskő caves (Vogel and Waterbolk, 1963, 1972; Adams, 2002; Ringer, 2002; Adams and Ringer, 2004). These data support the notion that the Aurignacian is partially contemporaneous with the Szeletian in the Bükk Mountains (Dobosi, 2000; Adams, 2002; Adams and Ringer, 2004).

Recently, two open air Aurignacian sites were found near the village of Nagyréde in northeast Hungary. The artifacts were collected during a survey without excavation. The archaeological material is housed at the Dobó István Castle Museum in Eger. The aim of this paper is to provide a preliminary report of these new discoveries.

NAGYRÉDE AURIGNACIAN SITES

Location

Nagyréde sites are located south of the volcanic Mátra Mountains, on piedmont, near the conjunction of the northern part of the Hungarian

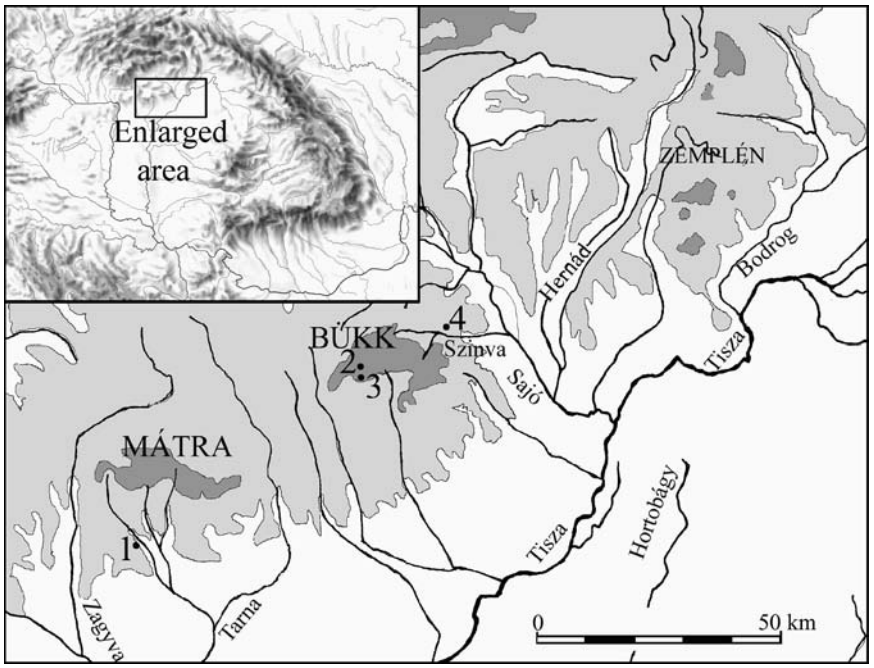

Fig. 1. Northeastern Hungary; Mátra, Bükk and Zemplén mountains. 1 – Nagyréde sites 1 and 2; 2 – Istállóskő Cave; 3 – Peskő Cave; 4 – Szeleta Cave

Great Plain (Fig. 1). In this area, abundant streams run from northwest to southeast. The sites are situated on the right bank of Rédei-Nagy-patak stream on Öreg-hegy (Old hill). Nagyréde site 1 is found at an elevation of 187 m asl and Nagy- réde site 2 is 1 km away at a higher elevation, 200 m asl. Nowadays, vineyards are planted in the area.

Lithic assemblages

Raw materials

Both assemblages are dominated by hydroquartzite (Table 1). Sources are located about 7 km to the sites northwest. The raw material outcrops yield irregular shape blocks in different sizes with strong whitish patina and cortical

Table 1

Stone raw materials of Nagyréde 1 and 2 lithic assemblages

		NAGYRÉDE 1		NAGYRÉDE 2	
Raw material	Origin	#	%	#	%
Hydroquartzite	Southern Mátra	1,251	95.9	1,715	90.8
Erratic flint	South Poland	29	2.2	158	8.4
Radiolarite	Váh valley, Slovakia	13	0.9	5	0.3
Quartzite	Unknown	2	0.2	3	0.2
Andesite	Mátra	8	0.6	2	0.1
Obsidian	Zemplén	0	0	1	0.1
Hornstone	Southern Bükk	2	0.2	1	0.1
Total		1,305	100	1,885	100

Table 2

Major groups of lithic products in the Nagyréde 1 and 2 assemblages

Products (complete and fragments)	NAGYRÉDE 1		NAGYRÉDE 2	
	#	%	#	%
Flakes	488	37.3	960	50.9
Blades	79	6.1	84	4.5
Bladelets	14	1.1	13	0.7
Unipolar flake core	16	1.2	6	0.3
Multi platform flake core	44	3.4	51	2.7
Unipolar blade core	31	2.4	12	0.6
Unipolar bladelet core	14	1.1	2	0.1
Tools	112	8.6	79	4.2
Wastes	507	38.8	678	36
Total	1,305	100	1,885	100

Table 3

Raw materials of the Nagyréde sites' tool kits

	NAGYRÉDE 1		NAGYRÉDE 2	
	#	%	#	%
Hydroquartzite	94	84	46	58.2
Erratic flint	8	7.1	30	38
Radiolarite	8	7.1	2	2.5
Quartzite	2	1.8	1	1.3
Total	112	100	79	100

patches. This raw material contains several crack-surfaces and inclusions, which is in low quality for the purposes of knapping. The next most abundant raw material is the erratic flint. This may have derived from south Poland, as observed in Istállóskő Aurignacian (Adams, 1998). The number of flints is higher at Nagyréde site 2. Radiolarite, possibly from northwest in Váh valley in Slovakia, andesite of Mátra, horn stone of the Southern Bükk, and quartzite of unknown origin are represented by a few pieces.

Lithic products

Flakes dominate the assemblages. Blades and especially bladelets are present in small numbers. Small differences in the frequencies between the blades and flakes can be observed between the two assemblages (Table 2). Flake cores are abundant while blade and bladelet cores are underrepresented in both assemblages. Tested raw material nodules with one or two removals (precores) of local hydroquartzite also are abundant.

Tool kits

The same raw materials were used for tool making in both assemblages (Table 3). The hydroquartzite is the most frequent. The proportion of flint is significant in Nagyréde 2 comprising 38% of the tool kit. In both assemblages, the majority of the tool blanks are flakes (Table 4). Blades are rare and bladelets are not present among the tools.

Table 4

Stone tool type list of the Nagyréde 1 and 2 lithic assemblages

Tool types		NAGYRÉDE 1				NAGYRÉDE 2			
		blank		total		blank		total	
		flake	blade	#	%	flake	blade	#	%
Endscrapers	simple	11	8	19	17	10	2	12	15.2
	on retouched blank	6	6	12	10.7	1	2	3	3.7
	nosed	7		7	6.3	1		1	1.3
	thick nosed	9	2	11	9.8	15	1	16	20.3
	thick shouldered	4		4	3.6				
	carinated	2	1	3	2.7	1		1	1.3
	atypical carinated	2		2	1.7	2		2	2.5
	double	1		1	0.9	2		2	2.5
	atypical	2	1	3	2.7	2		2	2.5
	thick atypical	4		4	3.6	4		4	5.1
Burins	dihedral	3	3	6	5.4				
	on break	3	1	4	3.6	1	2	3	3.7
	on concave truncation		1	1	0.9	1		1	1.3
	oblique truncation						1	1	1.3
	transversal		1	1	0.9				
Retouched items		5	6	11	9.8	4	15	19	24.1
Truncations	oblique		2	2	1.7				
Notches		2	2	4	3.6	5		5	6.3
Denticulates		6	2	8	7.1	3		3	3.7
Sidescrapers	simple	2		2	1.7	1		1	1.3
	inverse	1		1	0.9				
	converging					1		1	1.3
	convex	5		5	4.5				0.0
Composites	endscraper/burin					1		1	1.3
Divers	raclette					1		1	1.3
	rabot	1		1	0.9				
Total		76	36	112	100	56	23	79	100

Endscrapers make up the majority of the tools (Table 4). Simple endscrapers, also on retouched blanks, and thick nosed endscrapers are the prevalent types (Figs. 2–4). Thin nosed endscrapers also are abundant in Nagyréde 1. Among burins, dihedral burins characterize Nagyréde 1. In Nagyréde 2, burins are fewer and mostly made on breaks. The retouched blades have scaled retouch in both assemblages, situated frequently partially on the edge. In Nagyréde 1 and Nagyréde 2, there are respectively two and three specimens that resemble Aurignacian blades with two retouched edges. The retouch on the flakes contrary to the blades often is continuous. Truncated tools can be

found solely in Nagyréde 1. In both assemblages, notches, denticulates and sidescrapers were made of flakes. Within sidescrapers, convex sidescrapers characterize the Nagyréde 1 assemblage. In Nagyréde 2 there is no characteristic type. Among the varia is a *raclette* in Nagyréde 2 and a *rabot* in Nagyréde 1.

DISCUSSION

Raw material procurement, lithic composition, and the common types of retouched pieces show the same pattern in both Nagyréde assemblages. The characteristics of these assemblages are the hydroquartzite and erratic flint raw material use, the dominant flake debitage, low frequencies of blades, and abundant endscrapers – including the thick Aurignacian types.

Comparisons with both Aurignacian phases indicates that at Istállóskő blade technology dominates (Adams, 1998; Kadić, 1935; Vértes, 1955, 1965). Within their tool kit, only the Aurignacian II (n = 100) contains the *fossile directeur* of the Aurignacian, namely the Aurignacian blade. This type constitutes the second largest tool group (31% of the tool kit) after the retouched blades (39% of the tool kit; Adams, 1998). The Aurignacian I tools (n = 12) are mostly retouched blades and bladelets (33.3% and 41.6% of the tool kit, respectively), and no Aurignacian types are recognized (Adams, 1998; Vértes, 1965). General Upper Paleolithic types such as endscrapers, burins and borers, Middle Paleolithic sidescrapers, and Szeletian type bifaces are also present in both Aurignacian I and II. The frequencies of each of these tools is no more than 10% of the tool kit (Vértes, 1955, 1965; Adams, 1998). In the tools of Peskő Aurignacian (n = 26), similarly to that of Istállóskő, retouched blades dominate (33.3% of the tool kit). Aurignacian types, except a single thin nosed endscraper, are absent. Other tool types are rare (Vértes, 1965).

Comparing the features of the lithic assemblages of Nagyréde and Istállóskő-Peskő dissimilarities can be observed on both technological and typological levels. Technologically the Nagyréde assemblages are characterized by flake debitage while the cave assemblages by blade debitages. Such data for Pesko are not published. The typological is that retouched blades, including Aurig-

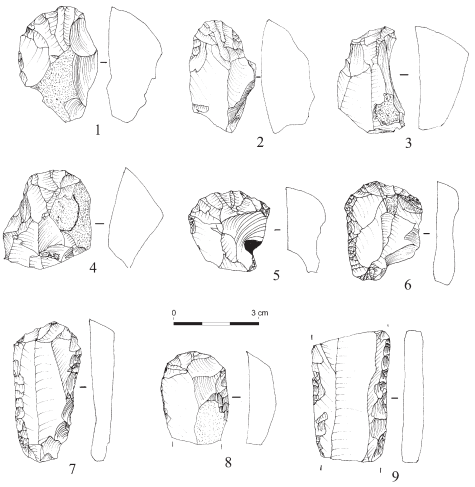

Fig. 2. Aurignacian stone tools of the Nagyréde 1 assemblage. 1–3 – nosed endscrapers; 4–5 – carinated endscrapers; 6–8 – endscrapers on retouched blanks; 9 –retouched blade fragment

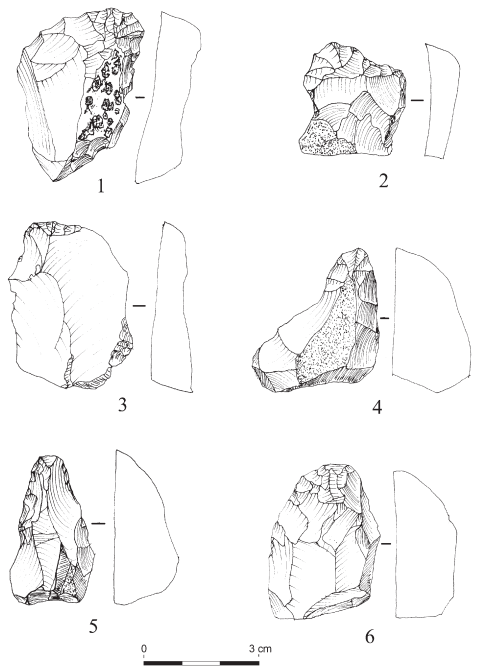

Fig. 3. Aurignacian stone tools of the Nagyréde 1 assemblage. 1–6 – nosed endscrapers

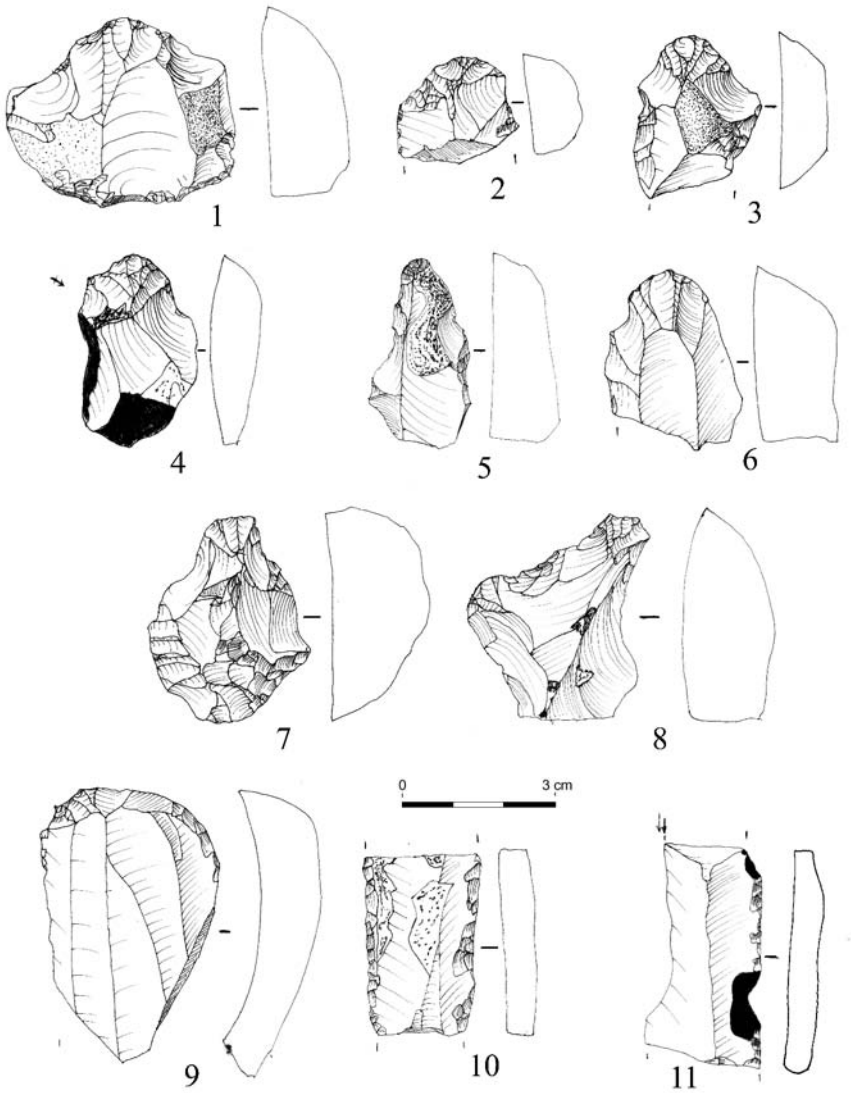

Fig. 4. Aurignacian stone tools of the Nagyréde 2 assemblage. 1–8 – nosed endscrapers; 9 – simple endscraper; 10 – retouched blade fragment; 11 – burin on break

nacian blades, dominate Istállóskő and Peskő while endscrapers are abundant in Nagyréde tool kits (Fig. 5). Within endscrapers, the presence of Aurignacian types such as nosed and carinated items is significant. Nagyréde sites with the 24–25% of Aurignacian endscrapers in the tool kits resemble the Aurignacian II in Périgord (Djindjian, 1993) or the "classic" Aurignacian phenomenon across Europe (Kozlowski and Otte, 2000). Although Istállóskő upper layer and Peskő are also designated Aurignacian II (Vértes, 1955, 1965), the Nagyréde assemblages signify a different and still unique Aurignacian lithic appearance in Hungary. Future excavations will clarify the position of the Nagyréde assemblages among the Hungarian Aurignacian context.

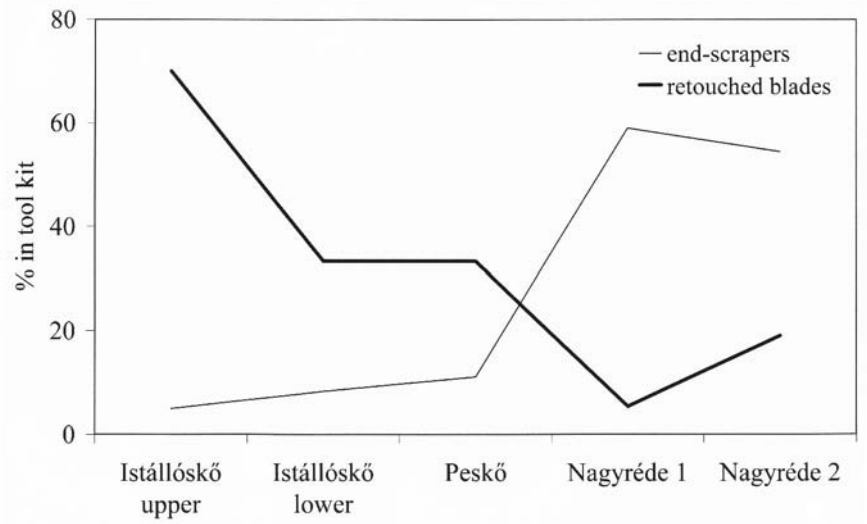

Fig. 5. Chart showing the main typological dissimilarities between Istálloskő, Peskő and Nagyréde Aurignacian assemblages. Retouched blades category includes Aurignacian blades. Data for Istállóskő is from Adams 1998 and for Peskő is from Vértes 1965

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