

CERCETAREA ȘTIINȚIFICĂ A PRODUCȚIEI CERAMICE ÎN VECHIME: STUDIU DE CAZ ÎN AŞEZAREA NEOLITICĂ TIMPURIE FOENI GAZ (JUD. TIMIȘ, ROMÂNIA)

Rezumat

Ceramica a fost întotdeauna foarte importantă pentru fixarea cronologiei relative și relevarea activităților de comerț, schimb cultural, precum și observarea evoluției tehnologice a unei comunități. Începând cu anii '50, s-a trecut la analiza științifică a producției ceramice din vechime.

Scopul acestui articol este de a ilustra metodologia folosită în analiza producției ceramice din siturile neolitice timpurii din Balcani, pentru a obține informații referitoare la proveniența locală sau importul ceramicii.

Au fost folosite trei tehnici diferite: secțiuni subțiri, difracție a razelor X și scanare la microscop electronic.

În urma cercetării, putem spune că purtătorii neoliticului timpuriu din așezarea Foeni Gaz au exploatat cel puțin 5 surse diferite de lut pentru ceramică. Nu există o corelație între tipul de lut folosit și forma sau ornamentația vaselor.

CAPTIONS

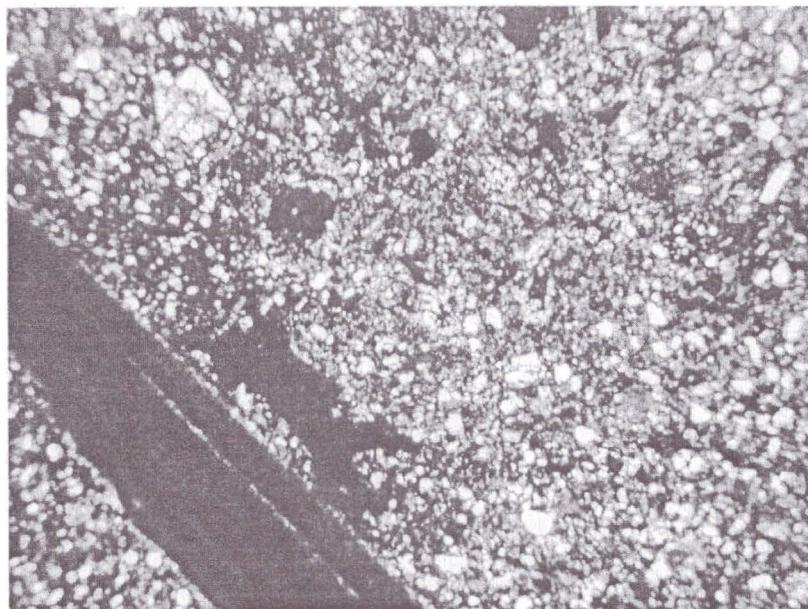


Fig. 1 - Foeni Gaz: Microphotograph of thin section of sample FGZ 26 showing a micritic and micaceous fabric with abundant quartz, and a large fragment of shell, possibly ostracod (brown and opaque inclusion) (XPL, X100; photograph by M. Spataro).

Table 2 - Foeni Gáz: Thin section analysis of the sherds. Very abundant (VA), abundant (A), present (P), rare (R), very rare (VR).

		Microscopic analysis of the ceramic inclusions																			
FOENI GAZ		Sample	Description of the matrix and notes	Quantity	Size	Quartz	Feldspar	Biotite	Muscovite	Plagioclase	Amphibole	Pyroxene	Calcite	Opales	Rock fragm.	Clay pellets	Iron oxides	Limestone	Radiol. Chert	Microfossil	
FGZ1	Brown-reddish in the centre, lighter on the edges, micaceous and non-micritic; clay fragments; long mica; slip	X			X	A	R	P	R												
FGZ2	Dark brown in the centre, lighter on the edges, non-micritic, micaceous; post-depositional limestone	X			X	A	A	R	A	R		P		P	R						
FGZ3	Brown in the centre, lighter on the edges, micaceous and non-micritic; packed mica; microcline; post-dep. limestone	X			X	A	A	P	A	R	R	P		P							
FGZ4	Brown-reddish in the centre, lighter on the edges, micaceous and non-micritic; red clay fragments; post-dep. calcite	X			X	A	A	R	A	R	R	P		P							
FGZ5	Brown-reddish, non-micritic and micaceous; zircon; post-depositional limestone	X			X	A	A	R	A	A	R	P		P	R		P	VR	R	P	
FGZ6	Brown-reddish, non-micritic and micaceous; red slip; abundant red clay fragments; packed mica	X			X	A	A		A	R				P	R		R	R	R	P	R
FGZ7	Light brown, non-micritic; slip; red clay fragments		X		X	P	P	R	VA	P		P		P		R	R		R	P	
FGZ8	Dark brown in the centre, lighter on the edges, non-micritic, micaceous; some packed mica	X			X	A	A		A	P		P		R		R	R		R	P	
FGZ9	Brown in the centre, lighter on the edges, micaceous and non-micritic; red clay fragments	X			X	A	A		VA			P			P		R				
FGZ10	Brown-reddish, non-micritic and micaceous; very fine mica; red slip	X			X	A	A		A	R		P				R					

Table 3 - Foeni GAZ: Thin section analysis of the sherds. Very abundant (VA), abundant (A), present (P), rare (R), very rare (VR).

		Microscopic analysis of the ceramic inclusions															
FOENI GAZ		Quantity	Size	Quartz		Organic	Flint	Feldspar	Muscovite	Plagioclase	Biotite	Pyroxene	Calcite	Amphibole	Opaques	Rock fragm.	Clay pellets
Sample	Description of the matrix and notes			A	R												
FGZ11	Brown in the centre, lighter on the edges, non micritic and micaceous; thick mica; red slip	X		X	A	R		A	P								
FGZ12	Brown in the centre, lighter on the edges, non micritic and micaceous	X				A	R		P								
FGZ13	Brown-yellowish, non-micritic and micaceous; red clay fragments	X		X	A	A	R		P								
FGZ14	Brown-reddish, darker in the centre, lighter on the edges, non micritic	X		X	A	A		A								VR	P
FGZ15	Brown-reddish, non micritic; humic soil; red clay fragments	X				X	A	A		P						R	P
FGZ16	Brown non micritic and micaceous; humic soil; post-depositional calcite	X				X	A	A		A	R					R	P
FGZ17	Brown, non micritic; slightly micaceous; slip		X	X	P	P	R					P	R			R	P
FGZ18	Dark brown, non micritic; shells	X		X	A	A			A	P						P	R
FGZ19	Dark brown, non micritic and micaceous; humic soil; slip	X		X	A	A		A		A	P					P	
FGZ20	Dark brown centre, reddish on the edges, non micritic	X		X	A	A		A	P								P

		Microscopic analysis of the ceramic inclusions									
		FOENI GAZ									
Quantity	Description of the matrix and notes	Quartz									
		Flint									
		Polycrystalline									
		Subangular	X	A	A						
		Angular		X	A	A					
		Medium	X								
Size	Fine			X							
	Very fine				X						
	Scarce										
Quantity	Medium										
	Abundant	X									
	Sample	FGZ21	Dark brown, lighter on the edges, non micritic and micaceous; humic soil; red clay fragments	X							
		FGZ22	Dark brown, lighter on the edges, non micritic and micaceous; post-depositional limestone on the edges	X							
		FGZ23	Brown non micritic and micaceous, fine matrix	X							
		FGZ24	Dark brown, lighter on the edges, non micritic; humic soil	X							
		FGZ25	Dark brown, lighter on the edges, non micritic and micaceous; humic soil; slip; post-depositional limestone	X							
		FGZ26	Brown micritic; red clay fragments; post-depositional limestone; shell fragments (ostracods microfossils?)	X							

Table 4 - Foeni Gaz: Thin section analysis of the sherds. Very abundant (VA), abundant (A), present (P), rare (R), very rare (VR).

Table 5 - Foeni Gaz: SEM/EDS analysis of some of the sherds from the different groups identified in thin section.

Sample	Group	Mean/s.d.	Na2O	MgO	Al2O3	SiO2	K2O	CaO	TiO2	Fe2O3
FGZ19	G1	Mean	1,48	2,71	18,02	63,6	3,05	2,16	0,97	8,01
		Std. dev.	0,228	0,418	1,528	2,638	0,233	0,378	0,389	0,498
FGZ21	G1	Mean	1,21	2,01	16,38	69,53	2,74	2,12	1,16	4,85
		Std. dev.	0,123	0,212	0,627	1,122	0,472	0,139	0,437	1,137
FGZ10	G1a	Mean	1,28	1,89	15,08	69,94	3	1,83	1,12	5,51
		Std. dev.	0,27	0,232	1,54	1,122	0,196	0,178	0,378	0,723
FGZ14	G1a	Mean	1,36	1,72	15,8	68,72	3,38	2,15	1,08	5,78
		Std. dev.	0,145	0,161	1,502	2,368	0,061	0,274	0,362	0,295
FGZ12	G1b	Mean	1,08	1,47	15,67	69,49	3,25	2,2	0,85	5,99
		Std. dev.	0,332	0,261	0,342	0,746	0,357	0,321	0,174	0,455
FGZ7	G2	Mean	1,32	2,29	18,87	63,8	3,25	1,79	0,83	7,86
		Std. dev.	0,353	0,294	0,584	0,942	0,186	0,246	0,272	0,689
FGZ17	G3	Mean	0,92	1,83	18,19	67,75	3,07	2,01	0,8	6,15
		Std. dev.	0,18	0,14	0,67	0,71	0,23	0,29	0,3	0,28
FGZ26	G4	Mean	1,43	3,08	13,11	62,35	3,15	9,79	0,83	5,95
		Std. dev.	0,263	0,294	0,652	1,348	0,343	2,779	0,232	1,193
FGZ23	G5	Mean	1,37	1,65	18,4	65,86	2,76	1,87	1,12	6,97
		Std. dev.	0,121	0,1	0,717	1,209	0,191	0,084	0,084	1,38