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THE EXAMINATION OF TECHNOLOGICAL RESIDUES FROM PEEL GAP AND CASTLE NICK (MILECASTLE 39), NORTHUMBERLAND.

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Summary

Examination of residues from two Roman Sites on Hadrians Wall showed that there was no evidence for metal working on the areas excavated.

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THE EXAMINATION OF TECHNOLOGICAL RESIDUES FROM PEEL GAP AND CASTLE NICK, (MILECASTLE 39), NORTHUMBERLAND

1 Peel Gap Site Code 392-33 and 392-34

The material sent for examination (A.M.L. Number 871588) comprised three fragments of vitrified stone (Context Number/Finds Number 2/27, 20/26, and 90/25), one fragment of vitrified hearth lining (76/28), one fragments of charcoal and mortar (6/24), and a small piece of burnt organic material probably bone (23/23). The fragment of hearth lining (weight 20gms) is the only material that is possibly evidence of industrial activity, although it is more probable that it derived from a domestic context. Vitrification of hearth lining etc is normally associated with industrial processes due to the high temperatures required for vitrifaction to occur (Bayley 1985). The vitrified surfaces of the stones showed no evidence (as determined by X.R.F. analysis) of non-ferrous metalworking and therefore, cannot be interpreted as evidence for industrial activity.

2 Castle Nick. Site Codes 3900, 3901 and 3902

The material sent for examination (AML. Number 871588) comprised a small amount of smithing slag (0.326 kg), one sample of spheroidal hammer scale, some cinder (0.065 kg), fuel ash slag (0.002 kg), samples of vitrified stone, a lump of soft friable material (0.125 kg), and a piece of copper alloy (0.025 kg). A full listing in site and context number order is given in Table 1.

The quantities of slag etc do not indicate that iron smithing or copper melting were practised in the area excavated. It is therefore proposed that the debris is in secondary contexts, ie derived from a nearby metal working area.

X.R.F. analysis showed that the copper alloy was a slightly leaded gunmetal (an alloy of Cu, Zn, Sn and a low percentage of Pb). The vitrified surfaces of the stone showed no evidence of non-ferrous metalworking, some of the vitrification was black which was due to the presence of manganese oxide. The soft friable material was thought to be a residue from lime burning or mortar preparation.

CASTLE NICK TECHNOLOGY LISTING BY SITE AND CONTEXT
(Weight [wt] in grammes)

* TOTAL ON SITE 0

CONTEXT NUMBER	SMITH SLAG (wt)	OTHER MATERIAL (wt)	OTHER TYPE
0	0	125	lime burning debris
** Subtotal **			
	0	125	

* TOTAL ON SITE 3900

CONTEXT NUMBER	SMITH SLAG (wt)	OTHER MATERIAL (wt)	OTHER TYPE
6	1	0	
26	0	5	stone?
38	50	0	
49	0	25	Cu alloy
99	15	0	
128	25	0	
138	25	0	
138	80	0	
174	130	0	
611	0	2	Fuel Ash Slag
622	0	15	black vitrified stone
670	0	1	white/green vitrified stone
815	0	2	vitrified stone as other
879	0	2	vitrifaction
** Subtotal **			
	326	52	

* TOTAL ON SITE 3901

CONTEXT NUMBER	SMITH SLAG (wt)	OTHER MATERIAL (wt)	OTHER TYPE
4	0	1	spheroidal hammer scale
** Subtotal **			
	0	1	

* TOTAL ON SITE 3902

CONTEXT NUMBER	SMITH SLAG (wt)	OTHER MATERIAL (wt)	OTHER TYPE
1	0	15	vitrified stone
8	0	3	vitrified stone pink
10	0	50	cinder/slag
10	0	25	vitrified stone
26	0	2	glazed stone
27	0	5	Fuel Ash Slag
27	0	15	cinder
28	0	1	vitrified stone
** Subtotal **			
	0	116	
** Total **			
	326	294	

3 Conclusion

There was no evidence for metal working at Peel Gap. At Castle Nick there was debris from iron smithing and possibly copper working, but it was a low background level, intrusive from a nearby metal working area. This suggests that small scale metal working was practised at some Milecastles, and for example, there was evidence for copper alloy melting at Milecastle 34 (Sewingshields) (Bayley 1984).

REFERENCES

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