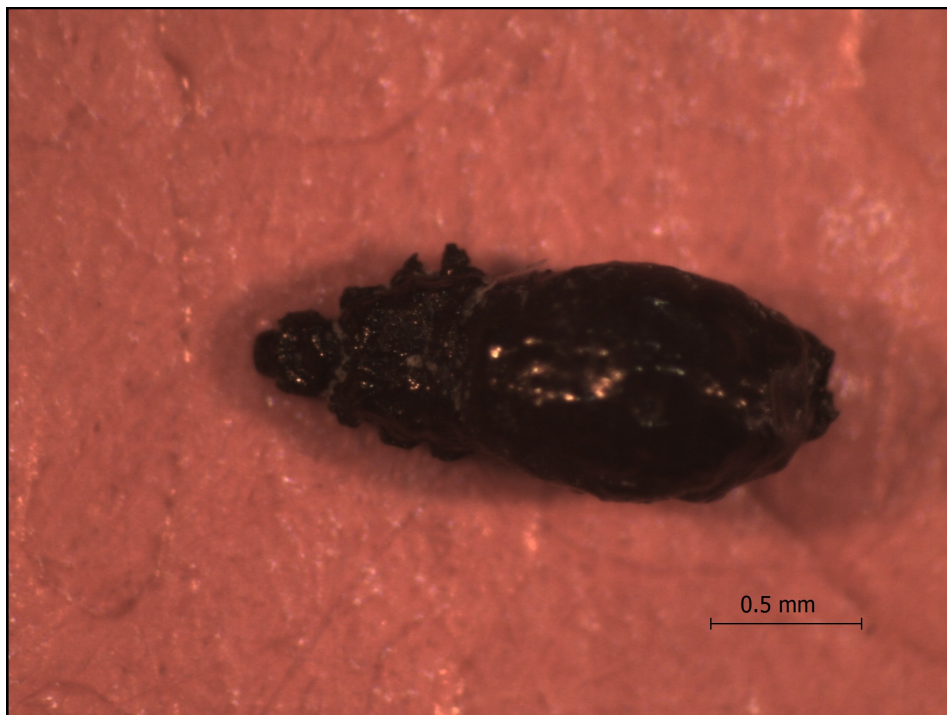


Archaeoentomological analysis of samples from
the Skriðuklaustur excavation (2007-2010),
Iceland

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With support from Grampus Heritage 2012
via the Leonardo da Vinci fund (EU)

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Introduction

As part of a Leonardo da Vinci funded supervisory training project based for one week at Skriðuklaustur, seven samples were processed for archaeoentomological analysis. The samples had been stored from previous years ranging from 2007 (1), 2008 (4) and 2010 (2) at the dig site. Two previous reports have been published on insects from the site (Konráðsdóttir, 2008: 2009). Samples were from Areas V, L, Y, Z and the drain from the church (See Figure 1).

Methodology

The samples were processed by paraffin floatation (Coope, 1986) using a 250µm sieve and washed prior to floatation. Each sample was floated three times to ensure the removal of as many insect fragments as possible. Sample sizes varied from 0.4 to 3.2 Litres.

Processed samples were stored in Industrial Methylated Spirit (IMS) and sorted under a binocular microscope at up to 25 times magnification. Identification was by means of comparison with the Goring modern beetle collection at Birmingham University Department of Archaeology with the co-operation of Dr David Smith. A minimum number of individuals, based on the most abundant sclerite found was used for enumeration.

Skriðuklaustur í Fljótsdal

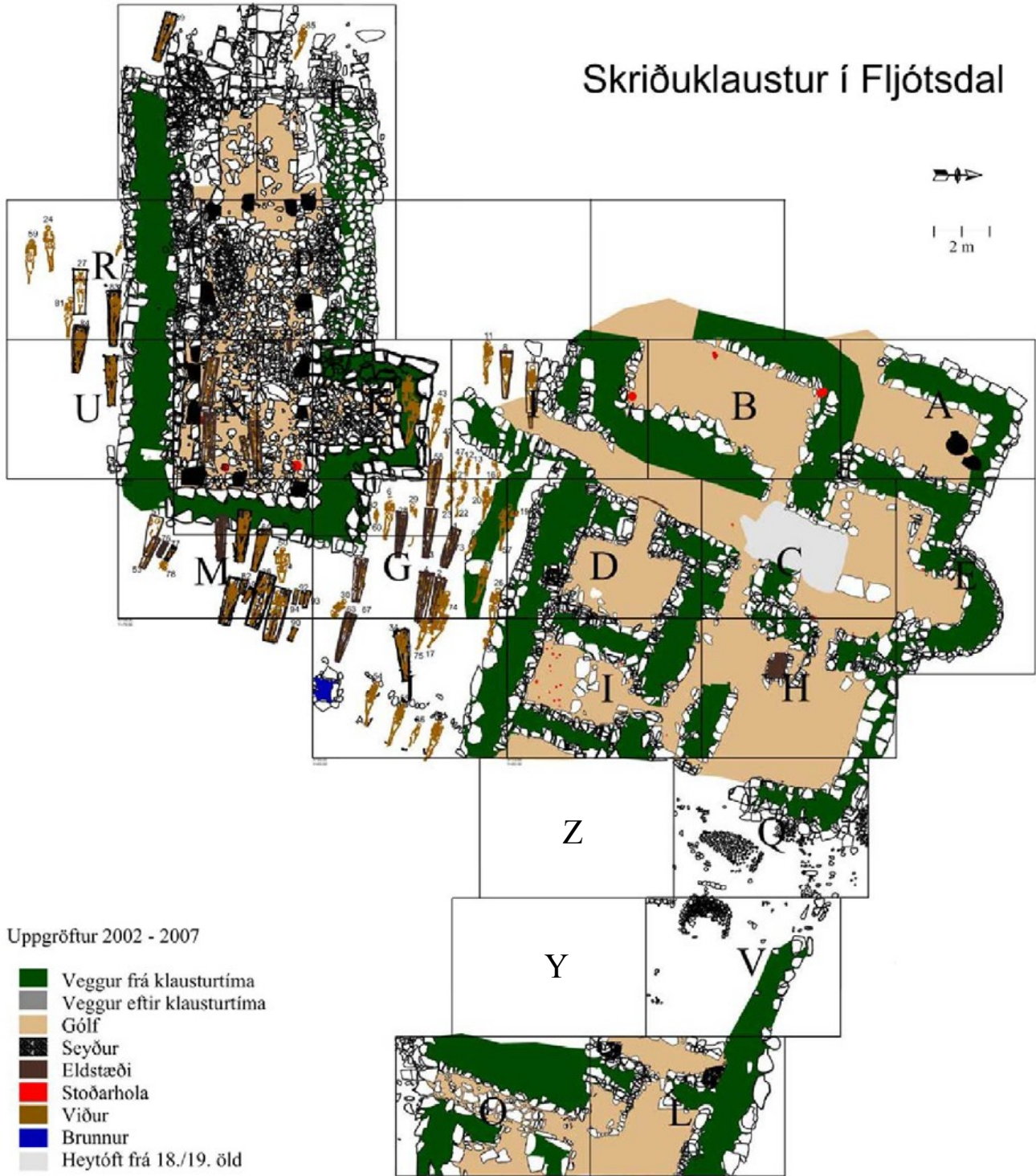


Figure 1 Plan of the excavation after the 2007 season (by Ragnheiður Gló Gylfadóttir) to illustrate the location of the samples (by Area) that were used for archaeoentomological analysis.

Results

A total of 15 taxa were found in the seven samples. Only three samples contained an abundance of fauna (1640, 1368 and 1286) and in these three the taxa present were similar. Of the remaining four samples 369 and 1952 contained a sparse fauna whilst two samples produced only one fragment each (61 and 737). In this case number of fragments was not related to sample size as the latter two were both 3 L, the exception was 1952, which was a small sample, containing a limited fauna. The fauna present represents a range of synanthropic insects, mainly beetles but with limited numbers of fly puparia and a single charred head louse.

	2008-36	2008-36	2008-36	2007-36	2008-36	2010-36	2010-36
	1640	369	1368	1952	1286	61	737
Carabidae							
Carabidae indet.		2					
Staphilinidae							
Xylodromus concinnus	1		1	1			
Philonthus sp.					1		
Alleocharinae sp.	1		1		2		
Cryptophagidae							
Cryptophagus cf. scanicus	1			1			
Atomaria spp.	21		13		23		
Lathridiidae							
Latridius minutus (group)	13		24	5	1		
Corticaria sp.	64		78		3	1	
Mycetophagidae							
Typhaea stercorea			4				
Ptinidae							
Tipnus unicolor	1				1		
Curculionidae							
Otiorhynchus nodosus		1	1				
Otiorhynchus arcticus		2					
Otiorhynchus sp.							1
Tropiphorus elevata		1					
Diptera							
Heleomyzidae							
Helomyza serrata (puparia)	5		1		4		
Pediculidae							
Pediculus humanus					1		
Volume	3.0L	3.2L	2.5L	0.4L	2.8L	3.0L	3.0L
Area	V Floor	V Floor	V Floor	L Floor	Y Kitchen	Z Floor	Drain

Table 1 Taxa present in samples as represented by MNI with volume and location.

As in previous samples (Konráðsdóttir, 2008: 2009), *Corticaria* sp. was again the most abundant taxon along with *Atomaria* sp. and *Latridius minutus*. Smaller numbers of *Cryptophagus scanicus* and *Typhaea stercorea* were also present.

The majority of the taxa present are also associated with moulding refuse (Buckland and Buckland 2006). *Xylodromus concinnus* associated with foul/dung conditions and *Tipnus unicolor* with dry moulding refuse. Very few non synanthropic taxa were present and mainly represented by the weevils. Two species of *Otiorhynchus* present in two samples are meadow dwelling and hence represent the background fauna. Some of those found were not identifiable to Genus level (being mainly represented by legs). *Philonthus* sp. and the *Alleocharinae* are both Eurytopic.

Helomyza serrata is associated with decomposing fungal substrates, birds nests and decomposing plant remains (Skidmore, 1962). One charred head louse (*Pediculus humanus*) was found. There were no dung beetles.

Area V samples 1640, 1368 and Area Y, sample 1286

These three samples from area V and the kitchen floor, area Y contained the majority of the fauna found.

In the two samples from area V, *Corticaria* sp. was the most abundant taxa whereas *Atomaria* sp. was most abundant in area Y. Both areas are therefore dominated by fauna representing mouldy vegetation conditions. The area V samples contained *Xylodromus concinnus* but not the area Y. *Tipnus unicolor* was present in both areas indicating some drier conditions as well. With the exception of one example of *Otiorhynchus* in sample 1368 (V) there was no background fauna present in these samples.

The kitchen sample (Area Y 1286) contained the only preserved example of the human louse (*Pediculus humanus*). Previous studies have suggested that these may have been removed by hand and thrown into the fire, thus painting an intimate picture of medieval life here (Panagiotakopulu et al., 2007).

Area V sample 369

In contrast to the other samples from area V, this sample contains only the background fauna. Three weevils and unidentified Carabid fragments were present. The absence of the indoor fauna suggests that this area was external or not covered with flooring material.

Area L, sample 1952

This very small sample (0.4L) contained a subsample of the fauna present in the above three samples consisting of only three taxa. Only 7 individuals were recorded here but the three taxa are synanthropic and indicate mouldy vegetation.

Area Z Floor, sample 61

This sample contained only one example of *Corticaria* sp. And hence little can be concluded from a single specimen, which was however, well preserved.

Drain, Sample 737

The sample from the drain contained only the legs of what were probably *Otiorhynchus* sp. but unidentifiable beyond this level. They do however represent the background fauna and do not indicate that the drain had a prevailing use for waste.

Conclusions

The majority of the fauna in areas V and Y indicate a possible hay floor covering as the taxa found here are almost exclusively synanthropic and associated with mouldy refuse. Previous research has indicated that this is a likely scenario (Konráðsdóttir, 2008: 2009). Area Y, the kitchen had the addition of a single charred head louse not found in the other areas. One sample from Area V contained only background fauna.

Little can be drawn in positive conclusion from area L as little fauna was present in the very small sample but it is likely to have also been hay covered as the only fauna present indicate this.

Area Z was not hay covered and contained only limited background fauna — its use remains illusive. The preservation of the fauna present here does not suggest degradation of the sample.

The drain was possibly external, as only background fauna were found here and it is not likely to have been used for waste disposal.

No clear indicators of dung were found in any of the samples, with the possible exception of *Xylodromus concinnus* represented by a single specimen in three samples.

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