

## Chapter 6

### Data presentation

#### Introduction

Data collected from the methodologies outlined in chapter 5 and in Figure 5.1 are presented here separately, according to the method of collection, in order to make reference to the data as straightforward as possible. Spatial data is presented initially, specifically landscape unit evidence for Hov, inclusive of maps, tables, figures and photos, followed by data relating to land cover classifications in Sandoy. The presentation of cultural data includes archaeological survey data, maps and descriptions of archaeological structures. An overview of interview data, arranged thematically, is then presented with full transcripts and notes of the original interviews in Appendix B. Temporal and stratigraphical data is presented as annotated sedimentary profiles, descriptions of transects and associated radiocarbon chronologies. A summary review of original Icelandic data on which Icelandic comparisons were based concludes this chapter (and additional original Icelandic data is presented in Appendix C).

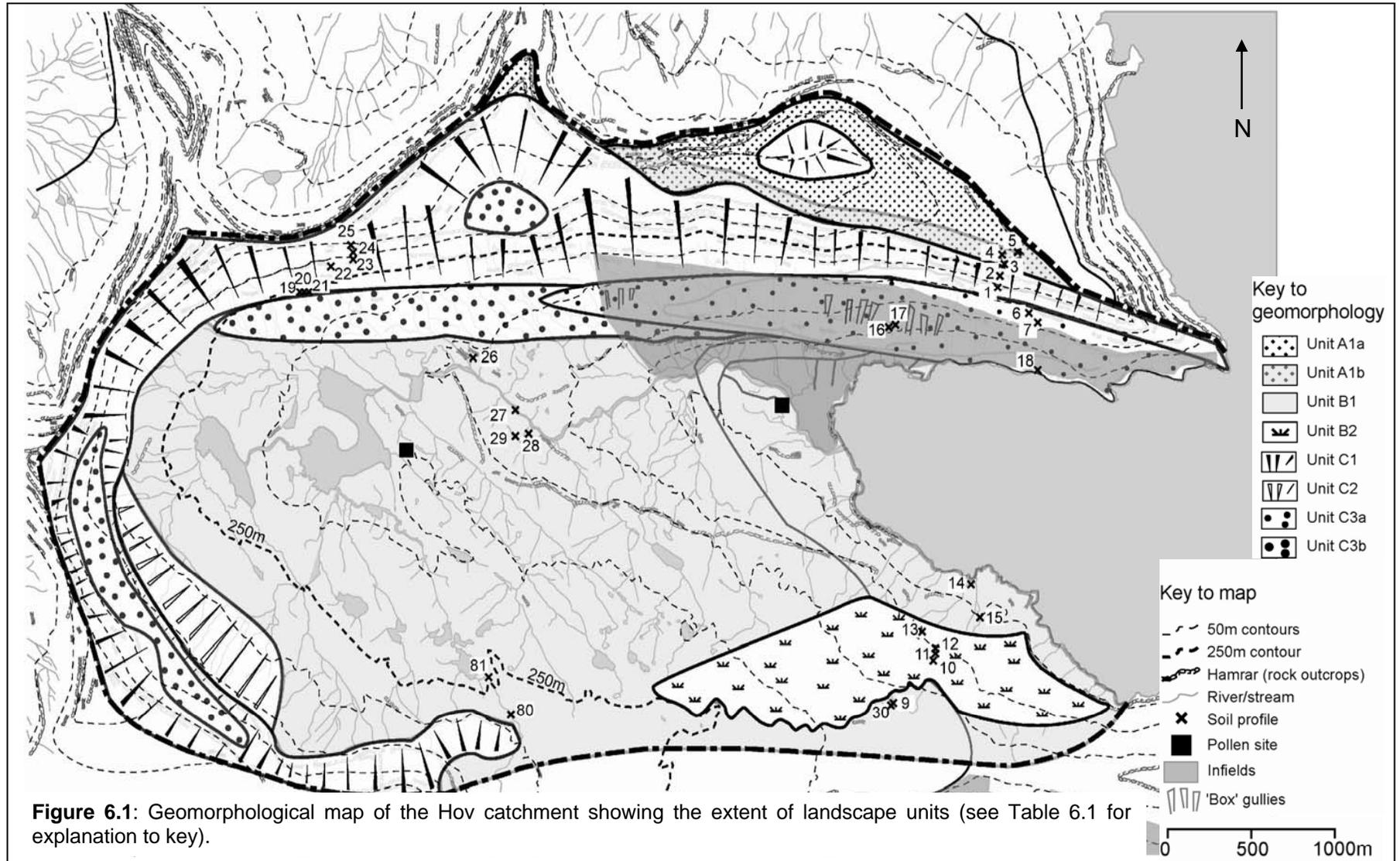
#### 6.1. Presentation of spatial data

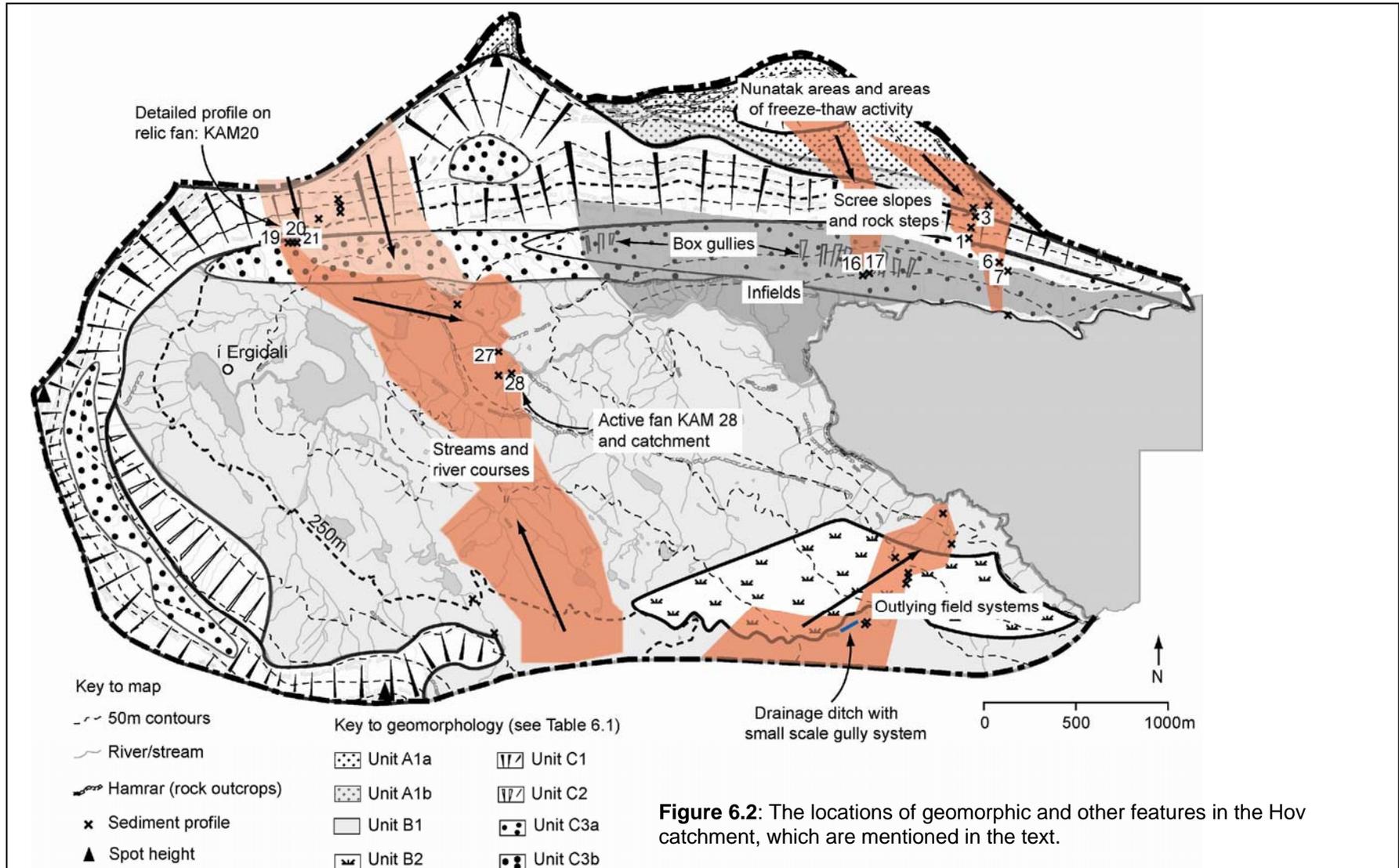
##### Hov: landscape units and geomorphic features

For stage 1 of the landscape mapping, which utilised geomorphic mapping of landscape units at Hov, a map was constructed demonstrating the geomorphology of the region at a catchment-wide scale (Figure 6.1). Four major landscape units were identified including nunataks and areas of active or semi-active cryoturbation, peat dominated cover, soil or scree covered slopes and infields with improved soils. Each unit was subdivided into additional categories with more detailed descriptions (Table 6.1). Within this wider-catchment overview, specific relevant geomorphic features were identified and are discussed in more detail below following a general summary. Locations of specific geomorphic features along with other features mentioned later in the text are illustrated by Figure 6.2.

##### *General summary of Hov geomorphology*

In summary, the Hov catchment consists of steep-sided south and east facing headwalls, where basalt outcrops and buttresses (*hamrar*) alternate with steep slopes dominated by clast rich talus or sandy entisols. As these slopes become less steep, the sediment cover





**Figure 6.2:** The locations of geomorphic and other features in the Hov catchment, which are mentioned in the text.

<b>Altitude</b>	<b>Bedrock area exposed</b>	<b>Regional slope angles (spatial scales of 100-1000m)</b>	<b>Local relative relief (spatial scales of 10-100m)</b>	<b>Dominant surface sediments and features</b>	<b>Map code</b>	<b>Comments</b>
>250m	Limited (<10%)	Low (<1:10)	Low (<5m)	Clast rich diamictons; sandy Entisols/ Histosols Periglacial processes active (cryoturbation)	A1a	Nunatak areas-cryoturbation active with little vegetation
>250m	Limited (<10%)	Low (<1:10)	Low (<5m)	Clast rich diamictons; sandy Entisols/ Histosols Periglacial processes semi-active/fossil	A1b	Nunatak areas-cryoturbation semi active with some soil and vegetation
<250m	Significant (10-50%)	Low to Moderate (up to 1:5)	Low-High (<50m)	Histosols plus frequent watercourses/ lakes/ponds; ribbons of alluvium and some fans	B1	Ridge/basin topography
<250m	Limited (<10%)	Low (<1:10)	Low (<5m)	Histosols covering >75% of surface, some gullies	B2a	Lowland peat cover
<250m	Limited (<10%)	Low (<1:10)	Low (<5m)	Patchy histosols/ exposed diamicton/bedrock; ribbons of alluvium and some fans	B2b	Eroding peat cover
0-600m	Significant-dominant (10-75%)	Steep (1:10 to 1:1/vertical)	High (<50m)	Abundant free-faces. Clast-rich talus (gravels-boulders) and sandy Entisols	C1	Bedrock outcrops plus scree
0-600m	Limited (<10%)	Steep (1:10 to 1:1)	Low (<5m)	Clast-rich talus and sandy Entisols	C2	Semi vegetated diamicton/scree few bedrock outcrops
0-600m	Limited (<10%)	Steep (1:10 to 1:1)	Low (<5m)	Sandy Entisols/ Histosols overlying deep (.5m diamictons) Dry 'box' gullies present	C3a	Soil covered slopes over deep sediment
0-600m	Limited (<10%)	Steep (1:10 to 1:1)	Low (<5m)	Shallow sandy Entisols/ Histosols generally overlying bedrock; frequent watercourses; ribbons of alluvium and some fans	C3b	Soil/peat covered slopes
<250m	Limited (<10%)	Low-Moderate (<1:5)	Low (<5m)	Infields with improved soils	D	Homefields

**Table 6.1:** Key and detailed description for the Hov catchment landscape unit mapping (Figure 6.1).

deepens and talus is replaced by soil, which is generally well vegetated. At lower altitudes, such as the where the infields have developed and where the village of Hov now sits, the depth of sediment is more considerable, a factor which has aided the formation of characteristic gullies. The valley bottom and lower hill slopes are dominated by ridge and basin topography and a network of watercourses, strips of alluvium and some fans. Some areas are more eroded than others and are characterised by un-vegetated patches and loose gravels where soilfluction is semi-active. Inland, below the eastern headwall, relatively deep peat deposits were observed, which have been affected by considerable erosion and gullying (refer to Figure 6.9f). An extensive, well-vegetated lowland peat cover characterises the landscape in the south of the catchment, although with limited erosion. Water courses of various scales, from small ephemeral streams to perennial rivers, feature across all landscape units and are associated with some limited areas of fluvial deposition and fan formation. With regards to landscape stability over time, scree slopes and fan surfaces are comparatively stable today and are characterised by lichen and vegetation cover, and an absence of evidence for movement. Fluvial systems show limited evidence for aggradation, although there is evidence of past periods of considerable instability, whereby major gullies were formed and surfaces eroded.

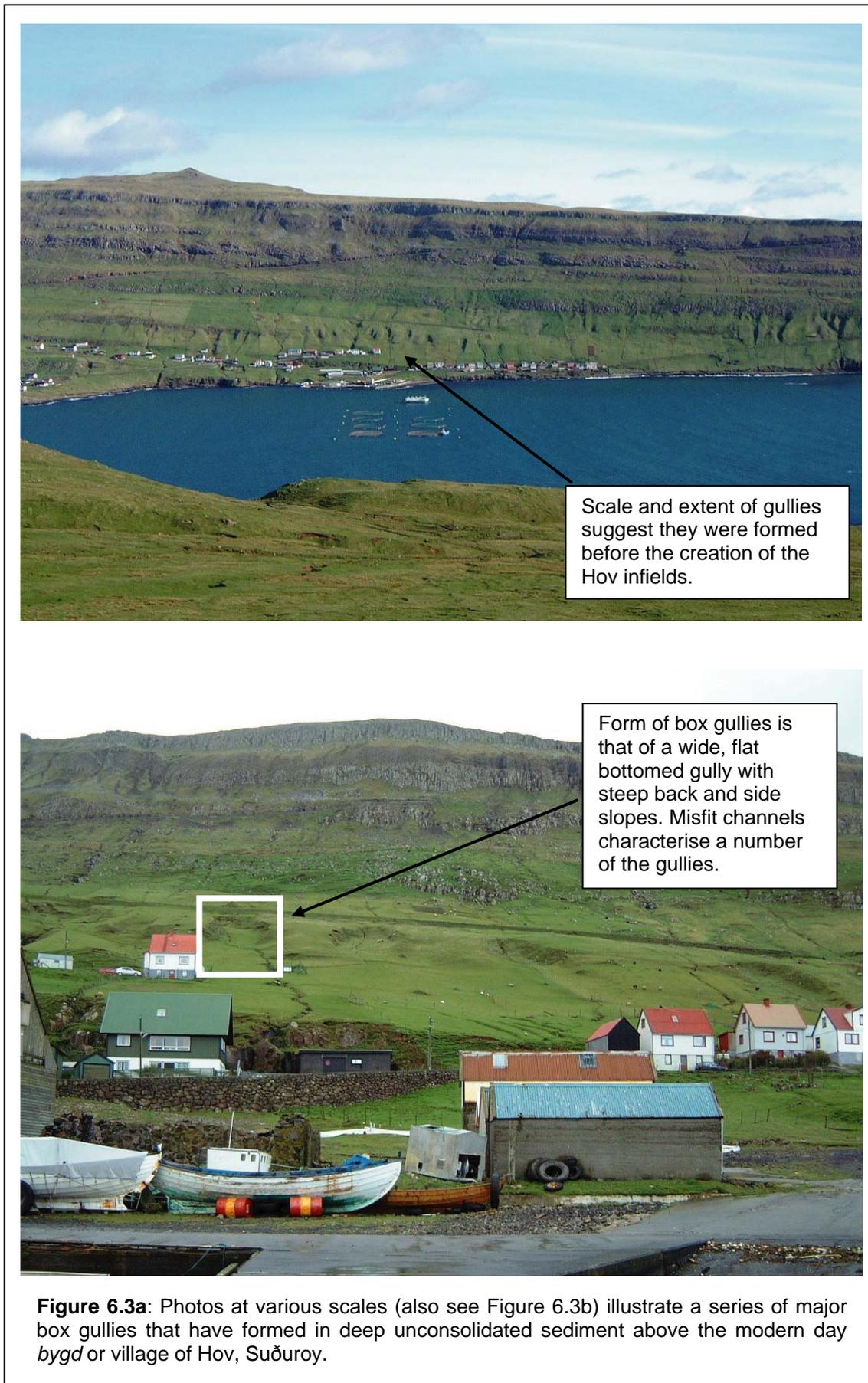
#### *Summary outline of specific geomorphic features*

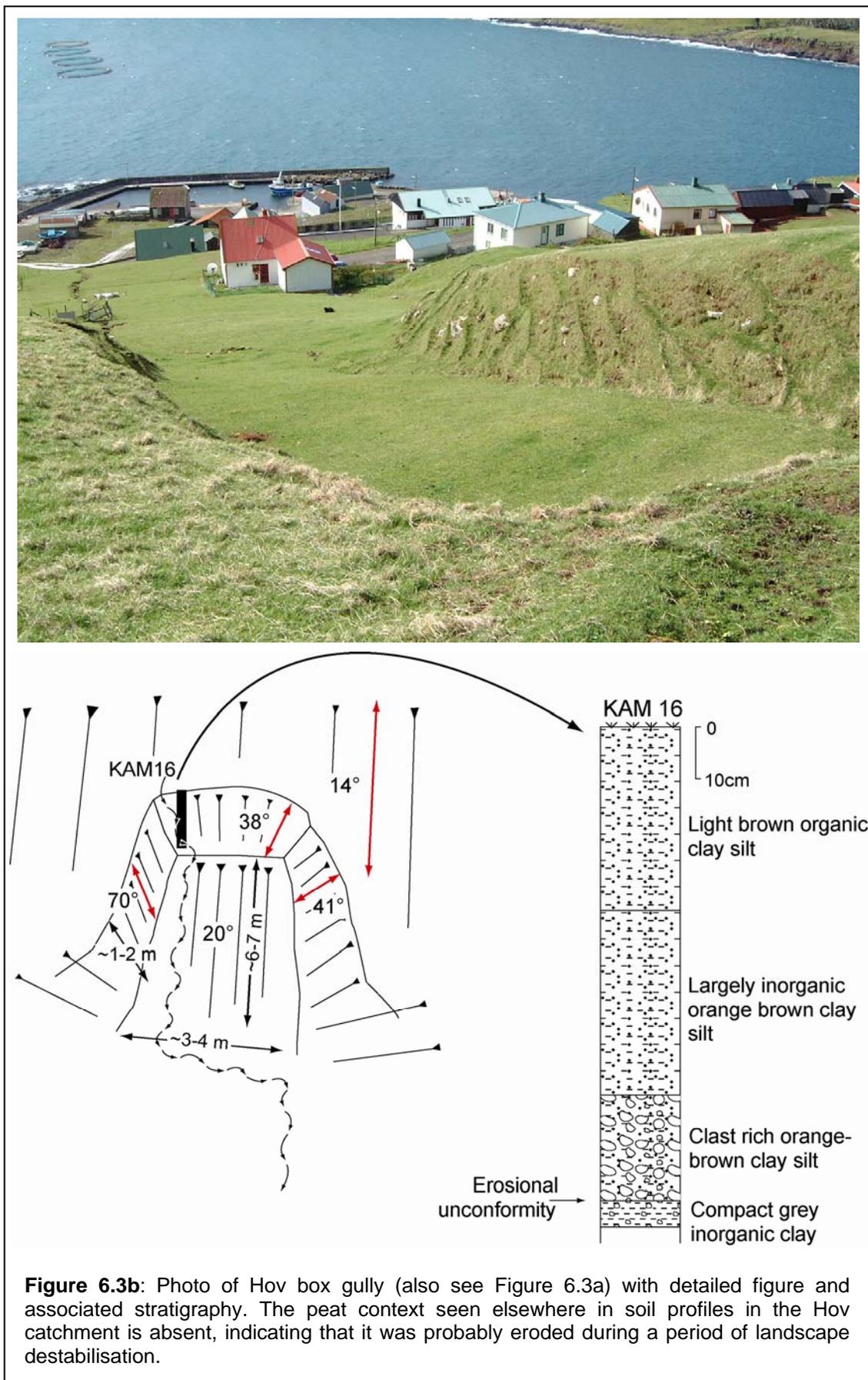
##### *Box-type gullies*

A series of several wide, steep-sided and flat-bottomed gullies have formed in deep unconsolidated sediment on the south facing slopes of the Hov catchment between 50-70 m (Figure 6.3a and 6.3b). One series of gullies is visible directly above the village, and a second series is visible above and to the east of the village. The gullies measure approximately 3-4 m in width, 6-7 m in length and 1-2 m in depth. The deepest gullies occur above the settlement and are steep sided with slopes averaging around 40°, but reaching a maximum of 70°. An exposure cut into the slope of one of the gullies (KAM16), records an inorganic clay unit at the base of the profile, overlain by an orange-brown clay silt sediment unit dominated by gravels at its base. A top unit of brown organic clay silt is consistent with the top silt unit of other sediment profiles in the area. Interpretation of the gully development and geomorphological implications is discussed in chapter 7.

##### *Small scale gullying*

In the south of the catchment at the boundary of the lowland peat unit (refer to Figure 6.1 for location), a series of small gullies have formed on otherwise relatively well-vegetated grazing land. A drainage ditch cross-cuts the gullies, the base of which has been radiocarbon dated





**Figure 6.3b:** Photo of Hov box gully (also see Figure 6.3a) with detailed figure and associated stratigraphy. The peat context seen elsewhere in soil profiles in the Hov catchment is absent, indicating that it was probably eroded during a period of landscape destabilisation.

to  $1120 \pm 35$  yr BP (858-996 AD) (GU-11661). A detailed geomorphic map (Figure 6.4) was made of the immediate area, specifically to record the form of the channels and their relationship with the anthropogenic ditch, as a way of relatively dating the development of the natural channels to pre or post-*landnám*. Although the majority of the gullies have developed following the ditch cutting, i.e. after settlement, the surface is relatively stable today.

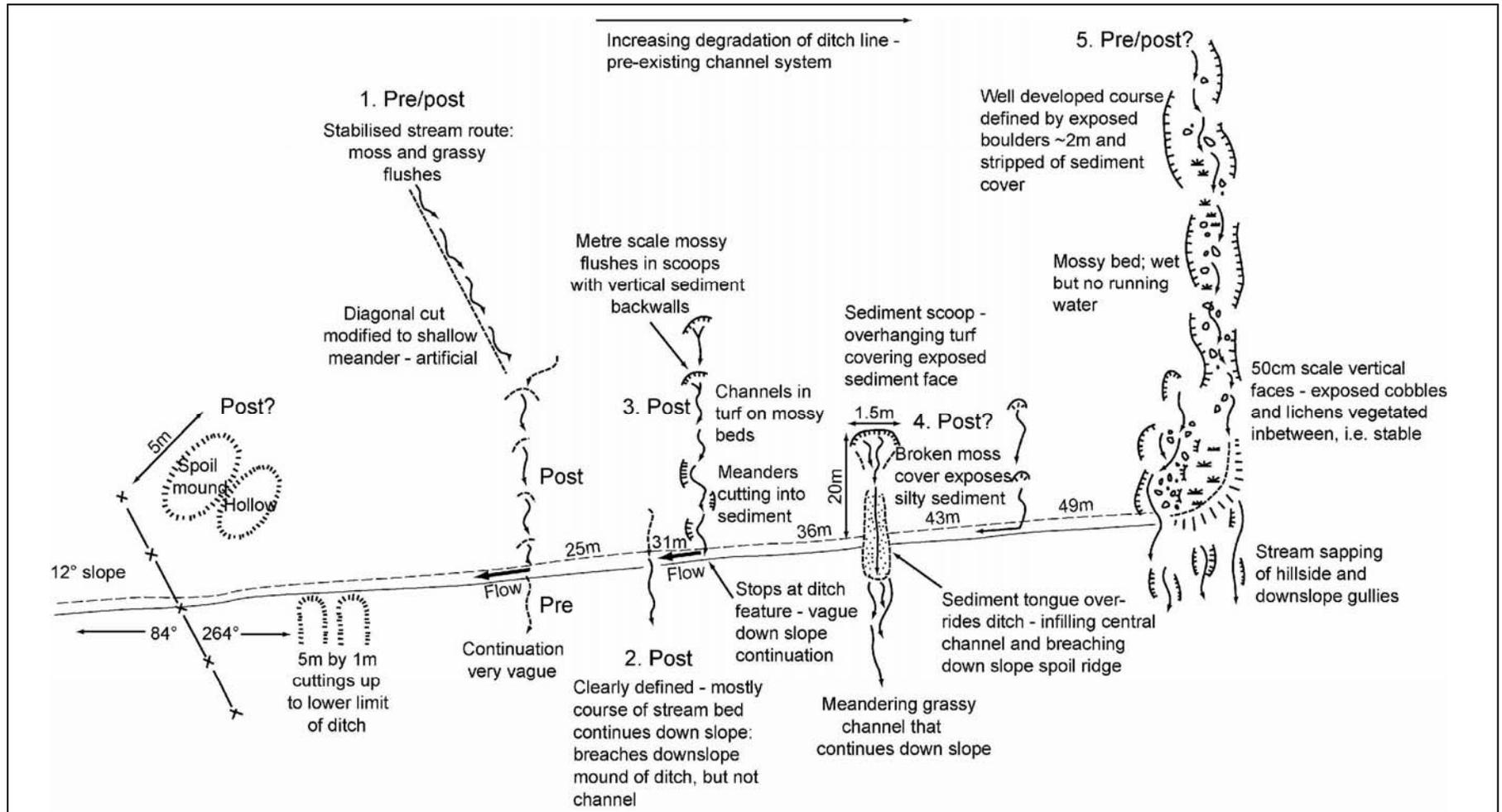
#### *Inactive fan*

There was little evidence of large fans in the Hov area, although an inactive fan on south facing slopes in Hovsdalur was recorded in detail (Figures 6.5a and 6.5b). Three sediment stratigraphies were recorded from an extensive exposure cutting across most of a major debris fan, which presented an effective cross-sectional view of the feature. The stratigraphy of the KAM20 profile is described below in more detail but notably between the mid-6<sup>th</sup> to mid-7<sup>th</sup> century and the late 8<sup>th</sup> to 9<sup>th</sup> century, KAM20 records the deposition of an extensive gravel unit, which can be related to upland disturbance at this time. Later fan activity appears to have been limited, an observation which is reinforced from other sites, indicating that large areas of modern fans have stable surfaces.

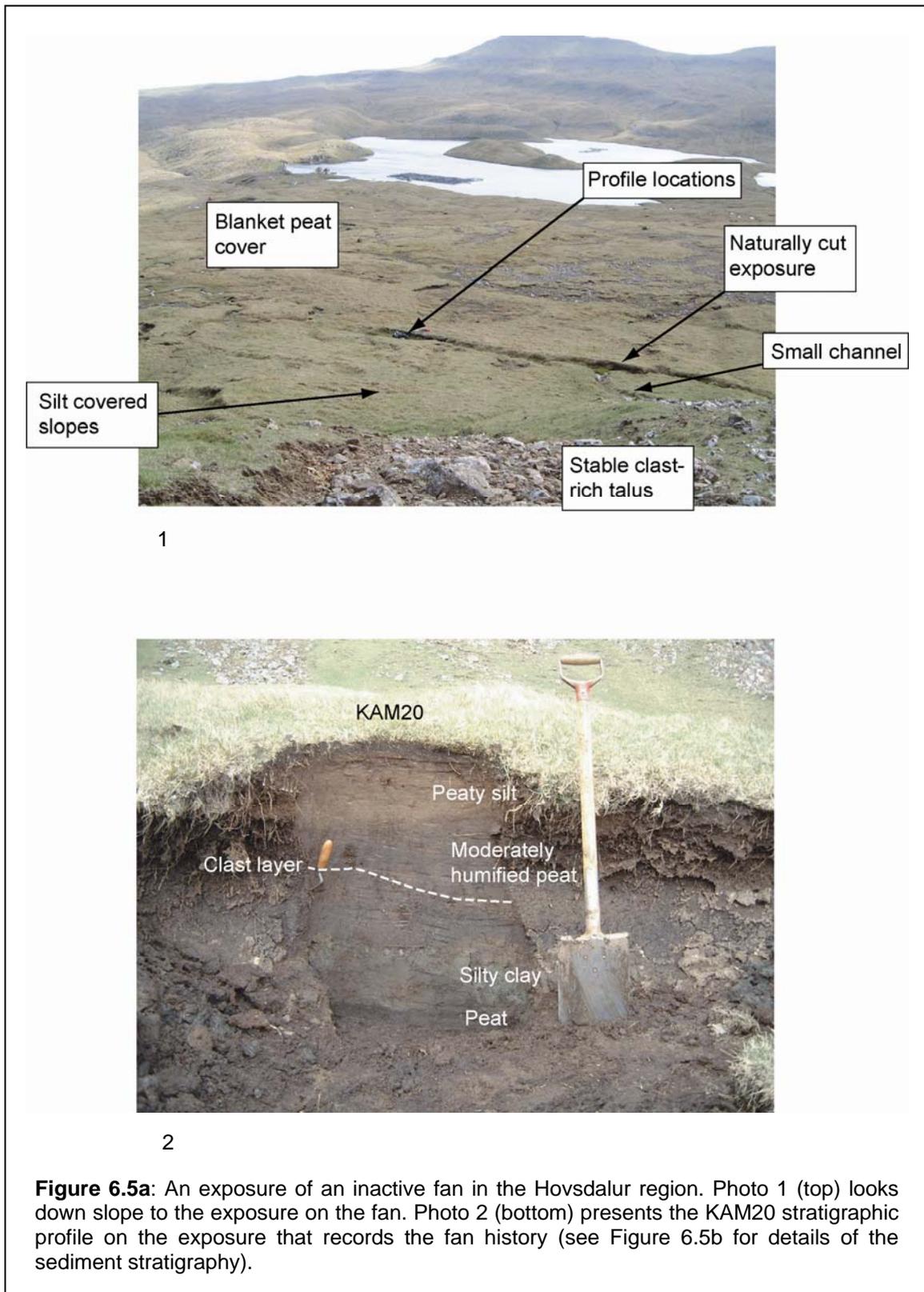
#### *Active fans and river systems*

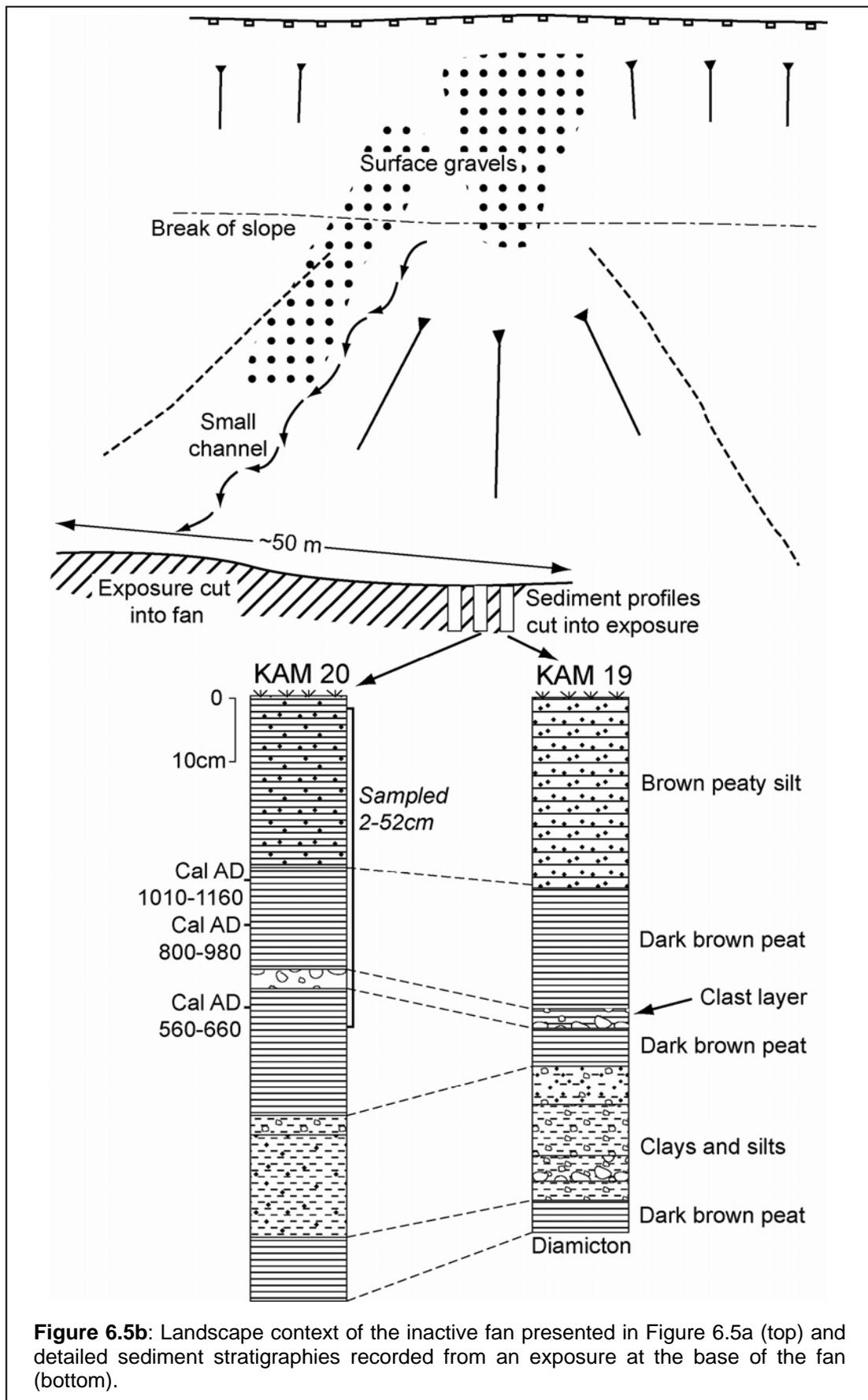
In a lowland area of the Hov catchment, a small active fan on a tributary stream joining the Hovsá, was observed (Figure 6.6). The profile on the fan records aggrading bands of sands and gravels prior to  $c.2755 \pm 35$  yr BP (980-920 BC), after which an organic layer of macro-fossil rich sediment was buried by the rapid emplacement of silts above. The infilling event ends  $c.1540 \pm 35$  yr BP (430-600 AD), after which a 70 cm thick silty peat has aggraded.

River systems are good indicators of changes affecting the wide-scale landscape catchment and the Rættá system on Sandoy is characteristic of others in both Hov and Sandoy. The location of this feature is presented in Figure 6.7 as are other specific geomorphological and archaeological features on Sandoy mentioned later in text. The limited evidence for aggradation along the channel margins suggests either that sediment has been transported through the system or that there has been limited creation and transport of material to be moved. The low-energy meandering river is suggestive of low sediment transport supporting the assertion that recent erosion in the wider catchment has been relatively limited. Suggested alternate processes of development of the river system are illustrated by Figure 6.8.

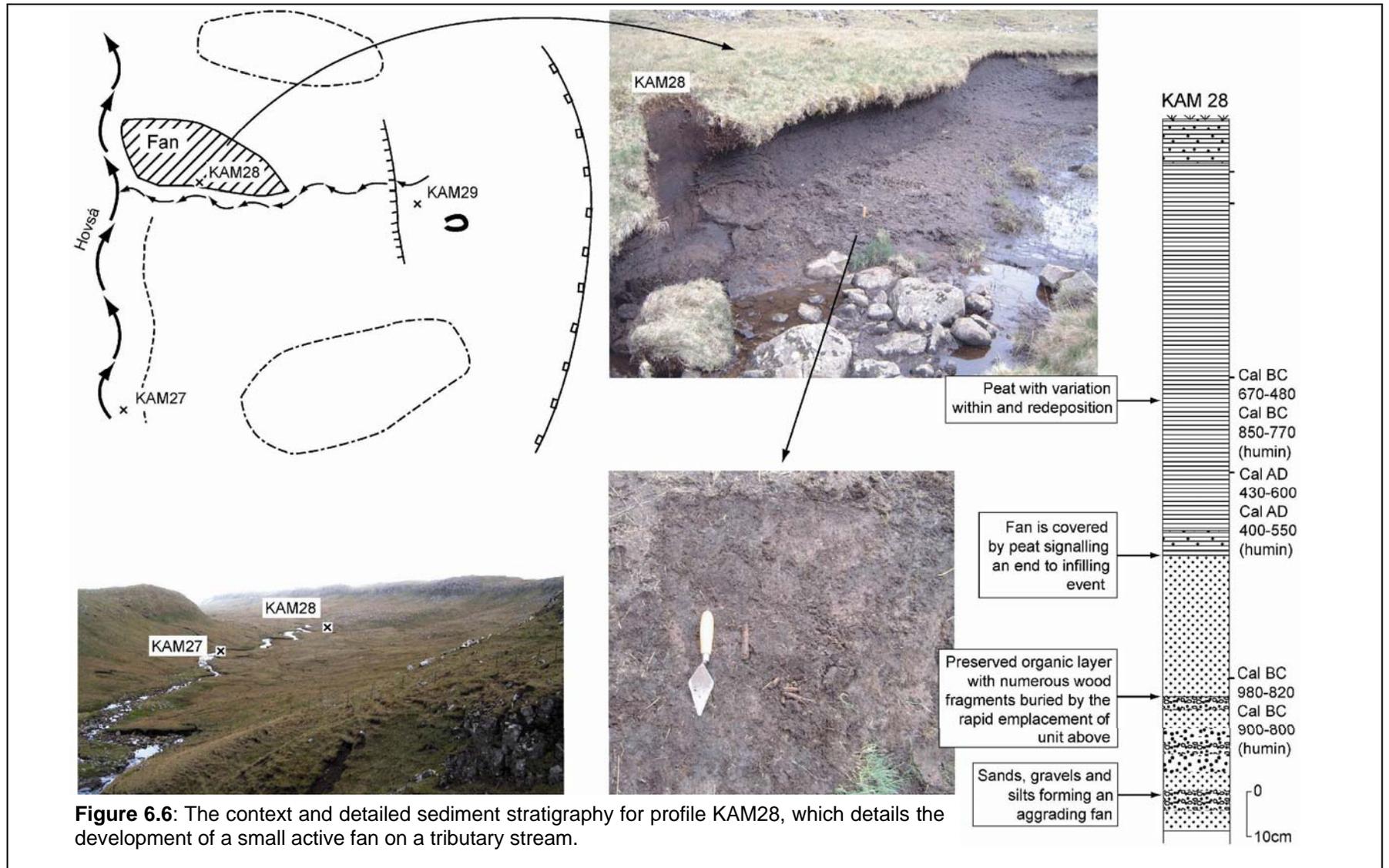


**Figure 6.4:** An artificial ditch, cross-cut by natural channels and located on the North facing slopes above Hov, illustrates an example of the interaction between archaeology and geomorphology. By analysing the form of the channels and whether they cross-cut the ditch or not, the natural channels can be dated to pre- or post-*landnám*. Note the figure is not drawn to scale - individual measurements between gullies are presented in the figure.

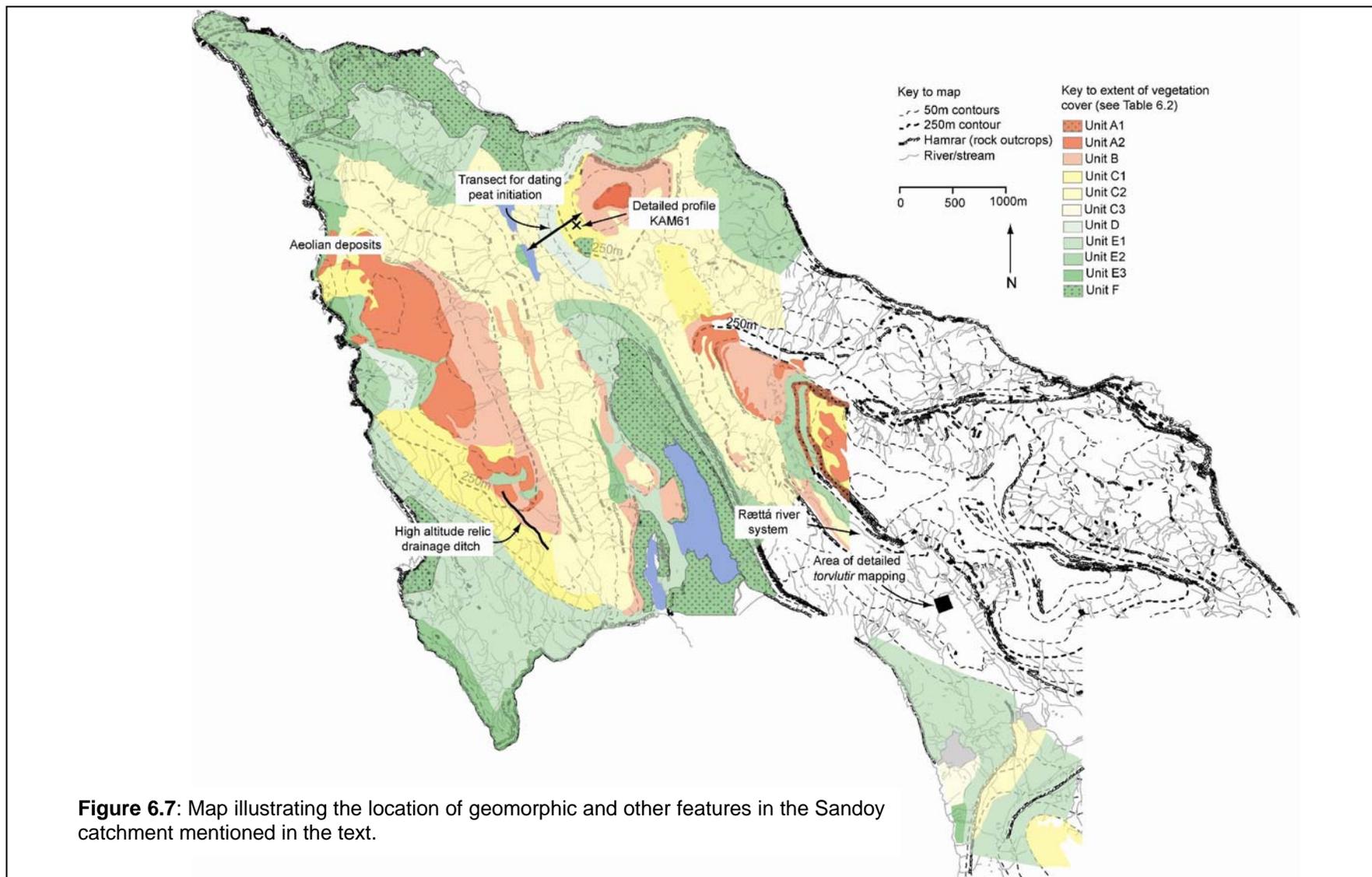




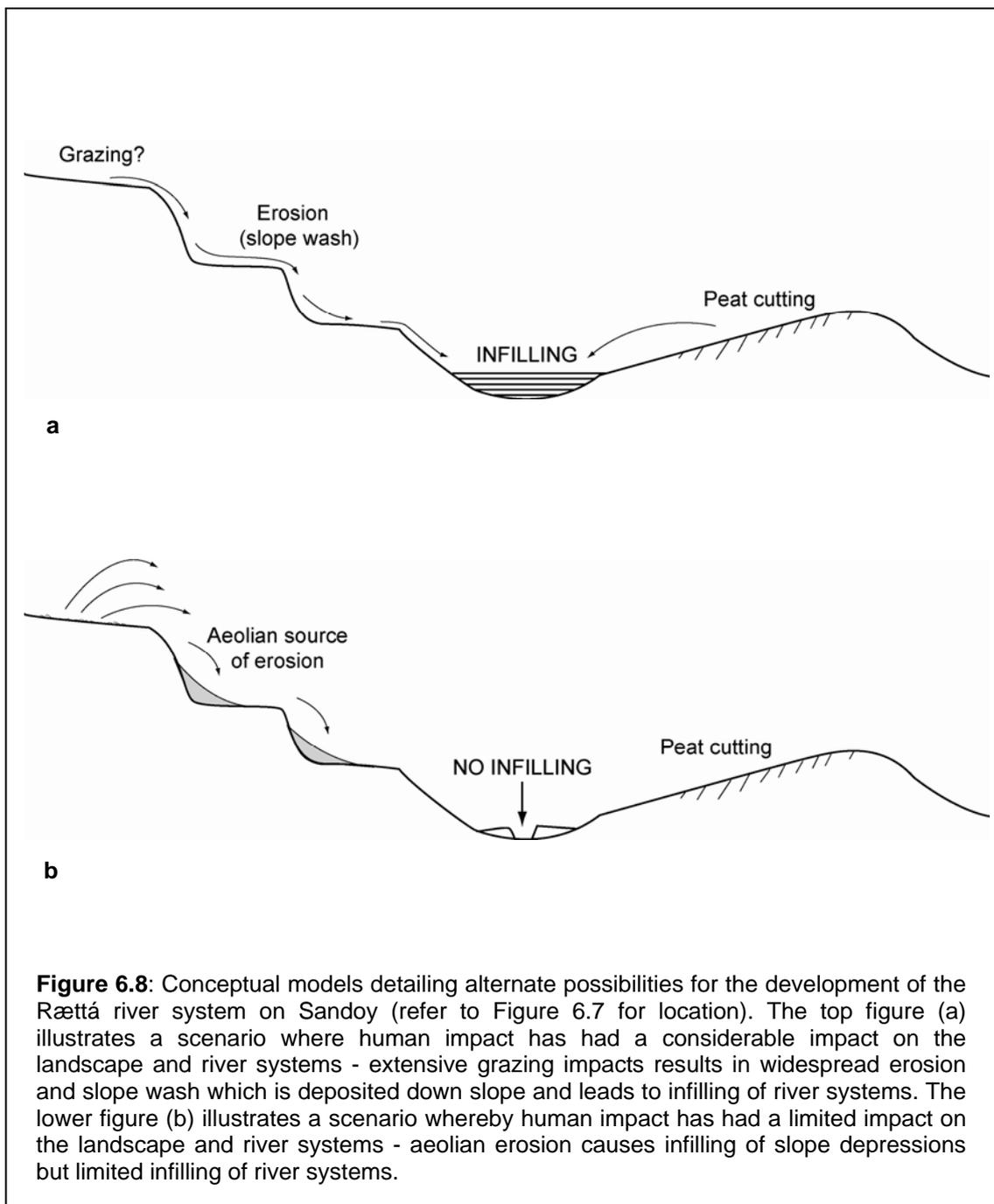
**Figure 6.5b:** Landscape context of the inactive fan presented in Figure 6.5a (top) and detailed sediment stratigraphies recorded from an exposure at the base of the fan (bottom).



**Figure 6.6:** The context and detailed sediment stratigraphy for profile KAM28, which details the development of a small active fan on a tributary stream.



**Figure 6.7:** Map illustrating the location of geomorphic and other features in the Sandoy catchment mentioned in the text.

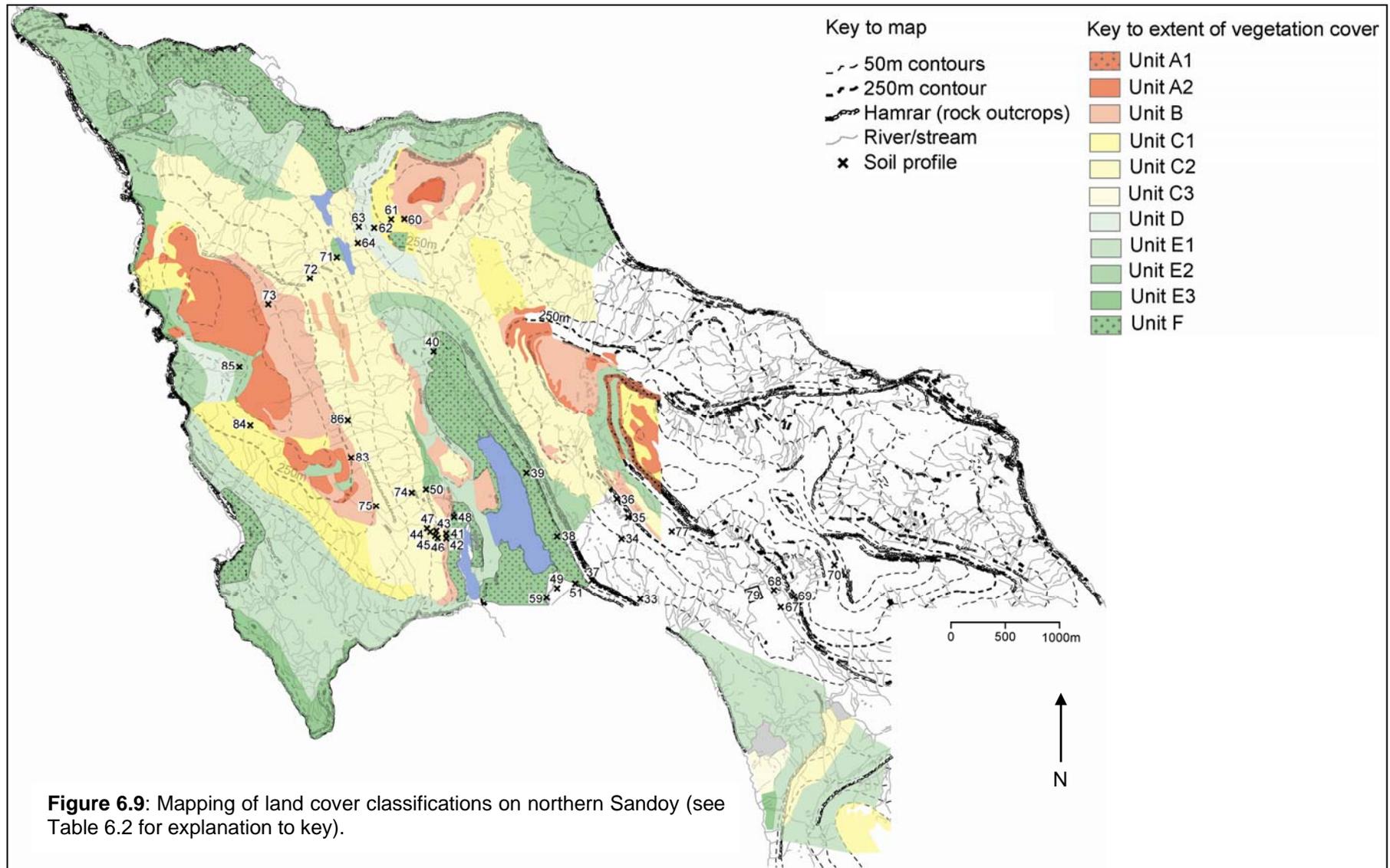


## **Sandoy: extent of land degradation**

### *General summary of landscape-scaled degradation patterns*

Stages 2 and 3 of the landscape mapping, were developed from stage 1 (which focussed on the geomorphic mapping of landscape units) to analyse land cover classification relating to the more subtle affects of human impact. A map detailing land cover classifications for north Sandoy is illustrated by Figure 6.9. Five major categories qualitatively classify the vegetation as “very limited”, “limited”, “significant”, “dominant” and “very dominant”. These categories were further divided into a total of 11 subcategories according to the slope angle of the localised landscape surface and dominant surface features. A detailed explanation of subcategories is presented in Table 6.2, and photographic examples of the 11 subcategories are presented in Figures 6.10a-k. This approach was also applied to Hov, with a map detailing land cover classifications for Hov illustrated by Figure 6.11. In summary, areas in excess of 250 to 300 m altitudes are generally degraded with very limited vegetation cover (less than 10 %), as altitude effectively determines the climatic limits to periglacial processes, which are a cause of the breaking up of landscape surfaces. Non-altitudinal related differences also emerge from the mapping results. Plateaux and areas of very gentle sloping topography are generally more degraded than steeper, better drained slopes, which are surprisingly well vegetated, even at altitudes of between 300 and 350 m (Figure 6.12). The plateau to the south of Eiriksfjall on the western side of North Sandoy is severely degraded, for example. East facing slopes in Sandoy are also more eroded and have less vegetation cover at lower altitudes than west facing slopes which are steeper with rock outcrops. The most well vegetated region aside from improved infields is the promontory to the west of Sandur *bygd* and south of the Søltuvík road, in an area which also displays considerable evidence of anthropogenic activity. In contrast, at a similar altitude (100 m or less), in areas to the west of Sandsvatn and Gróthúsvatn lakes, specific locations were observed which were almost entirely degraded, the suggested causes of which are discussed in chapter 7.

At the north west point of a mountainous plateau in west Sandoy, completely degraded land exists immediately adjacent to well vegetated areas. This might be a fragment of an aeolian deposit which are known to occur elsewhere in the Faroes and must to some degree have accumulated during former more extensive periods of wind activity than at present (Christiansen 1998). The Sandoy aeolian deposits, illustrated in Figure 6.13 (refer to Figure 6.7 for location), have accumulated on west facing slopes above a vertical 300 m cliff and may be the remnants of formerly more continuous sheets indicating that some erosion or re-working has occurred, and probably still continues, on a small scale.



Altitude	Vegetation cover	Slope angles (spatial scales of 100-1000m)	Dominant surface sediments and features	Map code	Comments
0-600m	Very limited (<10%)	Steep (1:10-1:1/vertical)	Abundant <i>hamrar</i> (free-faces), clast rich talus (boulders and gravels) and sandy entisols	 A1	Bedrock outcrops and scree
>250m	Very limited (<10%)	Low (<1:10)	Clast-rich diamictons. Periglacial processes active (cryoturbation)	 A2	Active cryoturbation, little vegetation, degraded
>250m?	Limited (10-30%)	Low (<1:10)	Clast-rich diamictons, talus; sandy entisols/histosols. Periglacial processes semi-active	 B	Cryoturbation semi-active with some soil and vegetation
0-600m?	Significant (40-60%)	Low-moderate (up to 1:5)	Clast-rich diamictons; sandy entisols/histosols; periglacial processes semi-active and relic	 C1	Cryoturbation semi-active on large patches (>5m) between vegetated areas
0-600m?	Significant (40-60%)	Low-moderate (up to 1:5)	Significant talus (boulders and gravels); relic and semi-active periglacial processes; sandy entisols/histosols	 C2	Talus and small scale (<5m) relic cryoturbated patches
<350m	Significant (40-60%)	Low (<1:10)	Periglacial processes semi-active and relic; histosols; extensive gullying and pooling, peat haggling	 C3	Eroded peat with extensive gullying and peat haggling
0-600m	Dominant (50-80%)	Moderate to steep (1:10-1:1)	Shallow/sandy entisols/histosols generally overlying bedrock; frequent watercourses; ribbons of alluvium and some fans	 D	Soil/peat covered slopes (more degraded than E2)
<250m	Very dominant (80-100%)	Low (<1:10)	Histosols covering >75% of surface, some gullies	 E1	Lowland peat cover
0-600m	Very dominant (80-100%)	Moderate-steep (1:10-1:1)	Shallow/sandy entisols/histosols generally overlying bedrock; frequent watercourses; ribbons of alluvium and some fans	 E2	Soil/peat covered slopes
0-600m	Very dominant (90-100%)	Moderate-steep (1:10-1:1)	Sandy entisols/histosols overlying deep (5m) diamictons. Dry 'box gullies' present (Hov)	 E3	Soil covered slopes over deep sediment
<250m	Very dominant (90-100%)	Low-moderate	Improved sandy entisols/histosols	 F	(Manured) infield

**Table 6.2:** Key and detailed description for categories defined on the Sandy and Hov land cover classification maps (Figures 6.9 and 6.11).



**Figure 6.10a; Unit A1:** Example of land cover classification category A1, with reference to Figure 6.9 and Table 6.2.



**Figure 6.10b; Unit A2:** Example of land cover classification category A2, with reference to Figure 6.9 and Table 6.2.



**Figure 6.10c; Unit B:** Example of land cover classification category B, with reference to Figure 6.9 and Table 6.2.



**Figure 6.10d; Unit C1:** Example of land cover classification category C1, with reference to Figure 6.9 and Table 6.2.



**Figure 6.10e; Unit C2:** Example of land cover classification category C2, with reference to Figure 6.9 and Table 6.2.



**Figure 6.10f; Unit C3:** Example of land cover classification category C3, with reference to Figure 6.9 and Table 6.2.



**Figure 6.10g; Unit D:** Example of land cover classification category D, with reference to Figure 6.9 and Table 6.2.



**Figure 6.10h; Unit E1:** Example of land cover classification category E1, with reference to Figure 6.9 and Table 6.2.



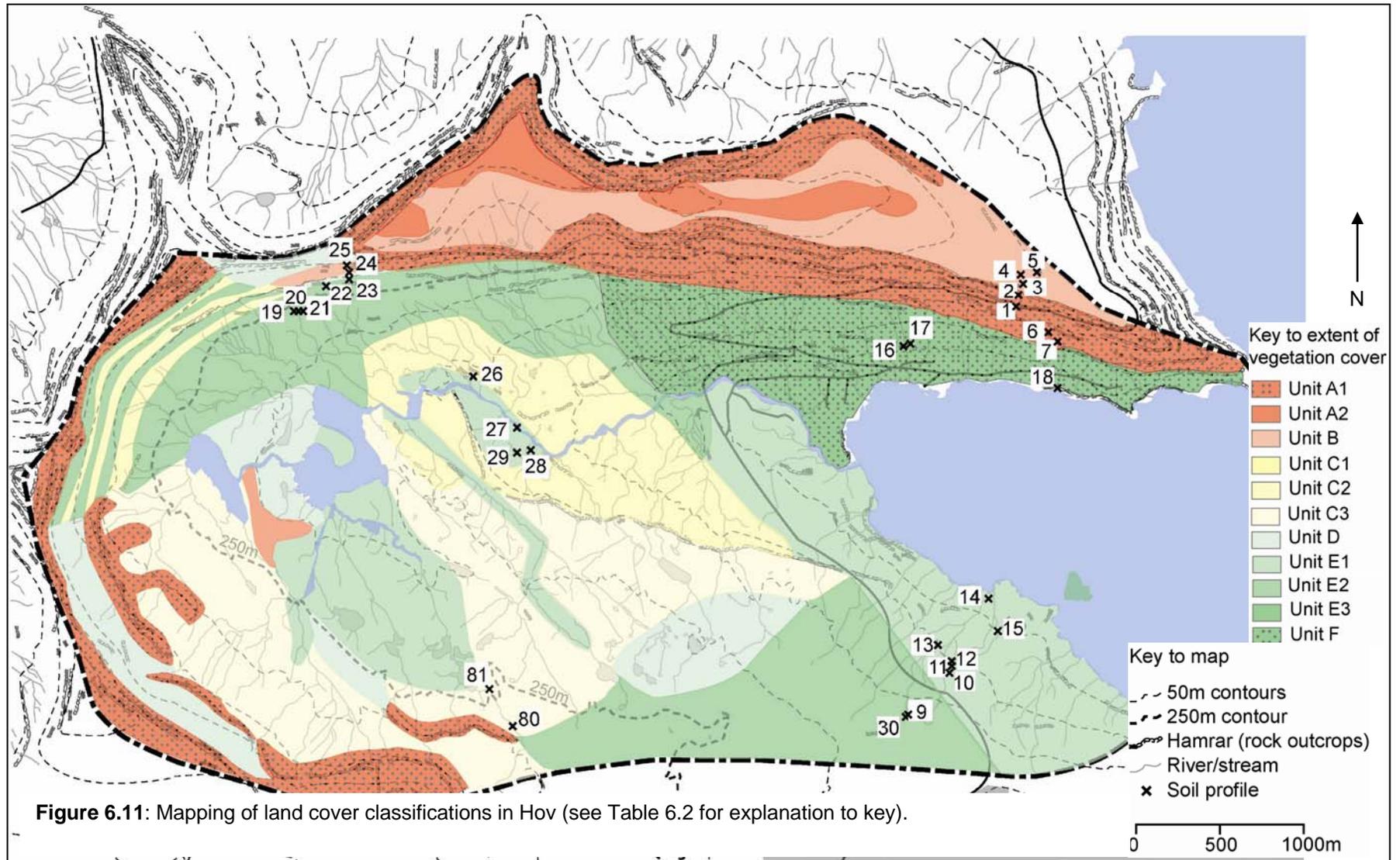
**Figure 6.10i; Unit E2:** Example of land cover classification category E2, with reference to Figure 6.9 and Table 6.2.

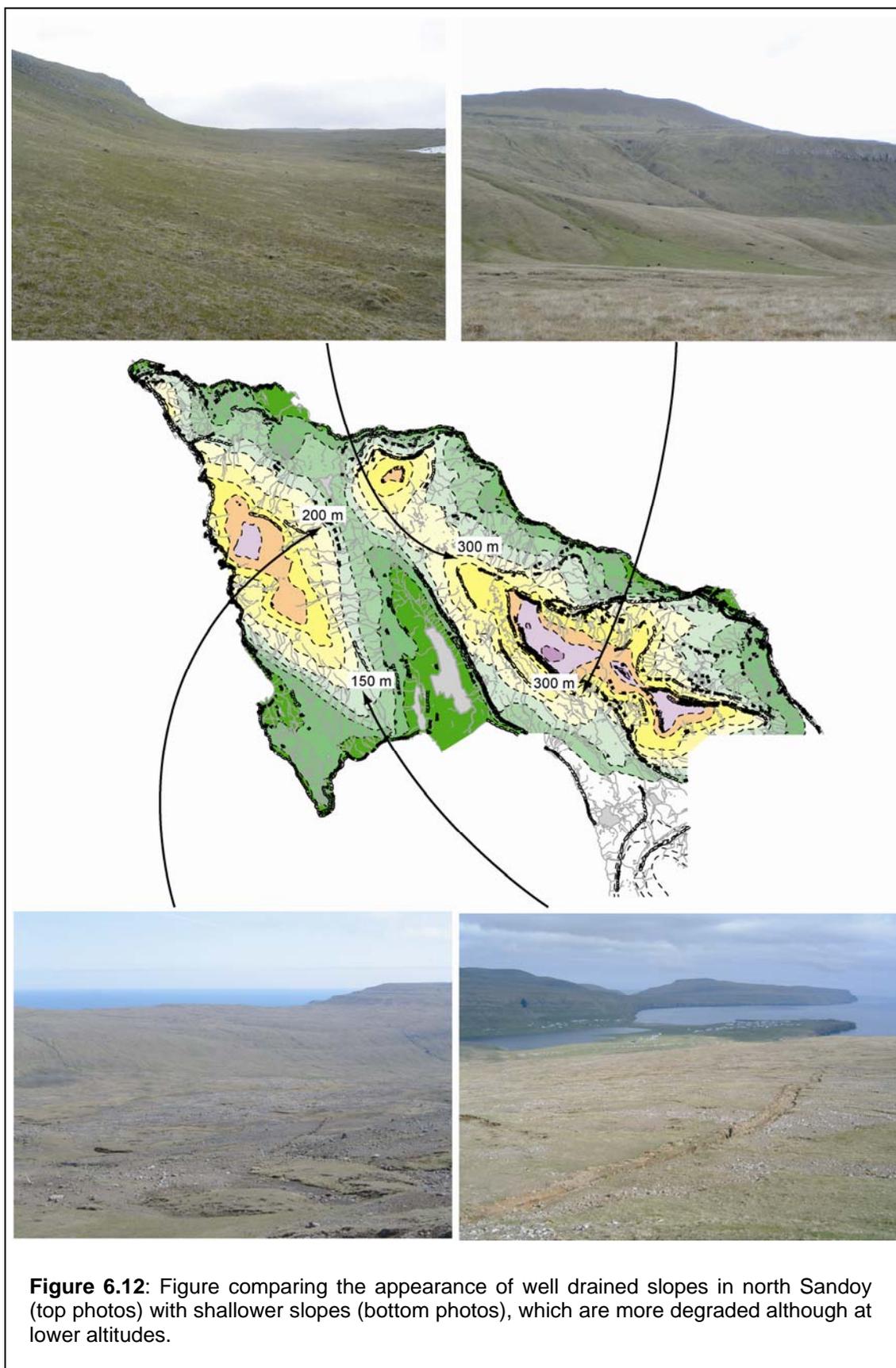


**Figure 6.10j; Unit E3:** Example of land cover classification category E3, with reference to Figure 6.9 and Table 6.2.



**Figure 6.10k; Unit F:** Example of land cover classification category F, with reference to Figure 6.9 and Table 6.2.







**Figure 6.13:** Possible remnants of an aeolian deposit on west facing Sandoy slopes above a vertical 300m cliff. See Figure 6.7 for location.

## 6.2. Hov and Sandoy: sites of cultural activity

### Extent of archaeological survey in Hov and north Sandoy

Walk-over archaeological surveys were carried out both within the Hov catchment, and the larger field site of north Sandoy, to provide data on specific archaeological structures and as a means for comparison between spatial patterns of proposed anthropogenic activity with spatial patterns of landscape degradation. Summary descriptions of the main structures observed and recorded are detailed here, followed by a spatial analysis of areas of archaeological activity, and classification of the landscape into zones characterised by significant archaeological remains.

A total of 101 archaeological features (excluding cairns that make up cairned routes) were mapped in the outfields of the Hov hydrological catchments, of which 60 were recorded in detail and described. This total includes 10 dyke fragments, 54 sheep-shelters and folds, 33 peat-storage structures, a boat house, a shieling, a bridge/footway and a 9<sup>th</sup>-10<sup>th</sup> century drainage ditch. Within three distinct field areas in the outfields of northern Sandoy 125+ structures were recorded and described. This total includes 15 stone and turf and dry stone dyke fragments, 25 sheep-shelters or folds, 26 stone square structures, 51 peat-related structures, 2 relic drainage ditches and 6 structures of unknown purpose.

### General description of archaeological monuments in the Faroese outfields

Based on observations made in the field supported by ethnographic data detailed below, a summary of the most common outfield archaeological structures is presented in accordance with the anthropogenic activities they relate to. A simplified table of archaeological structures documented in the field is presented in Tables 6.3, 6.4a and 6.4b with additional GPS data from the archaeological survey presented in Appendix A.

#### *Outfield structures relating to sheep and cattle*

A considerable number of structures related to the farming of sheep and cattle exist in the outfields and although some are still utilised, the majority are in varying states of disrepair, as a result of natural collapse or after being dismantled for building materials. The most prominent structures in the Hov and Sandoy outfields, as elsewhere in the Faroes (Arge 2006) are the *ból* (referred to on some islands as *støður*) or sheep-shelters (Figure 6.14). The function of *ból* was to provide shelter for sheep in bad weather, which in the past was critical because the Faroese grazing system relied on flocks being able to graze outdoors throughout the year. *Ból* are used rarely by the sheep today because they are fed or brought

in from the outfields over the winter. As a result most *ból* have fallen into disuse and are partially or totally collapsed and have been vegetated over. The form of *ból* in Hov and Sandoy is generally horseshoe-shaped, although some are circular or teardrop in form. Circular *ból* were generally observed to be in a greater state of disrepair and are likely to have been disused for a longer period of time than horseshoe-shaped shelters. Orientation analyses show that the majority of *ból* had an opening facing away from the prevailing wind direction, rather than being simply orientated with the slope (Figure 6.15). This was an important factor in protecting the sheep from snowfall (Arge 2006). In Hov, the majority of entrances were orientated to the south or south-south-east, and in Sandoy, entrances were most commonly orientated to the south, south-south-east or south-south-west. The length of *ból* in Hov ranged from c.4-12 m on the long axis, and although the height of *ból* varied depending on condition, none exceeded a c.1 m in inside depth. The *ból* are dry stone constructed and are built from varying proportions of stone and turf. *Ból* are widespread across the *hagi* at relatively low altitudes, below 250 m, and the majority of *ból* in Hov are located between 50-150 m (Figure 6.16). On Sandoy there were no *ból* recorded above an altitude of 200 m, which is probably a reflection of the island's more subtle topography, and the majority were located at altitudes of 50-100 m, where the sheep would be moved to after coming down from the highlands over winter (Figure 6.17). *Rætt*, or sheep folds, are also found in the *hagi*, but less extensively than the *ból*. They are larger in size and often consist of several chambers and wall fragments, but are also constructed of varying proportions of stone and turf. *Rætt* are usually situated close to the infield in order to gather the sheep whereas *ból* are more widespread across the lower altitude outfields.

A variety of dyke structures were recorded in the outfields of both Hov and Sandoy (Figures 6.18a-d). The majority of dykes were observed in well-defined areas with good vegetation cover. Dykes may function both as boundaries between outfields or villages and as a constraint to cattle or other animals, either as a barrier to keep animals out or as an enclosure to keep animals within (Arge 2006). Dykes in Hov and Sandoy varied from purely stone constructions to those constructed of both stone and turf. Some dykes followed naturally formed features such as *hamrar*, or rock outcrops. In one example, a dyke was built both into and around a large rockfall (Figure 6.19). In the field, it is difficult to determine their function or age, although examples of where dykes had been repaired suggest continued use over longer-time periods. A small number of isolated, walled enclosures, were also observed, including one at Aárkurvur, inland of Hov (Figures 6.20a and 6.20b - refer to Figure 6.2 for location), to which farmers from the village of Porkeri brought cattle and sheep for summer grazing. The enclosure also served for "taming" or calming wild sheep (Mortan Holm, Porkeri resident *pers. comm.*).

<i>ID number</i>	<i>Structure type</i>	<i>Altitude (m)</i>	<i>Form</i>	<i>Length (m) Out/in</i>	<i>Width (m) Out/in</i>	<i>Orientation (long axis)</i>	<i>Open side orientation</i>	<i>Comments</i>
A1	Cairn	110	Circular	N/A	1.06	N/A	N/A	Single cairn as part of footpath linking Hov and Porkeri.
A2	Dyke	90-100	Linear	~50	0.8 (base) 0.3 (top)	N-S	N/A	Dyke/enclosure of stone/turf perpendicular to slope, follows exposed <i>hamar</i> across 50-100m contour.
A3	Dyke	50-100	Linear	~250	1 (base) 0.4-0.5 (top)	W-E	N/A	Dyke/enclosure of stone/turf perpendicular to slope for 120 m, parallel with river for 50 m and joins <i>hamar</i> after 250 m.
A4	Unknown	55	Rectilinear	9.8/7.3	7.8/6.2	WNW-ESE	Unknown	Remains of stone rectilinear structure, possibly sectioned in two. Lower dyke of structure formed by A3.
A5	Sheep fold	95	Circular	12/8	12/8	N/A	SE	Modern stone built and turf covered fold with central partition.
A6	Dyke	0-60	Linear	~400	1.6 (base) 0.6 (top)	SE-NW and NE-SW	N/A	Stone and turf dyke/enclosure parallel to slope down to sea.
A7	<i>Ból</i>	55	Teardrop	9.2/7.2	4.8/2.4	SE-NW	SE	Well maintained <i>ból</i> with stone/turf dykes and tapered entrance. Built into slope.
A8	<i>Ból</i>	35	Teardrop	8.2/5.5	7/2.4	SSW-NNE	SSE	Well maintained <i>ból</i> with stone/turf dykes situated at base of small rocky outcrop.
A9	Enclosure	20	Oval	8.5/6.8	6.8/4	SSE-NNW	SSE	Basic enclosure, stone/turf, also incorporating large in situ boulders.
A10	Stone house	10-15	Rectilinear	7.2/4.5	5.6/2.7	W-E	NNE	Well maintained stone built house/shed with stone dykes 2 m in height.
A11	Dyke	5-25	Linear	~65	1.2 (base) 0.6 (top)	NE/NNE- SW/SSW	N/A	Dyke/enclosure of predominantly stone and some turf that follows the edge of large rock fall to the sea.
A12	<i>Ból</i> /fold	20	Circular	8/4.3	5/3.2	ENE-WSW	SSE	Stone/turf <i>ból</i> /fold with dividing partition, upper side built into slope.
A13	Dyke	30	Linear	~120	0.9 (base) 0.5 (top)	WNW-ESE	N/A	Stone dyke in poor condition with partial turf covering, runs between 2 <i>hamrar</i> and into rock fall.
A14	Sheep fold	5	Complex	25 (main chamber)	8.2 (main chamber)	SE-NW	N/A	Stone built multi-chambered fold between large rock fall and sea.

**Table 6.3:** Summary of archaeological structures recorded in the Hov catchment.

<i>ID number</i>	<i>Structure type</i>	<i>Altitude (m)</i>	<i>Form</i>	<i>Length (m) Out/in</i>	<i>Width (m) Out/in</i>	<i>Orientation (long axis)</i>	<i>Open side orientation</i>	<i>Comments</i>
A15	Boat house	5	Oval	10/8.2	4.3/2.2	NE/SW	NE	Stone boat house, double skinned dykes with rubble infill. Back of structure built into slope.
A16	<i>Ból</i>	20	Teardrop	6/4.9	4.9/2.6	NNE-SSW	SSW	Stone/turf, tapered entrance, back dyke built into slope. Situated in depression between two slopes.
A17	<i>Ból</i>	105	Oval	9.4/7.1	6.7/4.4	N-S	S	<i>Ból</i> in poor condition with collapsed dykes and completely vegetated over. Structure tapers towards entrance. Surrounding area used for peat cutting.
A18	<i>Ból</i>	95	Oval	9/4.3	5.8/2.1	N-S	S	<i>Ból</i> in poor condition with collapsed stone/turf dykes built onto a natural rise/outcrop within a larger sheltered depression.
A19	<i>Ból</i>	95	Oval	8.9/5.9	6.7/2.8	N-S	S	<i>Ból</i> in poor condition, collapsed dykes, turf covered. Surrounding area used for peat cutting.
A20	Dyke	40-50	Linear	~450	0.7 (base) 0.4 (top)	N/NNE- S/SSW	N/A	Stone/turf dyke perpendicular to slope, forms an enclosure thought to have been used for milking ewes in Norse period.
A21	<i>Ból</i>	60	Oval/ circular	9.5/6.5	7.9/5.8	N-S	S	<i>Ból</i> in poor condition, covered over by turf (no stones visible), more circular in form than other <i>ból</i> in parcel A.
A22	<i>Ból</i>	62	Oval/ teardrop	7.1/5.2	6/2.5	SSW-NNE	S	Stone/turf, good condition.
A23	<i>Ból</i>	65	Oval/ teardrop	9/7.1	5.8/3.5	SW-NE	SW	Stone and turf, tapers towards entrance, medium condition.
A24	Dyke	50-150	Linear	-	1.1 (base) 0.4 (top)	NNW-SSE	N/A	Stone dyke with partial turf cover.
A25	<i>Ból</i>	110	Oval/ teardrop	10.4/8.7	8.8/3.2	SW-NE	SW	<i>Ból</i> in good condition, stone and turf, exposed section shows evidence of repair.
B1	<i>Ból</i>	105	Oval	6.3/4.1	5.4/2.4	N-S	S	Good condition, turf and stone, tapering towards entrance that is sheltered by facing

**Table 6.3** (cont.): Summary of archaeological structures recorded in the Hov catchment.

<i>ID number</i>	<i>Structure type</i>	<i>Altitude (m)</i>	<i>Form</i>	<i>Length (m) Out/in</i>	<i>Width (m) Out/in</i>	<i>Orientation (long axis)</i>	<i>Open side orientation</i>	<i>Comments</i>
B2	<i>Ból</i>	115	Oval	7.1/4.9	5.6/2.5	N-S	S	slope. Stone and turf <i>ból</i> , walls higher at rear of structure. Entrance faces into sope.
B3	<i>Krógv</i>	120	Circular	3.3/2	3.1/1.5	NNE-SSW	N/A	Small circular/horseshoe shaped, stones are predominantly turf covered. Situated atop natural mound with exposed bedrock in the undulating surroundings.
B4	<i>Krógv</i>	110	Circular	5.8/4.1	5.7/3.2	SW-NE	N/A	Circular construction, surroundings relatively degraded, stabilised talus and exposed bedrock.
B5	<i>Ból</i>	130	Teardrop	9.8/6.8	5.2/2.3	N-S	S	<i>Ból</i> - stone and turf, collapsed W wall, tapers to entrance which curves into th slope.
B6	<i>Ból</i>	116	Circular/ Oval	5.7/3.1	5.1/2.8	WNW-ESE	ESE	Horseshoe shaped <i>ból</i> of stone/turf, with back wall and N wall higher than opposite walls. Floor slopes to entrance.
C1	Cairn	170	Circular	N/A	1.1-1.2	N/A	N/A	Stone cairn forming part of routeway.
C2	<i>Ból</i>	120	Circular/ oval	6.2/3.7	5.8/2.3	SSE-NNW	SSE	Horseshoe shaped <i>ból</i> with stone and turf walls - tapers towards entrance. Exposed bedrock in vicinity.
C3	<i>Ból</i>	150-160	Oval	6.6/4	4.5/1.5	SSW-NNE	SSE	<i>Ból</i> in poor condition, stone and turf with signs of repair made to structure which have since re-collapsed. Sheltered entrance.
C4	Enclosure?	190	Rectilinear	46	10.1-15	W-E	N/A	Large possible enclosure with small circular sub-chamber within W end of structure. Walls at the height of a single stone.
D1	Enclosure	210	Rectilinear	35	10-20	Various	N/A	Stone built enclosure in relatively isolated and seheltered valley. In situ boulders form part of walls.
D2	Dyke and enclosure	235	Various	100 (wall) 10.2 (enclosure)	4.6 (enclosure)	N-S (enclosure)	N/A	Stone built enclosure comprising inner chamber (3.4x 2.3 m). W wall of enclosure forms part of a dyke that extends to the

**Table 6.3** (cont.): Summary of archaeological structures recorded in the Hov catchment.

<i>ID number</i>	<i>Structure type</i>	<i>Altitude (m)</i>	<i>Form</i>	<i>Length (m) Out/in</i>	<i>Width (m) Out/in</i>	<i>Orientation (long axis)</i>	<i>Open side orientation</i>	<i>Comments</i>
								edge of a lake.
D3	Dyke	240	Linear	~25	1.4 (base)	NNE-SSW	N/A	Turf and stone dyke that adjoins with wall as part of structure D2.
E1	<i>Ból?</i>	185	Oval	8/6.8	2.8 (outer)	W-E	?	Stone and turf walls, poor condition.
E2	<i>Krógv</i>	185	Oval	4.6	2.9	NE-SW	N/A	Composed of loose stones, raised centre from repeated stacking of turves.
E3	<i>Krógv</i>	185	Oval/circular	4.1	3.1	NNW-SSE	N/A	Composed of loose stones, raised centre from repeated stacking of turves.
E4	<i>Ból</i>	230	Oval/teardrop	6.8/5.2	4.5/2	N-S	S	Built of turf and stone.
E5	<i>Ból</i>	195	Oval/teardrop	8.8/6.2	4.5/2	SSW-NNE	NNE	Walls composed of turf and stone, built into slope on W and N sides.
E6	<i>Krógv</i>	210	Oval	5	4	NNW-SSE	N/A	Composed of loose stones, raised centre from repeated stacking of turves. Structure is one of a concentration of 10 structures of a similar size and form that were not recorded in detail.
E7	<i>Ból</i>	205	Circular	5.8/3.1	5.3/2.5	NNW-SSE	NNW	Turf and stone walls, some collapse, floor slopes to entrance.
E8	<i>Ból</i>	120	Oval/teardrop	8.8/6.3	4.5/2.3	SSW-NNE	E	Stone and turf walls, floor slopes to entrance.
E9	Dyke	120	Linear	150-250	~50	SE-NW	N/A	Rough built stone dyke running parallel with river. Dyke is fragmented and missing or absent in places.
E10	<i>Ból?</i>	125	Oval	5.7/4.3	3.1/1.7	SSE-NNW	NNW	Stone built walls without turf cover. Entrance facing into slope.
E11	<i>Ból?</i>	90	Elongated oval	8.8/7.2	2.5-1.2	SSE-NNW	NNW	Stone built walls without turf cover. Entrance facing into slope.
E12	<i>Ból</i>	90	Oval	8.7/6.9	4.7/2.5	SSE-NNW	SSE	Turf and stone walls with tapering entrance. Floor slopes to entrance.
F1	<i>Ból</i>	181	Oval	7.1/5.3	5.1/2.3	NNE-SSW	SSW	Turf and stone walls with tapering entrance. Floor slopes to entrance.
F2	Fold/	181	Rectilinear	14-15	6-7	ENE-WSW	NWN	Raised stone platform (vegetated over

**Table 6.3** (cont.): Summary of archaeological structures recorded in the Hov catchment.

<i>ID number</i>	<i>enclosure Structure type</i>	<i>Altitude (m)</i>	<i>Form</i>	<i>Length (m) Out/in</i>	<i>Width (m) Out/in</i>	<i>Orientation (long axis)</i>	<i>Open side orientation</i>	<i>Comments</i>
F3	<i>Ból</i>	215	Oval	6/3.8	4/1.9	N-S	S	Turf and stone walls. Large in situ boulder (1-2 m) forms part of wall and is also turf covered. Structure tapers towards entrance.
F4	<i>Ból</i>	210	Circular	5.5/3.5	4.5/2.8	N-S	S	<i>Ból</i> in poor condition with turf and stone walls tapering towards entrance.
F5	<i>Ból</i>	255	Circular	3.9/2.4	2.7/1.7	NW-SE	S	Stone built shelter built into rockfall - structure can only be seen from above.
F6	<i>Ból</i>	215	Oval	5.6/3.8	4/2.1	NNE-SSW	SSW	Turf and stone walls, floor slopes to entrance.
F7	<i>Ból</i>	-	Complex	Chamber 1: 8.8/6.2 Chamber 2: 9/6.1	Total outer: 9.2	N/A	SSE	Structure composed of two separate enclosures joined by a wide central partition.
F8	Shieling	185	Rectilinear			SW-NE	SE	Medieval shieling. Floor is sunk below natural ground level, with back of structure built into slope behind
F9	Bridge/ walkway	220	Linear	14-23	2	N-S	N/A	Linear structure crossing small river, constructed of stone and covered by turf. Aligned with cairn route.

**Table 6.3** (cont.): Summary of archaeological structures recorded in the Hov catchment.

<i>ID number</i>	<i>Altitude (m)</i>	<i>Form</i>	<i>Length (m) In/out</i>	<i>Width (m) In/out</i>	<i>Orientation (long axis)</i>	<i>Open side orientation</i>	<i>Comments</i>
SA14	43	Oval	6/7	3.2/5.7	SW-NE	SW	Located on raised mound
SA21	62	Elongated oval	4.7/9.3	2.3/6.6	S-N	S	In situ boulder (2m high) forms part of structure
SA29	70	Circular	6.7 (centre of wall)	5.9 (centre of wall)	SSW-NNE	SSW	Turf covered
SA57	71	Oval/tear drop	6.3/8.7	2.5/4.8	SSW-NNE	SSW	Built into natural mound
SA88a	55	Circular	4.5	3.5	WSW-ENE	WSW	Adjoined with SA88b
SA88b	55	Circular	5.5	4	S-N	S	Adjoined with SA88a
SA90	45	Oval	8	4.4	SSW-NNE	SSW	In situ boulder forms part of back wall
SC8	84	Oval	4.4/6.2	2.8/4	SSW-NNE	SSW	One wall collapsed and rebuilt
SC9	66	Oval	5.4/8	3.3/6.2	SSW-NNE	SSW	Built on raised mound
SC10	59	Oval	6.2/7.4	3.2/5.8	S-N	S	Built on raised mound
SC11	97	Irregular	4.8	2.6	S-N	S	Built into slope behind, in-situ boulders form walls
SC12	49	Oval	4.8	2.7	S-N	S	Built on raised mound, rebuilding of some walls
SC26	68	Oval/circular	6.8/8.8	2.6/5.7	S-N	S	Built into raised mound, not marked on map, grown over with turf
SD2	87	Oval	4.8	2.4	ENE-WSW	SSE	In situ boulder (3m) forms one wall of structure
SD8	47	Irregular	Various	Various	Various	Various	Triple ból/rætt
SD9	108	Semi-circular	4.5	3.6	ENE-WSW	SSE	SSE facing side completely open
SD12	111	Semi-circular	7	8	ENE-WSW	SSE	Much of structure collapsed and turf covered, SSE facing side completely open (8m)
SD14	83	Oval/rectilinear	11	4.5	SE-NW	S	Built into natural mound, one wall completely straight, turf covered collapsed sections
SD15	104	Semi-circular	10	8	ENE-WSW	SSE	Turf covered, SSE facing side completely open
SD16	98	Semi-circular	3.5	3	WNW-ESE	SSW	Entirely grown over with turf, located within small depression
SD18	101	Rectilinear	5.5	3	S-N	S	Partially turf covered, built into slope beneath <i>hamar</i>
SD19	97	Oval	4	3	S-N	S	Entirely covered over with turf
SD26	100	Oval/tear drop	7	3	SW-NE	SW	Partial collapse of one wall
SD27	122	Oval	6	3	SSW-NNE	SSW	Partial collapse of one wall
SF3	31	Circular	-	-	-	-	Large circular ból with thick stone and turf walls

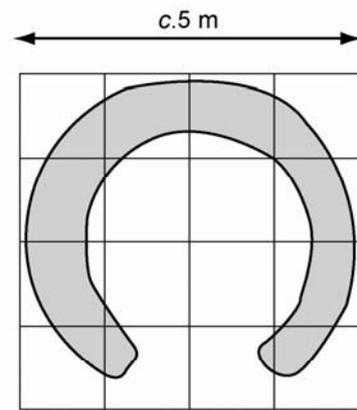
**Table 6.4a:** Summary of ból recorded in specific areas of the Sandoy outfields.

<i>ID number</i>	<i>Altitude</i>	<i>Length</i>	<i>Width</i>	<i>Orientation (long axis)</i>	<i>Additional comments</i>
SA22	71	5.6	2.7	SE-NW	Oval shaped, 3 loose stone walls
SA23	63	5.5	2.5	SE-NW	As SA22 but partially vegetated over
SA24	66	5.5	2.5	E-W	As SA22 but back wall more defined
SA25	64	-	-	N-S	3 rough stone walls
SA26	65	-	-	N-S	Predominantly vegetated over
SA27	55	-	-	-	Very small <i>krógv</i>
SA28	54	-	-	-	Very small <i>krógv</i>
SA30	77	-	-	-	-
SA31	79	-	-	-	-
SA32	82	-	-	-	-
SA33	77	-	-	-	-
SA40	81	4	2	NE-SW	-
SA41	81	4	2	NE-SW	-
SA47	90	5.4	3.2	SSW-NNE	3 rough stone walls, curving at end
SA48	55	3	1.8	-	3 rough stone walls
SA49	52	3	1.8	-	3 rough stone walls
SA50	48	3	1.8	-	3 rough stone walls
SA51	50	3	1.8	-	3 rough stone walls
SA52	49	N/A	N/A	N/A	Only back wall visible
SA53	46	N/A	N/A	N/A	Only back wall visible
SA60	126	1.5	1	NE-SW	3 rough stone walls
SA61	123	1.5	0.75	N-S	
SA62	130	3	1.8	-	3 rough stone walls
SA63	128	1.5	1.5	NNE-SSW	2 walls remaining
SA64	130	3.5	1.8	SE-NW	3 rough stone walls
SA69	165	1	1	N/A	Very poor condition
SA70	160	2.5	1	ESE-WNW	3 rough stone walls
SA71	179	5	2	ESE-WNW	4 rough stone walls
SA72	154	2	1.5	N-S	4 rough stone collapsed walls
SA73	173	3.5	1.5	WNW-ESE	Oval shaped as opposed to rectilinear
SA74	177	2.5	1.8	NW-SE	3 rough stone walls
SA75	174	4	1.8	-	3 rough stone walls
SA76	192	2.5	1.5	NW-SE	3 rough stone walls
SA77	121	1.5	1.5	N/A	Only 2 rough stone walls discernable
SA78	124	2.5	1.8	E-W	3 rough stone walls
SA79	127	2.5	1.5	NNE-SSW	3 rough stone walls
SA80	127	3	1.5	NNE-SSW	3 rough stone walls
SA81	128	2	1.5	SE-NW	3 rough stone walls
SA82	111	3.5	2	N-S	3 rough stone walls
SA83	115	2.5	1.5	NNE-SSW	3 poorly defined stone walls
SA84	103	2	2	N/A	3 poorly defined stone walls – vegetated over
SA86	107	3.5	2	-	3 rough stone walls
SA87	109	2.5	1.5	-	3 rough stone walls, semi-circular form
SB3	-	-	-	-	-
SB4	-	-	-	-	-
SB5	-	-	-	-	-
SC21	44	8	2.4	NNW-SSE	-
SC22	41	7	2.5	NNW-SSE	-
SC24	51	1	1	N/A	3 rough stone walls
SC25	49	2.5	1.5	-	Rectangular, 3 rough stone walls
SC27	41	2	1.5	-	One wall still standing ~80 cm high

**Table 6.4b:** Summary of *kráir* and *torvhús* recorded in specific areas of the Sandoy outfields. (-) denotes data unavailable or inaccessible or not collected. N/A denotes not applicable.



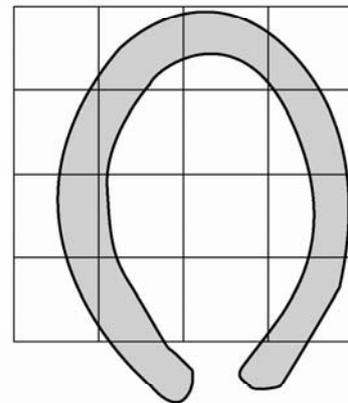
Relic circular type *bólf* in the Hov outfields



Circular type



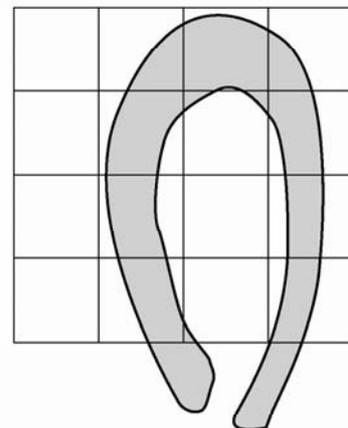
Large oval type *bólf* in the Hov outfields



Oval type

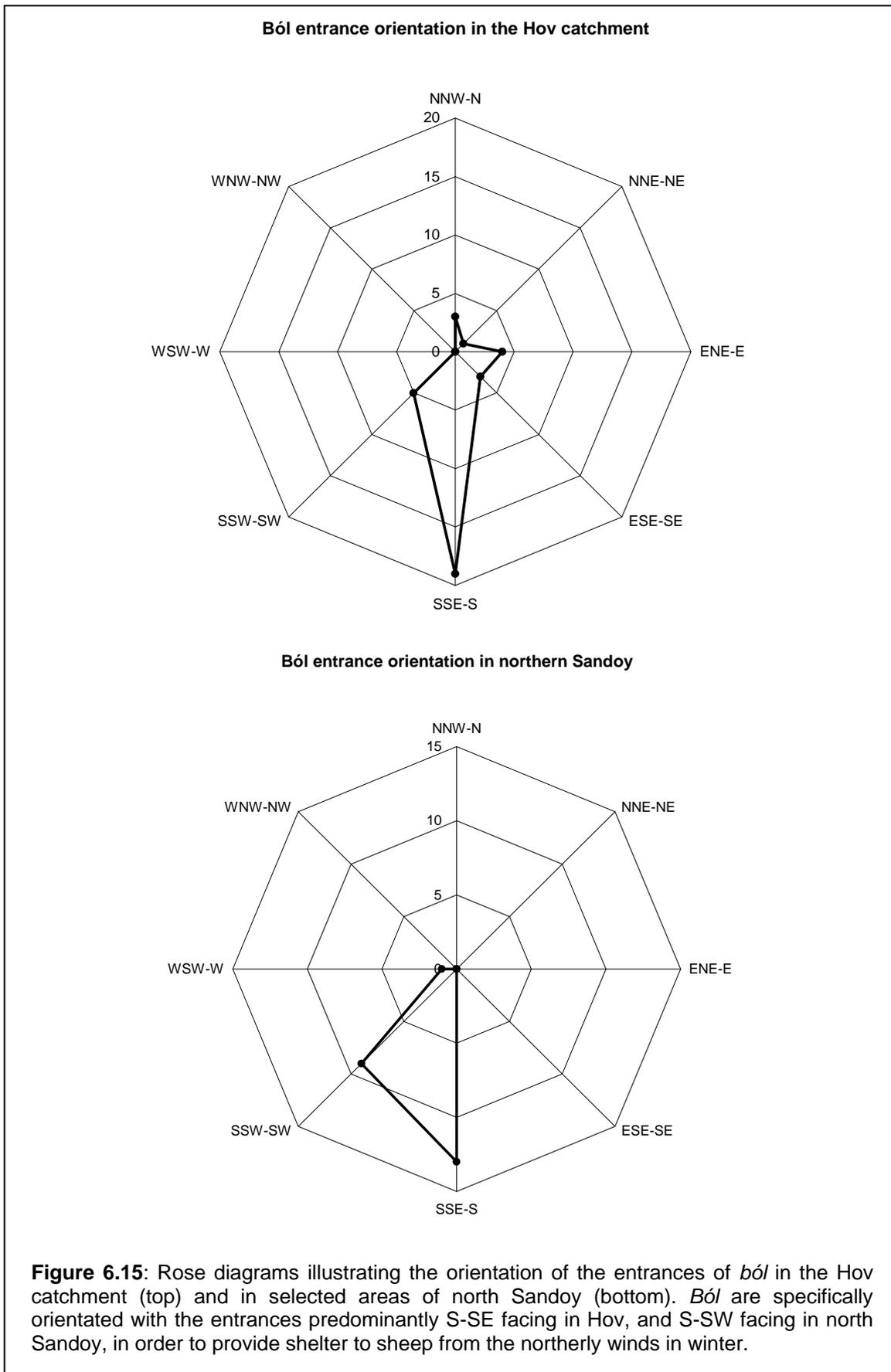


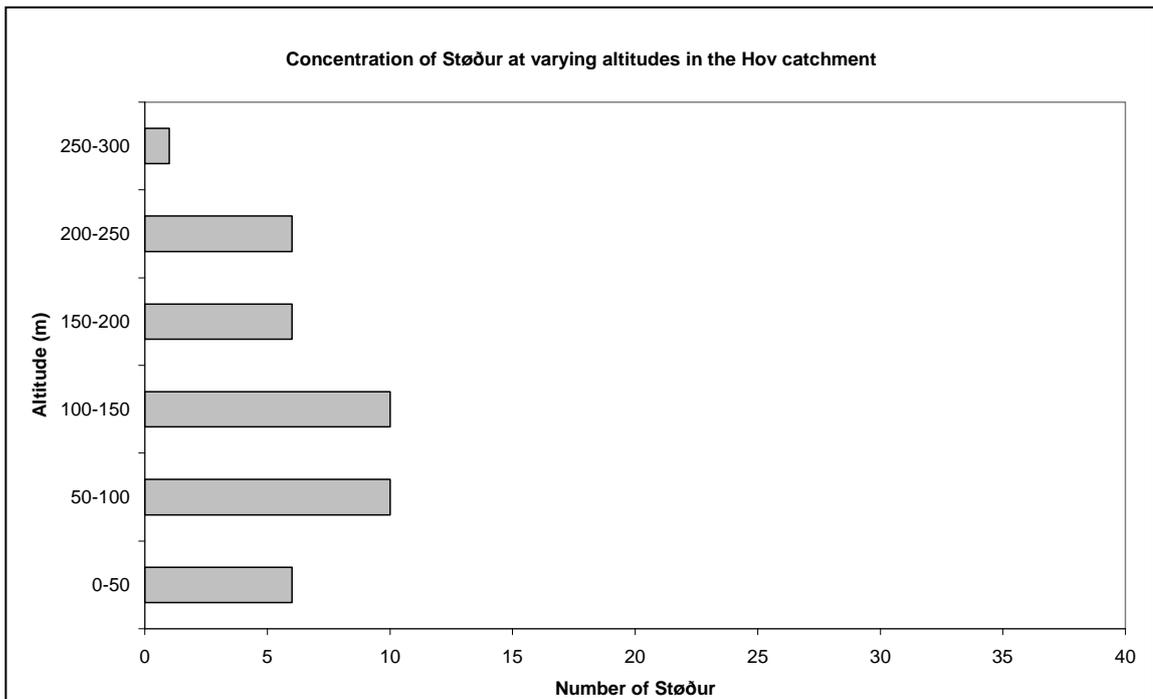
Teardrop type *bólf* in the Porkeri outfield overlooking the village of Hov. Note the narrow and often tapered entrance facing south against the wind and the large turf banks.



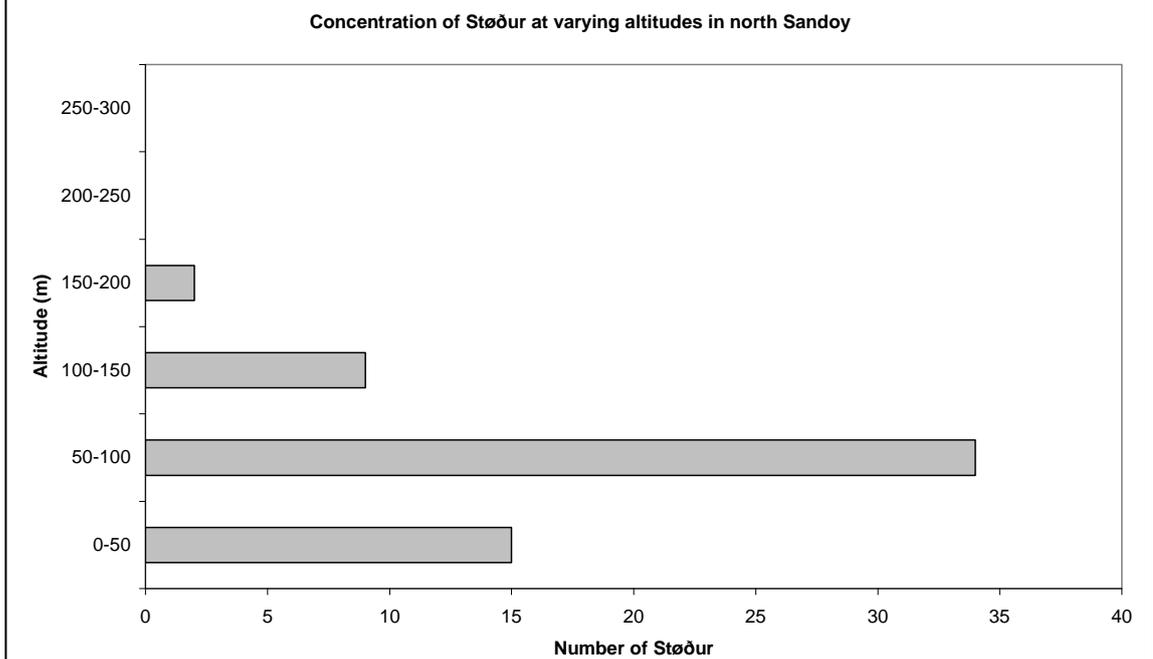
Teardrop type

**Figure 6.14:** Characteristic examples of *bólf*, winter shelters for sheep, in Suðuroy and Sandoy. Note that circular type *bólf* tend to be less pronounced while oval and teardrop *bólf* tend to be more prominent with higher vertical relief.

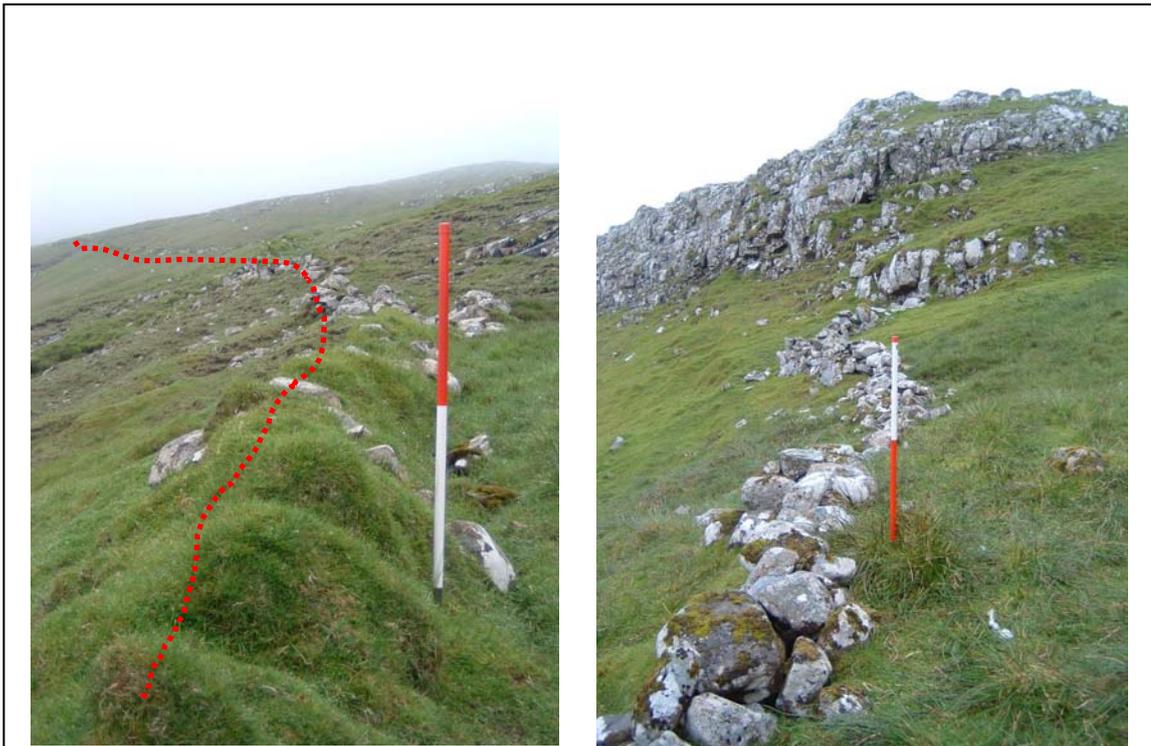




**Figure 6.16:** Histogram illustrating the concentration of *ból* or sheep shelters at differing altitudes in the Hov catchment.



**Figure 6.17:** Histogram illustrating the concentration of *ból* or sheep shelters at differing altitudes in north Sandoy.



**Figure 6.18a and 6.18b:** Stone and stone/turf walls in the Hov catchment.



**Figure 6.18c and 6.18d:** Stone/turf walls in north Sandoy. Note that a breach in the stone/turf dyke in the photo on the right has been repaired with stones, demonstrating a continuity of use.



**Figure 6.19:** Stone wall built into natural rock fall (Hov catchment)



**Figure 6.20a and 6.20b:** Isolated stone enclosure located in an inland valley (Hov catchment)

### *Structures relating to peat cutting activity*

Aside from the structures relating to sheep, the most extensive remains are those associated with peat cutting and drying. As wood has always been scarce in the Faroes, peat and turf have been vital for hundreds of years as fuel, and for building. Peat use is discernable in the landscape, both by the banks where peat was cut, and also by mounds of terrain (*torvlutir*) in peat cutting areas, which are the result of the repeated stacking of peat at the same location year after year (Figures 6.21a-c). When dried, the peat was gathered up and stored in special rectangular peat shelters called *krógv* (pl. *kráir*) or in larger "peat houses" called *torvhús* (Figure 6.22a). In the *kráir*, the peat was surrounded by loosely built stone walls on the long sides and back of the structure. The stacked peat was covered by a layer of especially long turf strips, straw thatch or sacking, which functioned as a roof (Poulsen *et al* 1998). Peat was taken home from the *kráir* two or three times a week, and today a layer of turf often remains as evidence of the activity. Construction and use of *kráir* declined when imported fuels took the place of peat, and today the loose stone constructions with raised floors can be witnessed in the outfields of both Hov and Sandoy in varying states of recognition (Figures 6.22b-c). On Sandoy *kráir* are generally rectilinear in form with one noticeable longer axis, although some are approximately equal in length and width. Dimensions range from 1 m<sup>2</sup> to a length of c.8 m, however, widths did not exceed c.3.2 m and the long-axis orientation was variable. *Kráir* and *torvhús* were not always differentiated in the field as identification between the two was sometimes difficult.

### *Drainage ditches*

Relic drainage ditches were observed in the outfields of both Hov and Sandoy. The base of a drainage ditch in Hov was radiocarbon dated to 1120 ± 35 yr BP (858-996 AD) (GU-11661), indicating that drainage as a system of land management was underway comparatively soon after settlement (refer to Figure 6.2 for general location and to Figure 6.3 for a detailed context of the ditch). In the Sandoy outfields, two drainage ditches were recorded but are undated. The first was a relatively small ditch fragment cutting across a hill slope at altitudes between c.96 m and c.84 m. A second, more extensive ditch, was observed on the hill slopes to the east of Søltuvík, cutting diagonally into the slope between altitudes of c.274 m and c.180 m, before draining into a natural channel (refer to Figure 6.7 for location). At present, this drainage ditch is observed cutting through a landscape, which in places is considerably degraded (Figure 6.23), suggesting that at the time the ditch was constructed, this area of the landscape was more vegetated.



**Figure 6.21a:** Mounds where peat has been stacked to dry (*torvlutir*) are common in certain parts of the outfields on Sandoy.



**Figure 6.21b:** Close up view of Figure 6.18b illustrating that peats were stacked directly onto, natural raised bedrock mounds.



**Figure 6.21c:** Evidence of more recent peat cutting (*torvgrøvd*, or peat banks) in the Litlavatn area of Sandoy.



**Figure 6.22a:** Remains of a *torvhús*, a stone house structure used for storing peat observed in the Sandoy outfield.



**Figure 6.22b:** A small *krógv* observed in the Sandoy outfield, used for storing peat over winter.



**Figure 6.22c:** A larger *krógv*, also observed in the Sandoy outfield.



**Figure 6.23:** Relic drainage ditch observed on slopes east of Søltuvík, Sandoy (refer to Figure 6.23 for ditch location) that cuts diagonally into the slope between altitudes of c.274 m to c.180 m. The top left photo illustrates the outset of the ditch at 274 m in a vegetated landscape. The top right photo illustrates the ditch a little further downslope and the bottom photo illustrates the ditch at lower altitudes, cutting through a partially de-vegetated landscape.

### *Cairns*

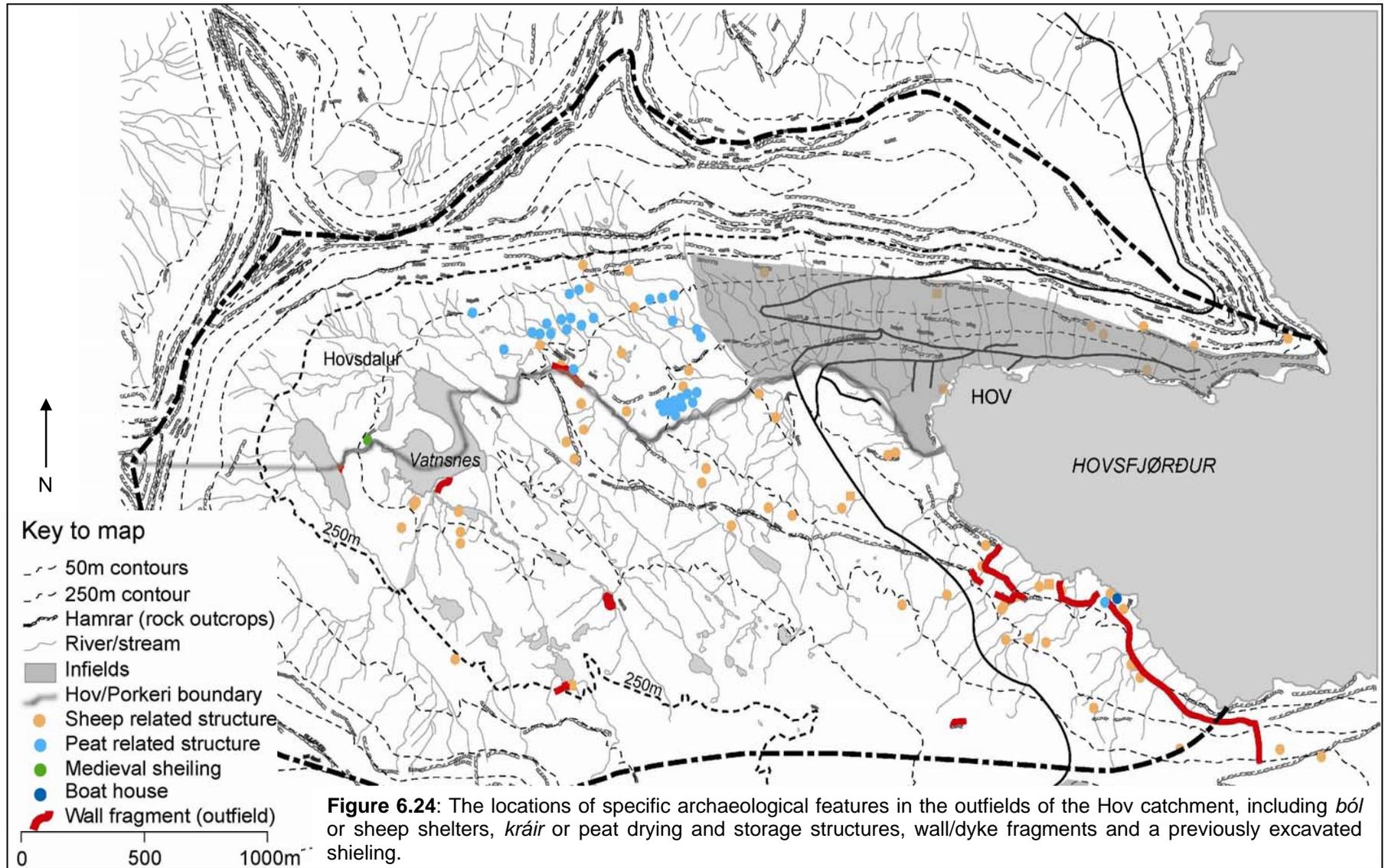
Paths through the outfields between villages and settlements were marked by stone cairns called *varðar*, which were particularly important for people to find their way in poor visibility. Several cairn paths (*varðagötur*) were observed criss-crossing the field site areas, although the individual stone cairns or pathways were not recorded in detail in this study.

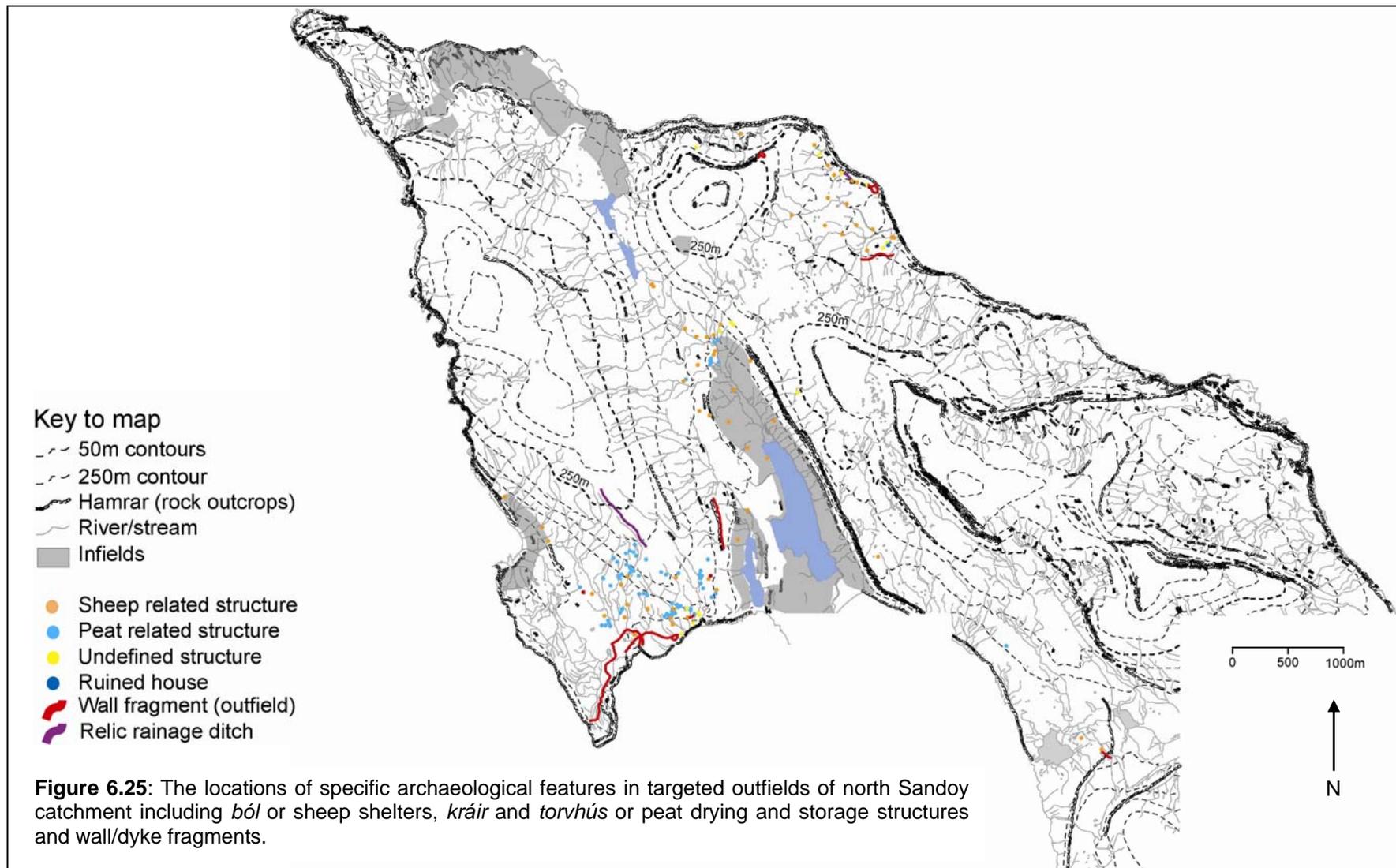
### **Identification and description of archaeological “zones”**

After conducting the archaeological survey, locations of the various structures were mapped in order to assess their spatial distribution in Hov (Figure 6.24), and north Sandoy (Figure 6.25). Following analyses of the maps, areas with either distinctive or a high density of monuments were classified as “zones”, which are described and compared below. A map illustrating the location of archaeological zones for Hov is presented in Figure 6.26 and for Sandoy in Figure 6.27. Classification of the archaeological landscape into zones allowed clearer identification and analyses of specific areas in the landscape that might have been targeted or affected by anthropogenic activity. For example an area with a high density of *kráir*, would suggest that peat had been extensively cut in the localised landscape. Zones of inferred anthropogenic activity were then compared with the results from the land cover classification mapping to identify patterns between areas of high archaeological density and the surrounding natural landscape.

#### *Hov archaeological zones*

Four major archaeological zones suggestive of specific anthropogenic activity were identified in the Hov catchment (Figure 6.26). As well as being located in distinct geographical areas in the catchments, each zone is associated with a specific range of archaeological features connected to particular anthropogenic activities. Archaeological features were also observed outside these zones, but did not have such a high density concentration. Zones 1, 2 and 3 are located in relatively close vicinity in the Hov and Porkeri infields, and Zone 4 is located further inland in the vicinity of an excavated Norse shieling site (Mahler 1993).





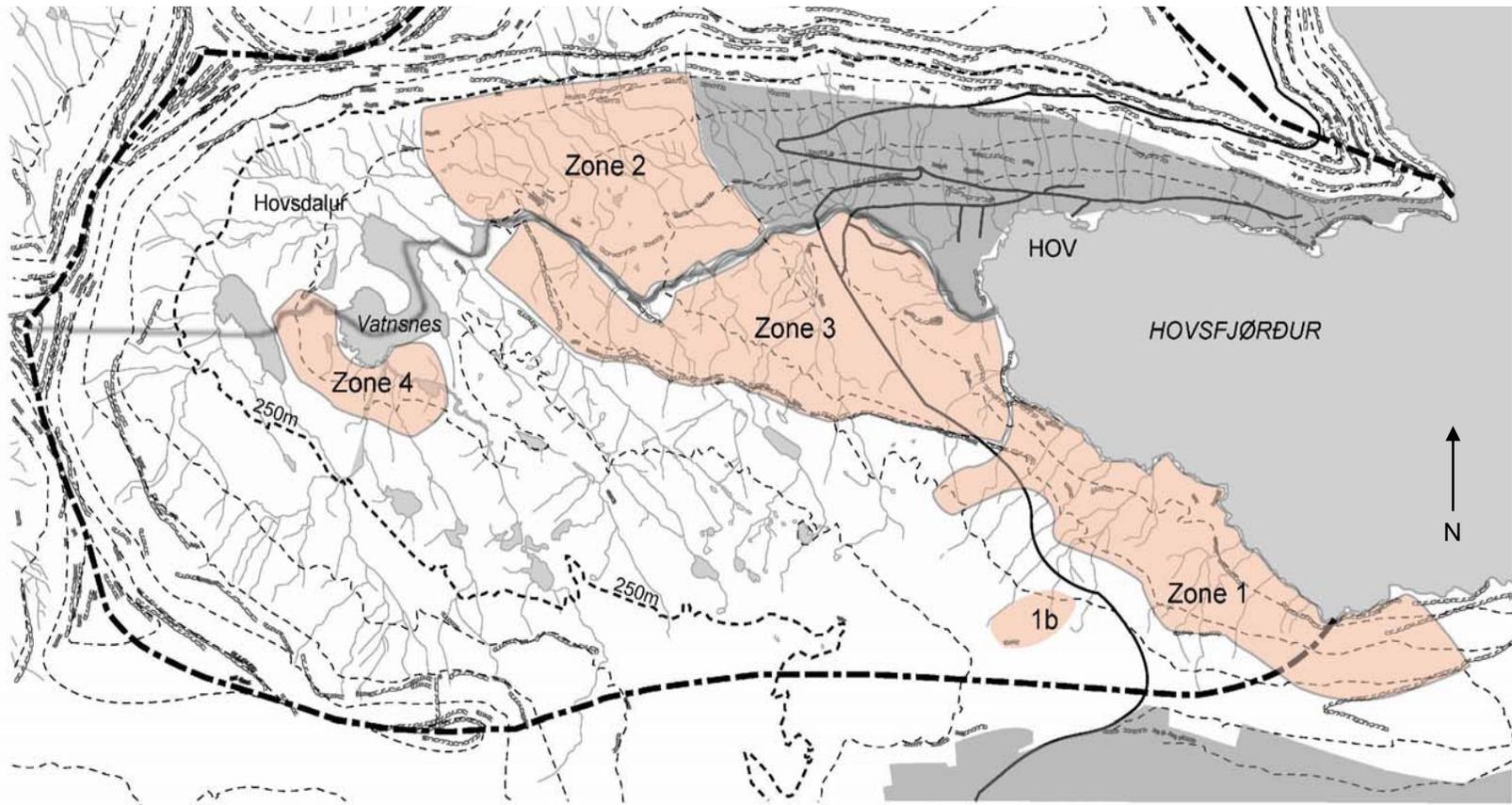
**Figure 6.26:** Hov catchment archaeological “zones”, which have been designated as areas with either distinctive or a high density of archaeological monuments.

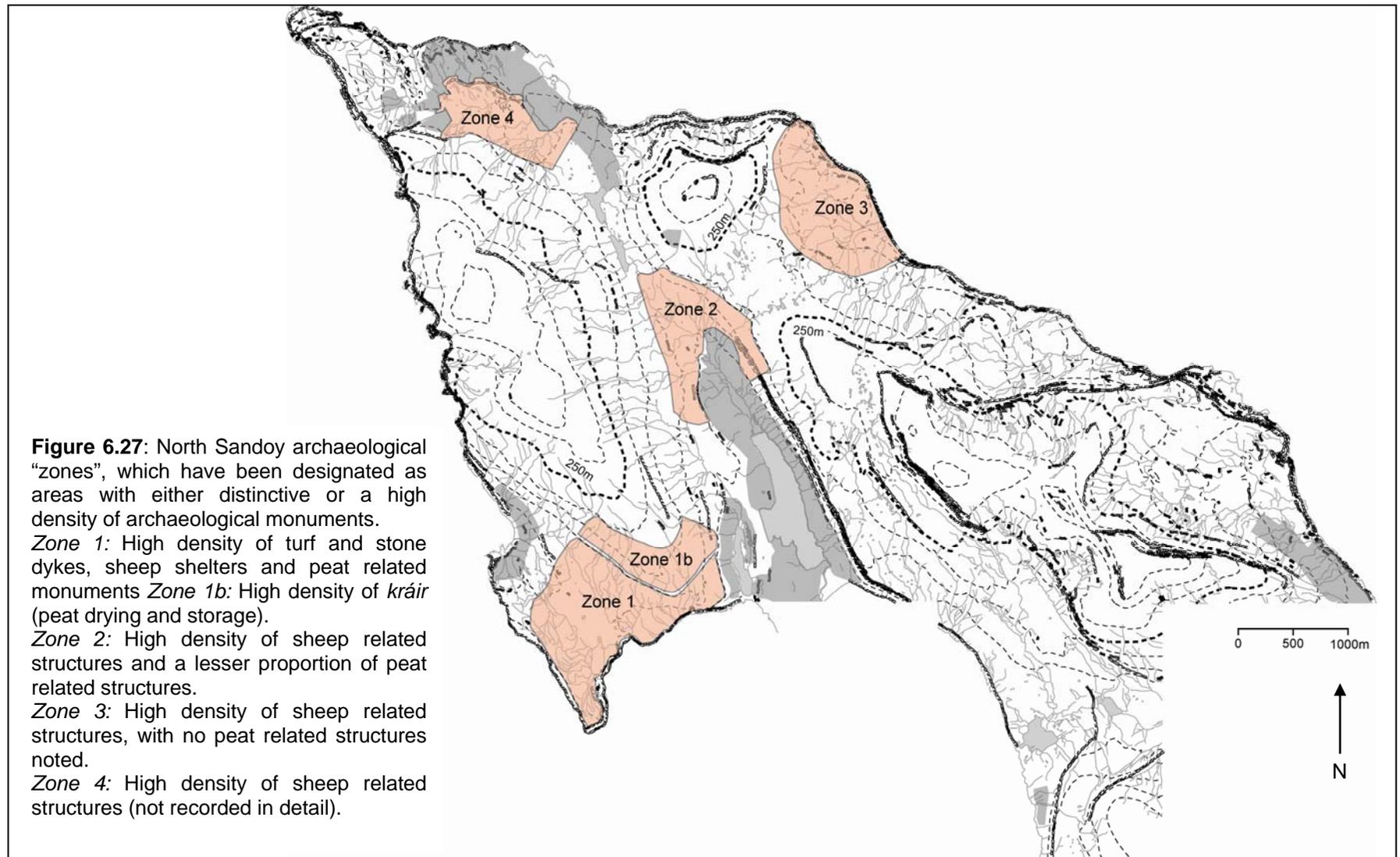
*Zone 1:* High density of turf walls and other structures, used in medieval period for milking ewes, place-names associated with pigs; *Zone 1b:* Drainage ditches.

*Zone 2:* High density of peat related structures/mounds and several sheep related structures.

*Zone 3:* High density of sheep related structures.

*Zone 4:* Inland area around lake with medieval shieling and several sheep related structures.





Zone 1 encompasses low altitudes of c.0 to 100 m and has a generally north east facing aspect. Although part of Porkeri commune or district, this area falls within the hydrological catchment of Hov. Archaeological features within this zone include a high density of *ból*, a small number of *kráir* and *rætt* and numerous stone and turf dykes. A boathouse, small square house structure and a small number of unknown features were also recorded. The most distinctive feature of Zone 1 is the high density of stone and turf dykes, as very few dykes (aside from those that form infield boundaries) were recorded elsewhere in the catchment. The purpose of the dykes is not known, although as the form of the dykes differs between those composed of dry stone, those built using turf as well as stone and those that follow natural features etc., it is probable that within this area the dykes assumed several different purposes. One suggestion is that the dykes are connected with pig keeping (Mortan Holm *pers. comm.*), which is known to have continued in the Faroes until the 13<sup>th</sup> century (Church *et al* 2005, Arge *et al* 2005). The nearby place names Svínstarhamar and Porkeri refer to pigs, but there is no firm archaeological evidence to confirm the presence of pigs in Hov, and the strategy for pig husbandry in the early Medieval Faroes is currently unknown. Some of the recorded wall fragments in Zone 1 may relate to the milking of ewes (Arge *pers. comm.*), which is attested to by place names such as Lambhagin, Lambhellir, Lambagarðar and Lamburð. Lambhagin refers to a stone and turf dyke that follows the top of the *hamar* or rocky outcrop to form an enclosure between the dyke and the sea. The place-name suggests that this area was used to separate lambs from the ewes to enable the ewes to be milked (Thorsteinsson 1982). As the practise of milking ewes is not known in Faroese tradition and was most likely a Norse activity, it is possible that the enclosure wall associated with the place-name dates back to the Norse period (Arge *pers. comm.*). Other suggestions are that the dykes prevented cattle from straying into dangerous terrain or falling off cliffs, or that they were used as a means to enclose cattle.

Zone 1b is separate from Zone 1a and is characterised principally by a 9<sup>th</sup>-10<sup>th</sup> century drainage ditch, which is described in detail above in connection with an area of gullying.

Zone 2 is located to the west of, and borders the Hov *bøur* or infield, north of the river Hovsá, which forms the present day boundary between the Porkeri and Hov outfields. The zone covers a relatively wide altitudinal range of between c.50-250 m, and is characterised by gently sloping topography. Several *ból* were recorded in the area, along with a single stone wall fragment following the river (which could relate to the Hov-Porkeri boundary). The most distinguishing archaeological characteristic of this zone compared with elsewhere, was the high density of *kráir* or peat drying structures, the majority of which had collapsed leaving two or three loose stone walls or platforms still identifiable. The high density of *kráir* confirms the relatively intensive utilisation of peat in this area, and peat from this side of the river was reputed to burn well (Mortan Holm *pers. comm.*). This area was also easily accessible from

Hov village, which was necessary as peat would be collected from the *kráir* every couple of days.

Zone 3 is located in the valley to the south of the river Hovsá and is well constrained by an extensive rock buttress to the south and the river to the north. This area has an altitudinal range between c.0 and 150 m and a gently sloping topography. This zone is characterised by a high number of well-defined *ból*, which suggests the site has been important for winter sheep grazing. The lack of peat-related structures may be a function of the relation to district boundaries; although this zone is close to Hov *bygd*, this section of outfield belongs to Porkeri, which is some distance away from Porkeri *bygd* and therefore may not have made an ideal location from which to collect peat.

While Zones 1 to 3 are located at low altitudes, relatively close to the villages of Hov or Porkeri, Zone 4 is located inland from Hov near the Vatnsnes lake (c.200 m altitude). This zone has a lower density of structures than the zones previously described, but encompasses a cluster of *ból*, some of which were in a very poor condition, a wall fragment and a shieling (*Ærgidalur*). The place name relates to the use of the area as a summer pasture and the remains of a shieling have been found on the north side of the river with the remnants of a cattle enclosure to the south. The inside of the shieling measures 5.15 m by 3.5 m and has a raised fireplace. The period of occupation of the shieling has been dated to the Viking Age by distinctive clay bowls found within the structure (Schei and Moberg 2003). A number of isolated archaeological structures were also found in this upland region, which contrasts with that of lower altitudes where the structures tend to be clustered together. For example, a walled enclosure at Aárkurvur is located within a large sheltered depression along a river valley where farmers from Porkeri brought cattle and sheep for summer grazing. This isolated structure functioned as an enclosure for “taming” or calming wild sheep (Mortan Holm *pers. comm.*).

#### *Sandoy archaeological zones*

Based on the results from the Hov survey, it was hypothesised that particular types of archaeological monuments would also be found in explicit locations on Sandoy. In view of the larger scale of the Sandoy survey, specific zones were targeted based on a general walk-over of the north Sandoy area, with four specific areas identified as having a distinctively high density of archaeological structures (Figure 6.27). Three of these locations were walked over in detail and the structures within the zones recorded.

Zone 1 encompasses the area between Sandur village and the west coast of the island incorporating the Salthøvdi promontory to the south. The general topography of Zone 1a is

level or gently sloping and covers low altitudes between c.0 and 100 m. A particularly high density of archaeological remains was observed within Zone 1a including several turf and stone dykes, *ból*, *kráir*, rectangular stone structures and a small number of unidentified archaeological structures. The concentration of dykes in this area is particularly intriguing, as only limited sections of dykes (aside from infield boundaries) were identified outside of this designated archaeological zone. The relationship of features in Zone 1a on Sandoy is similar to those in Zone 1a in Hov, as both are characterised by a high concentration of dykes, good vegetation coverage, a similar altitudinal range and an association with pig place-names, which in Sandoy include Svínadalur, Svínadalsurðin, Grísagarðarnir and Grísurðin. Therefore, although the purpose of the dykes at either site is not known, the similarities in archaeological features and in vegetation coverage suggests that these zones, although on different islands, are comparable in terms of the nature of anthropogenic activity carried out.

Zone 1b is located adjacent to Zone 1a and north of the present day road to Søltuvík, but is classified separately from Zone 1a because of its higher altitude range and distinctive archaeology, which suggests a different anthropogenic use of the area. Zone 1b is characterised by a very high density of *kráir* but also by a lack of other structures, such as the dykes and *ból* that characterise Zone 1a. Reference to the archaeology and local interviews determined that this area was used for peat cutting, whereas the structures in Zone 1a are associated predominantly with cattle and winter sheep grazing. The *kráir* varied in size and form from small (1 m<sup>2</sup>) square structures to larger (8 m in length) rectangular structures, although the latter were less common. From ground truthing descriptions conducted at each site within Zone 1b, and based on the landscape degradation mapping, a sharp contrast in vegetation quality was observed between Zone 1a and Zone 1b. Zone 1a is considerably well vegetated (80 % - 100 % vegetated) and Zone b is relatively degraded with a vegetation cover ranging between 40 % and 60 %. The difference in extent of vegetation cover between the two zones is probably anthropogenically influenced and is discussed in more detail in chapter 7.

Zone 2 is located in the valley beyond the infield boundary to the north of Sandsvatn at altitudes between c.40 m and c.100 m and in terms of archaeological structures is characterised principally by *ból* of varying proportions, as well as a smaller proportion of *kráir*. This area has probably been utilised as both an area of winter sheep grazing with some limited peat cutting also having taken place.

Zone 3 is located in the vicinity of two well vegetated valleys on the east facing coast of Sandoy in an area isolated from the closest villages of Sandur and Skopun by the mountain chain that runs down the centre of the island. According to the surviving outfield structures, Zone 3 is associated primarily with grazing. No evidence of peat related structures was

observed in this area despite good peat deposits, probably because of the distance and mountainous terrain between the area and the nearest village. The area contained a number of interesting structures besides horseshoe shaped *ból*, including semi-circular stone structures with one side completely open that were unlike any structures observed in any other zone. A stone dyke fragment is connected to the “byrgi” place-name, referring to an area enclosed either by the natural topography or by anthropogenic structures that may have been used for rounding up livestock (*Arge pers. comm.*), and thus probably functioned as an enclosure.

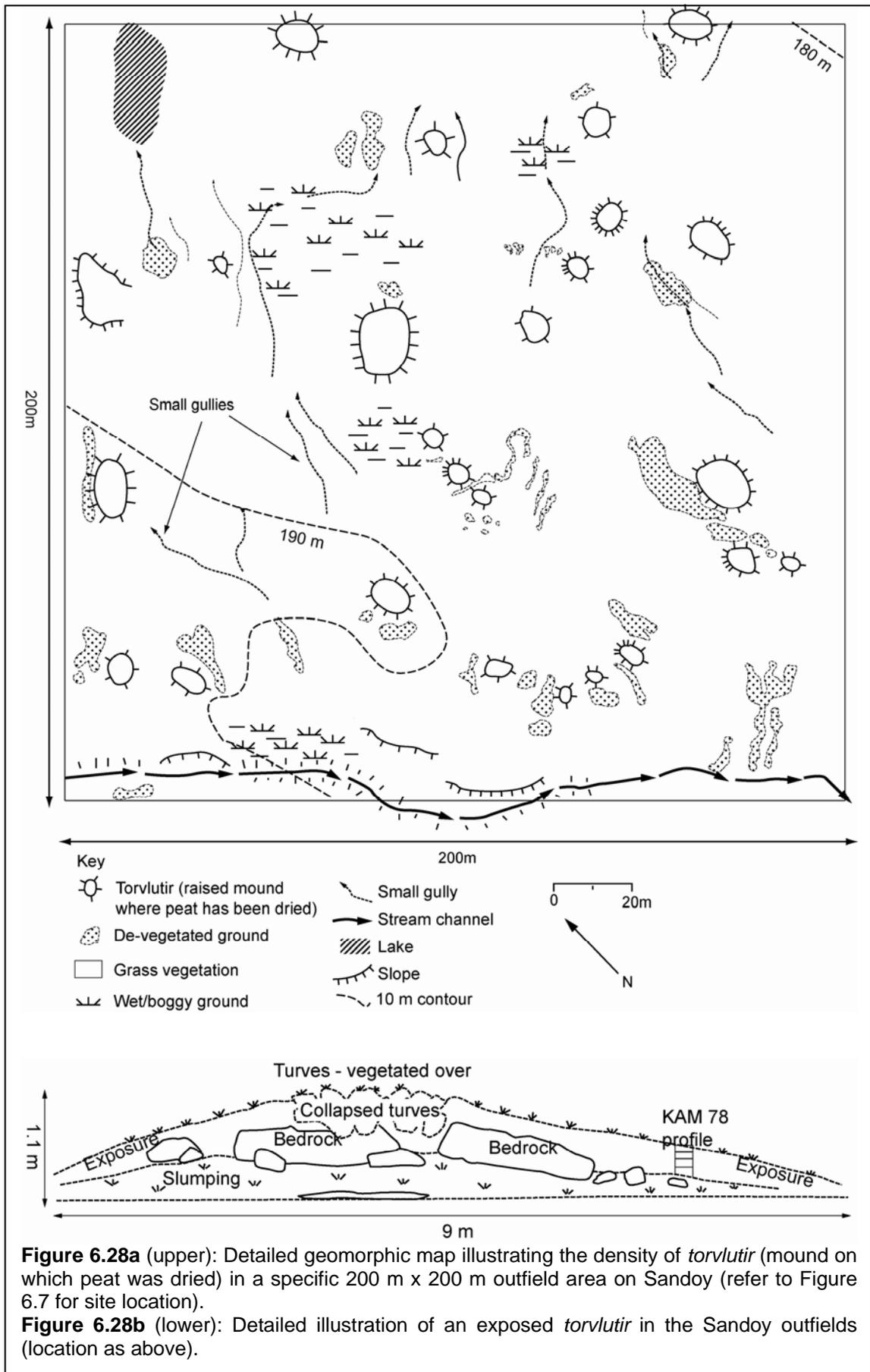
#### *Detailed mapping of torvlutir in central Sandoy*

In addition to the three archaeological zones described above, a 200 m<sup>2</sup> area in the central eastern area of Sandoy at an altitude of c.180 m was mapped in detail in order to illustrate the relationship at a micro-scale between *torvlutir* (peat mounds) and the localised landscape degradation and gullying (Figures 6.28a and 6.28b).

#### **Comparison between cultural zones and landscape cover classification mapping**

Archaeological mapping was compared with the landscape cover classification mapping in order to assess the relationship between the spatial patterns of anthropogenic activity and landscape quality. The hypothesis to test was that a positive spatial correlation between degradation and structure density would indicate a dominance of human impact, while a negative spatial correlation between degradation and structure density might imply that human impact was negligible (refer to hypothesis 4 in Table 1.1). Comparison between the archaeological and geomorphological mapping indicates that, in general, zones of high density archaeology corresponded with well vegetated land with limited exceptions. In Hov, for example, Zone 1, which has a high density of *ból* and dykes is very well vegetated in comparison to locations elsewhere in the outfield. In Sandoy, the archaeological Zones 1a, 2 and 3 strongly correlated with areas where the vegetation cover was characterised as “very dominant” (80-100 % vegetated). The environs of Zone 1b and a small strip on the western edge of Zone 2 were exceptions, as here the landscape was categorised by areas of “significant” (40-60 % vegetated) or “limited” vegetation (10-30 % vegetated).

To conclude, locations characterised by *ból* or by stone and turf dykes were very well vegetated compared with locations at similar altitudes where archaeological monuments were scarce (but which would still be affected by sheep grazing). In contrast, locations associated predominantly with peat-related activity, and characterised by *kráir* and *torvlutir*, were more degraded than areas with few archaeological structures at a similar altitude.



**Figure 6.28a** (upper): Detailed geomorphic map illustrating the density of *torvlutir* (mound on which peat was dried) in a specific 200 m x 200 m outfield area on Sandoy (refer to Figure 6.7 for site location).

**Figure 6.28b** (lower): Detailed illustration of an exposed *torvlutir* in the Sandoy outfields (location as above).

### 6.3. Interview data

Four in-depth interviews were conducted with farmers living in, or around Sandur, each lasting the duration of between one and two hours (Table 6.5). An additional hour-long follow-up interview was made with one of the participants. A combined summary of the interview data is presented below, structured around the themes of the interview framework (Appendix B), which focussed on peat cutting, fowling and egg collecting, the *grind*, farming and climate. Full transcripts of the interviews conducted in English and more detailed notes from the interviews conducted in Faroese, which were not transcribed, are also presented in Appendix B.

	Date of interview	Interviewee	Location of farm	Duration of interview	Language of interview
1	28/04/2006	Gunnar Bjarnarsson (GB)	Sandur	~96 minutes	English
2	01/05/2006	Johan Petur (JP)	Í Trøðum	~100 minutes	Faroese (translated by Símun Arge)
3	02/05/2006	Joannes Johannessen (JJ)	Í Trøðum	~89 minutes	English
4	02/05/2006	Petur Clementson (PC)	Sandur	~110 minutes	Faroese (translated by Símun Arge)
5	04/05/2006	Gunnar Bjarnarsson (GB) (additional interview)	Sandur	~60 minutes	English

**Table 6.5:** Table detailing interviewees made with Faroese farmers on Sandoy.

#### Combined summary of interview data

##### *Peat; methods of extraction, its geographical exploitation and ownership*

In Sandur, peat cutting was still common in the 1950s, but by the 1960s activity had been reduced to a few farms (JJ). Peat was cut around the same time each year between mid-late May and late June, and the whole process of cutting and drying lasted around a month. The peat cutting method was described by JJ; turf would need to be dug for 5-6cm before good quality (i.e. well humified) black peat was reached, which would be cut down c.50-60 cm. Each turf would be laid out on the ground to dry initially. They would be gathered and two turves stacked together for a further short period of drying, following which, many were stacked up together in small piles where they would be left to dry for two or three weeks. Once dried, peat was kept over the winter in *kráir*. It was very rare to have *kráir* close to the house, and instead turves were collected from *kráir* every one, two or three days.

The quality of peat was an important consideration according to JP, JJ and GB. The best quality peat, defined as that which gave the most heat, is black and well humified. A less humified or less developed peat that did not burn well is known by the Faroese term *taðingur*

(GB). Sometimes it was necessary to cut peat of lesser quality depending on your designated peat cutting area, because peat cutting areas were allocated according to land ownership. As a result, a compromise often had to be made between peat quality and the distance from the farm to the peat banks (JJ, GB). The deeper in the profile, the better quality the peat was, but cutting too deep caused water-logging in the surrounding area, which created a problem for grazing sheep;

“you would cut it so that the water would run off, because if you got a wet area, the sheep would get a form of liver disease...now days we have medicine for this liver disease so it's no problem today, but it was a problem in the older days” (JJ).

With regards to regulating the use of peat, there was no control over how much peat could be cut, providing you cut only from the peat banks as designated to your particular farm (GB, PC). In I Trøðum, close to the village of Sandur, a peat cutting area was defined and divided into four, one part for each of the four farms that used to exist in I Trøðum. The specified location was alternated every 10-15 years (JP). Those who did not own peat banks were allowed to cut from the vicar's land in the vicinity of Sondum to the east of Sandur (JP).

Interview respondents gave differing responses with regards to visible erosion caused by peat cutting. GB had been informed that in “old times” the vegetation cover overlying the peat was cut along with the peat itself and he expressed that;

“...when you look at an area where people have cut peat in the Faroes you can see it's not good, it's ugly to see I think. But in the Faroes, people don't think about it, it's OK they say. So people in older times in the Faroes didn't think so much about their environment” (GB).

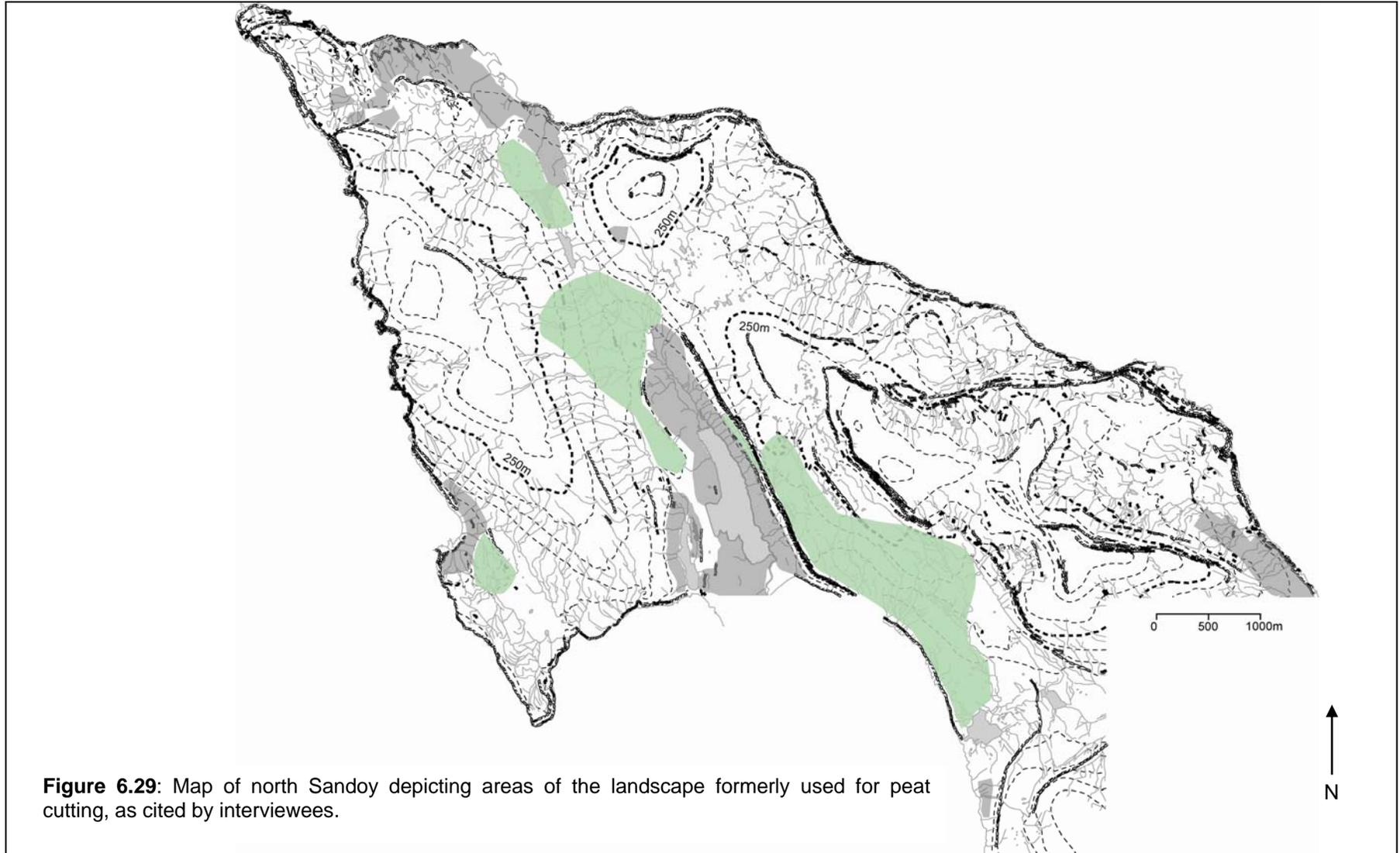
JJ however, expressed a contrasting opinion, suggesting that in older times people looked after their environment to a greater degree than today;

“...yeah, you were looking after the environment in those days, in the older days, today we just, puh!”

A map was composed from information regarding the locations used for peat cutting mentioned by the interviewees (Figure 6.29).

#### *Fowling; ownership, methods and geographical exploitation*

In terms of ownership of cliffs and fowling rights, each village had a specified fowling area, which was divided among the farms in that village. The vicar and the largest farms had access to the best fowling cliffs on Sandoy; just one farm owned nearly half the cliffs along the west coast between Sandur and the northern tip of the island (JJ). Of the interviewees,



one lived on a farm that had very little access to fowling: the cliffs around Gleðin owned by the farm in question had been eroded by the 19<sup>th</sup> century and no provision for fowling was made for the farm elsewhere (PC). Conversely, an interviewee in Í Trøðum had access to cliffs of several kilometres “from Lonin to Gleðin” (JJ). The interviewees were not clear about how different farms were designated access to particular cliffs. One interviewee suggested that decisions regarding cliff access/ownership were made by the *grannastevna*, although another suggested;

“...you can perhaps imagine that a big farmer like this has said ‘I want this, this is my place’, they are powerful, and you know, they had the rights everywhere you know” (JJ).

Fowling methods varied according to the birds hunted (Nørrevang 1979). To take puffins, one or two persons were required. In Í Trøðum one person from each of the four farms would usually go together. There would be several ledges where each person could sit and at the end of the day the birds would be shared among the four (JP). Guillemots on the other hand, breed on some of the highest and most precipitous cliffs, so a guillemot fowling expedition would require more people, at least 15-20. Interviewees also mentioned the requirement of a boat for guillemot fowling, which was sent to the base of the cliffs, both to get people to the cliffs and because in some cases, when caught, the birds were tied together and thrown into the sea from where a boat would be waiting to collect them (JJ). Aside from the birds themselves, bird eggs were also taken. Some of the regulations mentioned by the interviewees with regards to fowling, but especially to gathering eggs, are outlined below;

- There was no regulation on the number of bird eggs taken but you could only collect them before 8<sup>th</sup> June (JJ)
- The *fygla*<sup>1</sup> method could only be used every third year (JJ)
- The method of catching puffins (*fleyga*<sup>2</sup>) wasn't regulated and you took as many as you needed in order to survive the winter (JJ)
- Bird eggs could be collected from the first week in June (JP)
- If using the *fygla* method you could only take birds once every four years (JP)
- The village (Dalur, southern Sandoy) could take up to 32,000 puffins a year. Once this figure was reached you couldn't take any more (GB)
- With guillemots, only the first laid egg could be taken (GB)
- You could only take puffin eggs from their burrows once every 3-4 years (GB)

Although these attest to the existence of a wide variety of regulations, some which may appear contradictory, it does suggest that there were a series of regulations which probably

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<sup>1</sup> *Fygling* refers to a method of fowling used mostly to catch guillemots which breed on high steep cliffs. The fowler was lowered down the cliff and used a long-handled net to catch the guillemot (Schei and Moberg 2003, Nørrevang 1979).

<sup>2</sup> *Fleyging* refers to a method used to catch puffins with the aim of catching the birds in mid-flight by the means of a long-handled net (Schei and Moberg 2003, Nørrevang 1979).

varied from village to village. It is not known how the regulations were enforced but GB added that these regulations were absolutely adhered to because people had great respect for them.

*The importance of the grind (pilot whale hunt)*

K: So you needed a lot of food?

JJ: Yes

K: And how much of the diet did birds make up, was it, you know, did you eat more birds than sheep or-

JJ: No, no, I think, I think *grind* (whale) was number one...

*Grind* (pilot whale) was considered to play the most important part in the diet by both JJ and PC. JJ connected times of hunger in the Faroes to times when there were few whales sighted adding;

"...we couldn't have survived if the whales were not around, I don't think so".

The importance of the *grind* is supported by the distances travelled to take part and thereby lay claim to a share of the catch. This was mentioned by JP, who had heard of people from Suðuroy, the most southern island rowing to the northern Faroe Islands to partake in a *grind*. This was supported by JJ;

K: ...how far would people go to take part in a grind?

JJ: They would go very far, they would go very far, because often the fishermen, they see the *grind*, so they follow the *grind* to the place where they are slaughtered and that could be far away...and then they came back with the boat loaded with food...it would take them several days to come back with this food...

The importance of *grind* also lay in its social function, which was stressed by JJ.

*Farming and sheep grazing*

Hay and barley were the main products of the infield, and south facing infields, which received the most sunlight, were the most prized infield land. Sandur had less mountainous surroundings and was more open than other villages on other islands, and as a result was a good location for cultivation. In Sandoy, hay cutting took place twice a year, in June and in August, whereas in most villages hay cutting took place only once a year (GB).

GB emphasised the importance of looking after the infields, adding that people compared the appearance of their own infields with that of others.

"...as I was growing up, people had a big, big respect for the infields, very big respect, it was, it was the best thing, and they did it (looked after it) very well..."

With regards to sheep grazing, the respondents affirmed that sheep were not important for their meat and that the mainstay of the diet was based on whales, birds, and also fish. Sheep were kept predominantly important for their wool (JJ, JP, PC), which is illustrated by an extract from the Faroese Farming Times (Føroya Búnaðarfelag 1926), reproduced as Table 6.6. This was supported by comments from JJ;

K: So were sheep more important for wool or meat?

JJ: No, you kept sheep for the wool, that was number one, yeah, because you could get something to eat from something else, but you could only get wool from the sheep...

Sandur			
Hagi	Markatal (land value)	Áseyðatal (stock)	Skuðtal (slaughtered)
Traðarhagi	24	960	384
Høvdahagi	8	290	116
Skopunarhagi	8	320	128
Fjalshagi	15.5	390	115
Klivaløkshagi	12	315	126
Søltuvíkshagi	21.25	560	224
Sandahagi	8	400	160

Hov			
Hagi	Markatal (land value)	Áseyðatal (stock)	Skuðtal (slaughtered)
Hjallaskorahagi	8	250	100
Ytstihagi	8	300	120
Dalshagi	8	336	135
Tjaldavíksholmur		10	5
Porkerishagi	37	932	370

**Table 6.6:** Extracts from Føroya Búnaðarfelag (1926) *Búnaðartíðini* (farming times) 7/8. Published in July/August 1926 and details land values and stock and slaughter rates for the outfields belonging to the villages of Sandur (Sandoy) and Hov (Suðuroy). The large disparity between rates of overall stock and those slaughtered supports the interviewees' declarations that at least in the recent past and probably for several centuries before that, sheep were kept primarily for wool rather than meat.

In terms of outfield grazing land, the most valued land was that which was steeply sloping, because it was nourished by bird guano and was well drained (GB). GB mentioned both Dalur on Sandoy and Tjørnuvík on Streymoy as having some of the best outfield grazing in the Faroe Islands. In some parts of Sandoy, where there is a large proportion of gently sloping land, drainage was more of an issue, which is attested to by the relic drainage ditches. Access to good winter grazing was equally as important as having good summer grazing (GB).

With regards to slope erosion, opinions were mixed, suggesting that the processes of erosion are not fully understood. Some interviewees were not concerned by erosion of the outfields (JP, PC) while another stated;

"...all the stones you can see in the field [i.e. the degraded land in the outfields], if you travel to Shetland or the Orkneys you don't see this, but here in the Faroes you do and I think that the sheep have a part of this because we have had so many sheep that the grass has gone, of course it can be the climate as well, it's wet and it's a very rough climate..." (JJ).

#### *Settlement patterns, social structures and connections*

Sandur was considered a very good location for settlement by the interviewees. In older times, the most important factor for settlement was good land for growing barley (GB), and Sandur was well located for this. Some of the smaller islands in the Faroese archipelago were also considered to be good locations for settlement as they abounded in excellent resources with good opportunities for fowling and fishing (GB). This was emphasised by the following story;

"...they say you are not to take (i.e. marry) a woman from Skúgvoy, because they use so much food and clothes, because they were rich people. You had to take a woman from Tórshavn, because they were poor people, they had to take care of everything" (GB).

Although today, farms are more independent, in the past it was imperative that people worked together. For example, farmers were also fishermen, but in order to fish you needed perhaps eight people to man the boat, and according to JJ the obligation of fishing was sometimes enforced by the landowners, who were evidently the most powerful figures (aside from the vicar) in the village;

JJ: ... in the older days farmers had to have a boat, it was their duty to have one, and there was as well a duty for people to be on the boat, to you know, row the boat and fish with the boat, that was one of the duties people had and they didn't like that very much –

K: When you say 'duty', was it a duty to the family, or do you mean they had to –

J: No, they had to because when the farmers say “we are going to fish”, they had to go with them you know, they couldn’t just say “I’m doing something else”, no they (the farmers) were commanding them...

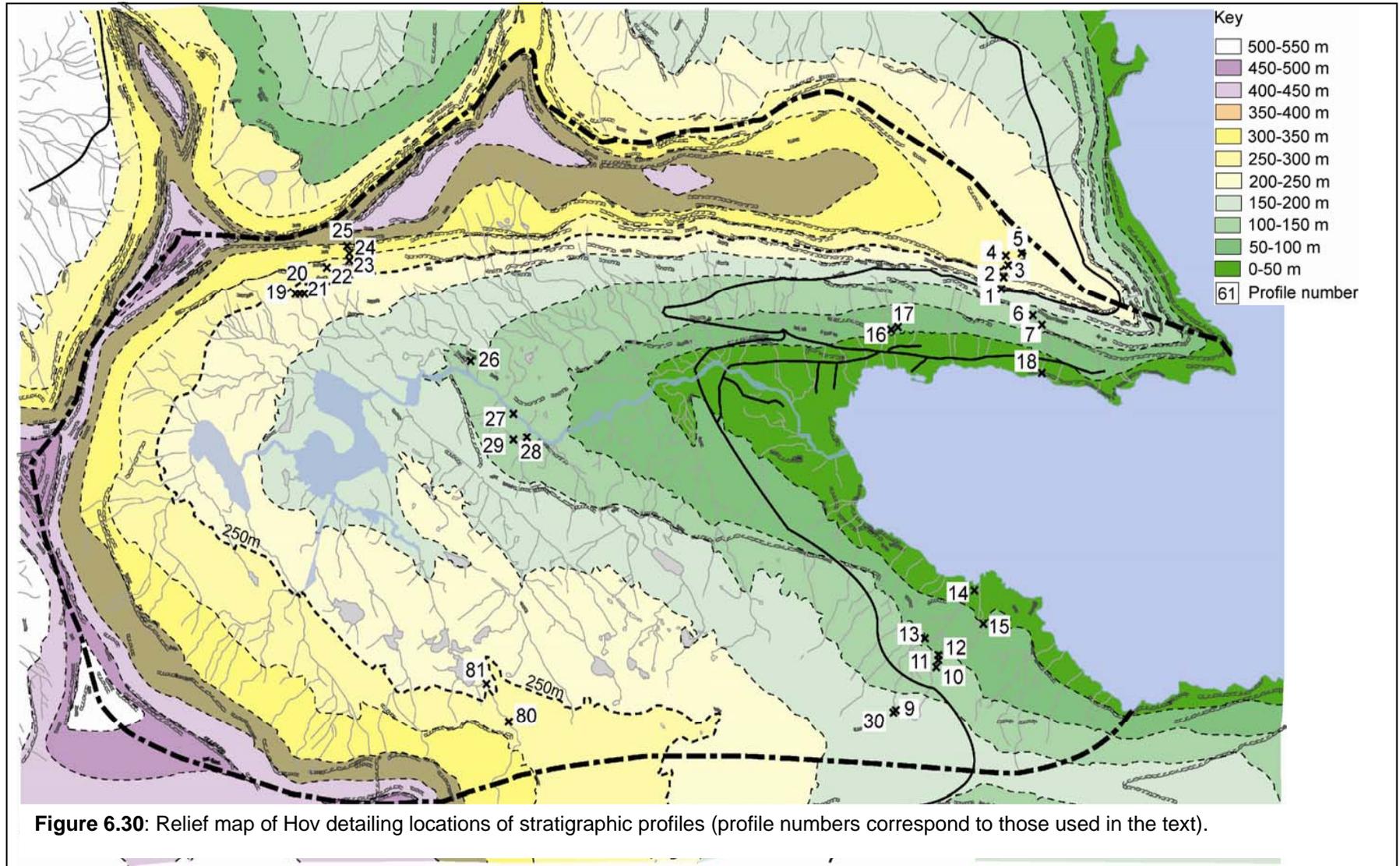
Fowling, especially for guillemots, and rounding up the sheep, also required several people to work together. On big farms there would be enough people on that farm to perform such tasks and as it was often the elderly people in a family who owned the farm, different generations of a family were required to work together (GB). Sons were often tied to working together on a farm as there was a law that prevented marriage unless you owned your own land. Smaller farms pooled labour with adjacent farms. There were few connections between neighbouring villages, unless the villages were small, with the principle connections being amongst the family and between neighbouring farms (JP).

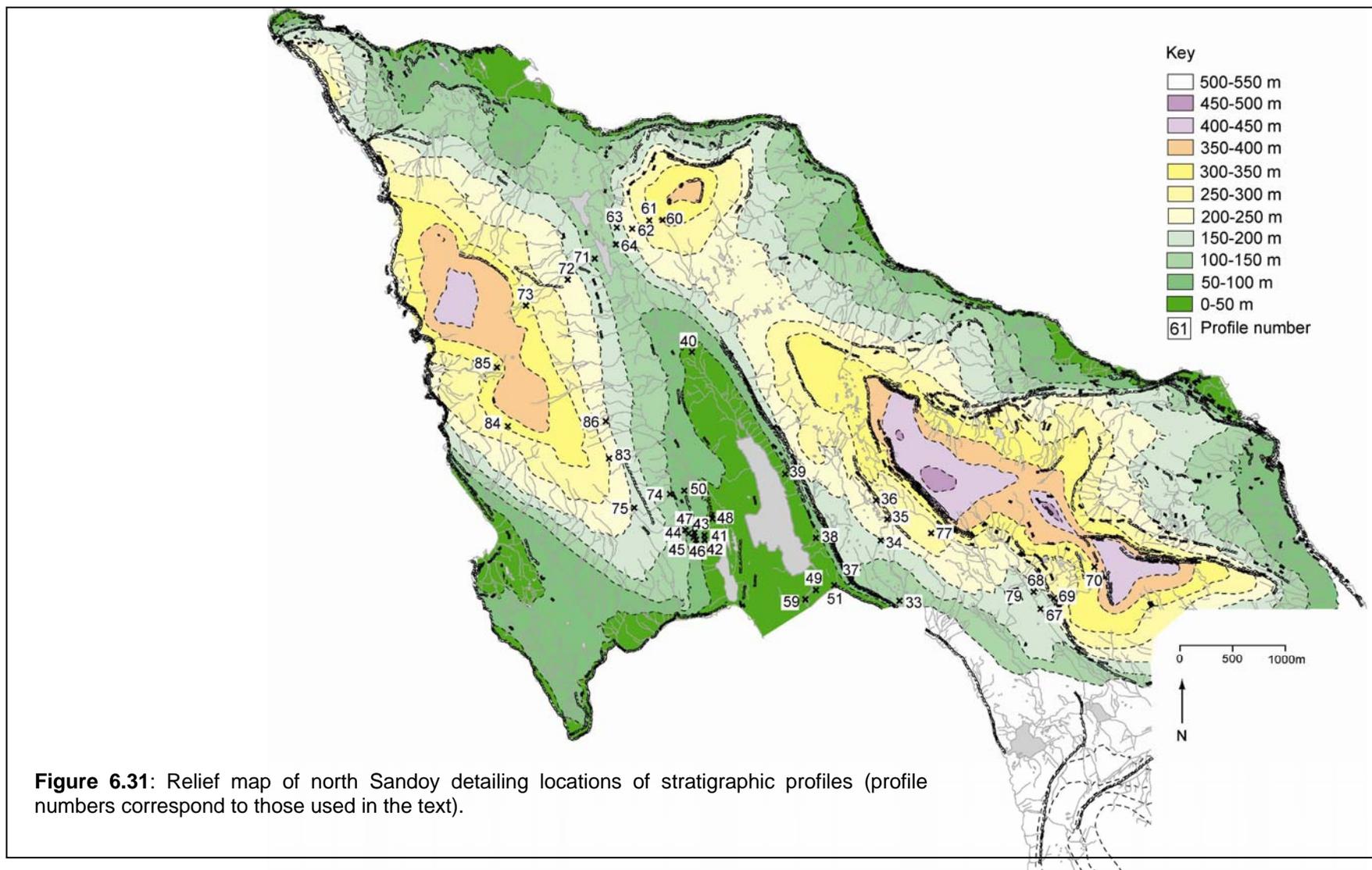
#### *The impact and significance of weather and climate*

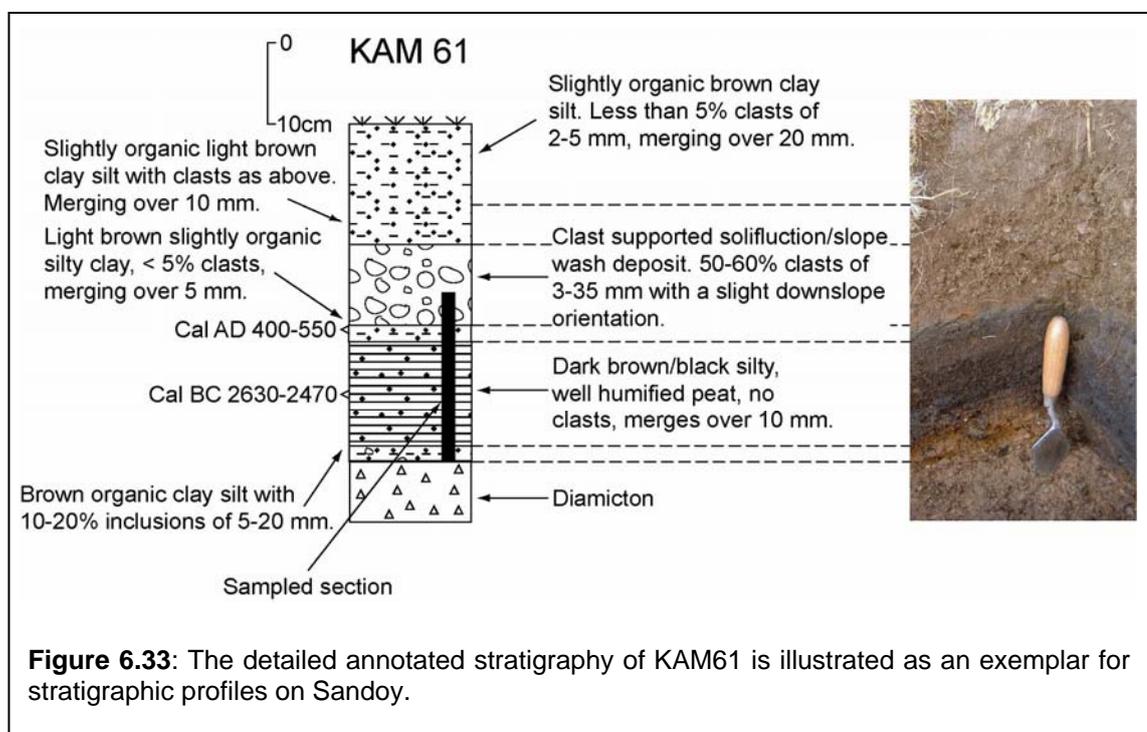
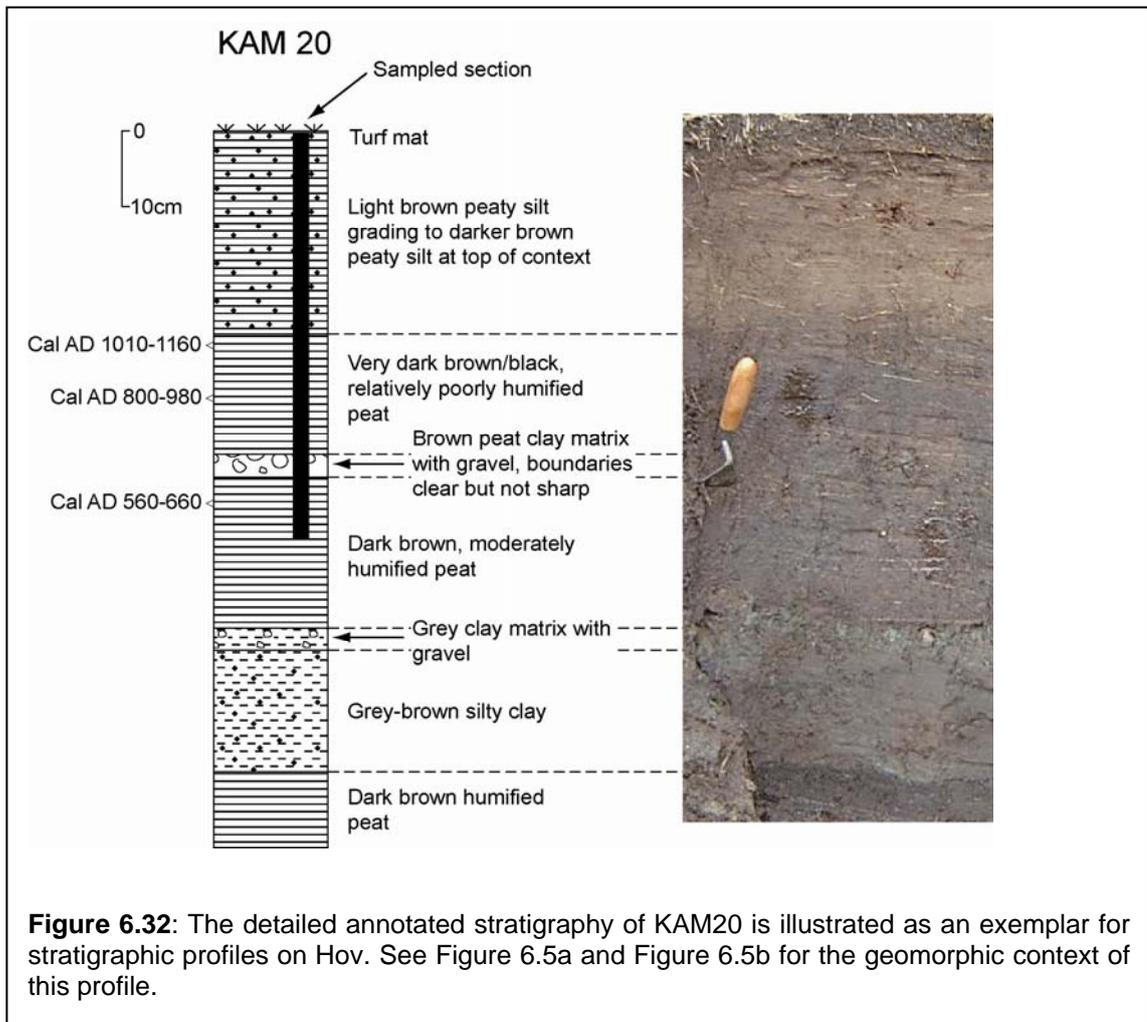
Weather determined the timing of the majority of farming activities (GB). Wet weather was consistently cited as being the most problematic type of weather for farming, particularly wet conditions during lambing (JP). Snow, however, is an issue only on occasions when it lies for several weeks, although today there are fewer winters with heavy snow (JP). On Sandoy they had a system using shelters where the sheep could go and take shelter when it was snowing heavily. JP related farmers’ stories about the length of time sheep can remain for under a cover of snow; by keeping close together and eating the wool from each other, sheep can survive for a week to ten days without being fed. It was proclaimed that the sheep can look after themselves providing they get shelter or can get into a *ból* and remain standing rather than sitting.

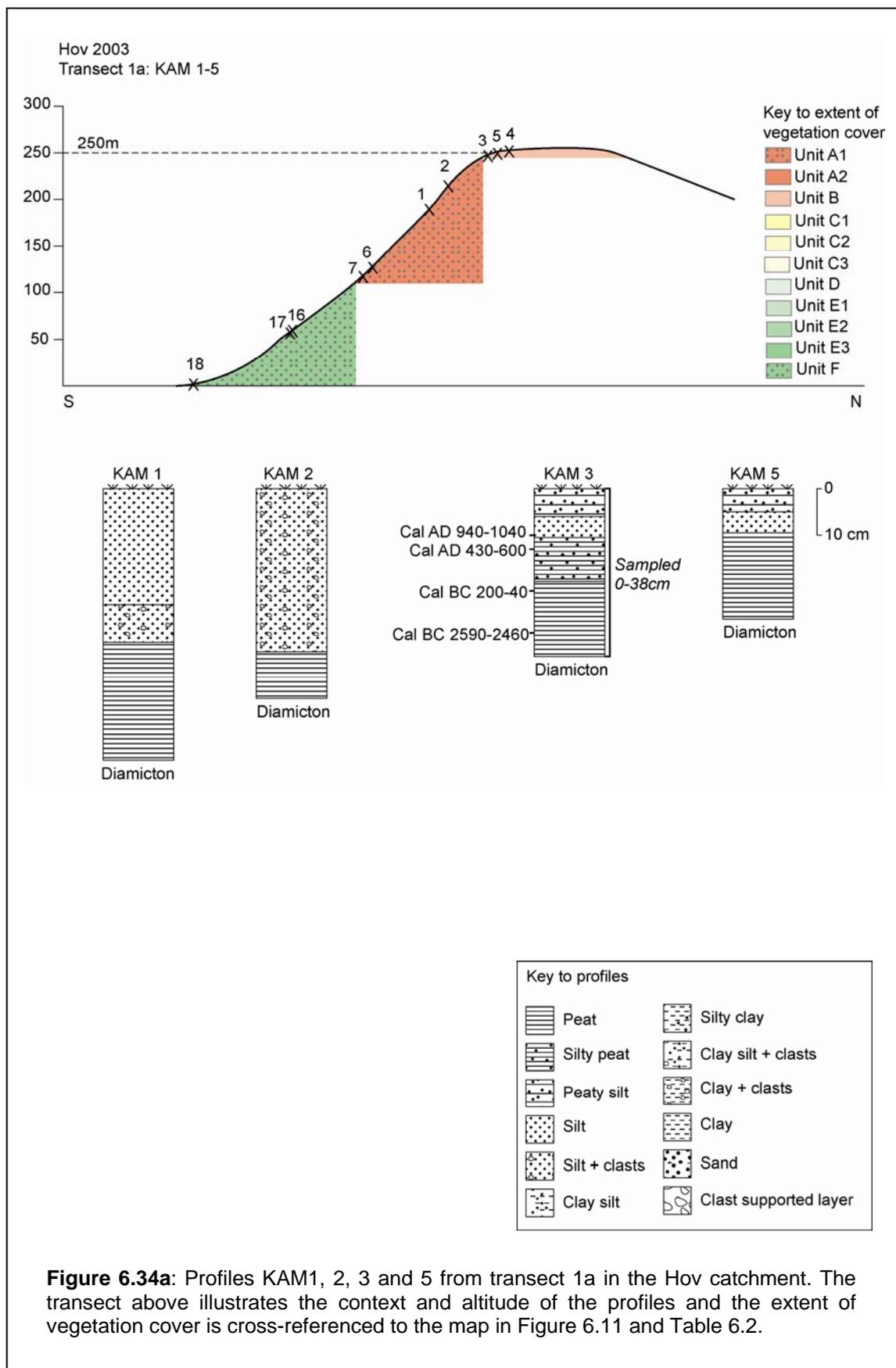
#### **6.4. Presentation of temporal data**

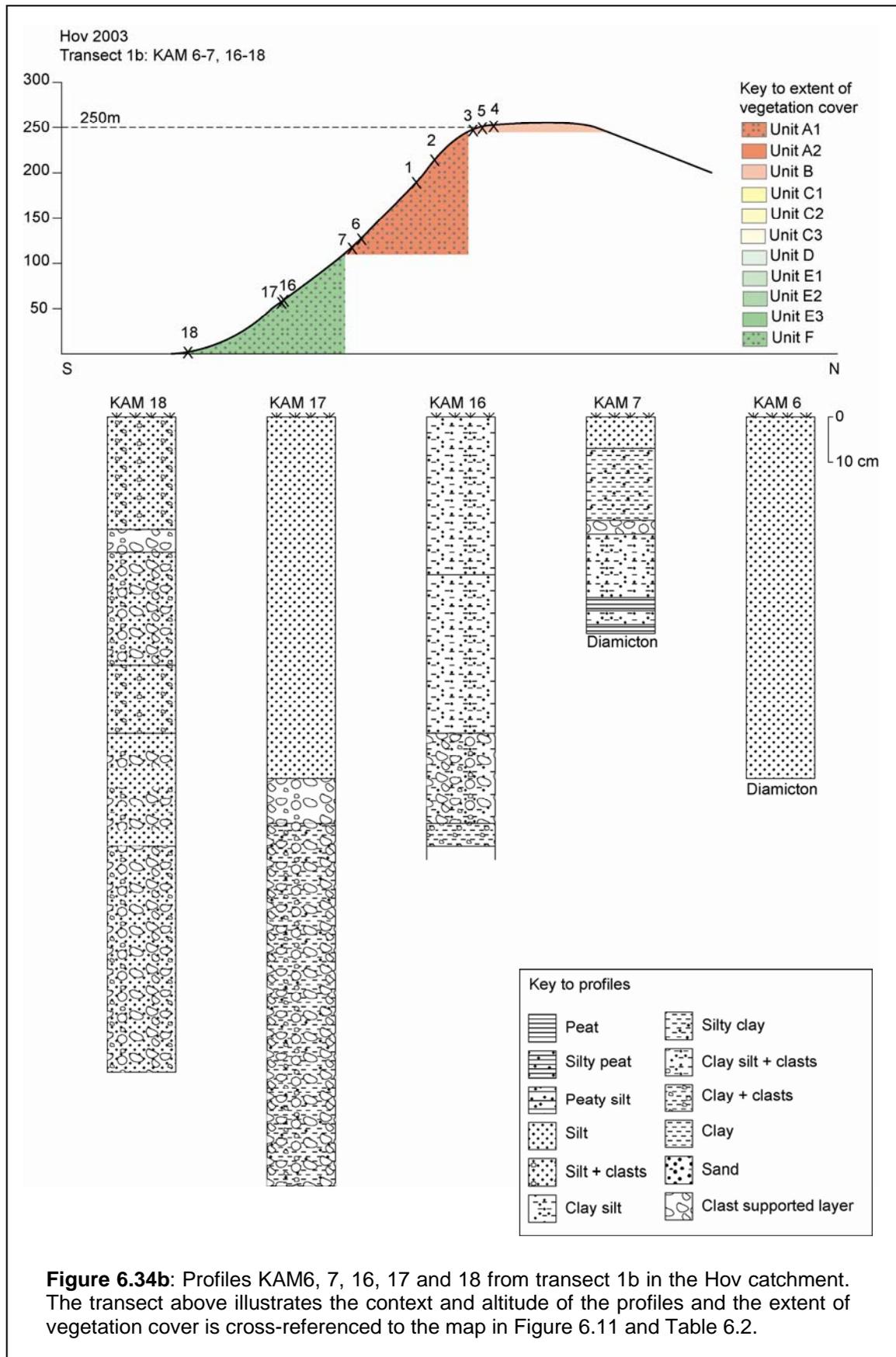
A total of 86 stratigraphic sections were recorded from the field sites of Hov and Sandoy, whose locations are illustrated by Figures 6.30 and 6.31 respectively. Details of the sediment stratigraphy of two profiles are presented below. KAM20 is characteristic of profiles from Hov on Suðuroy (Figure 6.32), and KAM61 is representative of the general sediment sequence in profiles from north Sandoy (Figure 6.33). To avoid repetition, data from additional profiles are presented as annotated stratigraphies in Figures 6.34a-g (Hov) and 6.35a-h (Sandoy), as opposed to being described in detail. A general summary of the southern Faroe Islands soil stratigraphy and detailed transect descriptions follows the detailed accounts.

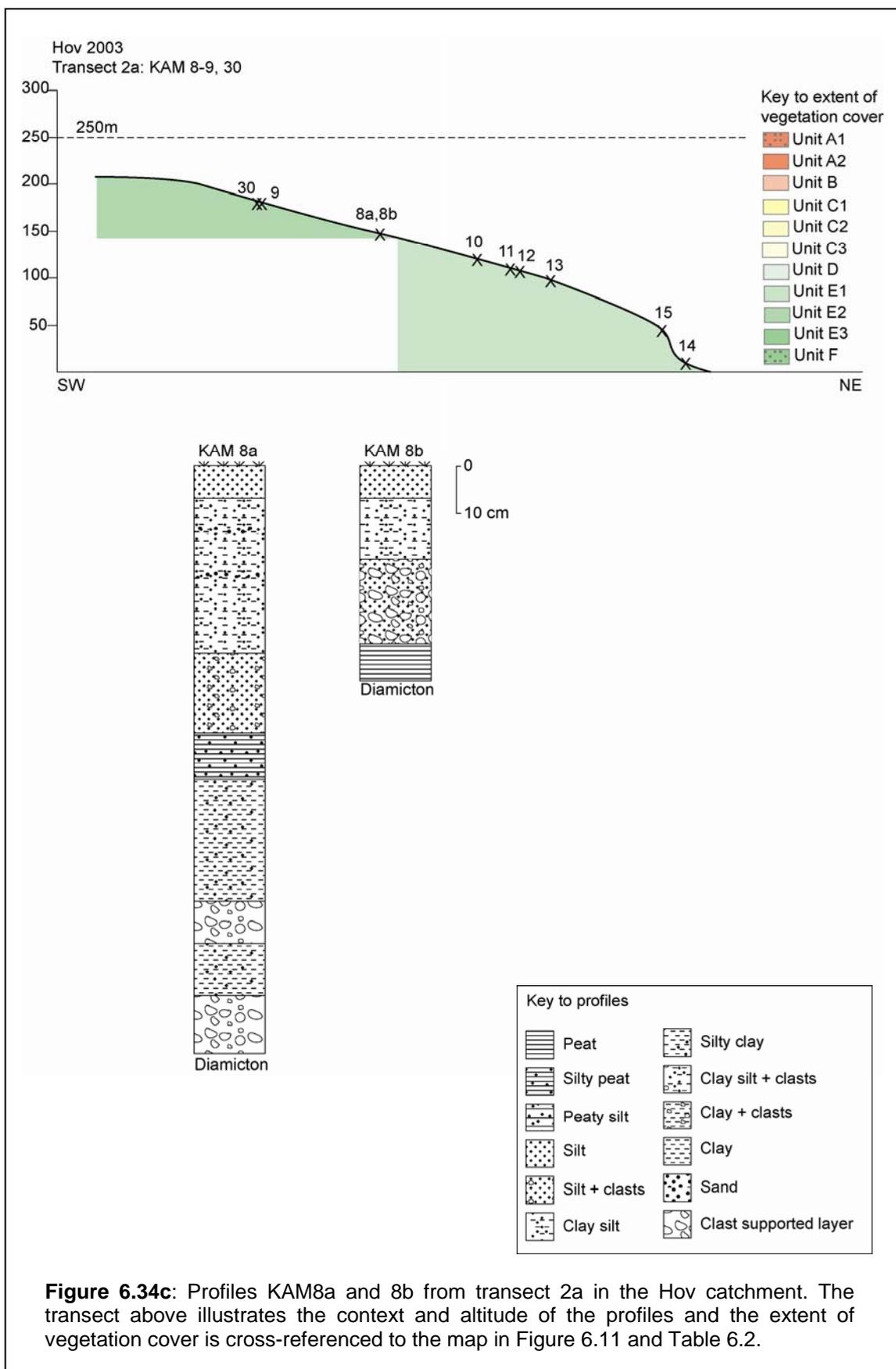




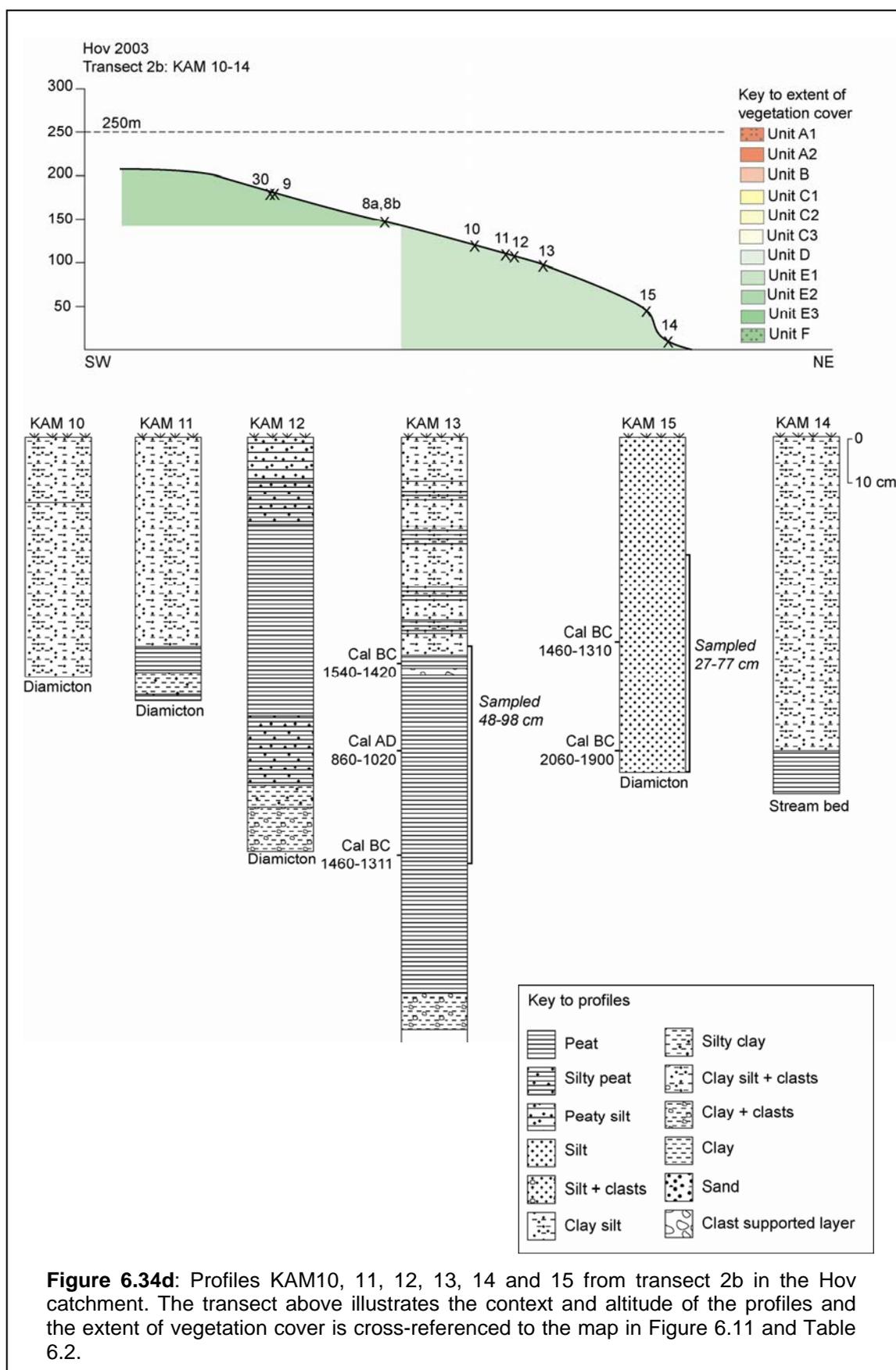




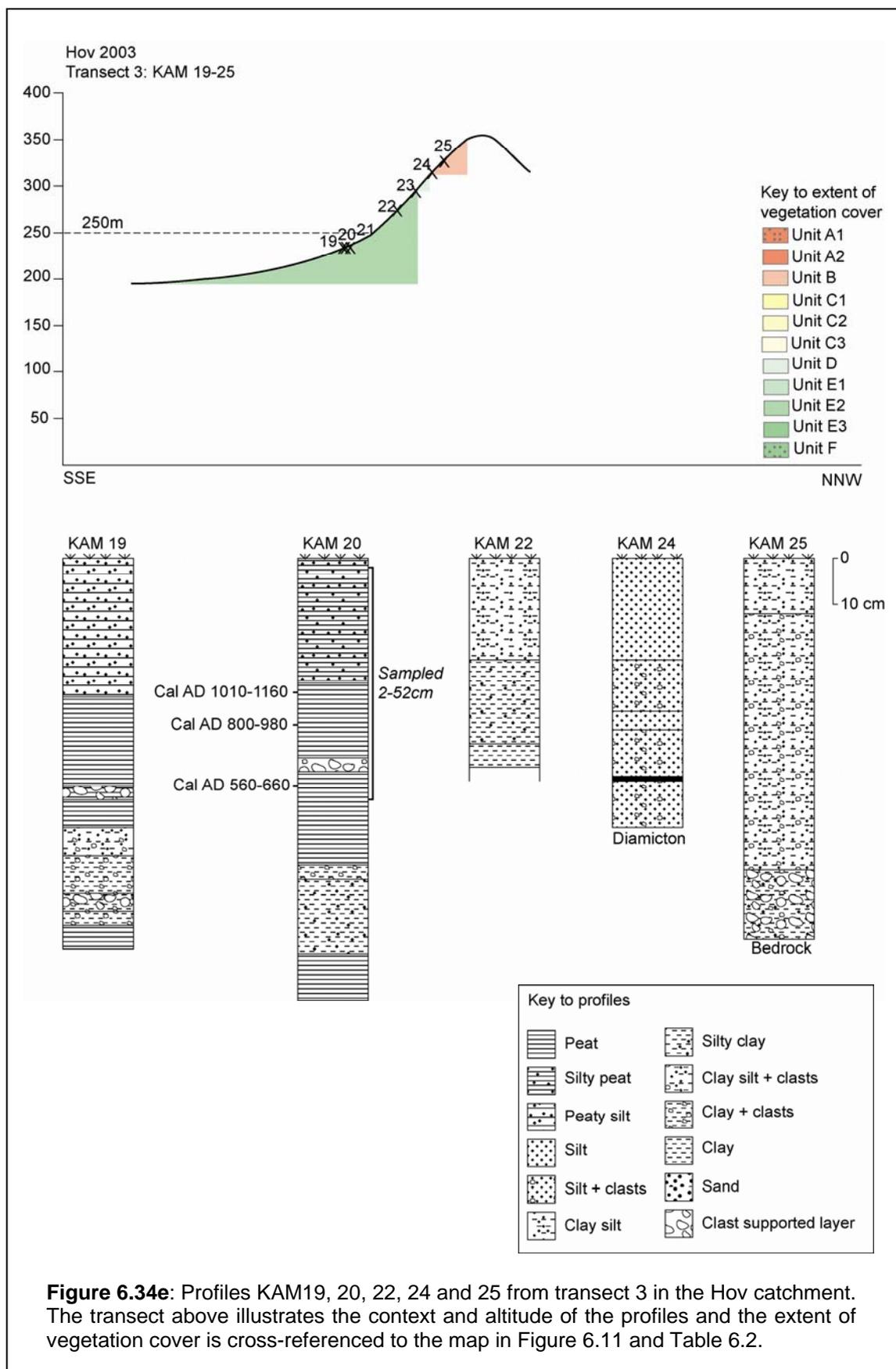




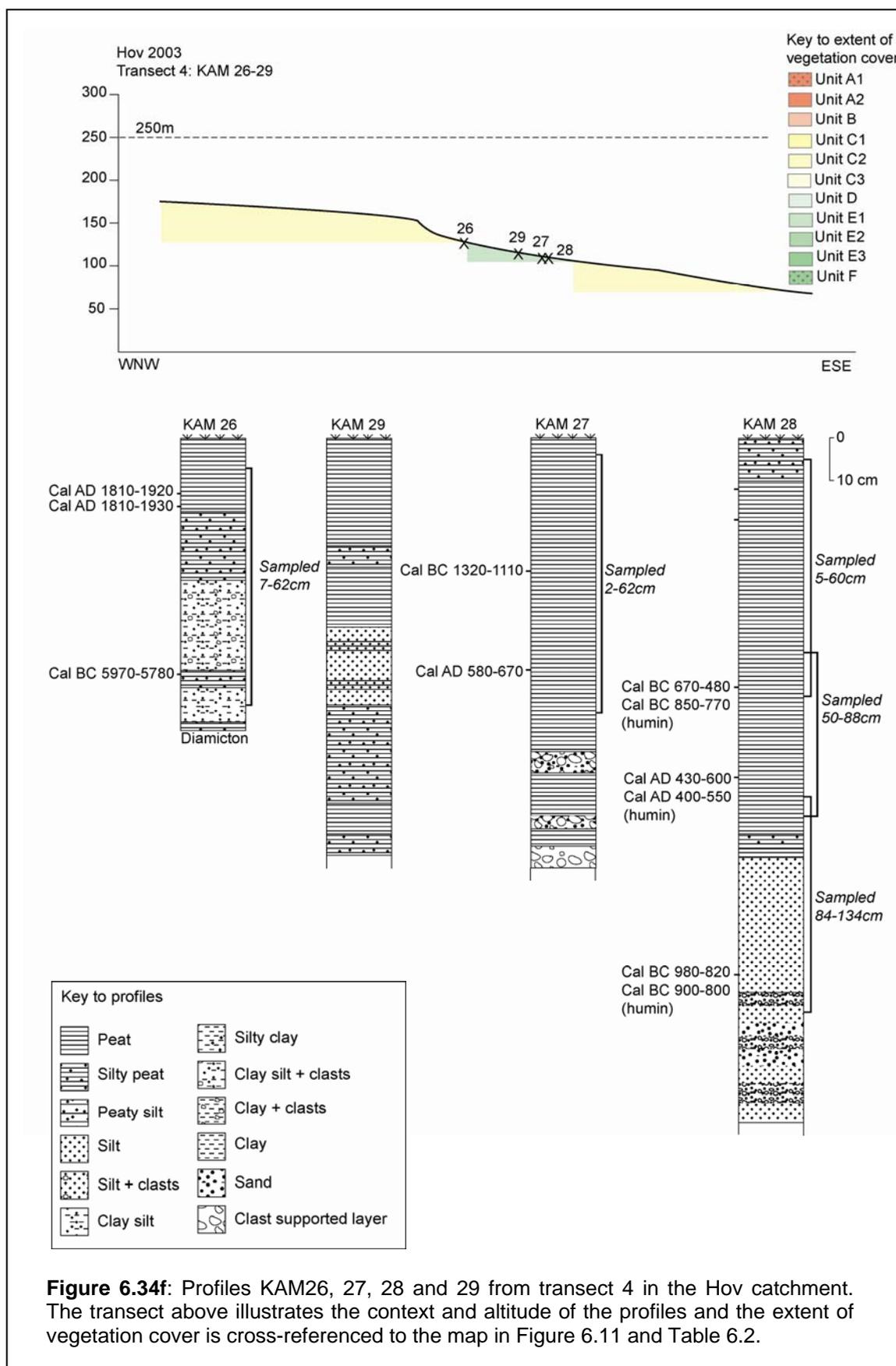
**Figure 6.34c:** Profiles KAM8a and 8b from transect 2a in the Hov catchment. The transect above illustrates the context and altitude of the profiles and the extent of vegetation cover is cross-referenced to the map in Figure 6.11 and Table 6.2.

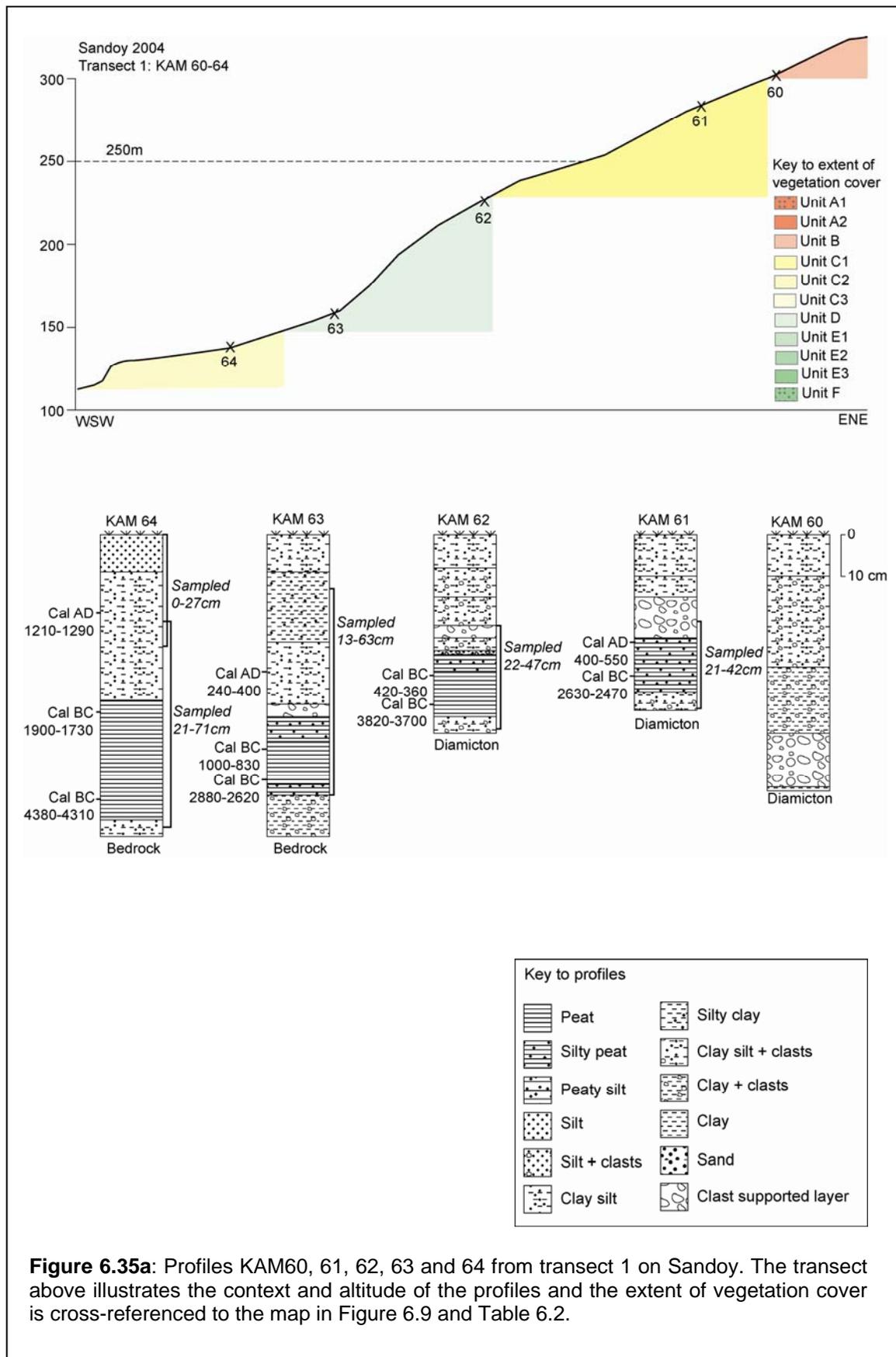


**Figure 6.34d:** Profiles KAM10, 11, 12, 13, 14 and 15 from transect 2b in the Hov catchment. The transect above illustrates the context and altitude of the profiles and the extent of vegetation cover is cross-referenced to the map in Figure 6.11 and Table 6.2.

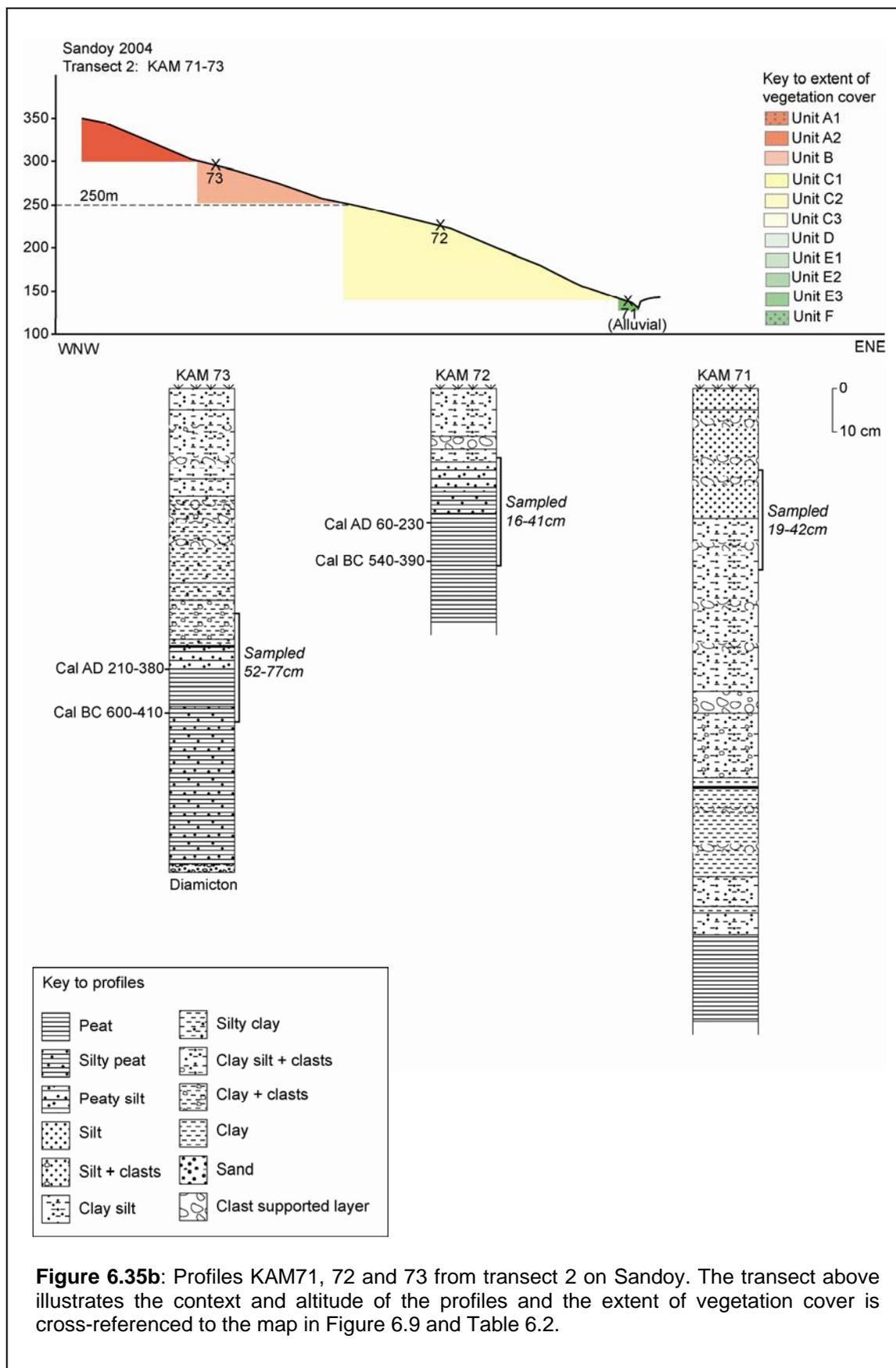


**Figure 6.34e:** Profiles KAM19, 20, 22, 24 and 25 from transect 3 in the Hov catchment. The transect above illustrates the context and altitude of the profiles and the extent of vegetation cover is cross-referenced to the map in Figure 6.11 and Table 6.2.

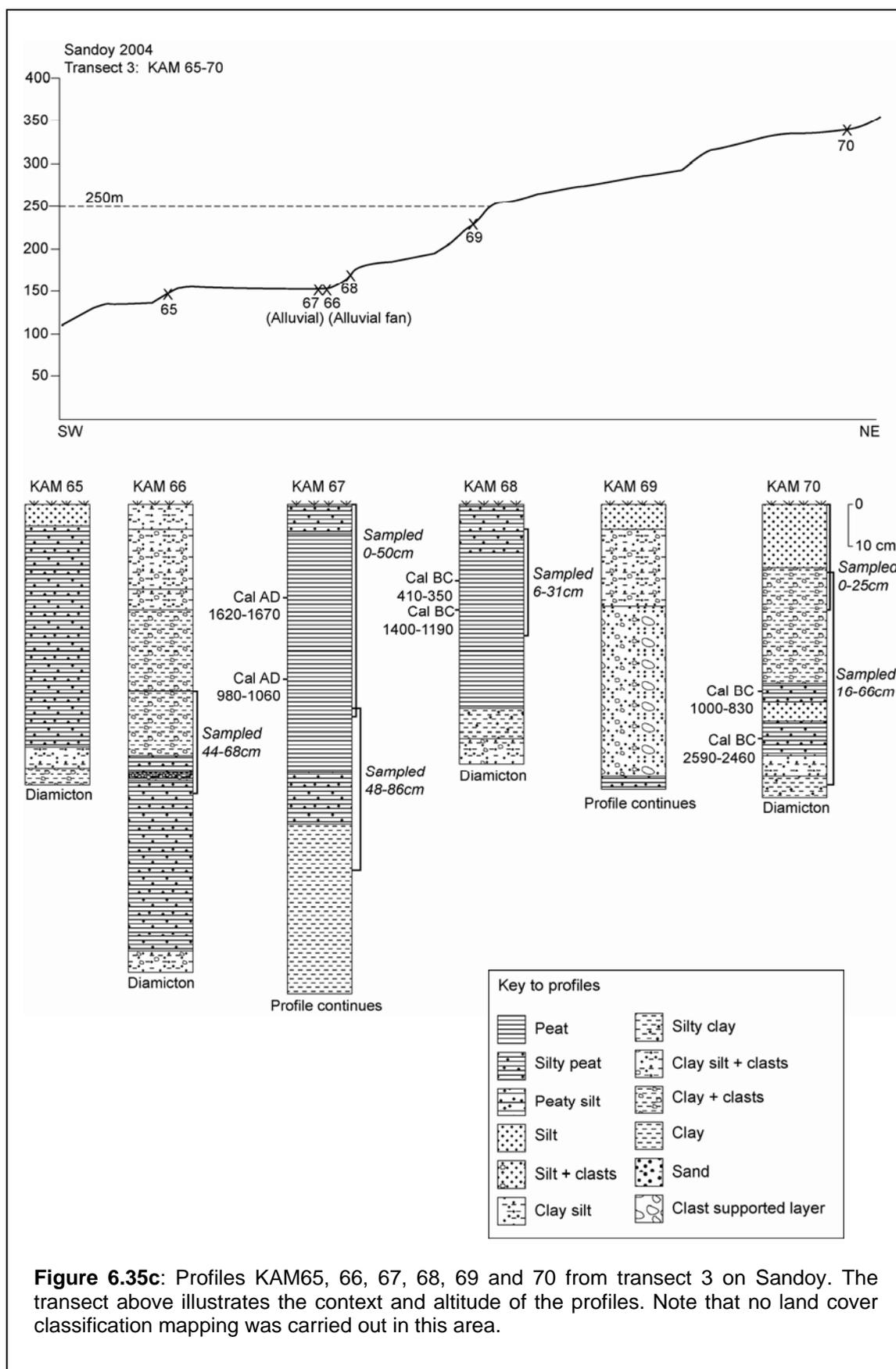




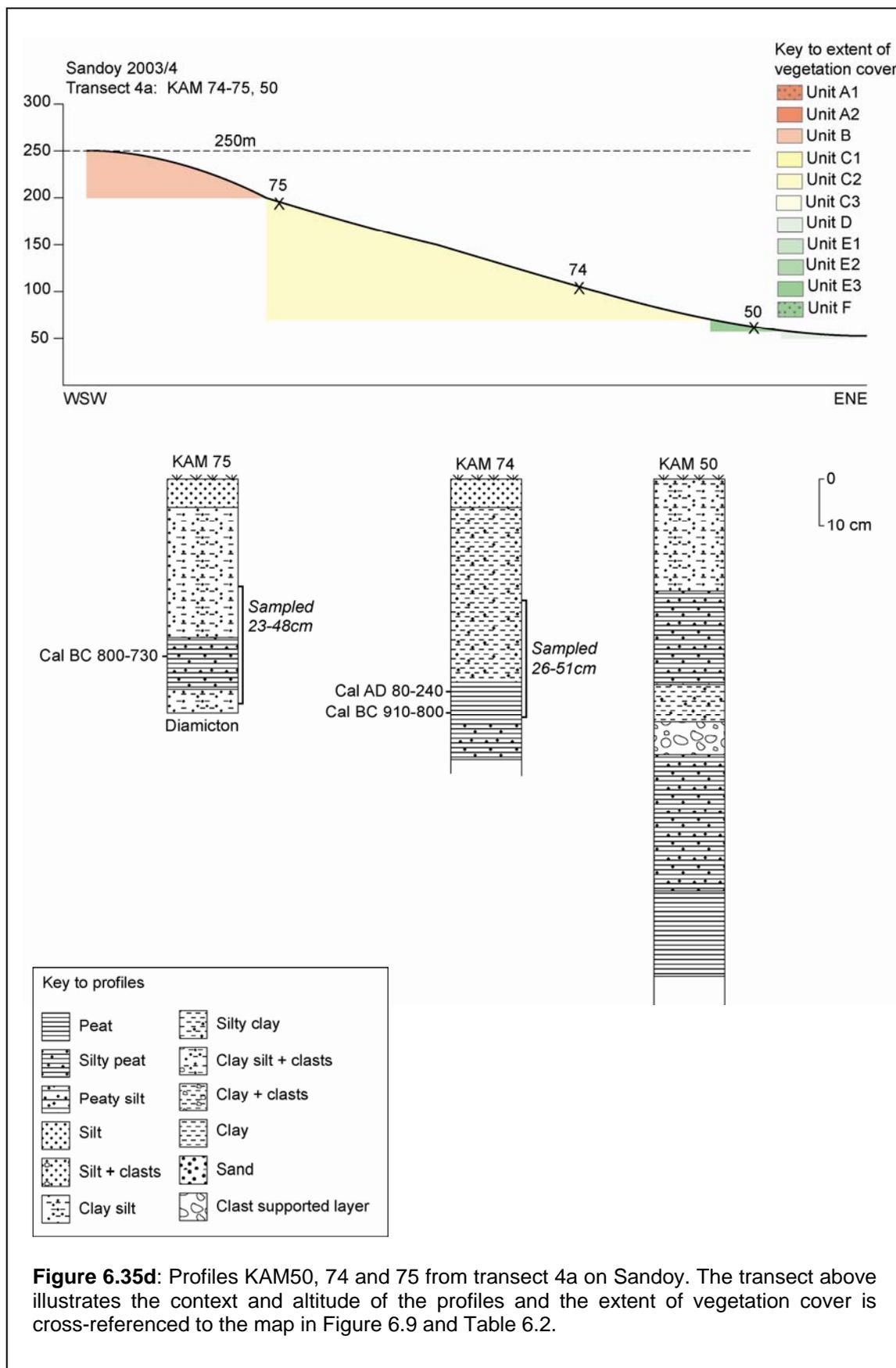
**Figure 6.35a:** Profiles KAM60, 61, 62, 63 and 64 from transect 1 on Sandoy. The transect above illustrates the context and altitude of the profiles and the extent of vegetation cover is cross-referenced to the map in Figure 6.9 and Table 6.2.



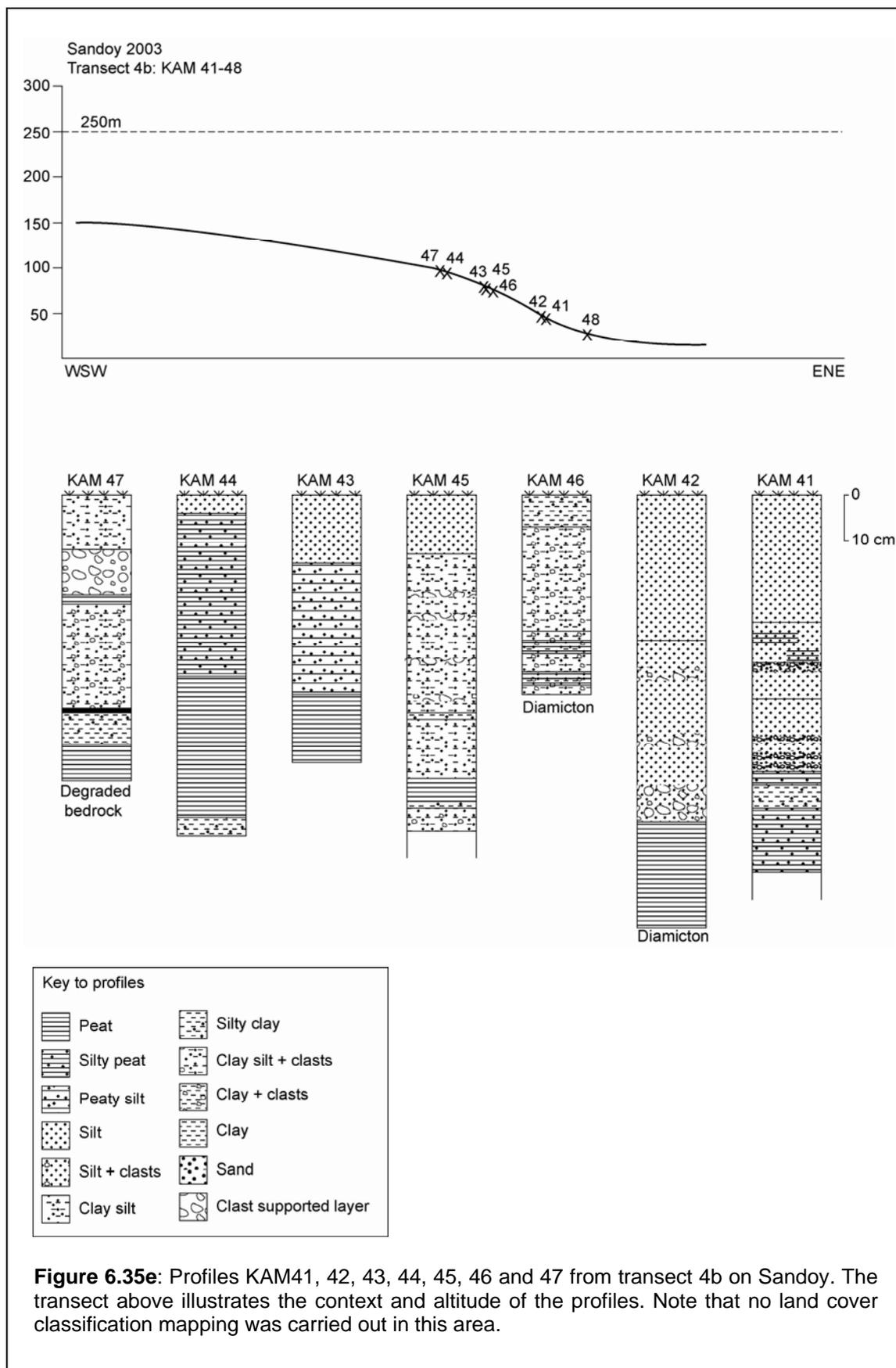
**Figure 6.35b:** Profiles KAM71, 72 and 73 from transect 2 on Sandoy. The transect above illustrates the context and altitude of the profiles and the extent of vegetation cover is cross-referenced to the map in Figure 6.9 and Table 6.2.



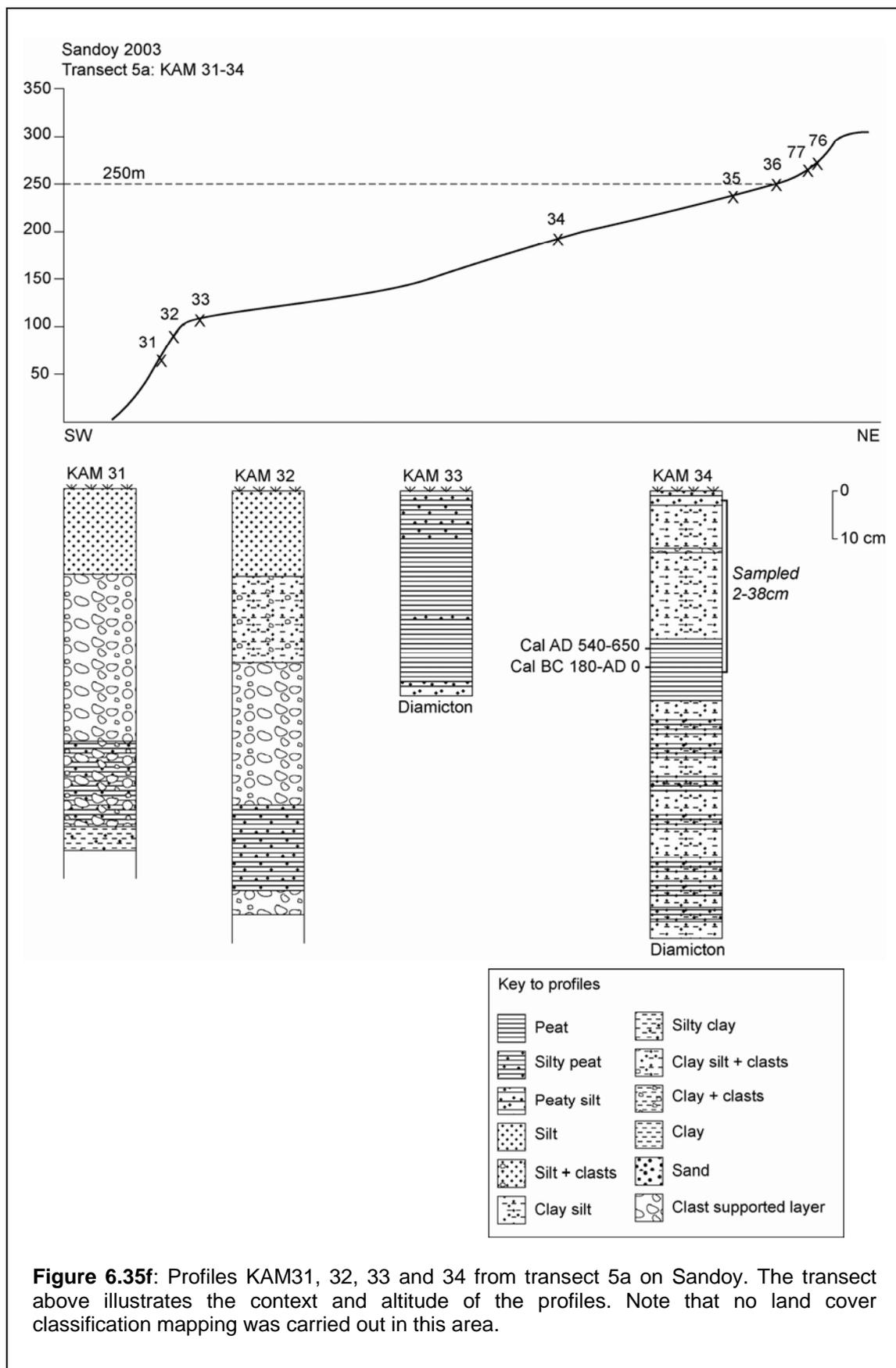
**Figure 6.35c:** Profiles KAM65, 66, 67, 68, 69 and 70 from transect 3 on Sandoy. The transect above illustrates the context and altitude of the profiles. Note that no land cover classification mapping was carried out in this area.



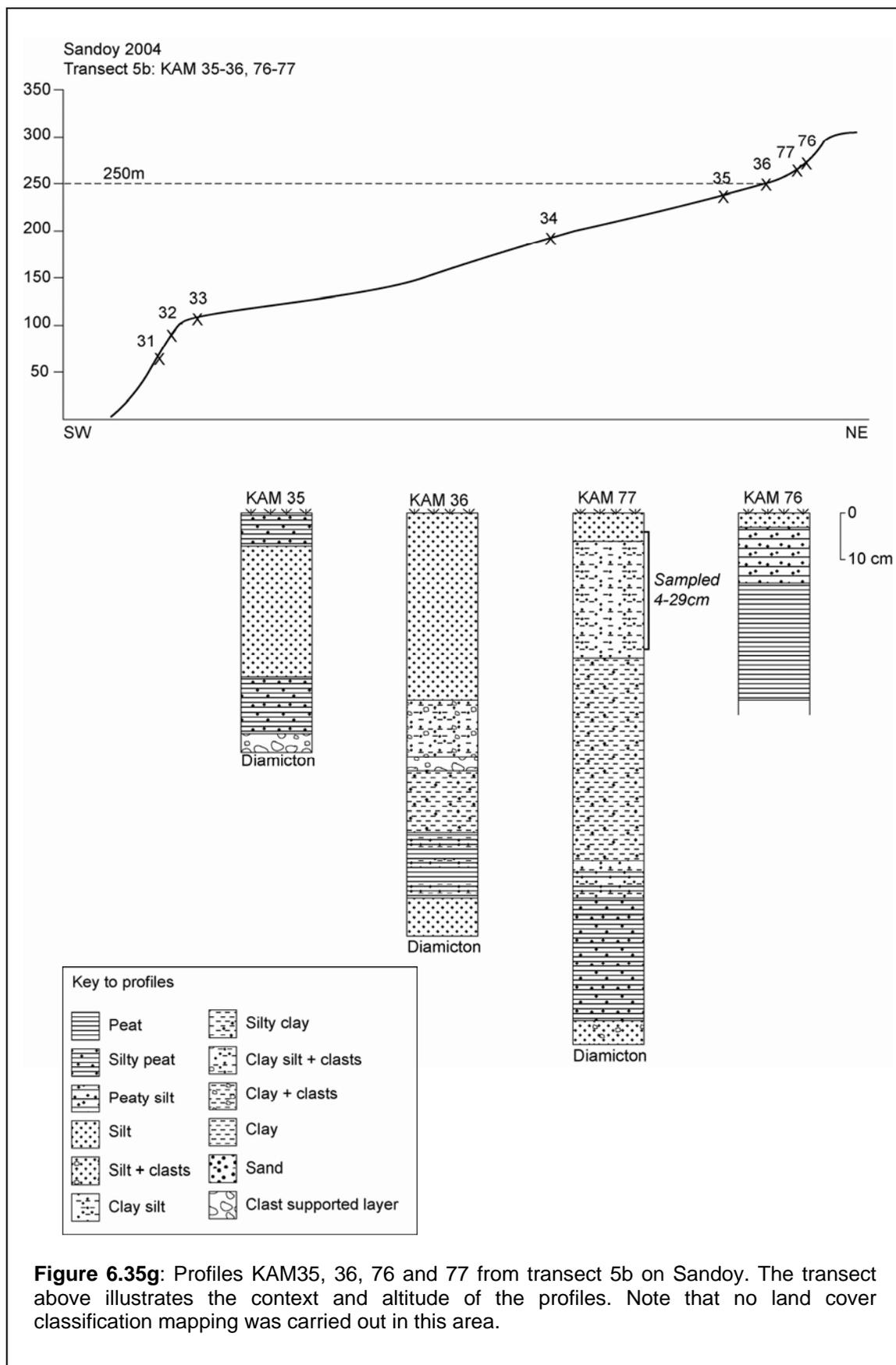
**Figure 6.35d:** Profiles KAM50, 74 and 75 from transect 4a on Sandoy. The transect above illustrates the context and altitude of the profiles and the extent of vegetation cover is cross-referenced to the map in Figure 6.9 and Table 6.2.

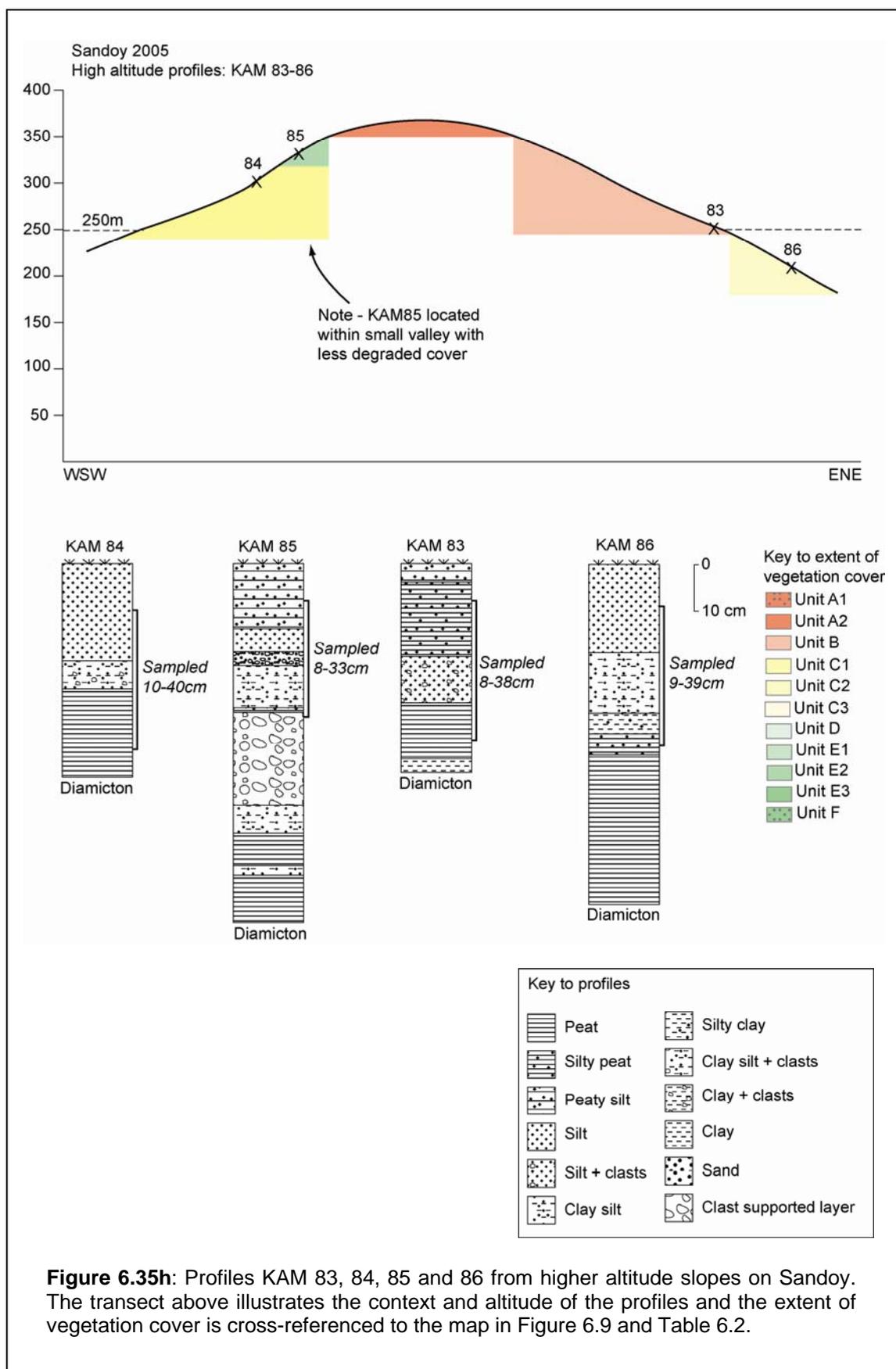


**Figure 6.35e:** Profiles KAM41, 42, 43, 44, 45, 46 and 47 from transect 4b on Sandoy. The transect above illustrates the context and altitude of the profiles. Note that no land cover classification mapping was carried out in this area.



**Figure 6.35f:** Profiles KAM31, 32, 33 and 34 from transect 5a on Sandoy. The transect above illustrates the context and altitude of the profiles. Note that no land cover classification mapping was carried out in this area.





## Detailed descriptions of characteristic profiles

### *Detailed description of example profile from Hov (KAM20)*

KAM20 is one of three profiles (KAM19-21) recorded from an extensive natural exposure that cuts across a major debris fan on south facing slopes in Hovsdalur (Figure 6.5). The stratigraphy of KAM20 is representative of the fan surface as a whole, and records changes occurring on the slopes above (Figure 6.32). The basal unit of the profile is a diamict comprising glacial, fluvioglacial and paraglacial sediments overlying bedrock. The upper section of this unit sometimes exhibits a shallow weathering profile consistent with soil formation. Overlying the diamict is a dark brown-black humified peat. There is a relatively sharp contact between the peat surface and a layer of grey-brown clay that has been deposited overlying the peat, which is capped by a clast supported layer within a grey-brown silty clay matrix. A moderately humified, dark brown peat unit overlies the clay, but within the peat context an extensive gravel unit was deposited c.1390-1290 cal yr BP (560-660 AD). Towards the top of the peat unit, c.940-790 cal yr BP (1010-1160 AD), the peat becomes more silty and forms a discrete unit of brown peaty silt. This becomes more organic toward the top of the profile.

### *Detailed description of example profile from Sandoy (KAM 61)*

KAM61 (Figure 6.33) is one of 5 profiles recorded along an 800 m long hill slope transect in north Sandoy, between altitudes of 150-300 m (Figure 6.35a). KAM61 was recorded from a natural exposure at 280 m, close to the boundary between where limited soil remains (where the landscape surface is 70-90 % eroded) and where soil and vegetation become more significant (where the landscape surface is 40-60 % eroded). KAM61 is also located at a threshold of peat erosion as KAM60, located 15 m higher than KAM61, has been stripped of peat cover. The basal unit of the profile is a diamict comprising glacial, fluvioglacial and paraglacial sediments overlying bedrock, which towards the top of the unit becomes more organic and represents early-mid Holocene soil formation. The diamict is overlain by a well-humified, dark brown-black, slightly silty peat. Above this, the profile becomes more inorganic with the development of a limited unit of light brown, slightly organic, silty clay, with 5 % clasts within the unit. The contact between this unit and the peat below is distinct. Above this, a more considerable clast supported unit has been deposited by solifluction or slope wash and is composed of 50-60 % angular to sub-rounded clasts that have a slight down slope orientation. Dating of the profile indicates that deposition of this unit occurred c.1400-1550 cal yr BP (400-550 AD). The top unit is composed of light brown clay silt, which becomes more organic towards the top of the profile.

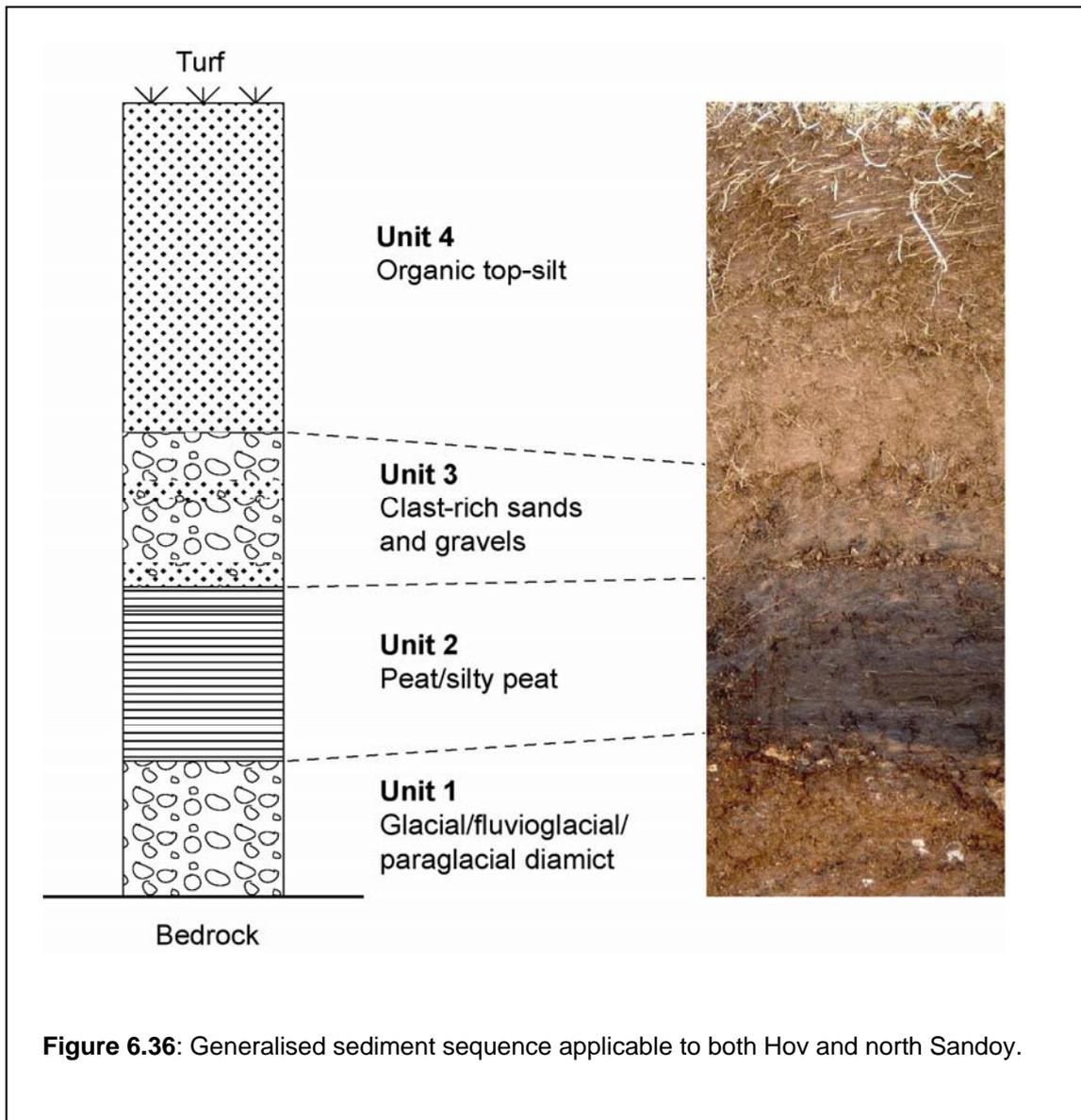
After analysis and description of the soil profiles in the field, sampled stratigraphic profiles were re-recorded under laboratory conditions and sampled for percentage dry bulk density values and percentage weight loss-on-ignition (LOI) analysis, which was used to estimate the organic content of the sediments and assist in identifying sediments for radiocarbon dating analysis. A dating protocol was set-up prior to going into the field in order to target periods of instability in the landscape that would test various hypotheses (see hypothesis 1 in Table 1.1). For the aforementioned profiles, three dating horizons were proposed for KAM20 to constrain the onset of the extensive gravel unit and to date the initialisation of top silt. For profile KAM61, two dating horizons were proposed which targeted one date on the high altitude peat and the second on the onset of the gravel unit above.

### **Summary description of Holocene sediment sequences in Hov and Sandoy**

Although the composition of sediment profiles varies according to local geomorphological and topographic conditions, the majority of recorded profiles from natural exposures at both Hov and Sandoy exhibit a similar sediment sequence. A generalised sequence is presented below (Figure 6.36), while an interpretation of the sequence based on the stratigraphic units, LOI data and targeted radiocarbon dates is given in chapter 7.

In general, the stratigraphic profiles illustrate four principle regional lithostratigraphic units that are ubiquitous across Sandoy and Suðuroy and indicative of a regional geomorphic trajectory. While in a few profiles a sequence forms on bedrock, the majority exhibit a basal glacial diamict unit (Unit 1) with a shallow weathering profile comprising the upper part of this unit at many profiles. An extensive unit overlying the diamict (Unit 2) is characterised by a high organic content and comprises peat or silty peats that are absent only from heavily eroded and high altitude areas above c.300 m. This organic-rich unit is overlain by a third unit, distinguished by gravels or coarse sands that are locally inconsistent in composition and thickness and are associated with destabilisation of the surface landscape. In some profiles this forms a distinct unit, and at others forms a series of laminations interspersed with finer organic silts. Lying directly over the older units, the fourth and youngest unit is an extensive, predominantly silt-rich layer, often becoming increasingly organic towards the top of the unit and which varies in thickness between profiles.

This generalised pattern characterises the majority of the recorded sediment stratigraphies, although not all profiles contain every context as described above, either because the unit did not form or because it has eroded away since formation. The stratigraphy of alluvial profiles also diverges from that described above because of their different processes of formation. The timing of development from one unit to another also differs between locations,



**Figure 6.36:** Generalised sediment sequence applicable to both Hov and north Sandoy.

which may be a result of landscape changes impacting more sensitive or unstable areas earlier.

### **Summary description of targeted transects in Hov and Sandoy**

Specific profiles were recorded along slope transects, enabling units to be traced up and down slope, and to allow comparison between the form and timing of changes at different altitudes and across altitudinal thresholds. Transects in a similar location, but with a different slope aspect or slope angle can also be compared, and again, differences in the form and timing of changes can be examined. Three transects from Suðuroy and three transects from Sandoy were described and along with other profiles are presented in Figures 6.34a-g and 6.35a-h respectively. In order that individual profiles may be understood in a wider geomorphological context, concise transect descriptions are recorded below.

*Hov: Transect 1a and 1b (KAM 1-7, 16-18)*

*Figures 6.34a and 6.34b*

Transect 1 is located on south facing slopes above Hovsfjørður and Hov *byggd* and covers a wide spectrum of morphological and vegetational detail, including semi-vegetated plateaux, relatively steep but well-vegetated slopes between *hamar*, and the cultivated Hov infields, which also encompass the distinctive box gully features previously described. Recorded profiles along the transect ranged in altitude from 4 m to 252 m. At c.250 m, profiles KAM3-5 provide an opportunity to constrain change around this altitudinal threshold and also mark a boundary between a partially eroded plateau above, and *hamar* interspersed with well-vegetated slopes below. Profiles KAM16-18 record deposition on lower altitude slopes where deep sediment has accumulated to give comparatively long sedimentary profiles composed predominantly of gravels, sands and silts. KAM16 and KAM17 specifically record the formation process of the Hov box gullies.

*Hov: Transect 2a and 2b (KAM 8-9 and 30, 10-15)*

*Figures 6.34c and 6.34d*

Transect 2 is located on the north facing slopes above Hovsfjørður, directly opposite the village of Hov on a more gentle slope, and at a lower altitude (c.10 m to 172 m) compared with Transect 1. The area across which the transect is located exhibits widespread evidence of anthropogenic impact (Zone 1 in Figure 6.26) and specific profiles along the transect directly record some of these impacts. For example, KAM9 and KAM30 are recorded from an exposure of a relic drainage ditch, which cross-cuts the slope and the base of which has been dated to  $1120 \pm 35$  yr BP (858-996 AD) (GU-11661). KAM13 was recorded from an

exposed cross-section of a *krógv*, a simple structure used for drying and storing peat, and the profile records a deep 70 cm unit of (re-deposited) peat. KAM15 is recorded from an alluvial context on a small tributary stream from which a juniper log was discovered lodged into the bank. Although the log was dated to 510-420 cal yr BP (1440-1530 AD), the context in which the juniper was lodged was considerably older, dating to 3850-4010 cal yr BP (2060-1900 BC), establishing that the log was not preserved *in situ* and has been transported down slope.

*Hov: Transect 3 (KAM 19-25)*

*Figure 6.34e*

Transect 3 is located in Hovsdalur, inland and to the west of Hov village. The transect 3 profiles record changes at higher altitudes than those of Transects 1 and 2 (between c.236 m and 320 m). KAM22-25 trace an altitudinal transect down a south east facing cirque headwall and represent localised landscape changes, particularly incidents of slope wash, which have been continuous throughout the profiles. The slopes stabilise towards the surface of the profile, as attested by the presence of the ubiquitous top silt unit. KAM19-21 are located at 236 m and record an extensive exposure cutting across most of a major fan. These profiles provide an effective cross-sectional view of the feature and a stratigraphy documenting fan development.

*Sandoy: Transect 1 (KAM 60-64)*

*Figure 6.35a*

Five profiles were recorded (four of which were dated) from the west facing slopes of Knúker in north east Sandoy, at altitudes ranging from c.146 m to 305 m. Together, this series of profiles constrains the 250 m geomorphic threshold (Humlum and Christiansen 1998a; 1998b). This transect also crosses the threshold of peat erosion in this area; while a 13cm peat deposit was recorded from KAM61 at 280 m, peat was absent from KAM60 at 305 m. The four characteristic sediment units were identified in KAM61-64 illustrating that there were no specific localised peculiarities in these profiles and allowing the sediment units to be traced down slope. The thickest surviving peat is preserved in the profiles at lower altitudes, and although the influx of gravel begins at KAM61 around 390-550 AD (at 280 m), it is not present in KAM62 (at 225 m) until later in the 7<sup>th</sup> century. All profiles in the transect are capped by a silt or clay silt unit.

*Sandoy: Transect 2 (KAM 71-73)*

*Figure 6.25b*

Transect 2 is located on slopes directly opposite that of transect 1 and records three profiles (two of which were dated) on the contrasting east facing slopes of Eiriksfall, which in surface character are more eroded, although at lower altitudes than the west facing Knúker slopes. KAM72 and 73 straddle the 250 m threshold (at 310 m and 225 m respectively), and the stratigraphy of both profiles compares with the generalised characterisation above. KAM71 was recorded from an active alluvial fan at the base of the slope and exhibits a more complex stratigraphy. Slope disturbance is dated at KAM72-73 slightly earlier than on the west facing slopes, which may be a result of the higher altitude of the profiles or because the east facing slopes are more sensitive to landscape changes. Gravel is also more abundant in the sedimentary units in the east facing slope profiles and the surface of the slope is also characterised by loose talus (refer to Figure 6.12). The profiles have stabilised recently as few clasts are visible in the uppermost silt unit.

*Sandoy: Transect 3 (KAM 65-70)*

*Figure 6.35c*

Six profiles were recorded from transect 3 (four of which were dated) and comprise both slope exposures and alluvial profiles. In addition, profile KAM66 dates an inactive alluvial fan. The six profiles cover an altitudinal range between c.162 m and 350 m. The highest altitude profile at 350 m (KAM70) mirrors the generalised profile model, and mid-Holocene peat formation overlies the diamicton and weathering sediments despite the high altitude. After around 2800 yrs BP, a clay and gravel matrix dominates the profile, corresponding to the destabilisation layer in the generalised model. The profile is capped by the silty top soil typical of profiles in the southern Faroes. Destabilisation is therefore dominant at this profile in the late Holocene.

KAM68 is a shallow profile recorded on a relatively steep slope of 24°. Despite the slope angle, a peat horizon exists, formed in the early-mid Holocene and overlying diamicton. Significant clast layers are absent but a change is recorded by the influx of more aeolian material estimated to between the late 4<sup>th</sup> and mid 6<sup>th</sup> century AD.

*Sandoy: High altitude profiles (KAM 83-86)*

*Figure 6.35h*

Profiles KAM83-86 were targeted to represent landscape change in higher altitude areas located above 250 m. Profiles were sampled from both west and east facing slopes of Vørðan in order to constrain the onset of landscape change at this altitudinal threshold. The sediment stratigraphy of the above profiles conforms to the model profile of diamicton or bedrock overlain by peat, probably having formed in the mid-late Holocene, followed by an

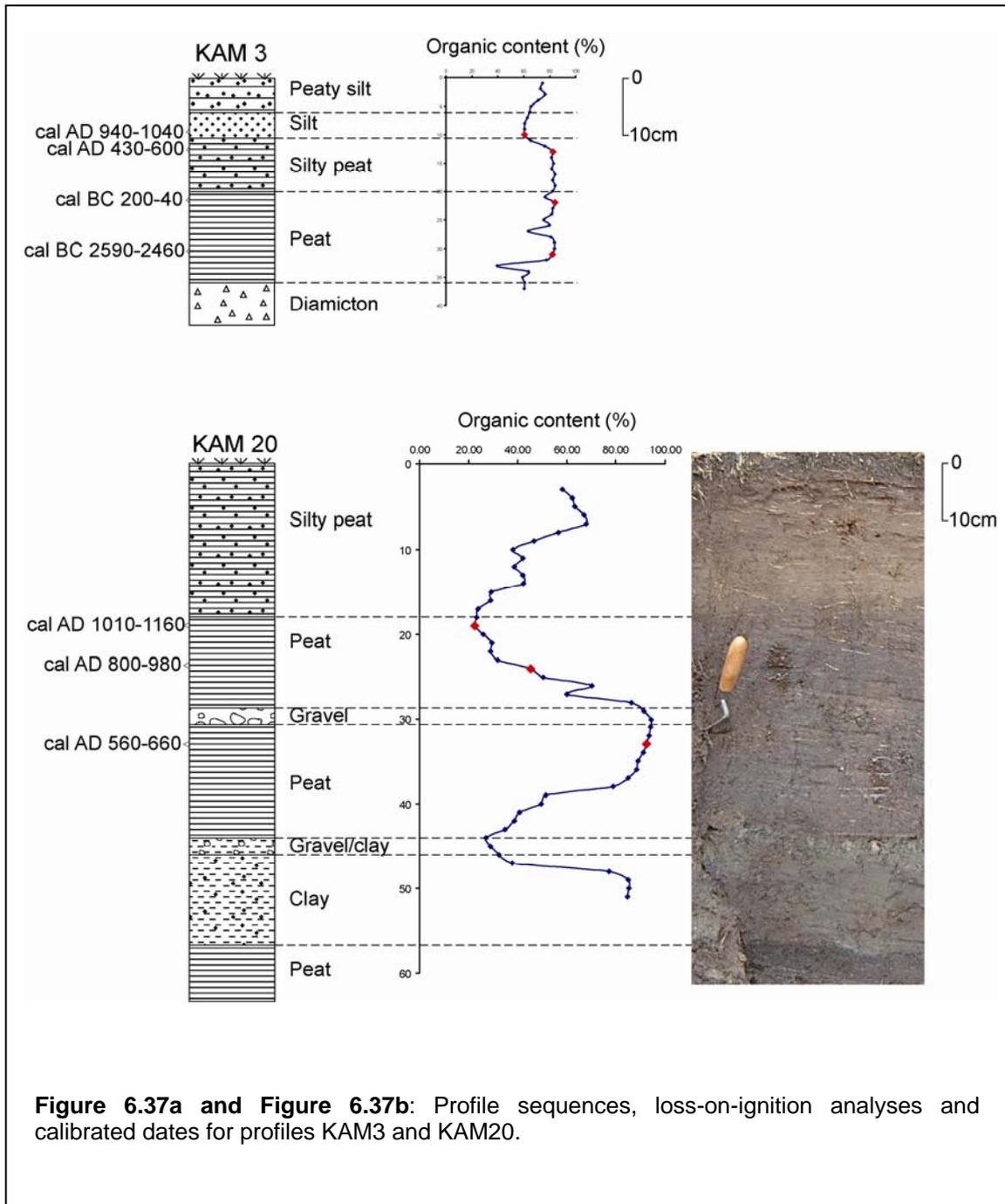
influx of clast or clay dominated sediments, with the final unit composed of a silty top soil. The profiles were sampled for dating to constrain the clast rich layer, but dating was not carried out due to timing constraints.

### **Loss-on-ignition and radiocarbon dating**

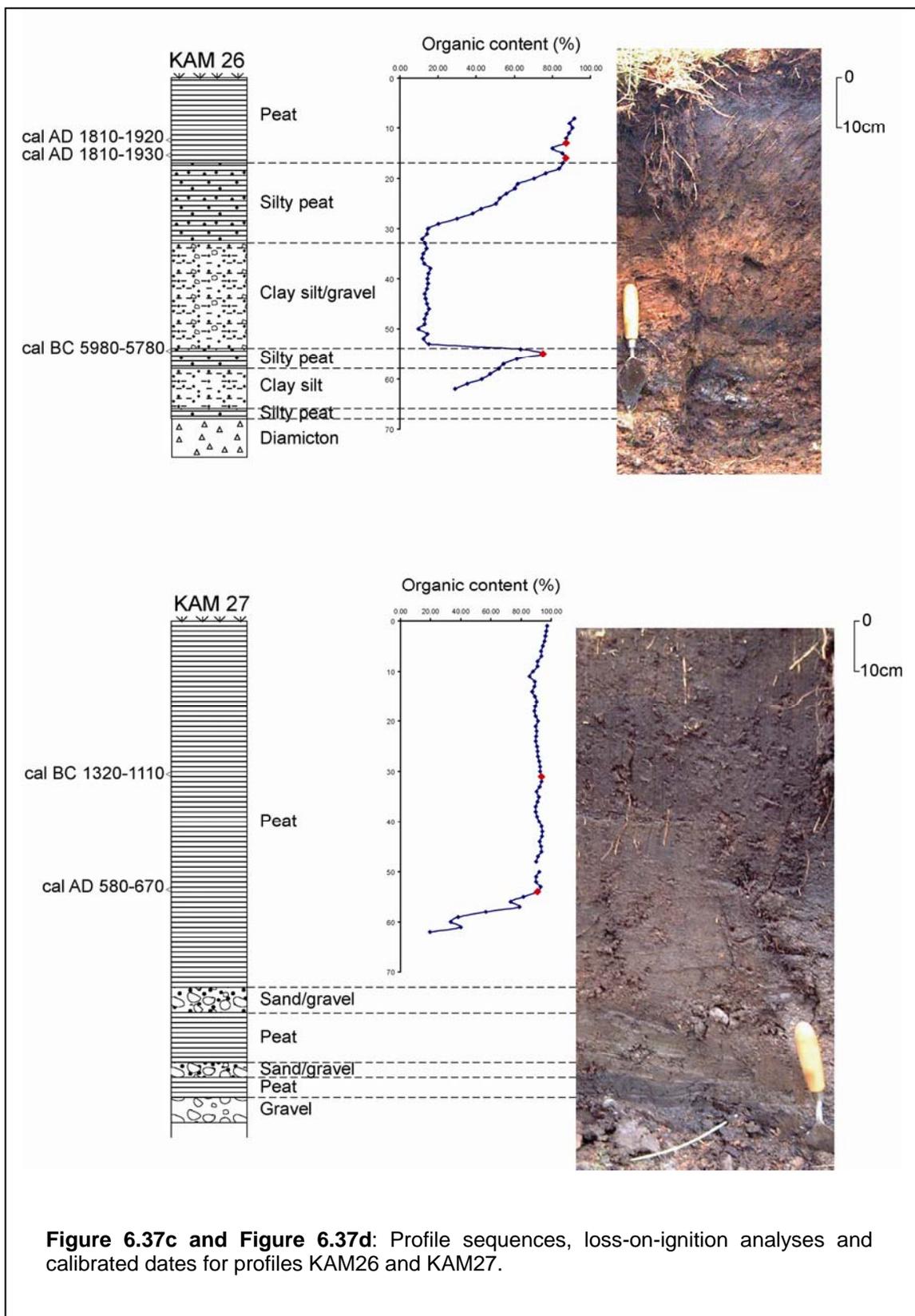
Seventeen profiles were sampled for loss-on-ignition (LOI) analyses and radiocarbon dating. Profile chronology was based on a series of accelerator mass spectrometry (AMS)  $^{14}\text{C}$  measurements on the humic (and in KAM28 the humin) acid fraction of small ( $1\text{ cm}^3$ ) samples. AMS samples were processed and measured at the SUERC Radiocarbon Laboratory in East Kilbride and calibration of  $^{14}\text{C}$  estimates was performed using Calib 5.0.2 (Stuiver *et al* 2005). The LOI profiles illustrate the percentage of organic content in each  $1\text{ cm}^3$  sample and give a more precise indication of changes in organic content in an individual profile than the stratigraphic descriptions. The LOI profiles are grouped into transects with each profile illustrated alongside the stratigraphic sequences recorded in the field. Stratigraphies, LOI data and calibrated dates for profiles from Hov are illustrated by Figures 6.37a-f and those from Sandoy are illustrated by Figures 6.38a-l. A comprehensive table detailing all calibrated and uncalibrated (BP and BC/AD) dates and errors from the study are presented in Tables 6.7 (Hov) and 6.8 (Sandoy).

### **Review of original Icelandic data**

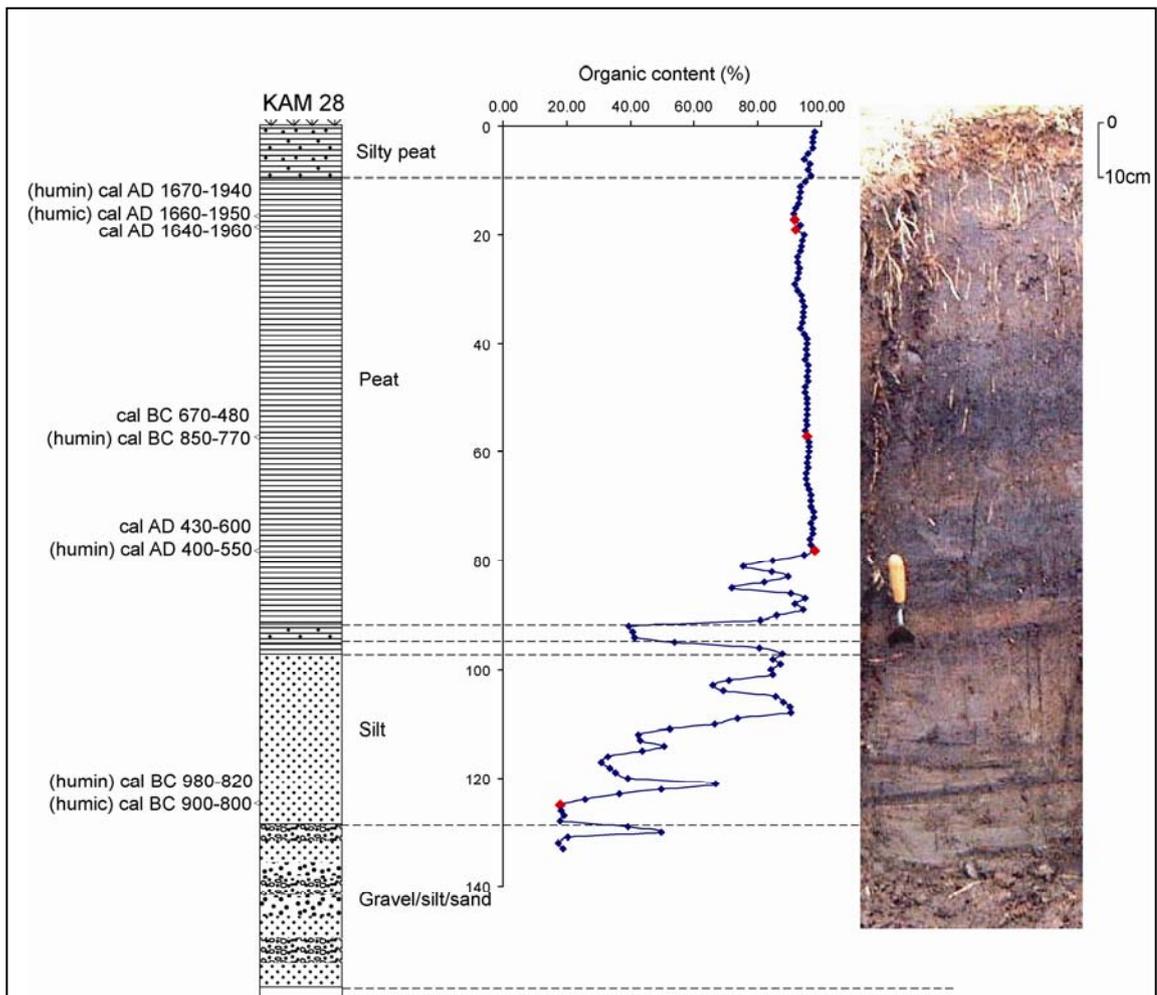
Original sediment accumulation rate (SAR) data was also collected from Iceland and is used to discuss comparisons of landscape history and degradation between the Faroes and Iceland in chapter 8. The discussion and interpretations are based on a total of 135 sediment profiles within the Eyjafjallahreppur and Mýrdalshreppur regions, 61 of which were recorded over the period of an MSc thesis and 37 which were recorded over the course of the PhD thesis research. The profiles incorporate over 1100 tephras and over 700 dated tephras over 8 landholdings in Eyjafjallahreppur and 2 landholdings in Mýrdalshreppur. A summary of the SAR data is presented in Appendix D.



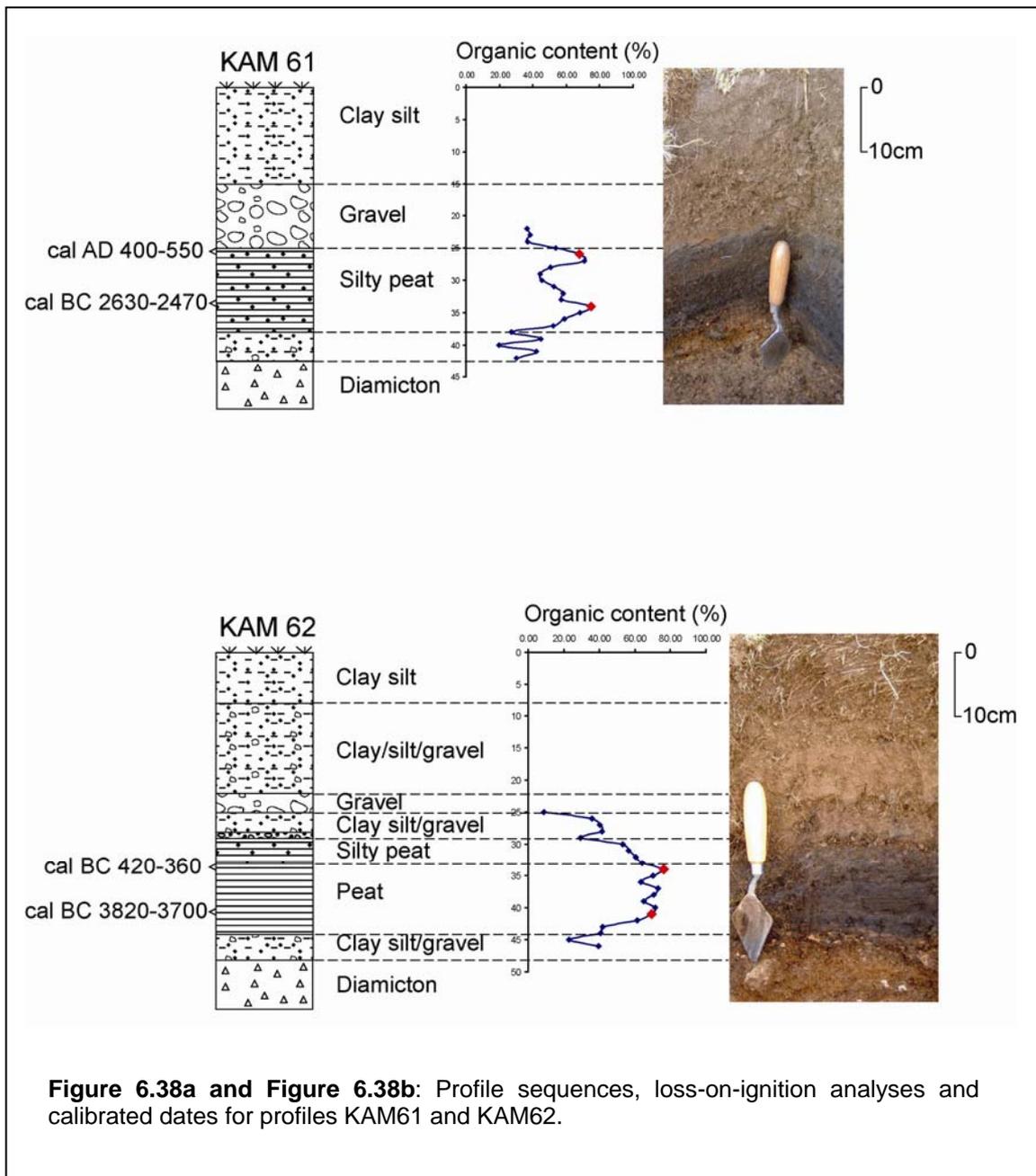
**Figure 6.37a and Figure 6.37b:** Profile sequences, loss-on-ignition analyses and calibrated dates for profiles KAM3 and KAM20.



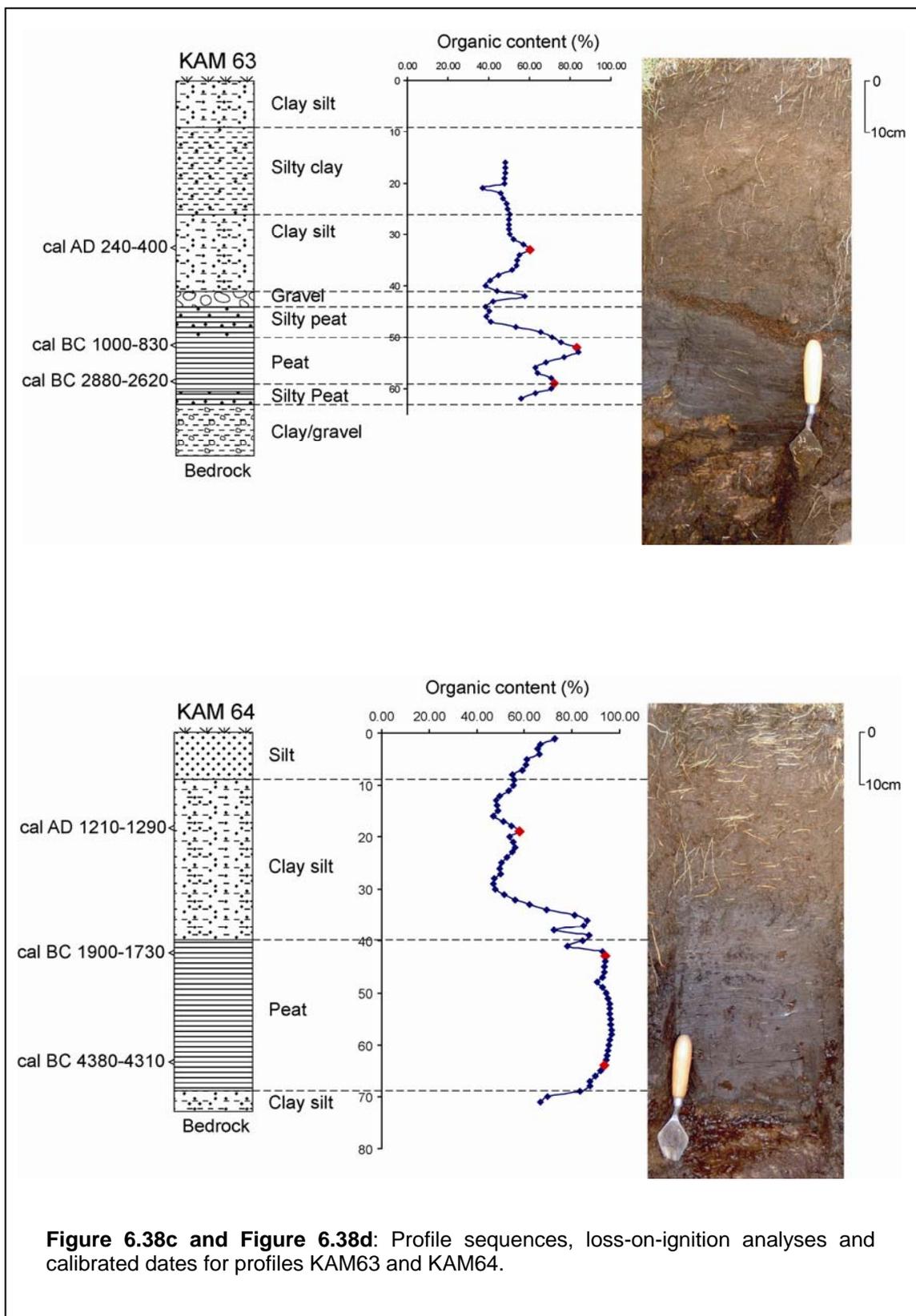
**Figure 6.37c and Figure 6.37d:** Profile sequences, loss-on-ignition analyses and calibrated dates for profiles KAM26 and KAM27.



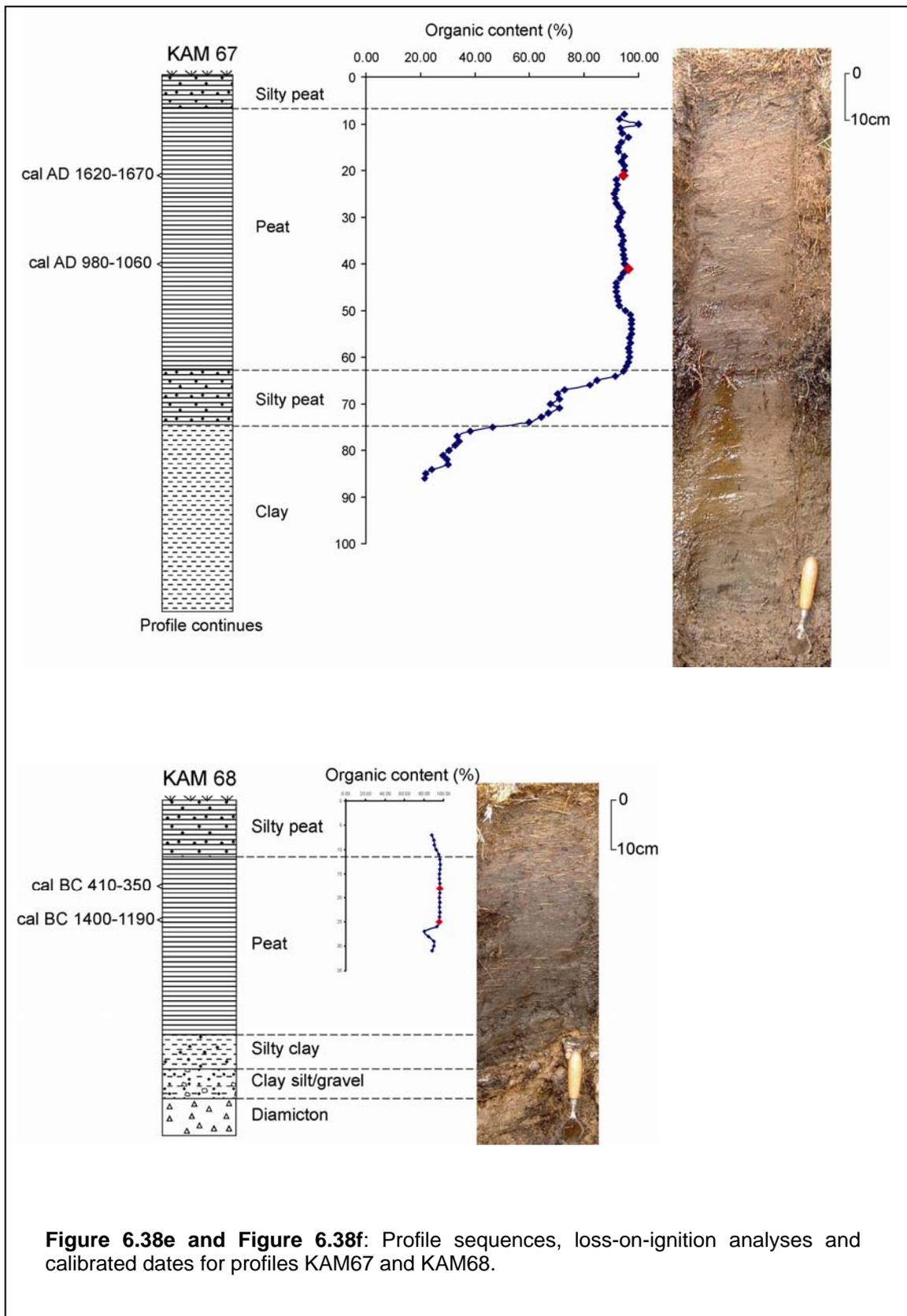
**Figure 6.37e:** Profile sequence, loss-on-ignition analysis and calibrated dates for profile KAM28.



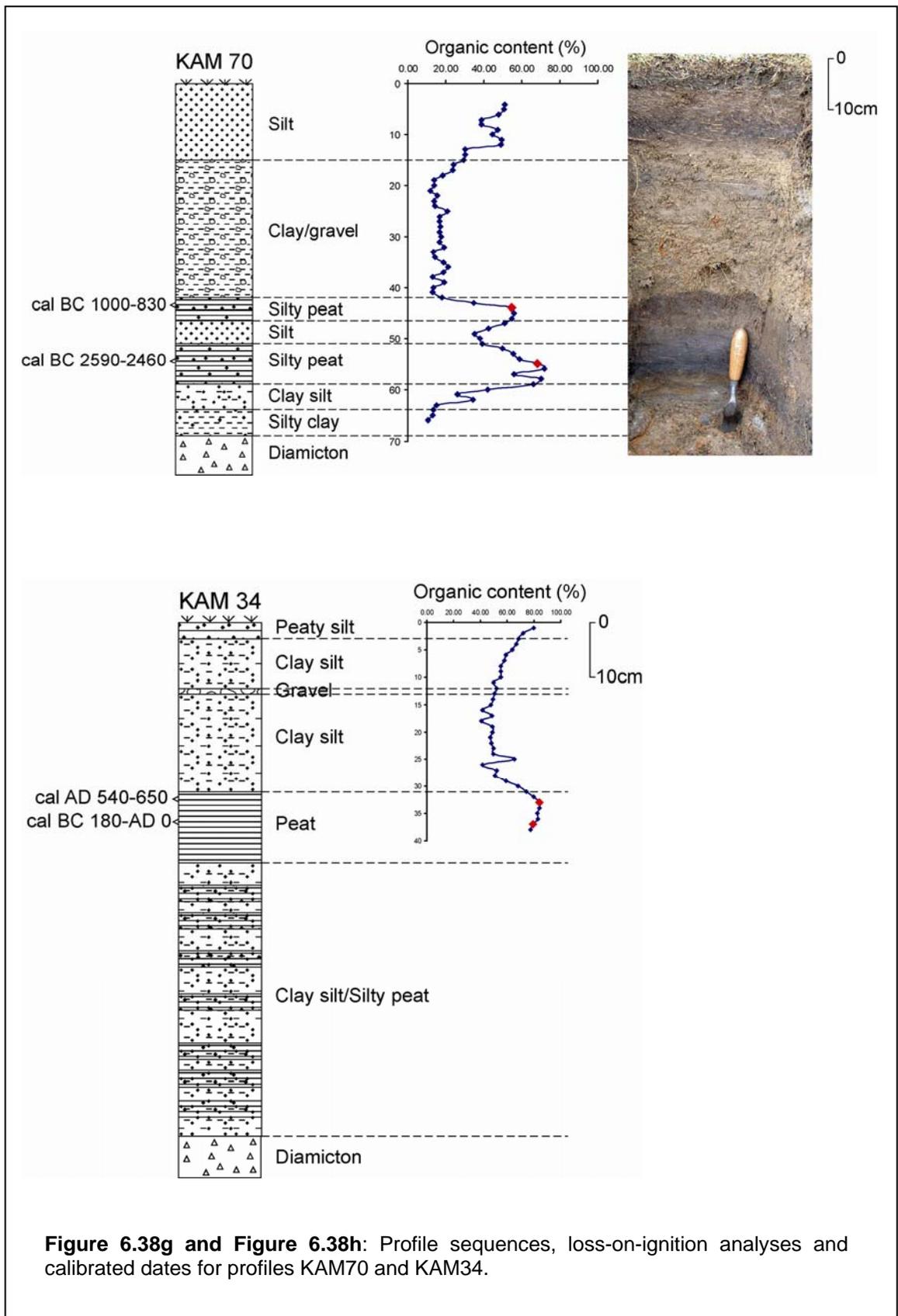
**Figure 6.38a and Figure 6.38b:** Profile sequences, loss-on-ignition analyses and calibrated dates for profiles KAM61 and KAM62.

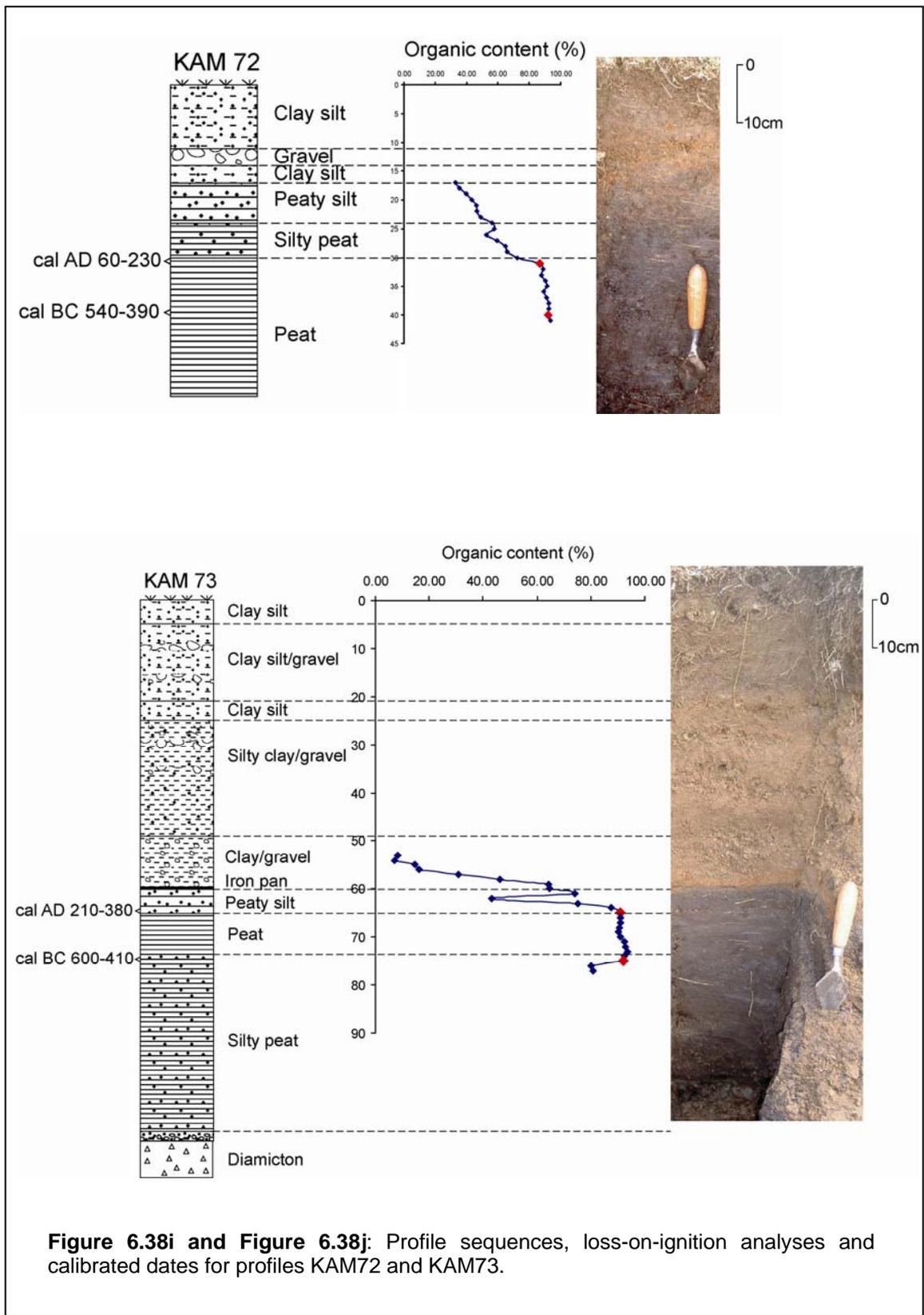


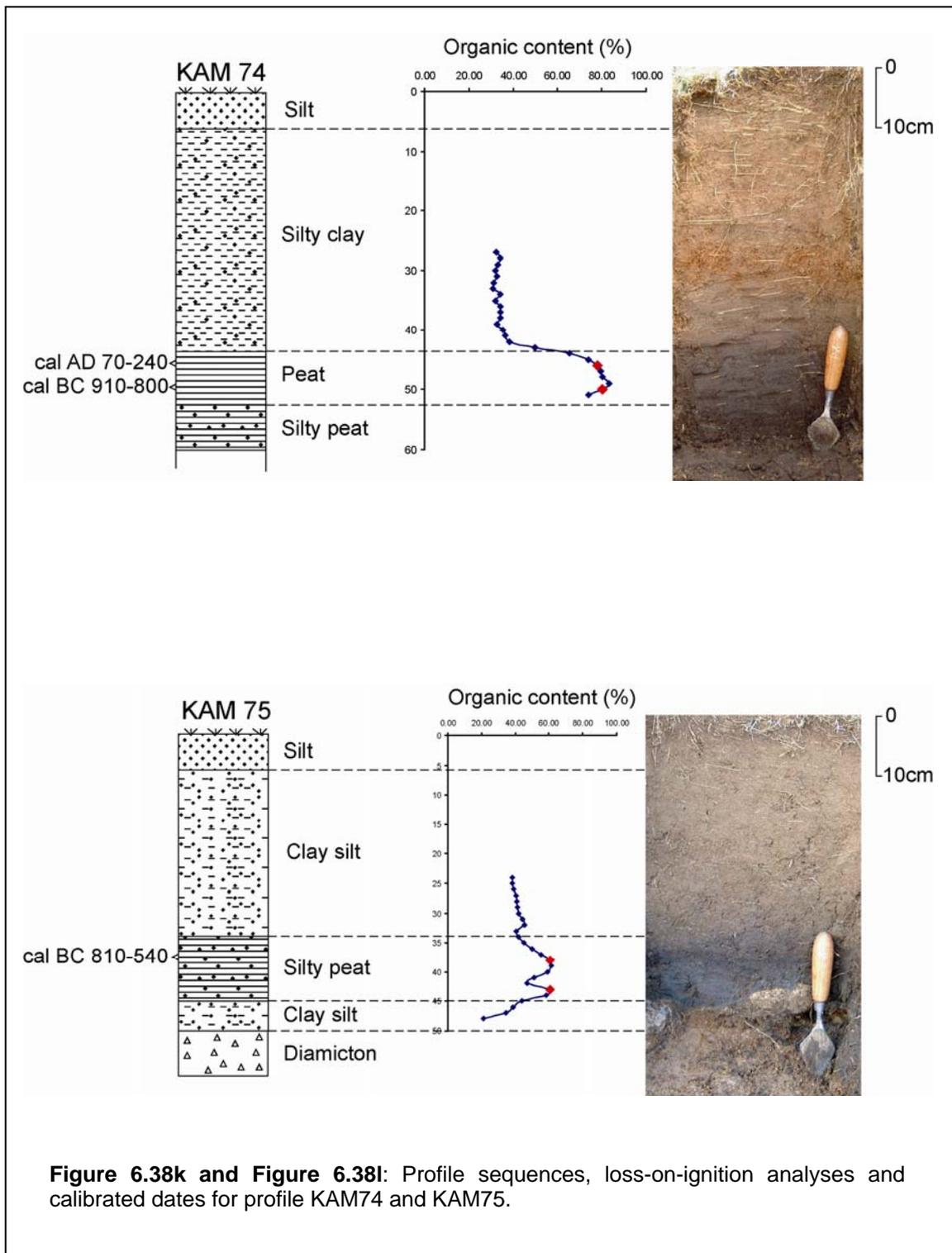
**Figure 6.38c and Figure 6.38d:** Profile sequences, loss-on-ignition analyses and calibrated dates for profiles KAM63 and KAM64.



**Figure 6.38e and Figure 6.38f:** Profile sequences, loss-on-ignition analyses and calibrated dates for profiles KAM67 and KAM68.







Site and <sup>14</sup> C Lab no.	Depth (cm)	<sup>14</sup> C age (year BP)	Calibrated dates (2σ)	Highest probability	Δ <sup>13</sup> C
<b>KAM3</b>					
GU-13768	9-10	1040±35	cal BP 911-1014 (cal AD 940-1040)	0.896	-28.9
GU-12094	12-13	1540±35	cal BP 1520-1360 (cal AD 430-600)	1.000	-28.5
GU-12095	21-22	2090±35	cal BP 2150-1990 (cal BC 200-40)	0.982	-28.1
GU-12096	30-31	3995±35	cal BP 4530-4410 (cal BC 2590-2460)	0.984	-28.0
<b>KAM9</b>					
GU-11661	24-25	1120±35	cal BP 950-1090 (cal AD 858-996)	0.939	-28.1
<b>KAM13</b>					
GU-12097	51-52	3225±35	cal BP 3370-3490 (cal BC 1540-1420)	0.900	-28.9
GU-12098	72-72	1115±35	cal BP 930-1090 (cal AD 860-1020)	0.976	-28.9
GU-12099	95-96	3125±35	cal BP 3260-3409 (cal BC 1460-1311)	0.966	-28.5
<b>KAM15</b>					
GU-11662	[ <i>Juniperus</i> log]	380±35	cal BP 510-420 (cal AD 1440-1530)	0.612	-25.2
GU-13769	46-47	2625±35	cal BP 3260-3410 (cal BC 1460-1310)	0.966	-28.6
GU-13770	71-72	3635±35	cal BP 3850-4010 (cal BC 2060-1900)	0.846	-28.8
<b>KAM20</b>					
GU-12100	28-29	970±35	cal BP 940-790 (cal AD 1010-1160)	0.995	-28.6
GU-12101	35-36	1150±35	cal BP 1150-970 (cal AD 800-980)	0.946	-28.2
GU-12102	49-50	1440±35	cal BP 1390-1290 (cal AD 560-660)	1.000	-27.7
<b>KAM26</b>					
GU-12103	12-13	55±35	cal BP 30-140 (cal AD 1810-1920)	0.726	-29.1
GU-12104	15-16	65±35	cal BP 30-140 (cal AD 1810-1930)	0.725	-29.3
GU-12105	54-55	6995±40	cal BP 7730-7930 (cal BC 5980-5780)	1.000	-28.3
<b>KAM27</b>					
GU-12106	30-31	2980±35	cal BP 3060-3270 (cal BC 1320-1110)	0.946	-28.3
GU-12107	53-54	1410±35	cal BP 1280-1370 (cal AD 580-670)	1.000	-28.4
<b>KAM28</b>					
GU-12090	[ <i>Juniperus</i> fragment]	2395±35	cal BP 2340-2500 (cal BC 550-390)	0.876	-26.9
GU-13771	16-17	140±35	cal BP 169-281 (cal AD 1669-1781)	0.450	-28.0
GU-13772	16-17 (humin)	125±35	cal BP 53-151 (cal AD 1799-1814)	0.450	-28.0
GU-12091	18-19	190±35	cal BP 136-244 (cal AD 1726-1814)	0.539	-29.0
GU-12092	57-58	2470±35	cal BP 2430-2620 (cal BC 670-480)	0.605	-28.4
GU-13773	57-58(humin)	2635±35	cal BP 2720-2800 (cal BC 850-770)	0.959	-28.1
GU-12093	78-79	1540±35	cal BP 1360-1520 (cal AD 430-600)	1.000	-28.4
GU-13774	78-79 (humin)	1595±35	cal BP 1400-1550 (cal AD 400-550)	1.000	-26.6
GU-13775	124-125	2755±35	cal BP 2770-2930 (cal BC 980-820)	0.981	-27.8
GU-13776	124-125 (humin)	2665±35	cal BP 2740-2850 (cal BC 900-800)	1.000	-27.7

**Table 6.7:** AMS radiocarbon uncalibrated and calibrated dates obtained from Hov samples. Unless otherwise stated, sample type was 1 cc of wet peat. Humic fractions were dated unless otherwise stated. Calibration to calendar years were performed using Calib 5.0.2 (Stuiver *et al* 2005) using the highest probability value with dates rounded to the nearest ten years. The location of the individual dates within the soil profiles is illustrated by the loss-on-ignition data for sampled profiles (Figure 6.37a-e).

Site and <sup>14</sup> C Lab no.	Depth (cm)	<sup>14</sup> C age (year BP)	Calibrated dates (2σ)	Highest probability	Δ <sup>13</sup> C
<b>KAM34</b>					
GU-13802	32-33	1475±35	cal BP 1300-1410 (cal AD 540-650)	1.000	-28.0
GU-13803	36-37	2070±35	cal BP 1950-2130 (cal BC 180-AD 0)	1.000	-28.6
<b>KAM61</b>					
GU-13778	25-26	1595±35	cal BP 1400-1550 (cal AD 400-550)	1.000	-28.0
GU-13779	33-34	4025±35	cal BP 4420-4580 (cal BC 2630-2470)	0.989	-28.0
<b>KAM62</b>					
GU-13780	33-34	2325±35	cal BP 2310-2370 (cal BC 420-360)	0.811	-27.8
GU-13781	40-41	5000±35	cal BP 5650-5770 (cal BC 3820-3700)	0.714	-27.1
<b>KAM63</b>					
GU-13782	32-33	1720±35	cal BP 1550-1710 (cal AD 240-400)	1.000	-28.9
GU-13783	51-52	2760±35	cal BP 2780-2950 (cal BC 1000-830)	1.000	-27.7
GU-13784	58-59	4160±40	cal BP 4570-4830 (cal BC 2880-2620)	1.000	-28.1
<b>KAM64</b>					
GU-13785	18-19	775±35	cal BP 670-740 (cal AD 1210-1290)	0.992	-29.1
GU-13786	42-43	3485±35	cal BP 3680-3850 (cal BC 1900-1730)	0.963	-28.4
GU-13787	63-64	5490±35	cal BP 6260-6320 (cal BC 4380-4310)	0.692	-28.2
<b>KAM67</b>					
GU-13792	21-22	270±35	cal BP 280-340 (cal AD 1620-1670)	0.433	-29.0
GU-13793	40-41	995±35	cal BP 890-970 (cal AD 980-1060)	0.618	-28.6
<b>KAM68</b>					
GU-13794	17-18	2290±35	cal BP 2300-2350 (cal BC 410-350)	0.612	-28.1
GU-13795	24-25	3025±35	cal BP 3140-3350 (cal BC 1400-1190)	0.963	-27.8
<b>KAM70</b>					
GU-13796	43-44	2760±35	cal BP 2780-2950 (cal BC 1000-830)	1.000	-28.0
GU-13797	54-55	4000±35	cal BP 4410-4530 (cal BC 2590-2460)	0.979	-27.7
<b>KAM 72</b>					
GU-13788	30-31	1880±35	cal BP 1720-1890 (cal AD 60-230)	1.000	-28.2
GU-13789	39-40	2385±35	cal BP 2340-2490 (cal BC 540-390)	0.915	-27.8
<b>KAM73</b>					
GU-13790	64-65	1760±35	cal BP 1570-1740 (cal AD 210-380)	0.932	-28.1
GU-13791	74-74	2450±35	cal BP 2358-2550 (cal BC 600-410)	0.599	-27.6
<b>KAM74</b>					
GU-13798	45-46	1860±35	cal BP 1710-1880 (cal AD 80-240)	1.000	-28.5
GU-13799	49-50	2695±35	cal BP 2750-2860 (cal BC 910-800)	1.000	-28.2
<b>KAM75</b>					
GU-13800	37-38	2550±35	cal BP 2680-2750 (cal BC 800-730)	0.463	-28.0
GU-13801	42-43	Failed			

**Table 6.8:** AMS radiocarbon uncalibrated and calibrated dates obtained from Sandoy samples. Sample type was 1 cc of wet peat and humic fractions were dated. Calibration to calendar years were performed using Calib 5.0.2 (Stuiver *et al* 2005) using the highest probability value with dates rounded to the nearest ten years. The location of the individual dates within the soil profiles is illustrated by the loss-on-ignition data for sampled profiles (Figure 6.38a-6.38l).

### **Chapter summary**

This chapter has presented data collected for the thesis including spatial mapping data of landscape units, geomorphic features and land cover classifications, mapping and description of archaeological structures in the Faroese outfields, thematically arranged data from in-depth interviews, descriptions of the stratigraphic data and details of loss-on-ignition analyses and radiocarbon dating of the sediment profiles. Although the data is separated here according to its methodological collection, the interpretation and discussion of results is conducted around specific topics in chapters 7 and 8, where data from several of the sources are incorporated, along with additional climatic, palaeoecological and archaeological data.

The following chapter discusses the extent and causal mechanisms of human impact in the Faroe Islands, according to a combined understanding of the data analysed above.