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Survey and excavations investigating shieling and other upland practices in Gleann Leac-na-Muidhe, Glencoe

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ABSTRACT

Recent investigations in Gleann Leac-na-Muidhe, Glencoe, have provided an insight into the practising of transhumance and related industries in these uplands in the post-medieval period. Survey has identified a number of new features within this landscape, allowing us to build a nuanced picture of how this landscape was being used and managed for both grazing and fuel. The interaction of the chiefly settlement of Gleann Leac-na-Muidhe with the associated shieling grounds provides an opportunity to explore the expression of power and protection by local elites upon the upland landscape during periods of civil strife. Excavations carried out within the glen provide an insight into some of the practices associated with these structures, from the domestic rituals of daily life to acts of resistance, including illicit whisky stilling, through which the exercise of social and economic control of the uplands can be read.

INTRODUCTION

Gleann Leac-na-Muidhe, sitting within the mountainous portion of the parish of Lismore and Appin, represents an opportunity to better understand the connectivity and busyness of the upland landscapes of Argyll and the Western Highlands. This glacial valley is a tributary of Glencoe stretching from Achnacon in the north, southwards to where it rises to passes which connect into Glen Etive, Glen Creran and Gleann an Fhiodh (Illus 1). This area represents one of the few extensive areas of upland west of the Pass of Glencoe and thus is critical to understanding the management of upland resources in this area. The settlements of Glencoe have received increasing attention, with survey and excavations at Achnacon and Achtriochtan carried out by the National Trust for Scotland (NTS), building on earlier work around An Torr (Scotia Archaeology 1994; Alexander 2017, 2020: 124). However, the nature of the Gleann Leac-na-Muidhe settlement, recorded as a summer town of the chiefs of the MacDonalds of Glencoe, and of the nearby shieling grounds is unique as an opportunity to explore the expression of chiefly power into the uplands in the early modern period (Gordon 1935: 207).

Little work has been done to understand Glencoe's upland environments in the post-medieval period. Prior to this programme of survey and excavations the only fieldwork to have been conducted in Gleann Leac-na-Muidhe was that carried out as a heritage management exercise by the NTS in the 1990s (Harden & Wordsworth 1996). This left an entire side of the glen, which lay in private ownership, unsurveyed and a body of survey evidence in need of synthesis. The

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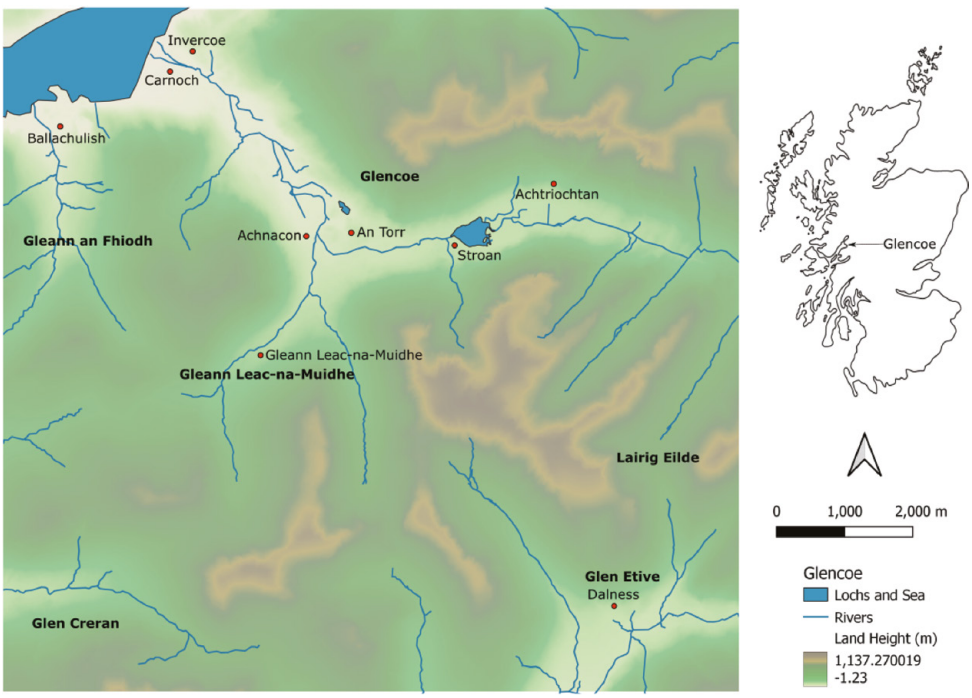
results of recent research into this upland landscape, which explored the seasonal uses of these uplands, are discussed here.

The importance of Gleann Leac-na-Muidhe as a study area lies in the relationship between the settlement site on the eastern side of the glen and the shieling grounds, to the west and south of this. The siting of a seasonal residence of the chief of the MacDonalds of Glencoe within this upland landscape speaks to the importance of cattle during this period and provides an important opportunity for exploring how local elites extended their power to the uplands (Gordon 1935: 207). It is possible to chart how these resources in the uplands, including grazings, peat cutting and charcoal production, were managed within this landscape and to read changes in the management of these resources over the course of the 17th to 19th centuries. This landscape can also shed light on the management of upland grazing landscapes distant from their associated townships across the Highlands during this period. For the purpose of this article the anglicised Scots term 'shieling' will be used rather than the 'àirighean' of the Gàidhealtachd, as this is most commonly used in the study of these practices. Similarly, the use of 'chief' and 'chiefly' relates to the hereditary title of the Highland clan's patriarchal leader, rather than to models of societal complexity and power structures (Furholt et al 2020).

HISTORICAL BACKGROUND

Glencoe has, since the birth of Highland tourism in the 18th century, been dominated by the legacies of the infamous massacre that occurred there in 1692 (Prebble 1973; Hopkins 2001). This occurred in retaliation for the MacDonalds of Glencoe's late submission to the Hanoverian Crown, and its government in Scotland, which during this period was seeking to establish greater control over the Gàidhealtachd (Prebble 1973; Hopkins 2001). From the late 19th century

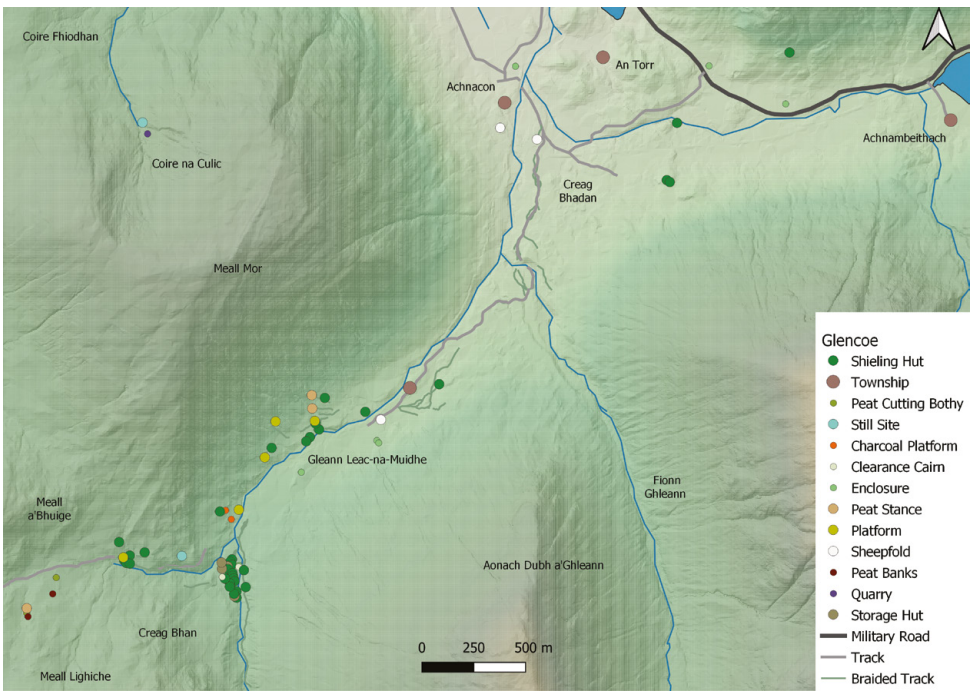


Illus 1 Location map showing the context of the study areas and the main sites mentioned in text. (Background: EDINA Digimap)

the development of modern mountaineering also impacted perceptions of this landscape. Until recently, few archaeological interventions had occurred within this landscape to understand life here in the centuries before and after the massacre, and interest in the archaeology of the area's uplands had been even further limited.

Around Glencoe a number of place-names may relate to the traditions of taking livestock to the summer shielings, and the activities associated with that movement (Illus 2). Gleann Leac-na-Muidhe has been translated as 'glen of the slab of the milk churn', and the nearby Coire Fhiodhan as 'corrie of the cheese vat'. These upland areas with dairy-related place-names suggest the importance of dairy products to the economy of this area, as a product to be sold at market, for subsistence and as part of rents paid in kind (Ordnance Survey 1878: 21; Bil 1990: 52). It is known that at least until the latter part of the 18th century the fringes of Rannoch Moor were the primary shieling grounds for the villages of Carnoch and it is likely that the other townships of the glen also held grazing rights to this extensive area of rough grazings, as it is known numerous townships in western Perthshire had similar rights (MacInnes 1958; Bil 1990: 75, 88, 148). From place-name evidence, accounts such as those recorded in the Old and New Statistical Accounts, and stock records, it is clear that mixed herds of cattle, sheep and particularly goats were common in the mountainous areas of Glencoe, Glen Etive and Rannoch (McGregor 1845: 234; Ordnance Survey 1878; Dodgshon 1998: 20).

One key theme of the historical sources is the association of the pre-clearance township site on the eastern side of Gleann Leac-na-Muidhe with MacIain, the MacDonald chief from 1646 to 1692. It is known that MacIain's main residence was at Polveig, the 'wintertown' to Gleann Leac-na-Muidhe, the 'summertown' (Donaldson 1923: 303; Gordon 1935; Miers 2008: 62; McDonald 2012: 67). This chiefly dwelling site dates back in record to 1610, when a party of Stewarts



ILLUS 2 A map of the features surveyed in Gleann Leac-na-Muidhe within their landscape context. Place-names referenced in the text are shown. (Background: EDINA Digimap)

killed John Og, grandfather to MacIain, at these shielings in a dispute over lands in the north of Rannoch, a vast area of upland bog to the east of Glencoe (McDonald 2012: 27).

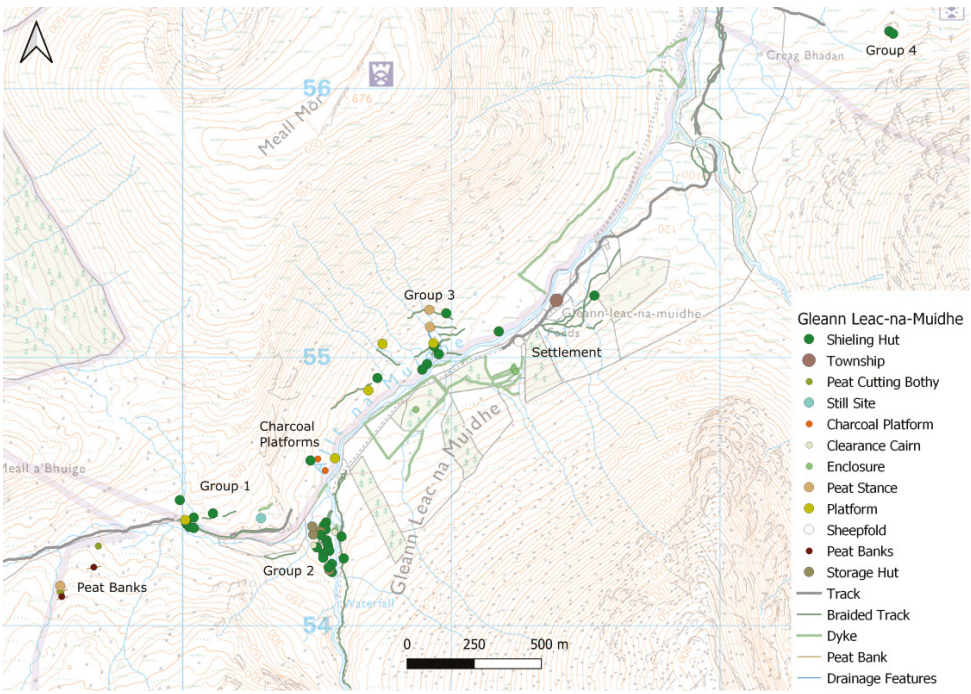
Little is then known archaeologically about Gleann Leac-na-Muidhe in the post-medieval period, or indeed any other period, beyond what can be gained from the place-name and archaeological evidence (Gordon 1935: 207; Harden & Wordsworth 1996).

THE BUSY UPLANDS IN GLEANN LEAC-NA-MUIDHE

The following section explores the results of recent fieldwork carried out within Gleann Leac-na-Muidhe over the course of 2021 and 2022, which built on the earlier surveys of Harden & Wordsworth (1996). Walkover survey was carried out by a team of three surveyors over ten days, walking in transects separated by roughly 10 metres as the terrain allowed. This survey covered the south-eastern slopes of Meall Mòr, around the headwaters of the glen around Meall a' Bhuige, and around Creag Bhadan, overlapping with the surveys carried out previously. The slopes north of Creag Bhàn and west of Aonach Dubh a' Ghleann were surveyed for the first time as part of this fieldwork, as too was the area around Leacann na Bo Cairtidh, 'the hillside of the swarthy cow'. Further to this, a cluster of shieling huts and associated features was targeted for further investigation through excavation.

SURVEY

Of the features identified from this survey, four clusters of shieling huts and associated enriched grazings can be identified (Groups 1–4, as shown in Illus 3). These fit well with previous classifications of 'shieling hut' types (Miller 1967; Raven 2012; Dixon 2018: 97; Costello 2020a). The highest of these (Group 1) is a cluster of small hut



ILLUS 3 A Map of Gleann Leac-na-Muidhe showing the features recorded by this survey; these groups are used to discuss feature locations in the following section. (Background: EDINA Digimap)

structures lining the burns flowing from between Meall Mòr and Meall a' Bhuige at a height of around 250–300 metres above sea level (Illus 4). Of these, one was constructed against a large glacial erratic boulder, with low turf and stone sub-rectangular walls surviving, measuring about 3m × 1.5m internally. The other five shieling huts were similar in size and form to each other, circular with clear turf walls sitting atop small mounds, approximately 1.5–2m in internal diameter (Harden & Wordsworth 1996). These smaller shieling structures, sited significantly higher than the other shieling clusters within this glen, may represent shelters where trips could be made to oversee the non-milking cattle and or livestock better suited to these upper slopes and which would have required less direct supervision from their herders. Evidence for the grazing of goats in such upland pastures can be seen in the place-names Creag nan Gobhar or 'rock of the goats' in Glencoe, Meall nan Gobhar or 'hill of the goats' in Glen Etive, and Creagan nam Meann or 'rock of the kid' and Gortan nan Gabhar or 'enclosure of the goat' on Rannoch Moor (Ordnance Survey 1877; 1878; Smout 1965). This is certainly the interpretation suggested for similar structures by Eugene Costello (2020a: 96) in his studies of similar practices in Ireland, that these smaller hut types represent a less intense type of herding as well as being used as bases to gather resources available in these upland landscapes. The practice of settlements holding multiple shieling groups either for use with different livestock or for exploiting different grazings at different points in the season, sometimes at great distance, is discussed by Albert Bil in the case of Perthshire, particularly around Rannoch (Bil 1990: 149). It has been observed that similar shieling groups sited near estate boundaries may have served a purpose of seasonally reaffirming and demarking the land boundaries, such as the headwater area near these shielings that marks the boundary of the lands of the MacDonalds of Glencoe, and branches of the Appin Stewarts (Campbell

Illus 4 A photograph of the upper shieling cluster below Meall a' Bhuige. The locations of these small circular shelters, of which three are visible, are marked by patches of greener grass (and arrows) on the spurs along the right (west) side of this unnamed burn. Another shelter structure is visible beside the outcrop of boulders to the left of the image. The author standing to the right of the image provides a sense of scale. (Photograph by Scott McCreadie, March 2021)

1749; Bil 1990: 73–7). These shielings may have served the function of collecting straying livestock in places where the topography did not provide a natural boundary, such as passes. After the decline of these practices it seems that hunting camps and keepers' lodges may have served a similar function, actively occupying these uplands being a way of staking claim and maintaining property boundaries.

Beyond these huts, in an area of peat bog lying between Meall a' Bhuige, Meall Lighiche and Creag Bhàn, two peat cuttings were identified along with two peat cutters' bothies, surviving as short turf walls, and a platform which likely represents a peat stance (McGregor 1845: 256). These are unlikely to represent shielings, as the surrounding area is an acidic bog with very minimal nutritious pasture available and treacherous mires surrounding the headwaters of the burn. Although in terms of grazing potential this area of the landscape was likely of little value, the presence of a number of plant species traditionally exploited for textile production may have granted this area of the upland additional value. Bog cotton, which may have been harvested for spinning to create garments, can be found across this area of the landscape (Boak 2020). One of the nearby hills, upon whose lower slopes these features are sited, is called Meall Lighiche, which may be translated as the 'hill of the healer', and it could be suggested that these upland slopes were visited to gather plant materials with perceived medicinal qualities, including sundew, bog cotton, bog myrtle and sphagnum moss (Ordnance Survey 1877, 1878; Beith 1995: 206–7, 243). These slopes and the peat resources lying below are connected to the nearby shielings, which lie at a slightly lower point in the glen, and the main floor of the valley by a track which is cut into the hillside and slightly built up, crossing the bog, similar to those seen at Ben Lawers and in the Ochils (Atkinson et al 1998; Boyle 2003; Atkinson 2016; Given et al 2018). It seems likely that this is one of the routes those fleeing the 1692 massacre made for to reach the safety of Appin, only to be caught in winter storms at this higher pass (Hopkins 2001: 337–8).

Below these upper clusters of activity, two distinct clusters of shieling huts can be identified, one (Group 3) around the burns flowing from Meall Mòr into the Allt na Muidhe, and another (Group 2) around the Allt na Muidhe below Creag Bhàn.

The cluster below Creag Bhàn (Group 2) is the larger of these, featuring 12 shieling hut structures ranging from sub-rectangular to circular in form, with substantial stone foundations visible as well as four associated storage or dairy huts (Illus 5). The existence of such ancillary storage huts has been explored in attempts to clarify the morphologies of shieling clusters by Eugene Costello (2016: 92) in Ireland, and in Scotland by Ronald Miller (1967: 208), John Raven (2012: 116) and Piers Dixon (2018: 65), and recently an example was excavated by the author (Given et al: 2022). Two clearance cairns identified within this cluster suggest attempts were made to actively improve this grazing area, which sits across a series of paleochannels around the Allt na Muidhe burn. A small enclosure set against one of these paleochannel banks probably represents a place for the gathering of cattle that have strayed from another community's grazings. Similar features can be seen south-west of Beinn Tighe on Canna (Canmore ID 142433), and beside the Bynack Burn at Mar Lodge Estate (NGR: NG 25053 05938), usually associated with grazing boundaries such as river channels or march dykes.

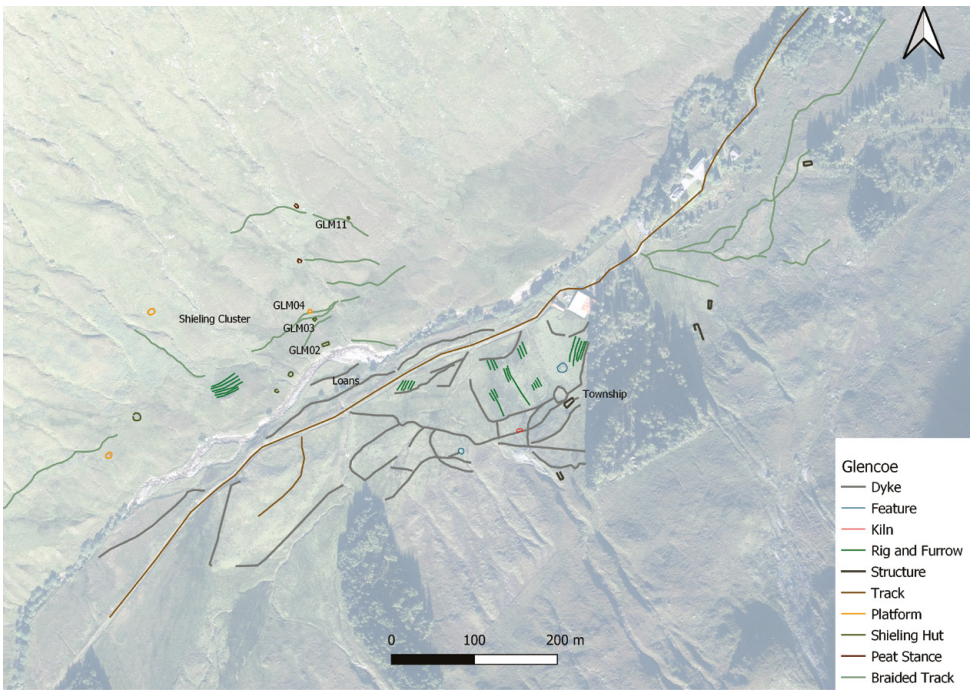
The cluster below Meall Mòr (Group 3) includes seven shieling huts, three platforms and two possible peat stances which sit aligned to tracks running towards the peat cutting banks. It has been argued that similar peat stances and trackways at Ben Lawers served as means by which the men at the townships would have a regular presence within the uplands, able to visit or call upon the community at the shielings during the work of peat cutting, drying and transporting (Atkinson 2016; Costello 2018: 176). In the centre of this cluster a small unenclosed area of rig and furrow may represent the occasional use of these enriched shieling soils for corn, perhaps during periods of food shortage (Miller 1967: 200–1; Dodgshon 2015: 124). An

Illus 5 A photograph of the cluster below Creag Bhàn. The shieling and storage huts are visible as dark patches of rushes sited along the paleochannels. (Photograph by Edward Stewart, November 2021)

enclosure and system of loan dykes, shown in Illus 6, sit above the obvious fording point in the glen, and may have been used for the marshalling of cattle at this junction where cattle could be divided between these shielings and those below Creag Bhàn during flitting. These loan dykes provide enclosed routes to and from the shieling grounds, as well as enclosures for the division of herds, while protecting the cultivation at the settlement site from grazing cattle (Atkinson 2016; Aldred 2020). That the summer dwelling of the chief overlooked this important juncture point may suggest the necessity of the presence of the chief, or a representative, to tackle disputes around livestock ownership, grazing rights and shieling boundaries, as shown in Illus 6.

To the south-west of these, two charcoal-burning mounds were identified from the previous survey on a spur above the Allt na Muidhe, as well as a hut structure related to these, which may be the charcoal-burners' bothy, and a platform, which may be for the storage of wood or charcoal related to this (Harden & Wordsworth 1996). From the depiction of this landscape in the first edition Ordnance Survey map it is clear that previous tree cover was far more expansive, both on the rocky upper slopes of the surrounding hills and on the banks of the Allt na Muidhe and its tributaries, than survives today (Ordnance Survey 1877). It is likely that these provided the main source of timber for these charcoal production sites, likely involving seasonal visits for coppicing, selective felling, stacking and drying and finally burning to create the charcoal. Each of these activities has a seasonality, which builds this picture of a busy upland landscape throughout the year, furthering the importance of this place of chiefly control in managing such processes as the sustainable coppicing of timber resources.

A cluster of enclosures, across the river from Group 3, likely relates to the pre-clearance settlement that was sited here. From the aerial images used in Illus 6, it is possible to pick out the footings of structures, dykes and rig and furrow within the area currently occupied by the



Illus 6 Map of Gleann Leac-na-Muidhe showing the settlement site and the shieling cluster below Meall Mòr. This map combines the shieling survey data with aerial photograph interpretation of the features visible at the settlement site which can be suggested with confidence to relate to the pre-sheep farm township. Features mentioned above and in the excavation section below are labelled. (Background: EDINA Digimap)

modern sheep farm. The pattern of this system of enclosure, with long curving sections of dyke enclosing areas of rig and furrow and infield pastures, and the scale of those features that survive as footings, would suggest that this is the early modern settlement of Gleann Leac-na-Muidhe, or at least the fragment that was not subsequently covered by either the later sheep farm or forestry.

It is likely that this settlement, described as a 'home of MacIain', was a summer residence allowing the MacDonald chief and his guests to engage in sporting pursuits and to oversee the protection of the cattle (Donaldson 1923: 303; Gordon 1935: 207). The place-name Achnacon, at the mouth of this glen, has been suggested to translate as 'field of the dogs' (Donaldson 1923: 303). This may relate to the use of this site as a kennels from whence hunts could be carried up the glen; it makes sense that hunting dogs may have been kept at a distance from the shieling grounds. From the settlement on the eastern side of Gleann Leac-na-Muidhe it would have been possible for the MacDonald chief to oversee the grazing of the cattle below Meall Mòr and Creag Bhàn, and during hunts dispatched from this upland base the chief and his retinue could visit many of the upland passes from which one can descend into the nearby glens held by neighbours. Such upland hunting camps, as discussed above, likely performed a similar function to shieling communities in reaffirming traditional land boundaries. It could be argued that such chiefly upland settlement sites represent a reaction similar to the profusion of castles that were constructed or enhanced across this region by clans such as the Campbells of Glenorchy, which Chris Dalglish (2005: 261–2) has argued can be interpreted as the result of anxieties within these ruling elites during the period of instability and change beginning around the 1550s.

The religious wars following the Protestant Reformation brought increasing state military presence and dramatic shifts in allegiances, from the Marian Wars of the late 1500s and the Cromwellian and Williamite Wars of the 1600s, to the suppression of the Jacobite risings of the 1700s, disrupting traditional power structures across this region. Thus the development of formalised estate centres across lands held by these elites, and perhaps the development of a network of hunting camps and shieling clusters associated with these, served to define boundaries of landholdings during a period when systems of landownership were being redefined and the power of local and regional elites was shifting (Dalglish 2005). The administrative role of these structures as centres for rent collection, resource management and dispute resolution was a key purpose of these places of power (Dalglish 2005; Malloy & Hall 2019). Considering that a large portion of tenants' and tacksmen's rent, paid in goods, came in the form of butter, cheese, malt or livestock, the siting of a chiefly power centre within the shieling landscape makes sense both as a centre for collecting these rents and for keeping tabs on the productivity of tenants' herds (Dodgshon 1993: 679; 1998: 20). Even during the period of the 1600–1700s, as rent in cash became increasingly important, understanding how much tenants were producing and thus could afford to hand over to their chief would be an important aspect of controlling these productive uplands (Given 2004). This shifting demand from chiefs towards their tenants, as well as the expanding demand for salted beef coming from British colonial expansions, contributed to changing grazing and stocking strategies over this period, with an increasing focus on beef cattle and sheep as cash crops (Dodgshon 1993: 679; 1998: 20).

The notion of upland glens providing a refuge during times of strife appears in a number of sources, including the letters that detail the planning of the Glencoe massacre. That Lord Dalrymple states to Lieutenant-Colonel Hamilton, 'The winter is the only season in which we are sure the Highlanders cannot escape us, nor carry their wives, bairns, and cattle to the mountains', suggests it was known to be a strategy of communities such as those of Glencoe to retreat to the uplands during times of strife (Ridpath 1704: 5–6; Dalrymple 1923; Hopkins 2001: 320). Similarly, in one of the letters reviewed in the reporting of the massacre, it is noted that MacIain had sent many of the young unmarried girls from the settlements to his summer home at Gleann Leac-na-Muidhe as a precaution when Glenlyon and his troops were stationed in the glen, as well as having his clansmen hide their arms 'at distance' (Leslie & Gordon 1845: 93; Hopkins 2001: 334). In many accounts it seems that those fleeing the massacre headed in this direction through the wooded slopes of Meall Mòr (McDonald 2012: 88–9). It seems likely then that this settlement represented one such refuge where the valuable dairy cattle and vulnerable community of herders would be protected by the presence of the chief and his household during the shieling months and in times of peril.

That a degree of risk existed for the community of herders at the shieling, especially for those more distant from the townships, is reflected in a number of stories relating to the shielings which survived to be recorded in the 1900s. One song, 'Crodh Chailein', recounts a raid by MacDonald of Keppoch on the Campbells of Glen Lyon in which cattle were stolen and milkmaids were taken as brides under threat of violence, and numerous similar oral traditions relate to the danger to women from unwanted male visitors at the sheilings (Walker 1964). Records from the privy council in 1605 include reports from the Duke of Argyll complaining about the lawlessness of the lands of Glencoe and Appin (Koufopoulos 2004: 32).

Around Creag Bhadan, a large volcanic bedrock outcrop sitting at the mouth of Gleann Leac-na-Muidhe, the survey identified two shieling huts sitting on a rocky outcrop to the east of this landmark (Group 4 in Illus 3); these had been identified previously by Harden and Wordsworth (Harden & Wordsworth 1996). One large rectangular shieling hut and a circular shieling hut sit nestled between the twin summits of this bedrock outcrop, and a natural spring rising from the slope at this point is enclosed by a wall, perhaps

to protect this from livestock. These shielings sit between the settlements and cultivated field systems associated with Achnacon and Stroan, and likely represent the 'home' shielings of the settlements that lay within the estate of Achnacon, tacksmen to the MacDonalds of Glencoe (Campbell 1749; McNicol 1791; MacDonald 1979). Tacksmen were tenants, often relatives, of local clan chiefs who managed a farm or group of farms and the collection of rent from these for the chief (Dodgshon 1993).

EXCAVATIONS

Of these clusters of activity, the features that lay on the southern slopes of Meall Mòr were selected for further investigation and a programme of excavation was carried out to better understand their chronology and purpose. The structures investigated are labelled in Illus 6.

The smaller shieling hut (GLM11) had lower walls formed of orthostatic boulders wedged on edge and was built against a bedrock face. A lack of stone tumble suggests this was a largely turf-walled and roofed structure above these orthostats. An internal division, in the form of a small step within, separated what was probably an upper sleeping space from a lower living and working space where a small central hearth provided heat and light. A timber beam from the roof collapse was identified sitting between the floor and the turf collapse, which may shed light on the construction of this largely unknown aspect of turf shieling construction.

The larger rectangular turf-build shieling (GLM03; Illus 7) was found to contain two distinct floor layers with associated central hearth features; the later of these was capped by a circular slab which likely represents a smooring stone (Carmichael 1928: 325–7; Raven 2012: 163). This would be the practice of smothering the hearth fire overnight with a stone slab to keep the embers burning till morning. Similar stone-capped hearths have been identified at sites of a similar period, including at building P11 of the Edramucky shielings, and at the byrehouse of

Illus 7 A photograph of the shieling hut (GLM03) excavated in 2021. In this photograph the central hearth sitting beneath the smooring stone is visible. (Photograph by Edward Stewart, June 2021)

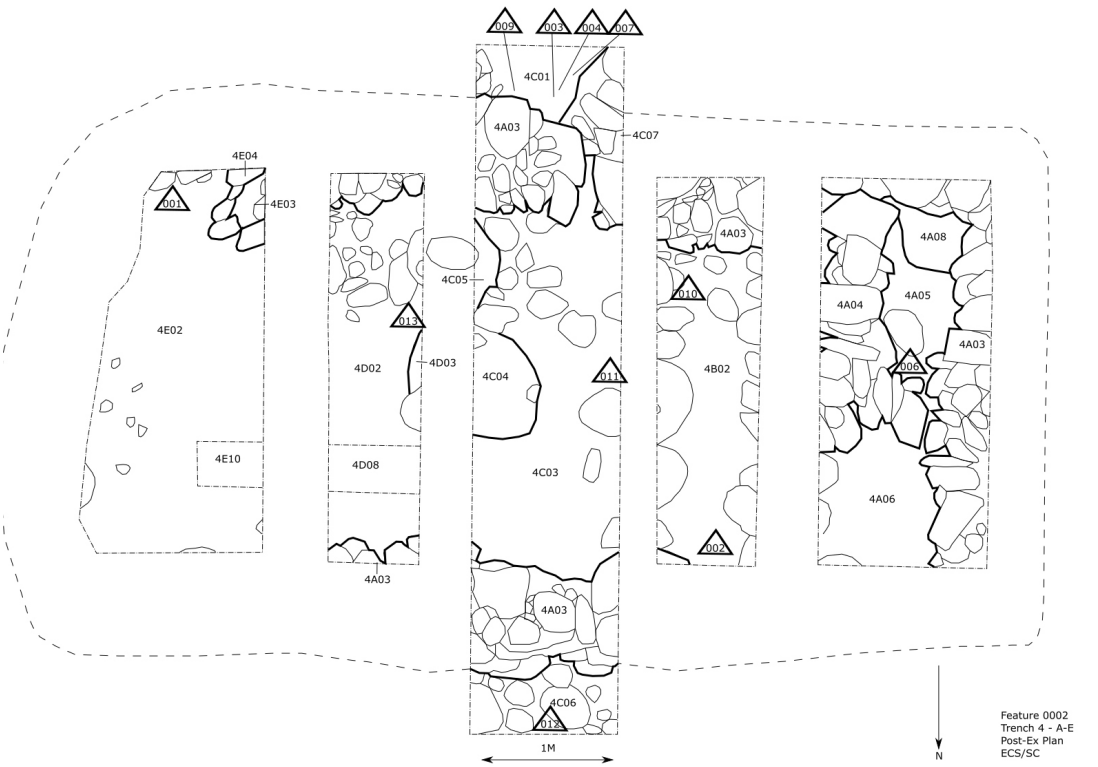
Easter Raitts; these were interpreted either as bannock stones, fire guards or evidence of the structure's collapse (Lelong 1997: 24; Atkinson 2016: 215, 217). The Ben Lawers example in particular resembles this site most closely, which I argue represents a deliberate capping of the hearth. The turf walls of this structure were identifiable in section as a low bank preserved and capped by the 'melting' of the upper walls and roof. The practice of carrying peat embers from the township to the shielings has been argued by some, alongside the repair and rebuilding of the shielings by the men prior to flitting, to be a deliberate reminder of the home in otherwise independent female spaces (Raven 2005: 416; Costello 2018: 174). The keeping of this fire alight and controlled, by smooring, through the shieling season thus may have represented a carrying of the safety of the home, associated with the menfolk, to the 'wild' uplands (Costello 2018: 174). In Gleann Leac-na-Muidhe the reminder of home fires and the power of patriarchal elders would have come also from the direct and visible presence of the chiefly dwelling just across the glen.

The platform (GLM04) excavated in 2021 likely represents a small stack stance for the gathering and drying of winter fodder (Illus 8). This small surface was cut into the hillside at a steep point and revetted with a small bank of clay, making it difficult to access for livestock like cattle. This feature may have also served as a reminder of the presence of the winter settlements and home life that existed down in Glencoe, as material would have been moved from here for storage, once dried, at the townships.

In 2022 a large stone and turf-walled shieling (GLM02) measuring 9m × 4.5m was excavated (Canmore ID 346247; Illus 9). This feature had previously been identified by Harden & Wordsworth (1996) and appears as an unroofed structure in the 1st edition OS (Ordnance Survey 1877; Dixon et al 2002). This structure, one of

Illus 8 A photograph of the platform (GLM04) excavated in 2021. The contrast between the natural iron-rich degraded bedrock subsoil and the ramp of clay banked against the edge of the platform makes distinguishing these separate deposits easy The loose friable nature of the subsoil, however, made it difficult to identify the exact extent to which material cut to create the platform had been redeposited to extend the levelled surface downslope. (Photograph by Scott McCreadie, June 2021)

only two shieling hut structures of a similar size within this glen, obviously represents a different type of space from the other structures identified here. The other comparable structure sits across the glen above the modern settlement of Gleann Leac-na-Muidhe and was also identified by the Royal Commission (Dixon et al 2002). Discussions of similar structures in both Scotland and Ireland have suggested either that these may have been the bothies of several milkmaids who would mind the cattle of those who would not travel to the shieling grounds themselves, or that these structures performed a social purpose within the shieling cluster as 'taigh-cèilidh' (Atkinson 2016; Costello 2018; 2020a; 2020b: 80). Structures such as these have also been interpreted as shepherds' bothies or shielings leased out for commercial forms of upland grazing for the droving of beef cattle (RCAHMS 1995; Atkinson 2016: 218–19). Similar structures can be identified at Lagangarbh (NGR: NN 22059 55995), Altnafeadh (NGR: NN 22256 56274), White Corries (NGR: NN 26601 52518) and Blackrock (NGR: NN 26763 53065), which may represent a transitional phase from shieling to shepherd's hut (MacInnes 1958). By the late 1700s Glencoe increasingly became an important part of the network of drove roads that allowed cattle reared in the Highlands and Islands to be taken to markets in the Lowlands and England (Haldane 2008: 23–4, 30–1). These structures may have held a dual function, as yet other examples have been interpreted as early hunting camps dating to the 18th and early 19th centuries allowing for the hunting of game species, including deer and grouse, the seasons for which fall after the flitting (McConnochie 1898: 12; MacInnes 1958; Bogdan & Bryce 1991).



Illus 9 Plan drawing of the larger hut structure (GLM02) excavated in 2022. This feature appears to have initially functioned as a shieling hut, before being converted to a still house at a later stage. (Drawing by Sophie Cathcart and Edward Stewart)

Within this structure three distinct layers of occupation were identified, each including a beaten earth floor and a layer of dark soil, likely a heather or bracken floor. The lower of these floor layers were thinner and contained scrapes of ashy material consistent with hearth sweep. These likely relate to a use of this structure for seasonal transhumance and may represent the last two phases of this use before the structure was repurposed. It seems likely that these structures would have been regularly cleared out to remove accumulating floor layers, hence the lack of evidence for a longer use span.

The latest phase of the structure's use presents a very different picture. Within this floor layer were three hearth deposits: one to the eastern end of the hut located within a stone basin (4E03); in the centre of the hut there was a large hearth deposit sunk into the floor (4C04/4D03); and in a cupboard feature in the western end of the hut (4A08) there was another hearth. Within 4A08 a strip of copper alloy was recovered which may have been part of a still worm or distilling vessel (Illus 11; Given 2004: 138; Haynes et al 2014). A description of an illicit still operation discovered by gaugers and recorded by Gavin Smith (2002: 83) notes that the copper still and hearth were located within a nook in the wall of the structure which could be walled up and disguised by a peat stack. These three hearths may represent the various stages of the stilling process: malting, wash and distillation (Bratt 2021: 212). Associated with this floor surface, a paved area at the entrance to the structure showed evidence for a later hearth sweep from the central hearth (4C04/4D03), which mingled into a midden identified to the north of this paved area outside the structure (4C01). Associated with this midden, a number of diagnostic sherds of spongeware and painted late 18th-century pottery and six pieces of lead pistol shot were recovered (Illus 10). The lead pistol shot appears to be unfired and was probably manufactured using homemade moulds, based on the irregular size of the pieces (Ferguson 2015). These were found against one of the slabs in the entrance way and it is suggested that they may have been buried here as part of efforts to defend an illicit still from small parties of gaugers (Smith 2002: 72). It is unlikely that this assemblage represents a cache of munitions from a conflict like those identified at Dùn Èistean, unless a significant volume of shot remains which was not recovered during excavation (Ballin 2012; Ferguson 2015). Behind this structure it appears a natural burn channel in the hillside has been canalised to run against the back of the structure, providing a ready water supply for the processes within. During excavation here (4C06) sherds of 18th-century onion-bulb bottle glass were recovered (Dungworth 2012; Rhodes 2022).

This structure is easily accessible via the track along the far side of the Allt na Muidhe or via one of the many routes leading across the hill below Meall Mòr, and yet is only visible from fairly close by, and may at the time of its use have appeared as just one among a number of similar bothies in use for herding across the estate of the MacDonalds. Research by Darroch Bratt (2021) has explored the relationship between shieling landscapes and illicit stilling, and has suggested that illicit stilling was often carried out by tenants who were driven to participate in this practice as a result of pressure to produce rent payments in cash, and that stilling was likely done with implicit or explicit support from landowners or their agents. The siting of this still site, which, while utilising what must have been a fairly common vernacular structure within the Glencoe landscape, is hardly as hidden as many previously identified still sites, suggests that this still was likely operated with both the support and perhaps protection of either Stewart of Achnacon or the MacDonalds of Glencoe, who would have had the power to block, delay or divert the efforts of parties of gaugers.

The landscape of Gleann Leac-na-Muidhe provides us with an important case study for understanding how elite power was projected into the uplands, from how chiefly summer dwelling places produced relationships with the shieling grounds and their community of herders, to how estate boundaries and resources were managed during the transition of the Highland elite from laird to landlord, as will be discussed further below.

Illus 10 Photograph of the assemblage of lead pistol shot recovered from the midden associated with the still house phase of GLM02. (Photograph by Aris Palyvos and Scarlett Lord)

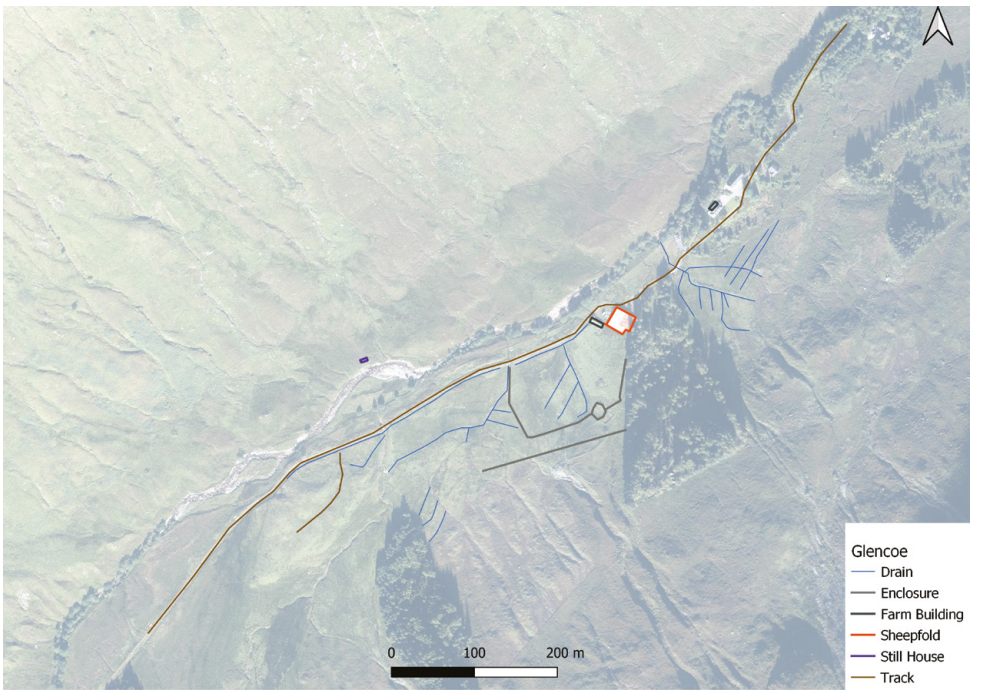
Illus 11 Photograph of the copper alloy strip recovered from within the hearth to the south-east of GLM02. This strip may represent a split and flattened still worm or part of a vessel. (Photograph by Aris Palyvos and Scarlett Lord)

A LANDSCAPE IN TRANSITION

During the course of the early 19th century this landscape underwent a series of drastic changes which reshaped how the landscape was used and inhabited. Improvement of much of the ground in this part of the glen, and the early development of sheep farms around Achtriochtan and the fringe of Rannoch by 1796, are attributed to the Stewarts of Achnacon (McNicol 1791: 488; McGregor 1845: 233, 240, 246; Ordnance Survey 1877; Miers 2008). This general 'improvement' through a transition to sheep farms was later expanded by Alistair Macdonald in 1799 across his estates, having been completed by 1813 (MacDonald 1979; Macdonald 2005). This can be seen in Gleann Leac-na-Muidhe, where the site of the 'house of MacIain' was replaced by a sheep farm, and the process of clearance resulted in much of the population of the glen being replaced to coastal crofts (Illus 12; Donaldson 1923: 303; Gordon 1935: 207; Macdonald 2005). The development of rectangular sheepfolds at the foot of Gleann Leac-na-Muidhe at Achnacon and around the former settlement in the middle of this glen speak to this stark transition within the landscape. This is a process that may have begun significantly earlier, with the transition in the focus of these upland grazings from dairy to beef cattle, in part as a response to demands for rents to be paid in cash. This is recorded to have occurred at Ben Lawers in the mid-18th century, where the introduction of hill sheep farming in the 1790s had been preceded by a gradual commercialisation of the shieling grounds for almost a century before (Atkinson 2016: 211–12). It may be that the larger rectangular shieling huts, of which two were identified in Gleann Leac-na-Muidhe, represent a later form of shieling practice within these landscapes, with a transition occurring from the traditional dairy-focused practice towards a beef-orientated industry managed at the scale of the estate, the excavated example of which in Gleann Leac-na-Muidhe appears to have seen later use as an illicit still house after the introduction of the sheep farms. It seems that a more general transition occurred across the wider parish of Appin and Lismore in this period, from a system of mixed stock grazing with cattle, goats and sheep towards hill sheep farms and plantations dominating uplands and the grazing of beef cattle in the straths (McGregor 1845: 234).

This transition from township to sheep farm in Gleann Leac-na-Muidhe was possibly interrupted by a period of relative abandonment from at least the end of the 17th century through to the late 18th century. The settlement is not depicted or mentioned in either Roy's map or the Jacobite muster rolls of 1745, unlike the other settlements of Glencoe, and appears next in the 1st edition OS as a sheep farm (Roy 1747; McNicol 1791; Ordnance Survey 1877; Livingston et al 2001). This may have resulted from the events of the massacre and the greatly diminished power the MacDonalds of Glencoe could wield in its aftermath, or it may have resulted from the worsening weather conditions caused by the Little Ice Age, including increased storm events and shorter growing seasons, which led to many upland and coastal townships 'lying in waste' (Dodgshon 2015: 82–3). That one of the two large shieling huts sits just north-east of the site of this township might support the view that these larger huts represent a process occurring after the abandonment of the settlement here. It seems likely that when the hill sheep farm reoccupied this site, this continued to be a seasonal process, with the sheep being moved from a winter farm, with associated sheepfolds, down at Achnacon and Strone up to Gleann Leac-na-Muidhe. Perhaps it was around this time that GLM02 (see Illus 6) was converted into a whisky bothy, as one of the consequences of the removal in 1781 of the right to produce whisky in 10-gallon stills for household use or partial rent, especially as the climatic downturn reduced the productivity of the land and European wars caused spikes in the value of whisky for elite consumption (Smith 2002; Given 2004: 151; Bratt 2021: 213).

The village of Carnoch (see Illus 1) appears in Roy's map of the 1750s, although it later expanded enormously and took on the current crofting settlement plan by the late 18th century with the clearance of the upper parts of Glencoe (Wilson 1959; RCAHMS 1975; MacDonald 1979). By the time of the publishing of the first



Illus 12 A map of Gleann Leac-na-Muidhe showing the settlement site and the shieling cluster below Meall Mòr. This map combines the shieling survey data with aerial photograph interpretation of the features visible at the settlement site which can be suggested to have been constructed during the development of this landscape as a sheep farm. (Background: EDINA Digimap)

Ordnance Survey (1877) map of this area, the remains of these earlier structures are marked only as ruins if at all. It was during this period that improvements to the road network and the expansion of the Ballachulish slate quarries altered the demographics of this community, with influxes of quarriers arriving and settling in the developing crofting villages at Carnoch, Tighphuirt and at West and East Laroch (McNicol 1791: 482). These quarries were first opened in 1693 and a century later employed over 300 people; by the end of the 19th century they had a workforce of double that (McGregor 1845: 247; Hume 1977: 156). With the loss of the traditional townships and the development of a crofting settlement largely dependent on work at the nearby slate quarries, the practice of moving seasonally to the shielings seems to have ended by the mid-19th century, with sheep and shepherd, stag and stalker, replacing milk cows and maids on the hillsides of Gleann Leac-na-Muidhe and the fringes of Rannoch (MacInnes 1958; Lorimer 2000).

The expansion in Highland tourism through the 'domestic tour' over this period drastically changed the economic and social landscape of places such as Glencoe, with the development of these landscapes for leisure activities such as climbing and hunting increasingly coming to dominate the uplands (Donaldson 1923). The designation of much of the land east of Glencoe on the fringes of Rannoch for hunting removed what had once been one of the principal shieling grounds of both Glencoe and north-west Perthshire (MacInnes 1958). The 'forest of Buachaille' to the east of Glencoe and Glen Etive had been designated a 'hunting forest' for a long time previously, beginning as a royal deer forest before passing to first the Stewarts and then the Campbells, as legal hegemony in this region

shifted (McNicol 1791: 487). This designation likely still allowed for a mixed use of these upland environments, with those holding hunting rights managing forest grazings and timber harvesting (Malloy & Hall 2019). By the late 19th century almost the entirety of Glencoe had come into the ownership of the Canadian-Scottish magnate Lord Strathcona, who set up Invercoe as a sporting residence (Miers 2008: 62). This brought about a period of extensive landscape modification in Glencoe, with the planting of areas of ornamental forestry around Tom a' Ghrianain and the creation of an artificial loch at Torren (Donaldson 1923: 303; Miers 2008: 62). Meanwhile the mountains of Glencoe became a playground for early climbers (McGregor 1845: 226; Ordnance Survey 1878: 21; Lovat 1965: xv–xvii).

CONCLUSION

This case study represents an opportunity to explore the archaeology of upland settlement and transhumance as it existed across much of the Western Highlands in the post-medieval period. From both the archaeological remains and historic map evidence it is possible to consider the chronology and development of these landscapes over this period of great disruption and change.

The settlement of Gleann Leac-na-Muidhe can be seen to represent a unique example, thus far, in the study of such upland landscapes. This chiefly residence overlooking what is the prime upland grazings within Glencoe represents elite control of these uplands at least during the period of strife in the later part of the 17th century. This allows for an interrogation of the processes by which social elites, in this period the clan chiefs, expressed their anxieties around power and status in a time of rapid societal change, through constructions aimed at formalising control of estates, a process which has previously been studied in the context of estate centres (Dalglish 2005). Through the development of networks of upland hunting camps and seasonal residences and through granting of shieling rights to established tenants, landowners could define and enforce their property boundaries and exercise control over the management of upland resources. The presence of this chiefly dwelling represents a very direct form of patriarchal control, and presumably the extension of chiefly protection, upon the cattle at the shielings, and those who minded them. This occupation had ended by the 18th century; there was a transition towards new forms of grazing practice within this upland landscape, first to beef cattle, then sheep by the 1790s. This example provides us with an insight into the changing management of upland resources during the 16th–19th centuries, allowing for an exploration of how these networks of practice were organised and controlled.

The direct relationship between an elite upland settlement and these upland grazing landscapes represents an opportunity to explore how the mostly female herding community and the cattle, as important signifiers of wealth and status in the Gàidhealtachd, were protected, controlled and managed during periods of civil strife. Further research, particularly excavation, to define the nature of this upland settlement will be the next step in understanding how this landscape developed and was managed during the post-medieval period.

Supplementary material: The full Gazette of Survey Sites is available at https://doi.org/10.9750/PSAS.152.1373

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