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A Quick Buck: An Early Licensed Whisky Distillery at Blackmiddens Farm in the Cabrach

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Blackmiddens Farm distillery, also known as Buck distillery, has recently been the focus of historical research and excavation. At the time of the first season of fieldwork Blackmiddens/Buck was the only farm distillery to have been excavated in the Highlands and Islands. The site represents a short-lived period of distilling in the Scottish Highlands in which whisky-making operated in a legitimate commercial capacity but as a complement to a larger agricultural unit. The excavation of Blackmiddens and historical research into it and the distilleries in the surrounding area have given us an insight into this short but vital transitional phase in the history of whisky-making in the region.

1. Introduction



Figure 1: Blackmiddens distillery under excavation in 2021. Image: Peter Bye-Jensen

The excavation of Blackmiddens distillery, also known as Buck distillery, was undertaken over two weeks in 2019 and 2021 (Figure 1). Blackmiddens distillery (Google maps; Canmore record) is situated in the Cabrach, a high and relatively remote area which has historically straddled Aberdeenshire and Banffshire (Figure 2). The Cabrach has always been understood locally to extend beyond the formal boundaries of the parish of Cabrach and into the neighbouring parish of Rhynie, in which Blackmiddens is actually situated. Locally the Cabrach is divided into the 'Upper Cabrach' and the 'Lower Cabrach', with Blackmiddens being located in the former of these. Between the 1780s and 1820s, the Cabrach was notorious as a particularly prolific hotbed of illicit whisky distillation and smuggling (German and Adamson 2017; 2019; Maclean and MacCannell 2017). Blackmiddens distillery operated between 1825 and 1833 in a very important time for agricultural Improvement and the development of large-scale commercial distillation in the Highlands and Islands. As a short-lived farm distillery, Blackmiddens had the potential to reveal the inner workings of a Highland whisky distillery at the point at which distillation was becoming integrated into the wider capitalist economy yet still functioned primarily as an extension of the agricultural unit. Blackmiddens was founded after decades of whisky-making being driven underground by prejudicial excise laws that had seen illicit whisky distillation and smuggling become endemic in the Highlands and Islands (Devine 1975; 1994; Dietz 1997; Brown 1999; Given 2004; 2007). The establishment of farm distilleries also occurred in a period when agriculture and land management in the Highlands was dominated by the ideology of Improvement, a 'cross-cutting ethic' that sought to promote industry and commercialism in agriculture. The ultimate aim of Improvement was essentially that the rental value and agricultural yield of land would increase and, in theory, this would result in the economic and moral improvement of society (Tarlow 2007, 22-



26). The actual legacy of Improvement has, of course, been more contentious than this summary would imply - that is not the subject of this article - but it is worth noting that this was the commercial and intellectual climate in which farm distilleries were being established.



Figure 2: Map showing the location of the Cabrach relative to the Highland line. Background mapping: GB Overview [TIFF geospatial data], Scale 1:5000000, Tiles: GB, Updated: 19 August 2013, Ordnance Survey (GB), Using: EDINA Digimap Ordnance Survey Service (Downloaded: January 2022)

Excavation and historical research at Blackmiddens was supported by Forestry and Land Scotland and by the Cabrach Trust. The primary aim was to reveal the scale and layout of an early 19th-century farm. Research into the distilleries of the Cabrach has been greatly advanced since the foundation of the Cabrach Trust, who commissioned Gregor Adamson and Dr Kieron German to produce an excellent report into the history of distilling in the Cabrach (German and Adamson 2017), which subsequently led to their article in the *Journal of Scottish Historical Studies* (German and Adamson 2019). Mairi Stewart's informative historical report on the documentary history of Blackmiddens, which focused on archival evidence, much of it arising from the Gordon Muniments in the National Records of Scotland, was also commissioned by the Cabrach Trust (Stewart 2020). The excavation itself was

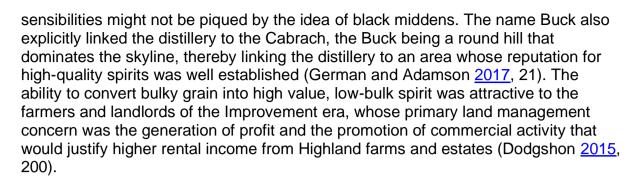
principally carried out by Cameron Archaeology and Peter Bye-Jensen, with help from a team of enthusiastic volunteers. A second, much smaller, season of excavation was carried out in 2021(Figure 3) by Peter Bye Jensen and Darroch Bratt, who had also taken part in the first season.



Figure 3: Blackmiddens during excavation from the south in 2021. The distillery is in the foreground with the farmstead in the background. A ditch to the north-west of the distillery was thought to be a potential water source but on excavation no ingress was identified. Image: Peter Bye-Jensen

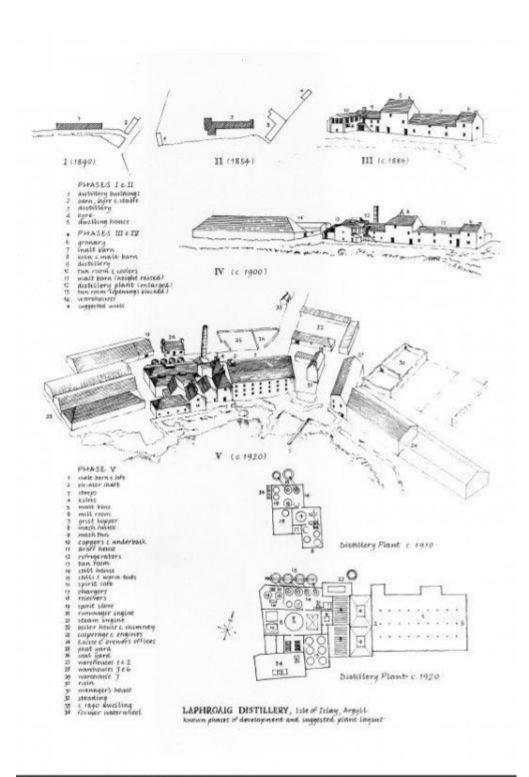
2. Historical and Archaeological Background

Between the 1780s and 1823, illicit distillation had been endemic in the Highlands and Islands, as legislation designed to protect the businesses of distillers in England and the south of Scotland had essentially forced distilling in the Highland region underground. Until 1816, it had been entirely illegal to make whisky in the Highlands and move it to the east or south of the 'Highland line', an arbitrary boundary that ran from the Sound of Jura to the Moray via Perth and the southern boundary of the Grampians (Brown 1999) (see Figure 2). This line was abolished in 1816 and, in combination with the Illicit Distillation Act of 1822, which increased fines for smuggling, the attraction of illicit distillation and smuggling as an economic mainstay in the Highlands started to wane. The Excise Act of 1823 introduced a single flat rate for licensing stills, making legal distillation yet more attractive for those with the skills and the opportunity to establish modest distilling operations (Stewart 2020, 13). From 1824 onward small distilleries began to be established, the Excise Act facilitated an increase from 111 licensed Scottish distilleries in 1823 to 263 by 1825, with the majority of the new distilleries north of the former Highland Line (Moss and Hume 1981, 73). These new distilleries were often established as extensions to existing farms, with three such distilleries started in the Cabrach at Tomnaven. Lesmurdie and Blackmiddens. Blackmiddens was later renamed Buck, perhaps as the name was more appealing to those potential customers whose non-agricultural



Success for distillers in the Highlands was not guaranteed. Some distilleries did go on to be globally successful, like the distillery founded by George Smith in nearby Glenlivet, while others faltered relatively quickly. Blackmiddens distillery is an example of the latter, only operating between 1825 and 1833. All three of the distilleries started in the Cabrach had failed by the mid-19th century (German and Adamson 2017, 19). Even some successful distilleries were sequestered or mothballed frequently and for relatively long periods of time. The reasons for this were multiple, though the high price of grain appears to have been a persistent problem, meaning it was sometimes simply uneconomic to distil (German and Adamson 2019, 161; Heawood 2009, 34).

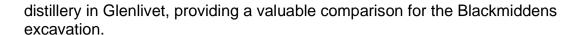
The understanding of early farm distilleries has hitherto been limited. Perhaps the most thorough survey of the archaeology of commercial distillation to date has been in Hay and Stell's *Monuments of Industry* (Hay and Stell <u>1986</u>), which itself studies distilling only really from the mid-19th century onwards. Their treatment of early farm distilleries is very brief, confined only to the observation that many 19th-century distilleries 'evolved piecemeal over a long period of time from primitive beginnings' as opposed to other later distilleries that had been established as 'rationally planned units, often with their own contained communities' (Hay and Stell <u>1986</u>, 34). Hay and Stell presented Laphroaig distillery on Islay as a case study for the development of distilleries from such humble origins into larger, capitalist enterprises with all the processes of production focused on one site (Figure 4). The early farm distilleries, then, represent a critical and understudied phase of the development of the whisky industry, when distilling was still an extension of the agricultural economy and before it was entirely integrated into a modern, capitalist mode of production.



https://canmore.org.uk/collection/346287

Figure 4: The development of Laphroaig distillery over the 19th century (Hay and Stell 1986, 35). Only the first phase depicted by Hay and Stell would apply to Blackmiddens, without the ancillary processes such as cooperage and malting being carried out on site. Image: © Historic Environment Scotland.

When the excavation commenced in 2019, it was the first excavation of a 19th-century farm distillery in the Highlands and Islands. Subsequently, excavations by the National Trust for Scotland have begun at the site of George Smith's original

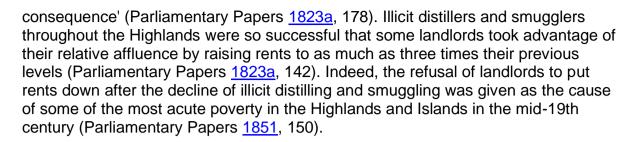


Outside the Highlands and Islands there has been some relevant work. Lochrin distillery in Edinburgh was excavated by Abercorn Archaeology ahead of development and a paper was published as a result (Heawood 2009). Lochrin represents an earlier but much grander type of distillation than that at Blackmiddens. Founded around 1780 by the Haigs, a large and wealthy distilling family, Lochrin operated on an industrial scale. Not confined to producing whisky as we know it today, Lochrin sent much of its spirit south to England for rectification into gin (Heawood 2009, 36). Lochrin holds a significant place in the history of Scotland's industrial revolution, being the first place in the country to install a Bolton and Watt steam engine (Heawood 2009, 36). Although Lochrin and Blackmiddens were engaged in the production of similar spirits, the scale at which they operated meant they were substantially different from one another.

Perhaps more relevant to this project has been the excavation of Annandale distillery by GUARD Archaeology in the Lowlands. The investigation of Annadale distillery was likewise an exercise in both archaeology and historical research. No company records with Diageo were to be found regarding the operation on site, so there was little available information regarding the size of the equipment used or other detailed records regarding the running of the distillery. However, the archaeological features found on site such as the still house and mash tun housing did give a unique insight into this 1830s lowland distillery (Atkinson *et al.* 2010). GUARD found that most of the distilling processes were concentrated on the distillery site, with maltings, mill and kiln all identified though the excavation (Atkinson *et al.* 2010, 44) as well as a probable cooperage (2010, 8) suggesting that spirits were matured in casks on site, something there is no evidence for at Blackmiddens. In the case of Blackmiddens, malting and milling and maturation appear to have taken place off site and there was no evidence for a malt kiln either, probably reflecting the small scale and style of production.

Blackmiddens in the Historical Record

It is unclear whether the distillers at Blackmiddens were former smugglers 'going legit' after the Excise Act of 1823, or if they were simply enterprising Improvementera farmers pursuing what may have looked like a golden opportunity. It is not impossible the former was the case. The historical record can, however, provide some hints of the backgrounds of Blackmiddens' tenants, James Smith and Elizabeth Smith, née Souter. These two families were drawn from the smaller farming families of the Cabrach, who were the class of people most often engaged in illicit distillation (Devine 1994, 127). Recourse to illicit whisky-making meant it was the smaller tenants of the Cabrach who were best able to pay their rents, with the larger farmers constantly in arrears. James Gordon, in his evidence to Parliament in 1823, noted that on his Aberdeenshire properties adjoining the Cabrach, 'the tenantry who do not smuggle do not pay their rents at present... but cottagers, whom I suspect of smuggling, pay their rent, and carry their heads very high in



Unfortunately, there is no historical documentation relating to the rent of Blackmiddens or the founding of the distillery there. After discussing the various ties between the families of James Smith and his wife, Stewart concludes, 'none of the above links either the Smiths at Blackmiddens or the Souters... to smuggling, but it would be very surprising if there were not a connection' (Stewart 2020, 16). Blackmiddens operated on a modest scale, even for the small farm distilleries of the time. According to distillery discharge vouchers, tax documents, which can be used to trace an operations' production of excisable spirit, the output of Blackmiddens was the lowest of the three Cabrach distilleries, making about 300 gallons in a six-week period (National Records of Scotland E581/4/50). Despite the relatively low output, it seems that the distillery was initially successful; in January 1827 James Smith placed an advert in the Aberdeen Press thanking customers for 'the liberal share of support he has experienced since he commenced DISTILLER' noting that the superior quality of his spirits had been 'much approved of' and that further orders could be placed with Souter and Reid's druggists, who were apparently Blackmiddens' retailers in Aberdeen (Aberdeen Press and Journal, 3 January 1827).

Blackmiddens, despite its apparent initial success, faced closure seven years after commencing distillation. The reasons for this are multiple and complex, ranging from relative economic disadvantages to practical concerns with the distillery itself, and, sadly, to tragic personal circumstances. James Smith died in 1833 leaving eight children and his wife, Elizabeth, who took over the running of the distillery for its final year of operation (Parliamentary Papers 1835, 102). The death of James Smith was probably not the only reason behind Blackmiddens' closure. One might infer from the low output of the distillery that it was easily outcompeted by rivals who attracted more investment and operated on larger scales. A descendant of the Smith family, Ms J. Harvey, has also stated that a decline in demand resulted from the popularity of the Temperance movement in Aberdeen, which had a negative effect on the demand for Cabrach whisky in its nearest market, an assertion reinforced by Hoffman in his account of the Temperance movement in Aberdeen (Beckingham 2005, 116). Poor weather resulted in crop failures, increasing the price of grain, which also would have negatively affected distillers, especially smaller ones (German and Adamson 2019, 161).

It is also likely that Blackmiddens suffered in the face of stiff competition. Apart from two other local distilleries in the Cabrach, neighbouring Speyside was home to a growing distilling industry that benefited from fertile arable land and ever-improving road and rail links throughout the 19th century, a distinct advantage in moving their products to market (German and Adamson 2019, 162). Additionally, Blackmiddens distillery had problems obtaining water and, owing to its altitude, was fundamentally unsuited to arable agriculture, meaning that the distillers had to pay more than their competitors for imported raw materials (German and Adamson 2019, 149).



The historic record has allowed us to develop a partial understanding of the working life of the distillery. The aim of the archaeological investigation was to try and reveal the material inner-workings of the distillery to complement the historical record and allow an image of its technical operation.

4. Distillation: a brief description

It necessary for the reader to understand what the process of distillation entails. For a more detailed description of the distilling process, there is an excellent and very detailed chapter that situates the process in its historical context in Moss and Hume (1981, 13-31). A simpler account is given here.

Whisky distilling involves the creation of a high-alcohol liquid from a relatively lowalcohol liquid. Three main processes are involved in whisky-making; malting, mashing and distillation. First, grain is malted - this is always barley in present-day Scotland, but in the past other grains have been used too. Malting involves steeping (soaking) grain and then allowing it to germinate slightly. This begins the conversion of carbohydrates into sugars, which are what will be combined with yeast to produce alcohol. The grain is then dried in a kiln before being milled and combined with water and yeast to create a beer-like substance called wash. This part of the process is called mashing and the resulting wash is then boiled in a round copper pot still. The boiling wash evaporates and travels into a still-worm, a coiled copper pipe submerged in cool water where it is condensed into a clear, high-alcohol liquid. Usually two distillations take place, though three or more are known to have occurred historically in some part of the Highlands (Martin 1703, 3). With this basic description of the distilling process, the features uncovered at Blackmiddens can be interpreted with a degree of confidence. In a modern context, a fourth process maturation - would be vital, but this is not relevant to the discussion below.

5. Excavation Analysis

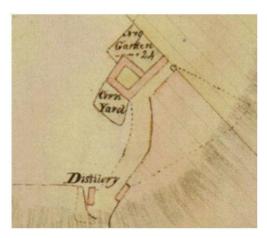


Figure 5: Plan of Blackmiddens farm showing the distillery building. North to the top of the image. Crown copyright. National Records of Scotland, RHP 2265

The distillery at Blackmiddens was identified by one of the authors on an 'Improvement map' from 1829, which was commissioned by the landowner, the 5th Duke of Gordon, to gain an overview of his estates and to assess the potential for Improvement on his estates (NRS, RHP 2265, see Figure 5). On the map, the 'distilery' is depicted as a rectangular building to the south of the main farmstead. Another rectangular building is depicted to the east of the distillery, but it is unclear whether this was a part of the distillery or another farm building. A walkover of the site confirmed the presence of a building where the distillery was marked on the map. The site of the building depicted to the east is covered by dense vegetation but drystone dykes now enclose an irregular area in this location orientated roughly north-east to south-west. No structures are depicted in the location of either building on the first edition of the OS-6-inch map, though the enclosure to the east of the distillery building is depicted in its current form on the second edition of the OS 6inch map (NRS E581/4/50). It was decided to excavate the building identified as a distillery on the 1829 map to establish the extent of the building, and to establish whether the site was preserved in a state that would allow us to learn about the internal division of space in the distillery, and the method of distillation employed there. This was undertaken over two seasons, one in 2019 and another in 2021.

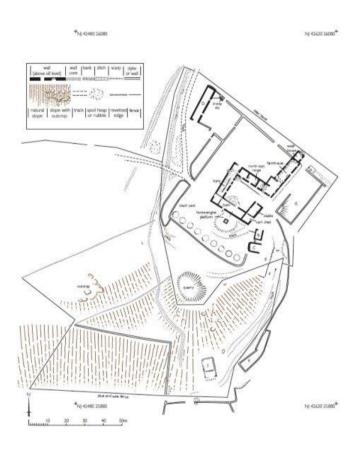


Figure 6: Plan of Blackmiddens Farm by Historic Environment Scotland. Image: © Historic Environment Scotland.

Most of the rubble was cleared by a machine, with the remaining excavation done by hand by a mix of professional archaeologists and trained volunteers. While the excavation took place Historic Environment Scotland performed a survey of the

entire Blackmiddens farmstead, which also covered the site of the distillery (see Figure 6).



Figure 7: Still from Photogrammetry model of Blackmiddens/Buck created 2021. Image: Peter Bye-Jensen

The uncovered building was 10m from north to south by 6.3m transversely overall and it was set into a south-facing slope. It was set into a natural bank on the west side, with freestanding drystone walls on its north, east and south sides. The walls measured between 0.8m and 1m thick and there were signs of an entrance in the building's long, east side. A large natural boulder was situated at the south-east edge of the building, forming the corner of the wall. The walls were reduced to a maximum height of 0.2m prior to excavation and, upon excavating to floor level, it appeared that no more than 0.4m of standing wall survived in any area. A description of each area of the distillery is given below, along with our interpretation of how the internal layout reflected the way the building was designed to facilitate the distilling process (Figure 7).

"The Buck" distillery - Excavation 2021 by Mortlach on Sketchfab

Area 1

Area 1 is the highest part of the distillery, set directly above Areas 2 and 3, where distillation would most probably have occurred. Logic dictates that this is the area in which mashing would have been carried out. This room has also been interpreted as the place where a water supply would have entered the building, an absence of evidence for pumping machinery indicating that the delivery of water into the building would have relied on gravity and must therefore have entered the distillery at its highest point. Unfortunately, no structure was identified in the north wall that indicated an apparatus for conducting water into the building. It is possible only a small pipe, entering the building at the north was all that was needed for this, and, indeed, this would probably have come into the distillery above the surviving wall level, leaving no archaeological trace. Neither was there a clear lade or other structure, such as supports for a pipe or trough identified in the area surrounding the

distillery. This is probably a result of subsequent cultivation around the distillery destroying any indication of how water was supplied into it. German and Adamson state that, among several reasons for the distillery's short operational life, one was a difficulty in introducing a reliable water supply to the site (German and Adamson 2019, 161). Based on excavation alone, however, we cannot elaborate on how this crucial element of the distilling process was facilitated, but the lack of clear evidence may be telling enough, suggesting that water management at the site was probably quite informal. This area of the distillery retained few archaeological features other than a thick layer of detritus comprised mainly of extremely light bricks, most of which consisted of a thin ceramic layer perforated with small holes upon a ceramic grid. Similar, though larger, ceramic bricks have been associated with malting floors at other sites (Crew 2004; Suddaby nd). The bricks do not appear to have been part of the distillery structure and, as there is no sign of a malt kiln at the site, it is very likely that these bricks were used to construct hearths upon which stills and mash tuns were fired.

Area 2

Area 2 was situated below Areas 1 and 3. It is sunken and would probably have housed the larger of two stills, the wash still. The sunken nature of the area probably accommodated the height of the larger wash still, which would then have fed into a smaller still in Area 3. The size of stills employed at this type of distillery is up for debate and any discussion of their actual size will involve a deal of conjecture. Combining this excavation with historical sources does afford us some clues. however. Firstly, the size of Area 2 indicates a still would have been no more than about 1.2m in diameter. Distillers at this time expected a yield of between 7-10% of spirit from a batch of wash (Parliamentary Papers 1823a, 162) and, as has already been shown above, Blackmiddens produced about 300 gallons over a six-week period, indicating production of about 50 gallons a week. If the weekly production involved only one batch of wash being processed rather than multiple batches, then the maximum size of a wash still would be about 500 gallons (2273 litres). This size of still appears to be about two-thirds the size of those employed at other small legal distilleries at the end of the 19th century, for example at Edradour (Barnard 1888, 274). It should be noted this is based on Blackmiddens average production and it did produce up to 99 gallons a week at some times (German and Adamson 2017, 23). Such a scale of production, however, probably related to multiple distillations, as a 1000-gallon still would clearly have been too large to be accommodated at this site. Indeed, it is entirely possible that the plant employed at Blackmiddens was smaller than 500 gallons, with distillation being split between batches of wash held in smaller wash-backs.

The floor comprised a round area of cobbles set into the sandy yellow natural. The full extent of the area to the west could not be excavated owing to the risk of collapse. The southern extent of Areas 2 and 3 is defined by a stone wall that bisects the building and separates these areas from Area 5 to the south. A duct was exposed that runs from where the base of the still in Area 2 would have been into the drain feature in Area 5 (Figure 8). It was law, stipulated in the Excise Act, to have a vent running to the base of the still (Parliamentary Papers 1823b, 11). XRF analysis (XLSX) showed that samples of soil taken from the drain contained slightly elevated

levels of copper that were relatively higher than in the rest of the distillery, suggesting that this feature probably also functioned as a drain, with residual copper from the stills ending up in the soil beneath the features there.



Figure 8: Detail of drain looking north from Area 5. Image: Ali Cameron 2019

Area 3

About 1.5m above the floor of Area 2 is Area 3, which features a rectangular area of flat cobbling that probably served as the base for a still hearth housing the second and smaller of the distillery's two stills, the spirit still. It is interesting to note that the cobbles in Areas 2 and 3 showed no signs of being heat-affected. Heat-affected bricks, not *in situ*, were plentiful in the destruction layer of the distillery and may represent the remains of dismantled or destroyed still bases. Very high levels of copper were not detected anywhere in the distillery through XRF analysis, with only slightly elevated levels detected in the drain of Area 1. This supports an interpretation that the stills were fired on purpose-built hearths, which themselves rested on the cobbled platforms in Areas 2 and 3 and that residual copper did not end up in significant quantities under these cobbled surfaces.

Area 4

Adjacent to Area 3, immediately outside the building to the east was another stone platform (Area 4), which has been interpreted as a base for an external condenser or worm-tub, a feature that allowed vapours from a still to be cooled and condensed into a liquid spirit. Worm-tubs located externally were a common feature of 19th-century distilleries (German and Adamson 2017, 36) and some are still in use today, for example at Edradour distillery. A gap between the external wall and Area 5, which was filled with coarse gravel and natural debris, probably represents the point at which the worm-end re-entered the building into Area 5.

Area 5 (the Excise Room)

The excavation of Area 5, the lowest point of the distillery, exposed a cobbled floor with a well-constructed drain. This floor had a distinct slope to the west and this feature was interpreted as also having served as a barrel run. The function of this area was most likely to fill casks and other receptacles before they were sent to customers or stored. This was the area of the distillery from which most artefacts came, including sherds of earthenware, fragments of clay pipe and bottle glass, which was also found in Area 2 (Figs 9 and 10). All these finds were of 18th-19th century date and it is important to note that some finds, notably the bottle glass, appear to post-date the use of the building as a distillery (Cameron 2019, 14, 21-22). Those finds that do clearly post-date the distillery, however, were found mainly in context 2, early in the excavation, and were not associated with later contexts associated with the floor layers. Importantly, fragments of iron barrel banding and earthenware jugs were discovered within the drain feature, reinforcing the assertion that this also served as a barrel run and an area for receiving spirit from the worm.



Figure 9: Earthenware sherds recovered from Area 5. Image: Ali Cameron 2019



Figure 10: Small finds from Area 5. From left to right, a fragment of earthenware, a clay pipe and a fragment of iron barrel band. Image: Darroch Bratt

Area 5 appears to have been entered from the south end of the distillery, through a separate entrance to the rest of the building. This further supports the interpretation that this room represents the final stage of the distilling process. Inaccessible to the other distillery workers in the rest of the building, this room probably met the requirement that the still worm be 'enclosed and secure' in the Excise Act of 1823 (Parliamentary Papers 1823b, 475). Figure 11 shows a detailed plan of Areas 2, 3

and 5 at the end of the first season of excavation and <u>Figure 7</u> demonstrates the layout of the distillery at the end of the second.



Figure 11: Areas 2, 3 and 5 at the end of the first season of excavation, before Area 4 was exposed in the second. Image: Ali Cameron 2019

No excavation was conducted to the east of the site, around the area of the second building depicted on the Improvement map. This was because of time constraints, and a desire to focus on revealing as much of the distillery building as possible. It is possible that this building was connected to the distillery and Sherriff suggests that it may have housed offices, excise accommodation or have been used for storage or the warehousing of spirits made at the distillery (Sherriff 2020, 20). There were no certain visible remains of the eastern building, the area of which is now occupied by an enclosure, irregular on plan with a northward kink and a narrowing of the structure toward the north-east, which is open at the north-east end with no other visible entrances (Figure 12).



Figure 12: Aerial view of Blackmiddens in 2021. Image: Peter Bye-Jensen, annotations by Darroch Bratt

6. Discussion

The excavation of Blackmiddens has allowed us to develop a much deeper understanding of the layout of this early 19th-century distillery. Perhaps most intriguingly it appears that we can trace aspects of how the builders and distillers designed Blackmiddens to comply with stipulations in the Excise Act of 1823. However, much of the design of the distillery was still vernacular and may have been highly idiosyncratic to this particular site. The distillery was deliberately built into a slope, which aided in the gravity-driven process, but the building of the distillery into a bank on its west side is harder to explain and sets the building apart from all of the other buildings at Blackmiddens farmstead.

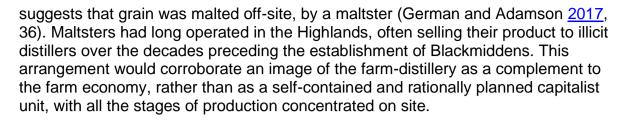
Archaeological comparanda for Blackmiddens are extremely limited. The distillery excavated at Annandale, and recent excavations at Glenlivet by the National Trust for Scotland have revealed the remains of distilleries that are slightly later, much larger and more formal. This probably reflects greater levels of investment in these sites but it is not unlikely that many farm distilleries, perhaps even George Smith's distillery in Glenlivet, began their lives in the 1820s and 30s as similarly small and informal operations. At Glenlivet it appears that the distillery, which was operational for longer than Blackmiddens, concentrated all the distillation processes, including malting, at the distillery site itself (Derek Alexander and Daniel Rhodes, pers. comm., 8 August 2022). Similarly, Annandale distillery appears to have operated on a bigger scale than Blackmiddens and, like Glenlivet, to have concentrated the various ancillary processes involved with distillation at the distillery itself, with evidence of an onsite cooperage (Atkinson et al. 2010, 7). These distilleries could be considered to represent a more advanced capitalist phase of distillation, with all processes concentrated in one place, whereas Blackmiddens was still operating as a complement to the agricultural unit rather than the focus of it, enhancing the value of local grain and perhaps justifying a higher rent to the proprietor, the Duke of Gordon, though without detailed rentals for the farm this is hard to state with certainty.



Based on the excavation a probable floorplan of the distillery has been given above. However, some questions do remain unanswered. The first is a matter of ventilation. There was no sign of a chimney, which would surely have been a necessity. At Glenlivet, which appears to have employed at least two stills, a chimney stack was still present long after the building was abandoned (Ordnance Survey, Banffshire, sheet XXXV, 1872). With no clear indication of a chimney at Blackmiddens it is tempting to assume that it was built into the unexcavated west wall of the site, which would have placed it by a fire required to heat the wash still. Alternatively, it may have been constructed above the drain leading from Area 2 to 5, and not have survived in this badly tumbled part of the building. It is likely, given historical comparisons, that two stills were employed at Blackmiddens. This is what one would expect for a distillery of this period, with sources from the 1840s describing small farm distilleries in Perthshire as functioning with two stills (Gordon 1845, 658). However, the lack of a clear chimney serving hearths in both Areas 2 and 3 does make this assertion problematical. As has already been stated there was no clear indication of burning in either Area 2 or 3, and no heat-affected bricks were found in situ, with these being found in quantities in the destruction layers throughout the site. The use of a single still at Blackmiddens is possible, though this would demand a reinterpretation of the roles of Areas 3 and 4, neither of which, it should be noted, appeared to be the base of a chimney. Our favoured interpretation is the one provided in detail above but, hopefully, future excavations at comparable sites will help to either confirm or refute the interpretation given here.

The second unresolved issue is that of water management. Both Glenlivet and Annandale had clear evidence for formal and effective water management systems feeding directly into the distillery, with three water sources combining to feed Annandale distillery, for example (Atkinson et al. 2010, 7). At Blackmiddens, however, this has been less obvious and no system of lading has been positively detected. Cuts and ditches and a large guarry north of the distillery were noted during walkover survey and during the HES survey of the Blackmiddens farmstead. These did not, however, appear to feed the distillery and Sherriff rightly points out any water travelling through such rough cuts as those north of the distillery would be 'heavily contaminated and useless for distilling', concluding that the issue of water supply must for the moment remain unresolved (Sherriff 2020, 21). As no traces of a lade were revealed by excavation, is it reasonable to conclude that the conduction of water into the distillery building must have been through some form of piping or guttering? Such systems have been noted at other 19th-century distilleries, for example at Royal Lochnagar where water was supplied through a wooden conduit pipe (Hay and Stell 1986, 32). If this assertion is correct, it may reflect the smaller scale the distillery operated on, with small pipes or gutters probably being less labour intensive to construct and employ than a deep and permanent lade. It is certain, however, that water would have entered the distillery from the higher, northern end of the distillery, this being necessary for facilitating the gravity-driven distilling process.

Also significant were the processes that were not represented, specifically those relating to malting and maturation. While it is possible that either process could have occurred in the building to the east of the distillery it seems unlikely this was the case as German and Adamson found evidence of the Cabrach distilleries buying-in malt (2019, 161); they also assert that the lack of a kiln at any of the Cabrach distilleries

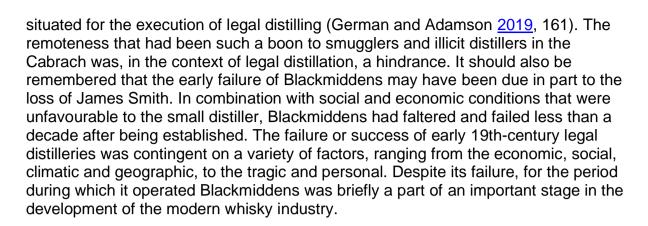


It may be that maturation occurred in the building to the east of the distillery but it is also possible that spirits were not kept on site for any considerable length of time. Smith's January 1827 advertisement in the Press and Journal suggests that spirits had already been sold at scale less than two years after the distillery had started, far below modern standards of maturation. Other historical sources suggest that whisky was not necessarily matured on-site at distilleries. The diary of a Fyvie merchant, who himself bought Cabrach spirits, recorded moving batches of whisky between casks on his premises to allow them time to 'correct' (Mackie and Stevenson 1991). There is also evidence from 1822 of the maturation or, at least the curation, of whisky within larger households, with Elizabeth Grant of Rothiemurcus sending whisky, 'long in uncorked bottles, mild as milk' to Edinburgh for the visit of King George IV (Grant 1992, 166). Both these sources, and the selling of whisky apparently made to order by druggists like Souter and Reid, suggest that maturation took place away from the distillery, with it perhaps only staying on site long enough to be quantified and taxed by an excise officer. The hypothesis advanced here is that Area 5, possibly the 'excise room' was where whisky was held before being transported away. With a maximum of 99 gallons of spirit produced in one week at the distillery (German and Adamson 2017, 23) the room would have been easily able to accommodate such a quantity. As it appears to have been impossible to enter from inside the distillery it is likely that this was a controlled area, entered only by the distillery manager and excise officer.

7. Conclusion

The excavation of Blackmiddens has revealed the inner workings of a small farm distillery of the 1820s-30s. The site was generally well preserved enough that a potential distillery layout has been suggested here. The distillery was less formally built that those uncovered by the National Trust for Scotland at Glenlivet and at Annandale by GUARD. This probably reflects the early stage of commercial distilling that Blackmiddens represents, its abandonment in 1833, and the relatively limited capital that may have been available for its development. It is also entirely likely that many of those distilleries that went on to greater success had beginnings as humble as Blackmiddens. It is possible that further research at Blackmiddens could yield more information. The purpose of the building to the east of the distillery, for example, is still unknown. Other early farm distilleries are likely to exist in a similar state of preservation, representing a potentially huge archaeological resource that can further advance our understanding of commercial distillation in the 19th century, and attempts to enhance the economic potential of farms in the Improvement period.

Unlike their more successful competitors in Speyside, Blackmiddens and the other Cabrach distilleries had closed by the mid-19th century through a combination of difficult market conditions and stiff competition from rivals who were perhaps better



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Bibliography

Aberdeen Press and Journal, 3/1/1827, 'Buck Distillery', page 2 [online] https://www.britishnewspaperarchive.co.uk/viewer/bl/0000031/18270103/005/0002

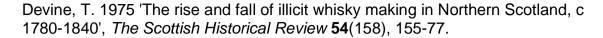
Atkinson, J., Becket A. and Shearer, I. 2010 'Annadale DSR, Project 3021', Unpublished report, Glasgow: Glasgow University Archaeological Research Division.

Barnard, A. 1887 *The Whisky Distilleries of the United Kingdom*, Edinburgh: Mainstream Publishing Company.

Brown, D. 2000 'The politicians, the revenue men and the Scotch Distillers, 1780-1800' in *Review of Scottish Culture* **12**, 46-58.

Cameron, A. 2019 'Blackmiddens Data Structure Report', <u>Unpublished report</u>, Cameron Archaeology.

Crew, P. 2004 'Perforated tiles from grain driers and malt kilns', *British Brick Society Information* **95**, 4-12. http://britishbricksoc.co.uk/wp-content/uploads/2013/09/BBS_95_2004_Nov_.pdf [Last accessed: 29 January 2023].



Devine, T. 1994 Clanship to Crofter's War: the Transformation of the Highlands and Islands of Scotland, Manchester: Manchester University Press.

Dietz, V. 1997 'The politics of whisky: Scottish Distillers, the Excise and the Pittite State', *Journal of British Studies*, **36**(1), 35-69. https://doi.org/10.1086/386127

Dodghson, R.A. 2015 No Stone Unturned, Edinburgh: Edinburgh University Press.

German, K. and Adamson, G. 2017 *The History of Distilling in Cabrach*, Report for the Cabrach Trust.

German, K. and Adamson, G. 2019 'Distilling in the Cabrach, c. 1800-1850: the illicit origins of the Scotch Whisky Industry', *Journal of Scottish Historical Studies* **39**(2), 146-65. https://doi.org/10.3366/jshs.2019.0274

Given, M. 2004 'Landscapes of resistance' in M. Given (ed) *Archaeology of the Colonized*, London: Routledge. 138-61. https://doi.org/10.4324/9780203644188

Given, M. 2007 'Whisky and resistance: the archaeology of illicit distilling', *Historic Argyll* **12**, 11-17.

Gordon, J. (ed) 1845 The New Statistical Account of Scotland by the ministers of the respective parishes, under the superintendence of a committee of the Society for the Benefit of the Sons and Daughters of the Clergy, Moulin, Perth, Vol. 10, Edinburgh: Blackwoods and Sons. 658. https://stataccscot.edina.ac.uk:443/link/nsa-vol10-p658-parish-perth-moulin.

Grant, E. 1992 Memoirs of a Highland Lady, Edinburgh: Canongate.

Hay, G.D. and Stell, G.P. 1986 Monuments of Industry, Edinburgh: HMSO.

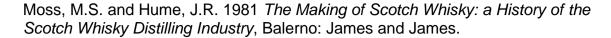
Heawood, R. 2009 'Excavations at Lochrin Distillery, Edinburgh', *Industrial Archaeology Review* **31**(1), 34-53. https://doi.org/10.1179/174581909X424763

Hoffman, A. 2015 'Review of *The Temperance Movement in Aberdeen, Scotland,* 1830–1845: Distilled Death and Liquid Damnation', Northern Scotland **6**(1), 116-19. https://doi.org/10.3366/nor.2015.0097

Mackie, W. and Stevenson, D. (eds) 1991 *The Diary of a Canny Man, 1818-28. Adam Mackie, Farmer, Merchant and Innkeeper in Fyvie*, Aberdeen: University Press.

Maclean, C. and MacCannell, D. (eds) 2017 Scotland's Secret History: The Illicit Distilling and Smuggling of Whisky, Edinburgh: Berlinn.

Martin, M. 1703 *A Description of the Western Isles of Scotland*. London: Andrew Bell. https://www.electricscotland.com/books/pdf/martin.htm



National Records of Scotland, E581/4/50, Distillery Discharge vouchers: Elgin collection: Huntly: rounds 1-2 1826-1827.

National Records of Scotland, RHP 2265–1827, Plan of Blackmiddens Farm.

Ordnance Survey 1872 Banffshire, sheet XXXV.

Parliamentary Papers 1823a 'Fifth Report of the Commissioners of Inquiry into the Collection and Management of the Revenue Arising in Ireland & C. Distilleries'

Parliamentary Papers 1823b '[Excise Act] Bill to reduce duties on spirits distilled from corn or grain in Scotland and Ireland, and on licenses for stills; and for warehousing of spirits without payment of duty (as amended by committee, and with amended clause B)'.

Parliamentary Papers 1835 'Seventh Report of the Commissioners of Inquiry into the Excise Establishment and into the management and collection of the excise revenue throughout the United Kingdom', British Spirits part II, House of Commons Parliamentary Papers.

Parliamentary Papers 1851 'MacNeill Report into the state of the Highlands and Islands'.

Sherriff, J. 2020 *Blackmiddens, Rhynie, Aberdeenshire: A measured survey of a 19th century farmstead and distillery*, Edinburgh: HES. https://canmore.org.uk/collection/2169314 [Last accessed: 4 March 2022].

Stewart, M. 2020 A Documentary History of Blackmiddens Farm, Aberdeenshire, Report for the Cabrach Trust.

Suddaby, I. nd. Seed Pan/Malt Kiln Tile, Scotland's Brick and Tile Manufacturing History [website], https://www.scottishbrickhistory.co.uk/seed-pan-malt-kiln-tile/ [Last accessed: 21 January 2023].

Tarlow, S. 2007 *The Archaeology of Improvement in Britain*, Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511499708