Archaeology Research Excavation Grant 2022
Aidan Harte- Final report

Submission Date	Oct 21, 2022
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3. Grant programme	Archaeology Research Excavation Grant
4. Year awarded	2022
5. Title of project	The Sweathouse Excavations Project
6. Summary of report (Min. allowed 100 words)	This report presents the preliminary results of the Sweathouse Excavations Project – while awaiting on-going post-excavation analysis. In this one season of excavation, we examined three separate sites (Alteenacres Glebe, Killadiskert and Cattan) all in Co. Leitrim. There has been an absence of serious archaeological examination of the Irish Sweathouse as a site type. Our knowledge of these structures relies heavily on antiquarian accounts, the earliest of which dates to the 1790's and as such their chronology is poorly understood. This project looked to archaeological excavate three Sweathouse sites, principally to retrieve samples for radiocarbon dating but also to see what further information might be collected from such investigations (such as the fuel-types used and the internal floor layout of different Sweathouse types). Each Sweathouse site offered a different level of preservation. Killadiskert (RMP No.: LE018-062), north of Lough Allen, survives almost intact, with just a few capstones collapsed into the interior. Also in the core area, 3.6km to the northeast, the Sweathouse at Alteenacres Glebe (RMP No.: LE016-023) is a mound, seemingly collapsed inwards and was much disturbed. The site at Cattan, 8km southeast of Mohill, in the south of the county, was discovered in 2021 and was considered the location of a collapsed or infilled Sweathouse, of which only a slight depression remained at the surface. The following outlines a brief description of each excavation in the order in which they were carried out. Alteenacres Glebe was excavated between 2nd – 10th May 2022, under licence 22E0288. The site is recorded as a 'Vapour Bath' on the 1835 edition O.S. map, and subsequently as 'Sweat House', and now survives as a collapsed mound in forestry plantation. It had not yet collapsed by the late 1970s and remained to a height of 1.8m into the 1990s. In 2021, the internal diameter was recorded as 2.8m and no internal measurements were recorded prior to this. The excavated trench included the circular internal area of the Sweathouse chamber, 2.91m SE-NW by a maximum 3.6m, with an extension 2.4m to the southeast, 1m in width. The chamber was represented by a floor comprising both cobbles- and flag-stones set tightly, intermittently bounded by the basal course of the structural walls. The heat-effected floor and lower course of wall masonry defined an almost circular area, 1.84m N-S x 1.76m. The entrance was 0.52m in width and at least 0.6m in length and opened to the southeast. From the entrance, a series of large stones stepped down in the direction of the river (2.5m to south). The path/steps became covered by burnt rake-out, mound slippage and weathered debris throughout the sites period of use. Within the chamber, only thin remnants of burning episodes remained.

There was not enough stone within the collapsed mound to have formed either the walls or roof of the Sweathouse chamber. The mound material had subsided into the central depression. Although severely impacted by roots from nearby trees – planted in the 1990s – it appears that the masonry of the structure was purposefully 'robbed-out' prior to this.

Only modern pottery sherds – all from the same vessel - were recovered from the surface layer over the chamber. Almost all the sampled burnt material consisted of turf embers. Charcoal (alder and oak) was recovered from the steps outside the entrance (alder) and within the collapsed mound material (oak), and the former has been forwarded for radiocarbon dating. The site was backfilled and secured to allow the backfilled materials to settle.

Killadiskert was excavated between 11th – 13th May 2022, under licence 22E0289. The Sweathouse is one of two surviving in this townland, but this example had previous been recorded as 'Not visible at ground level.' (Moore 2003, 222). However, the site was located in 2021 during the Leitrim Sweathouse Project. The upstanding corbelled dry-stone structure is 2.15m in height, built into a field boundary, with a low entrance opening to west. The structure is drystone built, corbelled, with a large capstone collapsed into the sub-circular chamber (1.64m x 1.54m).

The western half of the interior was excavated, through the entrance, where a 1m wide trench extended out 1.8m. Only deposits above the floor were excavated internally. This found a level flagstone floor, with very thin overlying deposits and only trace indications of burning activity. The flagstones continued through the 0.46m wide entrance. Having both the floor and top lintels of the entrance, a minimum height of 0.53m was measured. Outside, to west, a wide gully ran alongside the field boundary, but only a couple of metres either side of the Sweathouse. A series of large stones formed stepping-stones leading up to the entrance. Around the base of these stones, a thin ex-situ burnt deposit was the remnant of burnt material removed from the chamber. Beneath the stepping-stone nearest the entrance, a stone-line drain traversed the trench from north to south. This appears to have been used to keep the Sweathouse dry but may also have provided water to a pool further downslope.

A single find of a partial leather shoe (upper and sole) was recovered from the upper fill of the drain and is likely post-medieval in date (pers. comm. M Hurley May 2022). All samples were sieved and showed an abundance of turf embers. Charred reeds were also noted from immediately outside the entrance. Charcoal (alder and blackthorn/cherry) recovered from both outside and inside the chamber have been sent for radiocarbon dating. The site was backfilled and cordoned off to allow the backfilled materials to settle.

The final site, at Cattan (ITM 616114, 793676), was excavated over 5 days from the 17th of July, under licence 22E0389. Local information was that a circular depression, c. 4m dia., was the 'place always referred to as a Sweathouse' and that it had had a tunnel or entrance that opened to the west (i.e. downslope). This was where the excavation was undertaken at this location and consisted of a trench 5m x 2.5, with further extensions to expose the extent of the feature.

The structure excavated was a drying kiln, most likely for cereal-drying. This comprised of a funnel shaped bowl, with stone lining, 2.9m in diameter at the top and narrowing to a base c. 1.45m in diameter. It had a depth of 1.28m with a stone-lined flue opening at the base to the west (H: 0.48m; W: 0.62m). A second trench (1.5m x 1m) was opened 0.4m to the west. The flue was again located but the capping lintels did not remain after a combined length of 2.6m but the side-walls did continue beyond this trench. A third trench (1.5m x 1.1m) at 1.2m further west, found no evidence of the flue or burning activity. Therefore, the flue length was originally >3m but <4.3m. a small amount of burnt material was found at the base of the flue in Trench 2. Only sparse evidence of burnt material was found within the bowl area, however, several wooden branches were preserved here. These were arranged in such a way as to suggest that they may have been used as a drying rack. Broken fragments of this wood (alder and willow) were sampled for radiocarbon dating. About a third of this material was excavated and the larger in-situ wood fragments remain in-situ. Both the bowl/chamber and flue had filled with greyish clay denoting disuse. Within the bowl, most of this clay was retained (unexcavated) to preserve the primary context beneath. Stones had been used to fill most of the bowl – seemingly both field clearance and potentially structural stone from a possible superstructure. The timber at the base was covered with breathable

membrane and the site was backfilled, with finer sediments at the base. The sod was replaced at the surface.

Datable material was recovered from all sites and four samples have been sent for radiocarbon dating. Specialist analysis on the leather shoe is also pending.

Below: Alteenacres Glebe

Left: Killadiskert

9. Please outline the objectives of the project

The excavations were designed to answer a series of research questions about Irish Sweathouses, which were informed by the ongoing Heritage Council funded Leitrim Sweathouse Project, in addition to previous regional and localised studies. There were three, specific research questions:
1. Can strategic sampling, for radiocarbon dating, from multiple sites further our understanding of the chronological date range of these sites?
2. Was peat turf exclusively used as fuel, or are other fuel-types present?
3. Can archaeological information, in terms of flooring, size, flues, segregation and other features, be identified to explain these structures original design purpose?
To date, only a single radiocarbon date has ever been acquired for an Irish Sweathouse. This was at Cornacully, Co. Fermanagh, as excavated by B.B. Williams (Historic Monuments and Buildings Branch, DOE, NI) in 1989. The C14 date returned was 1456+/-40 B.P. and deemed unreliable as it likely came from turf used in the fire (pers. comm. Brian Williams 2003).
Therefore, the main research objective is to implement a programme of strategic sampling of multiple sites to attempt to acquire reliable dating material. Dates derived from peat-turf are problematic as they date the peat formation and not the period of use of these sites. There are oral accounts of other materials being used and, if so, then it was hoped that this tinder would be preserved between the masonry and more representative of a commencement date. The dates from different morphological types of Sweathouses may also be of significance. With regard to fuel, it seems that the fires may not have been ignited with turf, but with cuttings taken from nearby verge clearance. One Leitrim account tells of how the briars and twigs were left to dry in the sweathouse for weeks or months, only being lit when the Sweathouse was needed. It could be that bushes such as furze, prized for its use in lime-kilns and bakers-ovens since at least the 16th century (Lucas 1958), were used in Sweathouses.
Lastly, it can be difficult to assess the accuracy of measurements gained through field survey. So, few Sweathouses have been excavated, the relationship between surveys of collapsed or infilled Sweathouses and the original dimensions cannot be estimated, especially entrances. The sites excavated here in this project have the potential to increase exponentially our understanding of the size and layout (internally and externally) of such structures.

10. Please describe the methodology used in conducting the research

Archaeological excavation across three Sweathouse sites of differing levels of preservation. The research design and excavation methodology was prepared for each site and agreed with the relevant licensing authority (i.e. National Monuments Service).
The excavations applied a methodology of single context excavation and recording in accordance with IAI guidelines and MoLAS standards. This included written descriptions, scaled photography, and scaled drawings (plans

	and sections). Photogrammetry was also employed, where trenches were frequently subject to vertical and oblique photography. All excavations were conducted by hand and all excavated areas were backfilled to original levels.
11. Please outline the findings of your research and/or milestones achieved	The findings of this research depend largely on the success or otherwise of the radiocarbon dating programme now underway. Suitable samples were recovered, but not in great numbers, most of the burnt material being turf. This supports the accounts that turf was the primary fuel used in Sweathouses. The internal space at the two Sweathouses were remarkably similar in size, shape and even form. The internal chamber of a Sweathouse seems to have been kept clean for practical purposes – the fire necessarily being raked out every time it operated. From excavated examples so far, it can be said that Sweathouses did universally have stone floors, either flagstones or cobbles. There also seems to be a tendency to use large stones to form a path or route to the entrance. In this project, the stone-lined drain at Killdiskert highlighted a water-management aspect to the Sweathouse not seen elsewhere. It is known that man-made pools were sometimes located nearby, and this may be related activity. The site at Cattan, while not a Sweathouse, illustrates how these sites can be easily confused in the local memories. The drying-kiln is remarkably similar to Sweathouse in terms of entrance size (but not length) and chamber diameter (but not shape). Key here is shape and the absence of a stone floor.
12. a) Please provide details of the dissemination of the outcomes from this project (inc. publications, presentations, outreach, media etc.) including details of any social media/web platforms used to publicise this project	Two papers on the projects are currently being drafted. Some of the initial findings were presented at a public lecture in Carrick-on-Shannon on the 15th September. The final day of the excavation at Cattan (21st July) was open to the public (with permission from the landowner), and large numbers of the local community came to see the excavation. All three excavations featured on the Leitrim Sweathouse Project social media platforms. The above image of Alteenacres particularly captured people's imagination reaching over 11,000 Twitter-users alone.
b) No. of Academic Papers/articles published:	0
c) No. of Lectures given/outreach events involved in:	1
d) Media Coverage (article in local newspaper, feature on University website etc.):	Forthcoming article in the Leitrim Guardian by J. Heslin on the excavation at Cattan
e) How will you continue to communicate the results of your project and what are your publication plans?	Full publication of the results is envisaged once the post-excavation analysis is completed. This will take the form of an article in a peer-reviewed journal (such as Post-Medieval Archaeology). A summarised account of the three excavations, with particular focus on the results of radiocarbon dating will also be prepared for Archaeology Ireland or another more general archaeological publication.
How did the grant enhance your professional development (e.g. in terms of specific opportunities, opportunities for enhancing skills, collaborations with others etc.)?	The grant provided the opportunity for archaeological excavation of two Sweathouses within what might be considered the core area of such activity. Excluding prehistoric Sweat-lodges, only one such Sweathouse has ever been scientifically excavated (Cornacully, Co. Fermanagh) and no reliable date has ever been recovered. This as been an issue of all Sweathouse studies over the last 40 years – are the sites we have recorded a result of preservation or survival in these areas? or is it the case that Sweathouses were only ever in use in these areas? The grant has allowed the examination of this and related questions and furthered our understanding of these unusual structures (regardless of the resulting dates).
What plans (if any) do you have to further your proposal/project?	Dependent on final post-excavation analysis, there are a number of further research questions to be answered. However, at this point no further excavations are planned, as the most appropriate sites and methodologies cannot be known until such time as the results of radiocarbon dating are available.