

A Community-based archaeological investigation at Newmills, Co. Tyrone

Centre for Community Archaeology Data Structure Report No. 139

On behalf of



Funded by





A COMMUNITY-BASED INVESTIGATION AT NEWMILLS
CO. TYRONE

Centre for Community Data Structure Report No. 139

Licence No. AE/21/115

Brian Sloan

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1 Summary

1.1 Introduction

The Centre for Community Archaeology, Queen's University Belfast carried out a two-week investigation into the site of a mill/creamery at Newmills, Coalisland, Co. Tyrone in [specific dates](#) August 2021. The project was funded by the National Lottery Heritage Fund and Mid Ulster Council, and was carried out in association with the Lough Neagh Partnership. The investigation was community-based and involved the participation of a total of 54 volunteers (26 adults and 28 Newmills Primary School pupils) over the two week period. A total of 86 people visited the excavation over the two week period.

1.2 Excavation

Two trenches were manually excavated. The first (Trench 1) was located over the structures identified as 'Creamery Row' and measured 10m by 1m. This trench attempted to investigate the social aspect of the site but excavation proved that the houses had been almost completely cleared by the 1980s demolition. Pottery, glass and metal artefacts were recovered during the excavation of this trench, which ceased prior to the natural subsoil being reached.

Trench 2 was located to investigate a distinct hollow in the field approximately 25m north of Trench 1, in the assumed area of the industrial component of the complex. Excavation of this trench revealed a relatively complex stratigraphic sequence including walls, floor deposits and the remains of the millrace. The archaeological activity was identified as representing three distinct phases dating (on artefactual evidence) from the early nineteenth century to the late twentieth century. This trench demonstrated that, in this area of the site at least, archaeologically significant features and deposits are present.

1.3 Results

The excavation was a success in that archaeological remains were encountered and recorded and the local community was engaged with the project. The excavation of the two trenches revealed interesting aspects about the site's history and archaeology, and shows the potential of the area should further archaeological fieldwork take place.

1.4 *Recommendations*

Little is required by way of a post-excavation programme of works to bring this project to a conclusion. What recommendations there are, are detailed further in Section 5 of this report. The artefact assemblage is dominated by pottery sherds (primarily glazed earthenware and transfer printed ceramics), glass (bottle and window) and corroded iron artefacts. These are of a nineteenth and twentieth century date which corroborates the known historical background of the site. The artefacts recovered in Trench 2 are important as distinct phases of activity were discernible in the archaeological record. A clay pipe bowl recovered from a deposit associated with the primary activity encountered in the trench has been dated to 1780-1840 (report on the clay pipe assemblage compiled by Ruairi OBaoill and included as Appendix 5 at the rear of this report), which corresponds with the use of the site as a spade manufactory.

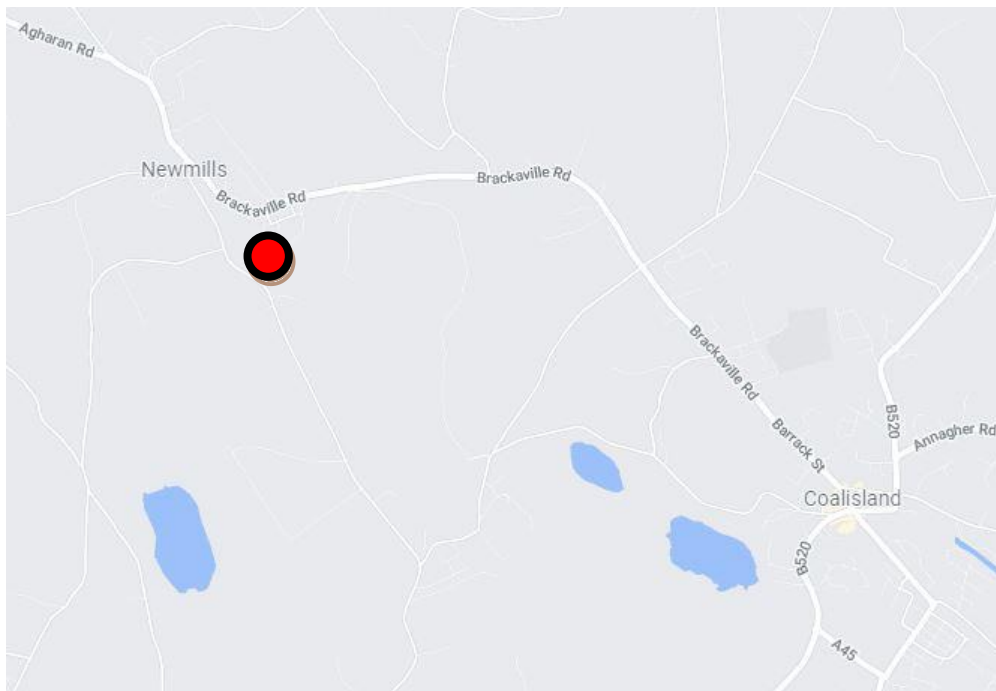


Figure 1: Location of the site (red dot).

2. **Introduction**

2.1 *General*

The Centre for Community Archaeology, Queen's University Belfast (CCA) undertook a two week archaeological investigation into the site of a mill. The investigation site is located on the outskirts of the village of Newmills Co. Tyrone approximately 2 miles to the north-west of Coalisland. The project was community-based and involved the participation of local volunteers and pupils from the nearby Newmills Primary School. The project was carried out on behalf of the Lough Neagh Partnership and funded by the National Lottery Heritage Fund and Mid-Ulster Council.

The excavation took place between Monday 9th August – Friday 20th August and was directed by Brian Sloan (CCA) under Excavation Licence No. AE/21/115.

2.2 *Site description*

The site is located to the immediate south of the village of Newmills. The field is bounded by mature hedgerows along its northern and western edges and the River Torrent along the southern boundary. A water treatment plant is located along the south-eastern boundary which also acts as the entrance into the site. The topography of the site is dominated by a steep slope along the northern side of the field which slopes to the south towards the River Torrent. An area of flat ground is located between the base of the slope and the river. Photographic evidence suggests that the mill structure was nestled against this slope rather than being constructed on the flat ground between the slope and the river (Figure 2).



Figure 2: Photograph of the rear of the structure prior to its demolition (possibly 1970s). this picture illustrates the terrace cut into the slope to accommodate the mill structure (image provided by Keith Beattie LNLP).

2.3 *Surrounding historical and archaeological landscape*

The site is located in an area rich in both historical and archaeological sites and monuments. The majority of these concern the industrial landscape that developed around Coalisland during the Post-Medieval period (Figures 3 and 4).

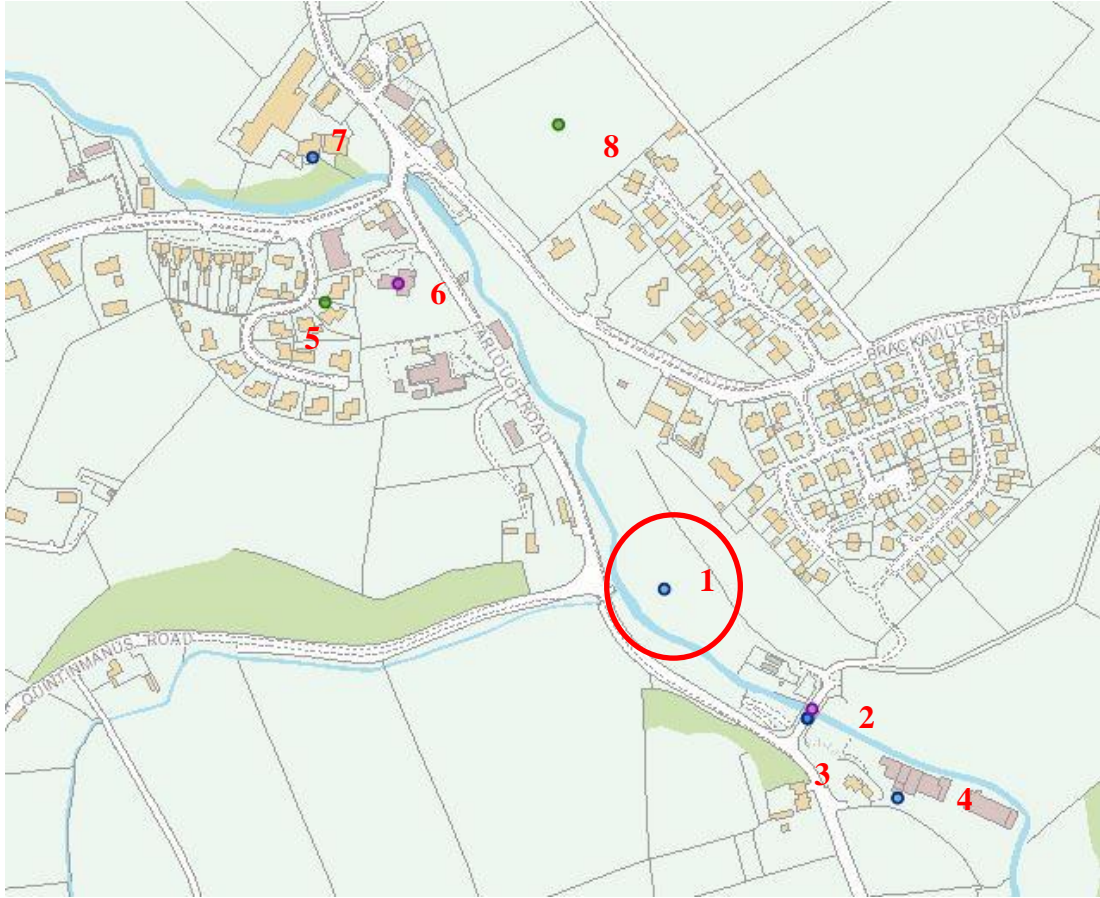


Figure 3: Sites and monuments in the vicinity of the excavation site (circled in red).

No.	SMR No.	IHR No.	Grid Ref	Description
1	N/A	05068:000:00	H81756742	Spade manufactory/Dairy
2	N/A	HB13/15/002	H81866732	Disused Aqueduct
3	N/A	05097:000:00	H81866732	Aqueduct
4	N/A	05069:000:00	H81936726	Bleach mill
5	TYR 046:025	N/A	H8149067640	Early Medieval ecclesiastical site
6	N/A	HB13/15/019	-	Holy Trinity Church – Grade B listed building
7	N/A	05076:000:000	H81486865	Corn and flax mill
8	TYR 046:048	N/A	H8167068675	Neolithic activity

Figure 4: Detail of sites and monuments in the vicinity of the excavation site (taken from the Northern Ireland Sites and Monuments Register [NISMR]).

2.4 Cartographic evidence

The OS maps clearly show the development of the mill and the surrounding area. The 1st edition OS map dating to the 1830s (Figure 5) shows the mill structure (depicted as a 'Spade Manufactory') as well as its association with a mill race (entering the structure at the north-eastern end and re-entering the River Torrent to the south-east). The eighteenth-century aqueduct is visible to the south-east of the mill structure.

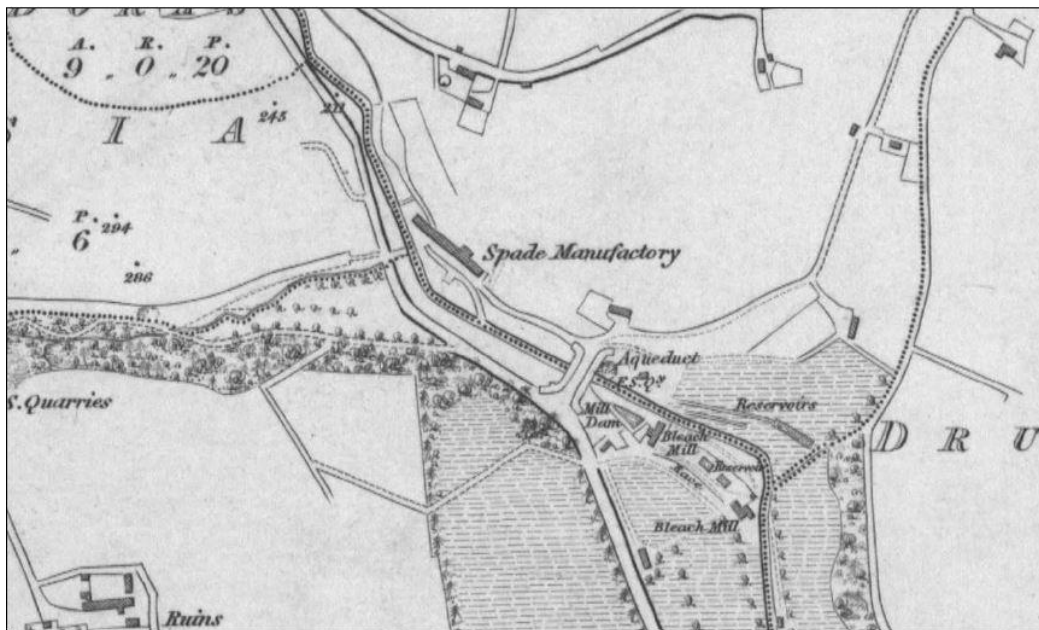


Figure 5: 1st edition OS map dating to the 1830s.

The 1st edition map shows little enclosing of the fields around the mill has occurred by the 1830s. the curvilinear field boundary in the upper left hand corner of the image (Figure 5) denotes the outer enclosure of a medieval monastic site of 'Doras' which was subject to archaeological investigation in the 1980s (McDowell 1987).

The 2nd edition revision OS map of the 1850s (Figure 6) lends little further information when considering the development of the mill structure at Newmills. The site is still referred to as a 'Spade Manufactory', although the development of the field systems, and of the village of Newmills itself, in the vicinity of the mill is quite evident.

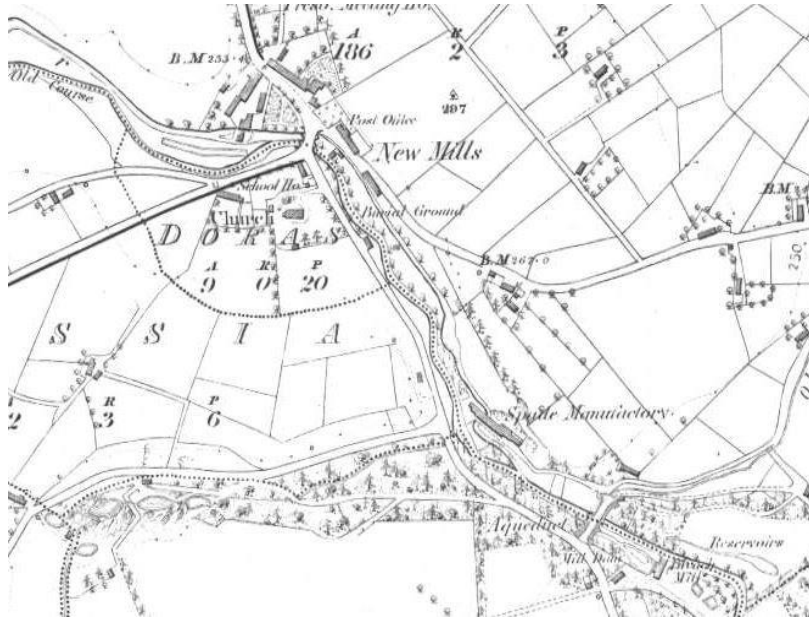


Figure 6: 2nd edition (revision) OS map dating to the 1850s.

The 3rd edition OS map dating to c. 1900 depicts the structure as 'Newmills Dairy' a change of function that is supported by the revised valuations of the site from the 1860s (see below). The further development of the village of Newmills is evident, as is a change in the size of the fields around the Dairy (perhaps associated with a change towards a more pastoral economy in the general vicinity).

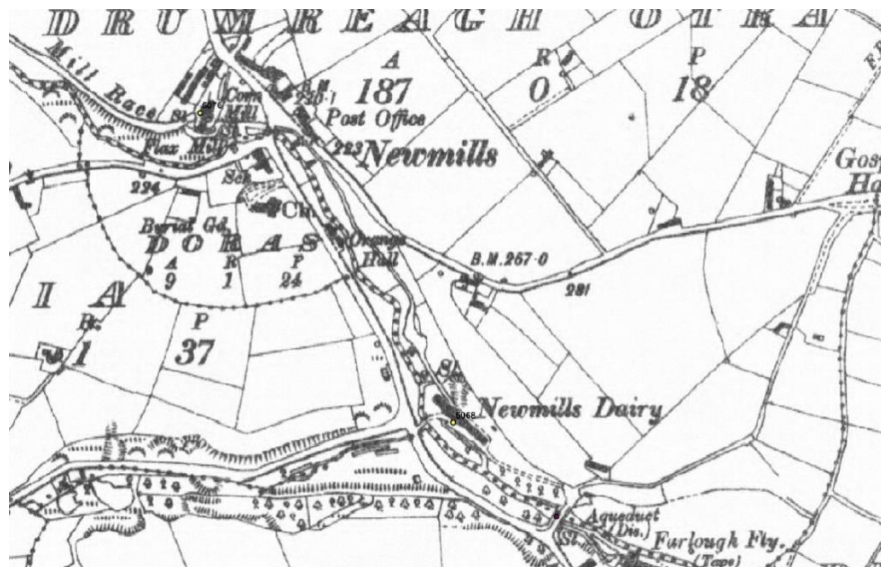


Figure 7: 3rd edition OS map dating to c. 1900.

2.5 *Historical background*

A comprehensive investigation into the historical background has been carried out by Keith Beatie (Lough Neagh Partnership) and what follows is a very brief summary of his work.

The 1st edition OS map shows an established spade manufactory to have been located onsite and this is supported by the memoirs gathered at the time the maps were drawn. In a statistical report by Lieutenant G Dalton, dated to July 1834 it states that:

“There are also two spade manufactories, one in Drumreagh Otra belonging to Mr Geraghty and the other in Derry townland, belonging to Mr Lackey of Coalisland. These manufactories supply all the neighbouring markets and occasionally send a cargo of spades and shovels and plough irons to America.” (Day et al 1993)

The Griffith’s Valuation of 1860, and subsequent revisions, provide more detail into the occupiers and description of the buildings (Figure 8). It is evident that the mill’s fortunes changed throughout the nineteenth century with references to ‘very much dilapidated’ (1872), ‘House repaired’ (1878), ‘Old Factory’ (1879), and ‘Ruins’ (1897). The function of the mill also changes from a spade manufactory, Corn mill/kiln/sawmill/workshop, and creamery.

The houses associated with the mill were known as ‘Creamery Row’ and although this folk memory associates them with the later use of the site as a Dairy, they were present right through the site’s history. The houses were occupied throughout the twentieth century with the last inhabitant vacating the site in the mid-1970s (James Walshe *pers comm*). Indeed Donnelly, in [here](#) history of the Parish of Tullanisken states: [her](#)

“Beside the Creamery there was a row of small houses known as Creamery Row. They had no back doors and were built as houses for the Mill workers... The last resident of Creamery Row was Jimmy Fullen but the houses have all been pulled down and the giant water wheel removed so that now nothing remains of this historic part of Newmills.” (Donnelly 1993, 95)

The empty mill and houses suffered a fire in the mid-1980s and were demolished soon after. The site reverted back to a green field and is currently used for grazing.

Date of valuation	Occupier	Immediate Lessor	Description
1860 & 1872	Hugh Curran	Earl of Castlestuart	House, offices, spade manufactory and land
1872	Hugh Curran	Earl of Castlestuart	House, offices, spade manufactory and land (Very much dilapidated (?) and in ruins.)
1877	Hugh Curran	Earl of Castlestuart	House, offices, spade manufactory and land
1878	William Senior ²	Earl of Castlestuart	House repaired
1879	Vacant	Earl of Castlestuart	Old factory
1880	Edmund James Senior	Earl of Castlestuart	Corn mill & kiln, sawmill & workshop
1881	Edmund James Senior	Earl of Castlestuart	Corn mill, house, land, sawmill new wheel and new roof etc.
1882	Edmund James Senior	Earl of Castlestuart	Corn mill, kilns, sawmill & workshop
1896	Edmund James Senior	Earl of Castlestuart	Land & offices
1897	-	-	Ruins
1899	New Mills Cooperative Agricultural & Dairy Company Limited	Earl of Castlestuart	Creamery, land & offices
1912-1929	New Mills Cooperative Agricultural & Dairy Company Limited	Earl of Castlestuart	Creamery

Figure 8: Revisions of the Griffith's Valuation of 1860 showing the occupiers and range of buildings at the Newmills investigation site (provided by Keith Beattie LNLPL).

2.6 *Aims of the investigation*

The primary aim of the investigation was to carry out a community-based excavation into the site of the mill. This was attained by the participation of 26 volunteer archaeologists and 28 primary school children over the two week period. The excavation was open to public visits and this was well received by the local community with 86 people visiting the excavation over the two week period.

The structure was demolished following a fire in the 1980s. A secondary aim of the investigation was to assess the presence and survival of sub-surface archaeological deposits.

2.7 *Archiving*

A copy of this report has been deposited with the Historic Environment Division: Department for Communities (HED:DFC). All site records and archives are currently housed at the Centre for Community Archaeology, School of Natural and Built Environment, Queen's University Belfast.

2.6 *Credits and Acknowledgements*

The excavation was directed by Brian Sloan, assisted by Ruairi O'Baoill, both of the CCA. Assistance in the excavation and recording of the site was provided by Ryan Montgomery and Gemma Shawcross, both Undergraduate students at Queen's University Belfast. The author is indebted to their hard work and enthusiasm which ensured the investigation was a success.

Thanks are due to the National Lottery Heritage Fund and Mid-Ulster Council who funded the project, as well to Keith Beattie from the Lough Neagh Partnership for all the help and support throughout the investigation. The site is owned by Mihail Bell and gratitude is owed to him for facilitating access to the area and supporting the excavation.

The project could not have been a success without the involvement of the volunteers and pupils from Newmills Primary School who worked diligently through varied weather conditions.



Figure 9: Location of the excavation trenches

3. Account of the excavation

3.1 *Introduction*

The investigation involved the manual excavation of two trenches. The first (Trench 1) was located over the remains of the houses of the mill structure (known locally as 'Creamery Row'). The second trench (Trench 2) was positioned approximately 25m to the north-west of Trench 1, and was located to investigate the industrial aspect of the site. Whilst Trench 2 was excavated to the surface of the natural subsoil, excavation of Trench 1 ceased due to a deposit of large boulders. The edges of the trenches were surveyed using a GNSS GPS with an accuracy of +/- 20mm.



Plate 1: The investigation area prior to excavation commencing, looking north-west.

3.2 *Methodology*

The excavation of the trenches was carried out manually. This work was undertaken by members of the Centre for Community Archaeology assisted by volunteers who gained archaeological instruction over the duration of the investigation. Following excavation and recording of the trenches, they were manually backfilled and the site reinstated.

The archaeological features were recorded using the standard recording system. The excavation archive is reproduced at the rear of this report as Appendix One. This includes lists of the context numbers assigned to each feature and deposit, (Appendix 1a) the harris matrices for the trenches (Appendix 1b), as well as the lists of the field drawings (Appendix 1c), soil samples (Appendix 1d) and small finds (Appendix 1e).

3.3 *Trench 1*

Trench 1 was aligned roughly north-west/south-east and measured 10m in length by 1m in width. It was located to investigate the structures known locally as 'Creamery Row'. The trench provided the focus for the community aspect of the project and was excavated by the volunteers and school children under archaeological supervision. The majority of the trench was not fully excavated with excavation ceasing at the deposit of large boulders and demolition rubble (Context No. 102). A small sondage (measuring 1m x 1m) was excavated in the north-western end of the trench to investigate the potential for underlying archaeological deposits. This revealed a series of discreet layers of mortar, clay and stones that are interpreted as represent makeup/bedding deposits. No walls, foundations or floor deposits were encountered and it is thought that the demolition of the structures carried out in the 1980s was thorough. Artefacts recovered from this trench indicate a wide domestic spectrum and are dominated by pottery sherds, glass fragments and corroded iron artefacts. Following the excavation, the trench was manually backfilled and the area reinstated.

The stratigraphically latest deposit encountered in this trench was the sod and topsoil (excavated as a single stratigraphic unit Context No. 101). This deposit (Context No. 101) consisted of active grass roots within a matrix of mid to dark brown clay loam which was on average 0.15m thick. Frequent small to medium angular and sub-rounded stones were observed throughout this deposit, as well as the frequent inclusion of charcoal flecking and larger chunks/lumps. Removal of the sod and topsoil deposit (Context No. 101) revealed a deposit of rubble (Context No. 102) which is interpreted as representing the demolition of the houses dating to the 1980s.



Plate 2: Trench 1 following removal of the sod and topsoil deposit (Context No. 101) showing the top of the mixed rubble deposit (Context No. 102), looking north-west.

The rubble deposit (Context No. 102) measured 17.8m north-west/south-east and spanned the 1m width of the trench. The full depth of the deposit (Context No. 102) was not recorded with the majority being left *in situ* due to the size of some of the rubble. Artefacts from this deposit (Context No. 102) included a corpus of post-medieval pottery sherds, glass fragments and corroded iron, all of which appear to be nineteenth and twentieth century in date. The rubble deposit (Context No. 102) was the single fill of a cut (Context No. 106) which was observed in the south-east facing section face. This cut (Context No. 106) had a gently sloping side and the base was not encountered due to the size of some of the rubble comprising Context No. 102. The profile of the cut (Context No. 106) observed in section would suggest that it was produced by a mechanical excavator and relates to the demolition of the structure in the 1980s.



Plate 3: South-east facing section off Trench 1 showing the cut (Context No. 106) filled with the demolition rubble (Context No. 102).

The demolition deposits (cut Context No. 106 and deposit Context No. 102) were stratigraphically above a series of discreet deposits likely to be associated with the build-up for the floor surface of the houses, although an *in situ* floor surface was not encountered. Immediately beneath the cut (Context No. 106) was a thin layer of orange red clay which was on average 0.05m thick (Context No. 103). The clay (Context No. 103) was relatively sterile apart from the occasional charcoal fleck and small angular stone. The clay (Context No. 103) was removed to reveal a thin smear of charcoal and mortar (Context No. 104) which was on average 0.03m thick. The mortar spread (Context No. 104) overlay a second thin layer of orange red clay (Context No. 105) which was on average 0.05m thick and similar in texture, appearance and consistence to the overlying clay deposit (Context No. 103). The lower clay deposit (Context No. 105) overlay a deposit of medium sized angular stones (average length 0.12m) (Context No. 107). These stones formed a single layer and it is likely that this deposit (Context No. 107) provided firm footing for the overlying mortar spread and clay layers.



Plate 4: Post-excavation view of Trench 2 looking north-west. The rubble demolition deposit (Context No. 102) is visible in the foreground with the exploratory sondage visible at the top of the picture.

The excavation of Trench 1 did not progress further than the layer of angular stones (Context No. 107) due primarily to time constraints. Following the recording of the trench, it was manually backfilled and the area reinstated.

3.4 Trench 2 [dimension needs added](#)

Trench 2 was located **??m** to the north-west of Trench 1 and measured 3.5m in length by 2m in width. The trench was located to assess a distinct hollow in the topography and was excavated to the surface of the natural glacial subsoil. The trench revealed a number of features and deposits associated with the industrial use of the site. Three distinct phases of activity (dated primarily on artefactual evidence) were discernible; Phase 1

dating to the early nineteenth century, Phase 2 dating to the mid to late nineteenth century and Phase 3 dating to the late twentieth century.

Phase 1

The stratigraphically earliest feature associated with this phase was a cut (Context No. 216) made into the sloped topography of the field. This feature acted as a 'terrace cut' and was excavated to accommodate a flat platform on which the walls of the mill were constructed. The feature (Context No. 216) was not fully investigated due to the presence of the walls of the mill, as well as being truncated on its north-eastern end by a pit associated with Phase 3 activity (Context No. 211 – see below). The maximum length of the cut (Context No. 216) was 1.42m (north-west/south-east).

The excavation revealed two walls associated with Phase 1 activity. The first was a well-constructed stone and mortar wall that was orientated north-west/south-east (Context No. 203). The wall (Context No. 203 ^{close brackets} was 1.72m in length (north-west/south-east) and 0.58m wide (north-east/south-west)). The depth of the wall or any foundations were not encountered due to the partial excavation of the south-eastern portion of the trench. The wall was constructed of large angular stones bonded together with a buff creamy mortar. Fragments of brick were also incorporated into the fabric of the wall. This wall (Context No. 203) was keyed into another wall (Context No. 205) that was exposed along the western end of the trench, indicating the two walls are contemporary. A ledge/shelf was apparent at the junction of the walls (Context Nos. 203 and 205) which was subsequently blocked up during the Phase 2 activity (Context No. 206 – see below). The function or purpose of this ledge is not clear, although it may have originally housed a door or window.

The wall exposed in the western end of the trench was not fully exposed and continues to the north-west beyond the limits of the trench. This wall (Context No. 205) was 2.6m in length and was orientated north-east/south-west. The wall was a maximum of 1.17m deep and was completely covered in a plaster/render. The fabric of the wall was not visible for recording. A further ledge/shelf was apparent in the wall (Context No. 205) in the south-western corner of the trench. As with the corresponding north-west/south-east oriented wall, this ledge was subsequently infilled during the Phase 2 activity (Context No. 221 – see below).

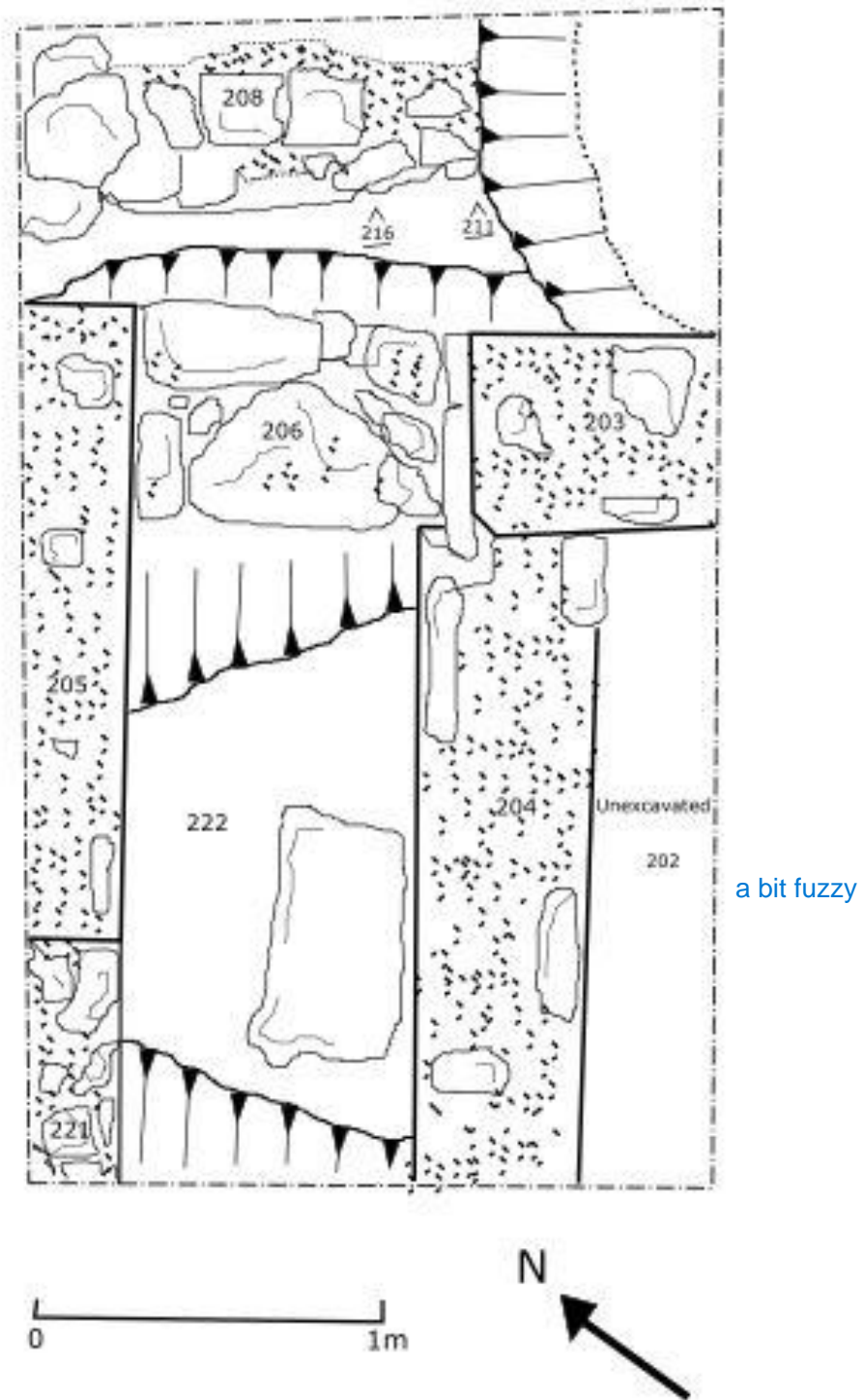


Figure 10: Post excavation plan of Trench 2.

The stratigraphically earliest deposit associated with Phase 1 activity was a deposit of large angular stones (Context No. 223) that appeared to have been deposited on the surface of the natural geological subsoil (Context No. 215). The stones averaged 0.2m in

length and formed a single layer. A 'domed' deposit of clay (possible redeposited subsoil – Context No. 222) was directly above the layer of stones. This deposit (Context No. 222) had a relatively flat surface with pronounced slopes to the north and south. During the excavation it was initially thought that the slopes in the clay deposit (Context No. 222) represented cut features (initially assigned Context Nos. 214 and 218), although it became apparent that this was a misinterpretation and these numbers were voided. A large flat flagstone was also encountered pressed into the surface of the clay deposit (Context No. 222). The function of the flagstone, clay deposit and layer of stones is not clear, but may have provided a footing for machinery (with the clay perhaps acting as a 'muffler' for noise).



Plate 5: Overhead view of the clay deposit (Context No. 222) showing the flat flagstone and sloped nature of the deposit, looking north-east. The Phase 2 wall (Context No. 204) is visible at the top of the picture.

Immediately above the clay deposit (Context No. 222) was a relatively thick deposit of charcoal rich silty clay (Context No. 213). This deposit (Context No. 213) varied in thickness from a maximum of 0.36m to a minimum of 0.08m and contained abundant flecks and chunks of charcoal and clinker, as well as frequent inclusions of small angular stones (average size 0.05m in length). Numerous corroded iron artefacts as well as

fragments of slag were recovered during the excavation of this deposit (Context No. 213) which also produced sherds of white glazed ceramics and fragments of clay tobacco pipes/stems. These have been dated to 1780-1840 (Ruairi O'Baoill *pers comm*) indicating this is a working surface dating to the period when the structure was a spade manufactory.



Plate 6: Artefacts recovered during the excavation of Context No. 213, including a clay bottle stopper, a button and fragment of clay tobacco pipe dating to between 1780-1840.

Also associated with Phase 1 activity was the remains of the mill race (Context No. 208) which was encountered along the northern edge of the trench. This feature comprised three courses of roughly squared stones that were bonded together with a buff creamy mortar. The millrace (Context No. 208) ran parallel to the north-west/south-east wall (Context No. 203) and measured 1.22m in length and was truncated by the pit associated with Phase 3 activity (Context No. 211 – see below). This is interpreted as the southern edge of the millrace with the corresponding northern edge lying beyond the limit of the excavation.



Plate 7: Portion of the millrace (Context No. 208) looking north. The disturbance caused by the Phase 3 pit (Context No. 211) can be seen to the right of the picture.

Phase 2

The stratigraphically earliest feature associated with Phase 2 activity was a wall (Context No. 204) that was constructed to sub-divide the room associated with Phase 1 activity (see above). This wall (Context No. 204) was orientated north-east/south-west, ran parallel to the Phase 1 wall (Context No. 205) and measured 1.92m in length by 0.52m in width and was 0.86m deep. The construction of the wall (Context No. 204) was similar to the Phase 1 walls (Context Nos. 203 and 205) with large angular stones bonded together with a whitish cream mortar. The wall (Context No. 204) was built up against Context No. 203 but was not bonded into it in any way.



Plate 8: Mid-excavation photograph of Trench 2 showing phase 2 features including the tile floor (Context No. 210) and wall (Context No. 204), looking north-east.

Physically above the Phase 1 'working surface' (Context No. 213) was a thin deposit of firm orange red clay (Context No. 212). This deposit was sterile and is likely a deposit of redeposited subsoil. This deposit (Context No. 212) was on average 0.08m thick and provided a bedding layer for a layer of floor tiles (Context No. 210). This feature (Context No. 210) was quite extensive and measured 1.22m in length and 0.86m in width. A number of these tiles had a maker's mark stamped into the surface indicating they were made by D. Devlin of Coalisland (Plate 9). Historical evidence indicates that these tiles were manufactured during the period 1874-1884 dating the Phase 2 activity to the mid to late nineteenth century (see section 4 of this report).

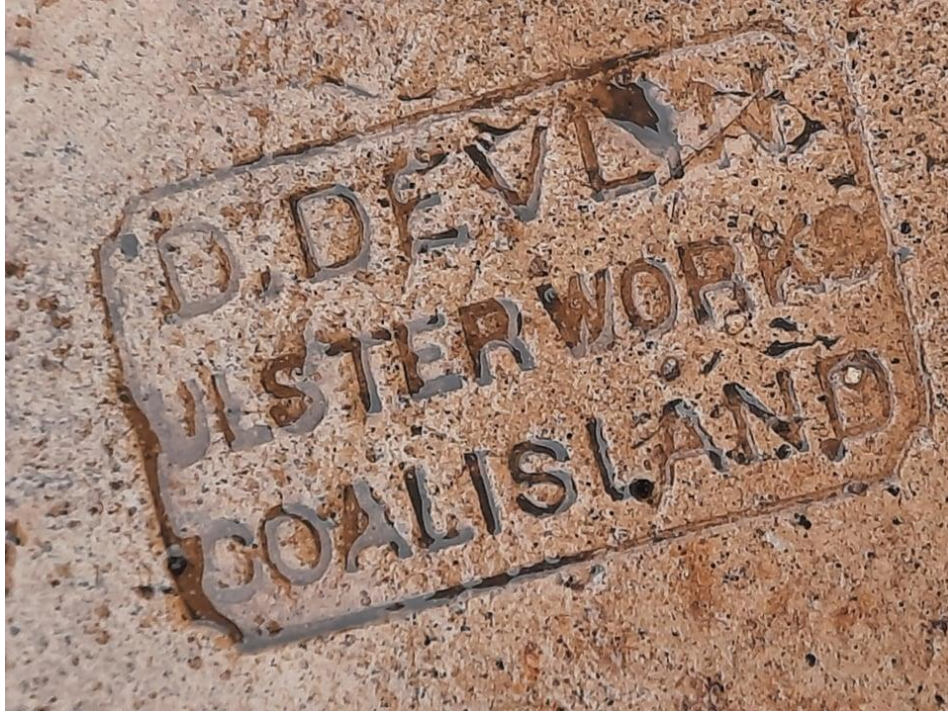


Plate 9: Stamp of 'D. Devlin Ulsterworks Coalisland' visible on the tile floor Context No. 210.

Also associated with Phase 2 activity was the infilling of the ledges/shelves in the Phase 1 walls (Context No. 203 and 205). The ledge/shelf in wall Context No. 203 measured 0.9m in length (north-west/south-east) and 0.6m in width (north-east/south-west). The infilling of this feature consisted of large angular stones bonded together with a buff/cream coloured mortar (Context No. 206). This deposit (Context No. 206) was not bonded into the north-east/south-west aligned wall (Context No.205), but built up against it. The infilling of wall Context No. 205 consisted of medium to large angular stones bonded together with a buff/cream coloured mortar (Context No. 221). This deposit was not fully exposed and continues to the south-west beyond the limits of the trench. It is not apparent what purpose these ledges performed during the Phase 1 life of the structure. However, it is apparent that that function was no longer necessary when the tile floor was laid down in the 1870s, and they became blocked up.



Plate 10: Trench 2 showing the blocked up doorway (Context No. 221) in wall (Context No. 205) looking north.

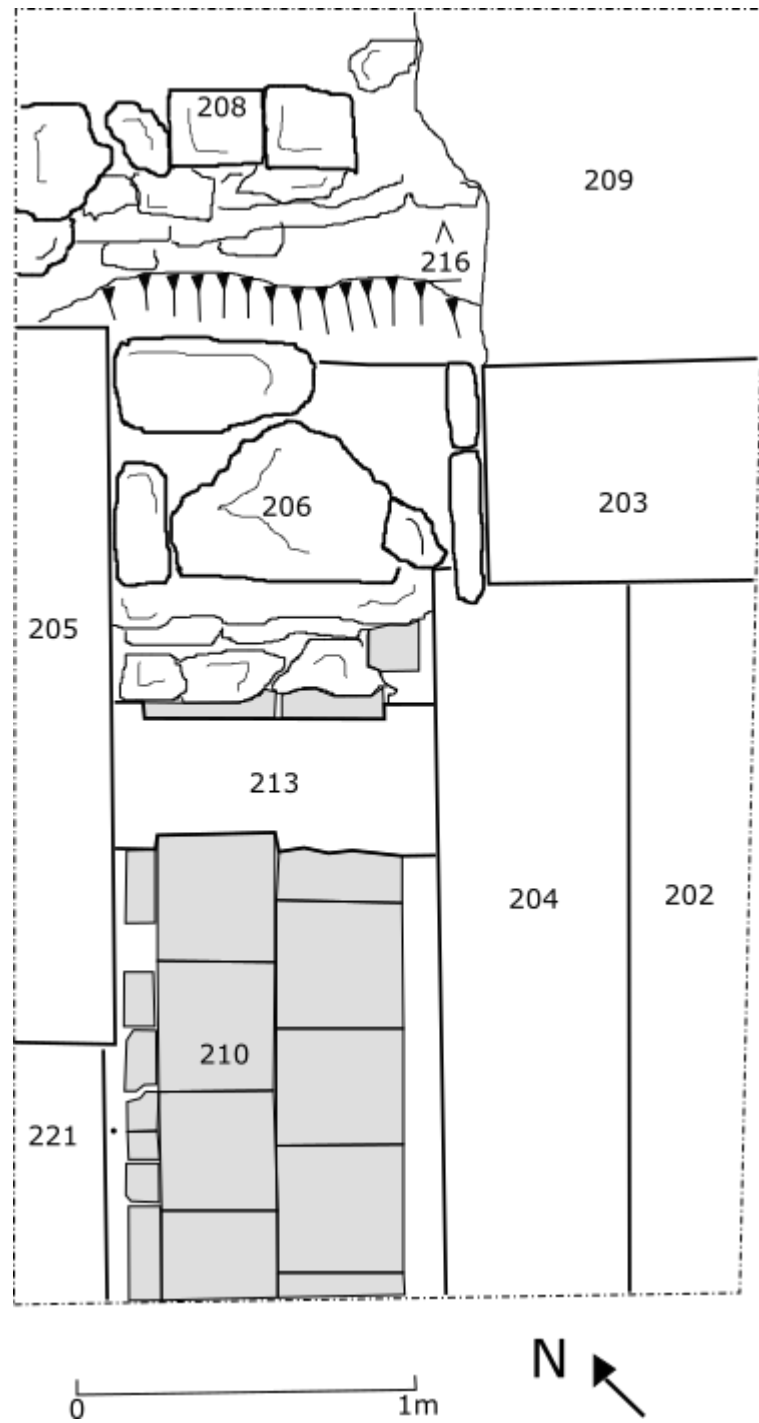


Figure 11: Mid-excavation plan of Trench 2 showing features associated with the tiled floor (Context No. 210).

Phase 3

Phase 3 activity represents the demolition of the structure and the deposition of a number of layers of rubble. Directly above the Phase 2 tiled floor (Context No. 210) was a thick deposit of rubble and mortar (Context No. 224). This deposit (Context No. 224) was on average 0.8m thick and comprised a mixture of brick and angular stones within a whitish creamy mortar rich loam. Directly above this demolition deposit (Context No. 224) was another deposit of rubble (Context No. 207) which was similar in appearance to the underlying rubble (Context No. 224) but exhibited a greater concentration of charcoal (both flecks and chunks were abundant in this deposit). This deposit (Context No. 207) was on average 0.7m thick and underlay an upper deposit of demolition rubble (Context No. 202) which varied in thickness from 0.22 – 0.6m in thickness. This deposit (Context No. 202) was similar in appearance and texture to the basal rubble deposit (Context No. 224) but stratigraphically separated by the charcoal rich demolition deposit (Context No. 207). The upper rubble deposit (Context No. 202) was not fully excavated, especially along the eastern edge of the trench.

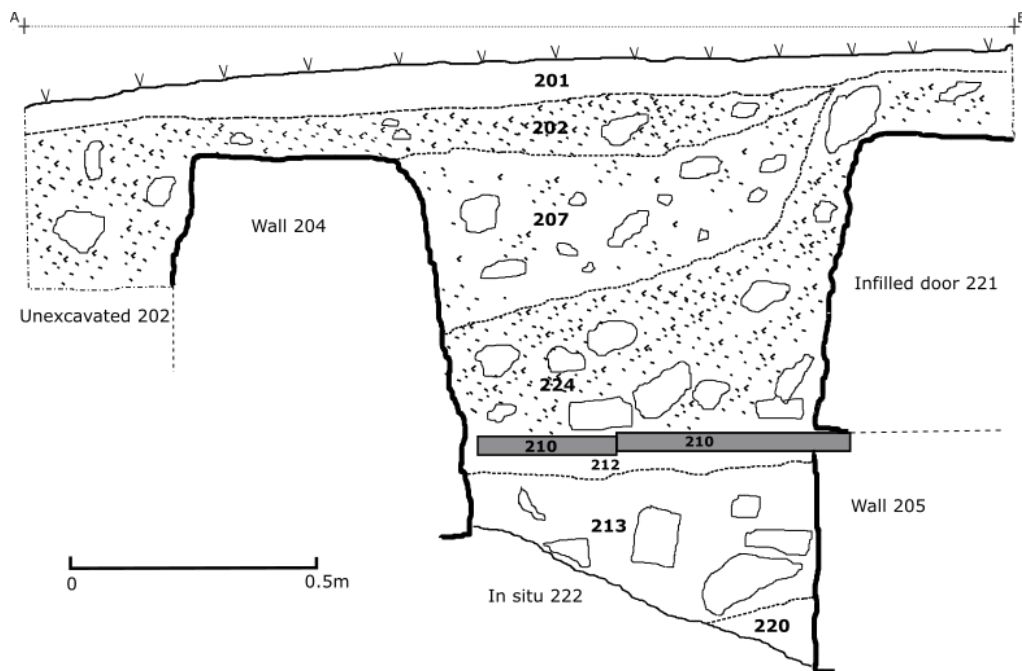


Figure 12: North-east facing section of Trench 2.

The overlying deposit across the whole of Trench 2 was the sod and topsoil (Context No. 201). This consisted of active grass roots within a deposit of mid brown clay loam. This deposit (Context No. 201) exhibited frequent inclusions of small angular stones as well as occasional brick fragments and was on average 0.1m thick.

Following the recording of the trench, it was manually backfilled and the area reinstated.

4. Discussion

4.1 Introduction

The investigation was a success, not just for the identification and interpretation of archaeological features and deposits, but also for the engagement with the volunteers and local community. The excavation proved that archaeologically significant deposits exist and that they survive to a high standard beneath the sod layer.

4.2 Community impact

The investigation was well received by the local community who showed interest and enthusiasm for the project. Over the two week period a total of 54 volunteers took part in the excavation. This included 26 volunteers who signed up for the excavation through the 'Coalisland and East Tyrone Great Place Scheme' run by the Lough Neagh Partnership and funded through the National Lottery Heritage Fund and Mid-Ulster Council. Added to this was 28 pupils from the local Newmills Primary School who took part not just in the excavation but also in a series of events as part of a summer scheme. The school group represented a variety of age profiles ranging from P5-P7 year groups. All volunteers were instructed in excavation and artefact identification, as well as archaeological recording, all carried out under archaeological supervision.

The site was visited by 86 people over the two week period. Again the visitors spanned a diverse age profile. Each visiting party was shown the trenches and discussed the working hypothesis of what story the archaeological deposits were telling. The feedback from the excavation was entirely positive, particularly given the previous 18 months when Covid restrictions made any community project unworkable.



Plate 11: Pupils from Newmills Primary School excavating in Trench 1, looking south-east.

4.3 *Dating of the archaeological deposits/phases*

Excavation of Trench 2 allowed the tentative dating of two features/deposits which better our understanding of the archaeological activity represented in the trench. The features/deposits in question are the black 'working floor deposit' (Context No. 213 – Phase 1 see below) and the tile floor (Context No. 210 – Phase 2 see below).

The black clay loam deposit (Context No. 213)

This deposit (Context No. 213) was interpreted as representing a 'working surface' associated with the early activities of the mill. The character of the deposit, particularly the corroded iron artefacts, metal slag and frequent inclusions of charcoal and clinker indicate that this deposit (Context No. 213) formed as a result of an industrial process. The artefacts recovered included fragments of clay tobacco pipe, a decorative button and

a clay bottle stopper. Dating of this deposit is primarily artefact based, particularly in reference to the clay tobacco pipe fragments which suggest a tentative date of c. 1800 AD (a date range for the tobacco bowl of 1780-1840 is suggested – see Appendix 6 of this report). The decorative button is curious, although a similar example was recovered during recent excavations at Dublin Castle carried out by Irish archaeological Consultancy, which also suggest an early nineteenth century date for this style (Paul Stevens *pers comm*). The artefacts suggest that this deposit (Context No. 213) date to the period that the mill acted as a spade manufactory.

The tile floor (Context No. 210) – Phase 2 mid to late nineteenth century

The tile floor encountered in Trench 2 (Context No. 210) is provisionally dated to the mid to late nineteenth century, particularly between the years 1874-1884. This is primarily based on the maker's stamp impressed into some of the tiles stated that they were manufactured by 'D.Devlin' of Coalisland (Plate 9). The Belfast Newsletter, dated 12th September 1874 details:

“New Fire-clay Works, Coalisland, County Tyrone, Daniel Devlin (Late of the firm of M. Devlin & Sons, Builders, Glasgow.) Having purchased ground and buildings at Coalisland where he has fitted up the latest improved machinery for the manufacture of fire-clay... is now prepared to supply all kinds of goods that have yet been made from fire-clay....Mr. Devlin Would call attention of Architects and Builders to his White Facing Bricks, which have been pronounced superior to any now imported. The flooring tiles are being largely used and are said to be better than either English or Scotch. The materials suitable for gas-works, and ground fire-clay, in any quantity are always in stock, ordered, or special articles supplied within fourteen days. Prices and Samples sent free. Ulster Fire-Clay Works, Coalisland, August 1874”

Devlin's fortunes appear to have been relatively short-lived and in 1884 the Fire-clay works was sold off. An article in the Northern Whig dated 24th June 1884 advertises an auction to take place where several articles were for sale, including a handcart. The reason for the downturn in trade appeared to be the excessive levy put on the goods to transport them by rail, making them uncompetitive against cheaper Scottish variants.

It can be assumed that the tiled floor (Context No. 210) was laid down either during the heyday of Delvin's fire-clay enterprise (1874-1884) or soon after the demise of the works with the tiles being bought as a job lot. In any case, this dates this phase (as well as the

subsequent alterations to walls (Context No. 203 and 205) to the mid to late nineteenth century. The revision of the valuations of the site shed a bit further light on this proposed dating with suggestions that the house was repaired in 1878, as well as major renovations having occurred in 1880-81 when the structure was transformed into a corn mill (Figure 8).

4.4 *Conclusions*

The excavation at Newmills was an outstanding success, not just in an archaeological sense but also in the public outreach that it achieved. This was the rare occasion that a mill structure was archaeologically investigated and although the trenches were small, the amount of information gleaned from the stratigraphic sequences adds to our understanding of the workings and layout of such an industrial structure. The Newmills excavation has proven that archaeologically significant features and deposits are present and they exhibit a high level of preservation should further fieldwork ever happen at the site.

5. Recommendations for further work

5.1 Introduction

The excavations at Newmills, whilst interesting, did not produce a vast archaeological archive. As such, little further work is required to bring the project to a conclusion. A relatively small artefact assemblage was recovered, dominated by metal and slag artefacts as well as glass and pottery fragments. The material culture assemblage lends little to the interpretation of the archaeological features and so it is recommended that a cursory examination of the artefacts is required to aid in the final publication of the investigation.

5.2 The ceramic assemblage

A relatively small assemblage of pottery was recovered during the investigation. A cursory examination of these sherds suggests the assemblage is dominated by nineteenth and twentieth century, supporting the known history of the site. The pottery assemblage is compiled of both glazed earthenware and transfer-printed white glazed ceramics. It is recommended that a brief examination and catalogue of the pottery sherds is prepared by Ruairi O'Baoill of the Centre for Community Archaeology, QUB.

5.3 The metal artefacts

A number of heavily corroded metal artefacts/slag fragments were recovered during the investigation. A number of these were recovered from Context No. 213 which is associated with Phase 1 activity in Trench 2. It is recommended that these are subject to x-ray analysis to determine/separate corroded artefacts from slag prior to specialist study. It is proposed that this work is carried out within Queen's University Belfast.

5.4 The clay pipe assemblage

A small number of fragments of clay tobacco pipes were recovered during the excavation. These have undergone specialist examination by Ruairi O'Baoill (CCA) and the full report is included as Appendix 6 at the rear of this report. As such, no further work is required on this component of the artefact assemblage.

5.5 *The glass assemblage*

A number of sherds of glass were recovered during the excavation. The majority of these are bottle glass with the occasional inclusion of window glass. It is not recommended that further analysis is undertaken on this component of the material culture assemblage.

5.6 The brick assemblage

A number of bricks (both complete examples and fragments) were retained from both Trenches 1 and 2. It is recommended that these are forwarded to Stephen Gilmore (QUB Mres student) who is undertaking a study into post-medieval bricks. Inclusion of the Newmills sample will further the understanding the use of brick in both industrial and domestic structures of the nineteenth century.

5.7 *Publication*

The Newmills project forms one of the few archaeological investigations into post-medieval mill structures in Ireland. As such, it is important that the results of the excavation are disseminated through publication. It is recommended that publication takes the form of a short article for the general reader magazine *Archaeology Ireland* with a full report prepared for inclusion into the *Ulster Journal of Archaeology*.

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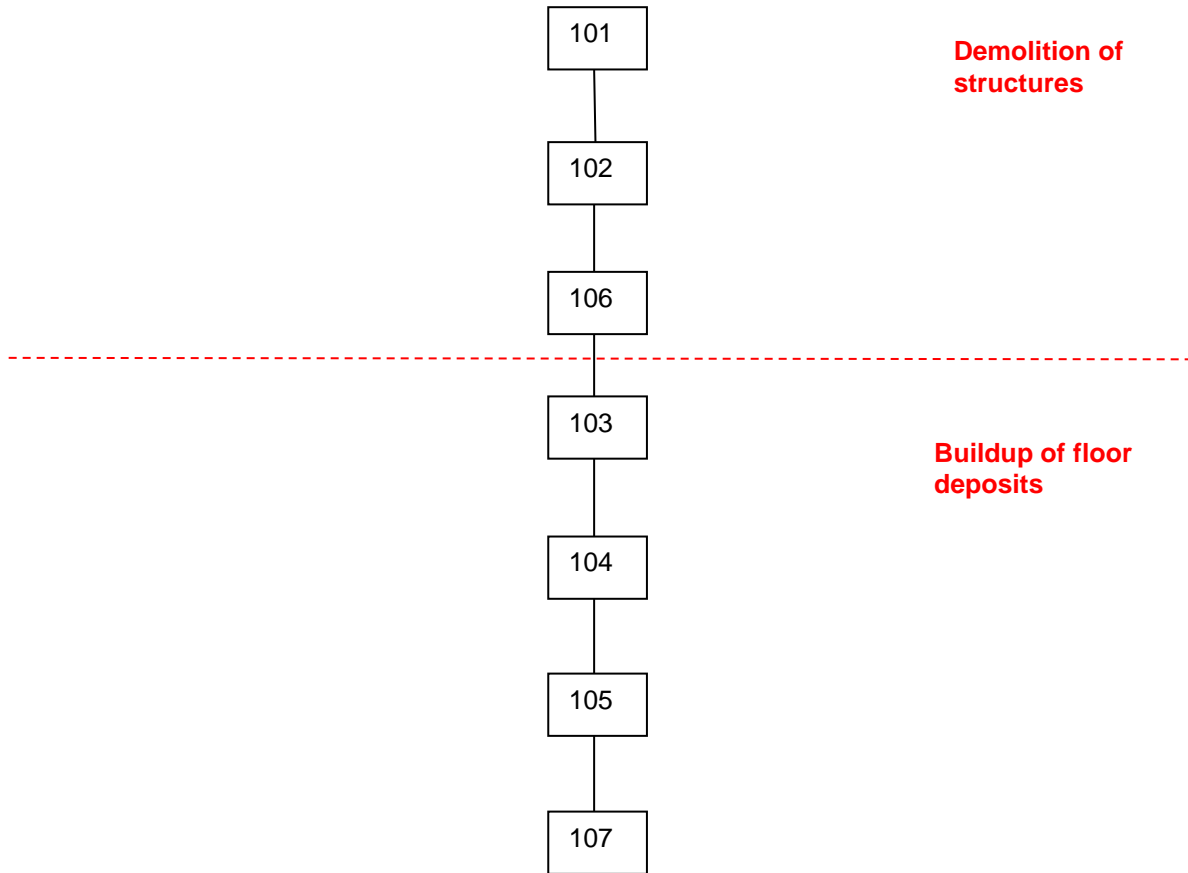
Appendix 1 – Context Register

Trench	Context No	Description
1	101	Sod and topsoil
1	102	Rubble/demolition deposit
1	103	Gritty clay bedding layer
1	104	Mortar
1	105	Gritty clay bedding layer
1	106	Cut for demolition deposit Context No. 102
1	107	Angular stone deposit beneath Context No. 105
2	201	Sod and topsoil
2	201	Rubble/demolition deposit
2	203	East/west aligned wall
2	204	North/south aligned wall
2	205	North/south aligned wall
2	206	Infill of gap between walls Context Nos. 203 and 205
2	207	Rubble/demolition deposit – charcoal rich
2	208	Potential remains of the mill race
2	209	Charcoal rich fill of modern pit Context No. 211

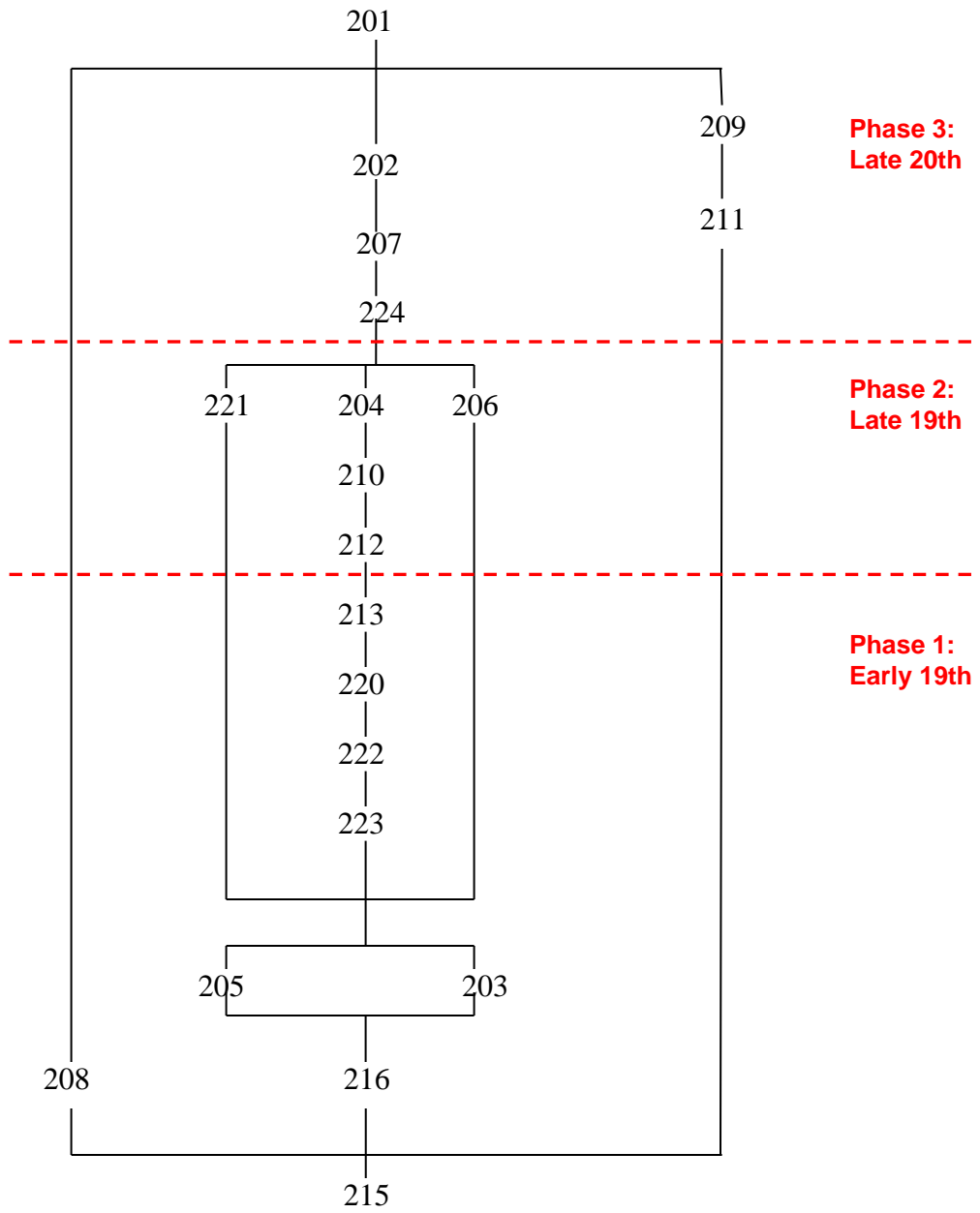
2	210	Tiled floor
2	211	Modern cut filled by Context No. 209
2	212	Clay bedding for Context No. 210
2	213	Black gritty clay 'working surface'
2	214	VOID
2	215	Natural geological subsoil
2	216	Terracing into the side of the slope to accommodate walls
2	217	Same as 213
2	218	VOID
2	219	VOID
2	220	Silty grey clay (observed in section)
2	221	Infill of door in wall Context No. 205
2	222	'Domed' deposit of clay/redeposited subsoil
2	223	Angular stone footing directly beneath Context No. 222
2	224	Rubble/demolition deposit beneath Context No. 207

Appendix 2 – Harris Matrices

Trench 1



Trench 2



Appendix 3 – Small Finds Register

<i>Trench</i>	<i>Context</i>	<i>Type</i>	<i>Quantity</i>
1	101	Clay pipe stem	1
1	101	Pottery	47
1	101	Metal/slag	21
1	101	Leather	2
1	101	Tile/brick	2
1	101	Glass	55
1	102	Charred wood	1
1	102	Metal	19
1	102	Charred paper	1
1	102	Metal – Fire grate	1
1	102	Slag	1
1	102	Ceramic?	2
1	102	Brick	2
1	102	Ridge tile	1
1	102	Metal	7
1	102	Metal - Padlock	1
1	102	Pottery	8

1	102	Pottery	29
1	102	Glass	25
1	102	Glass	4
1	102	Metal/slag	1
1	102	Floor tile	7
2	202	Brick	5
2	202	Metal	1
2	202	Pottery	1
2	202	Bone	1
2	202	Glass	18
2	202	Metal – Gear mechanism?	1
2	202	Metal	8
2	202	Floor tile	2
2	202	Slate	19
2	202	Pottery	16
2	207	Pottery	2
2	207	Brick	1

2	207	Metal	2
2	207	Metal	20
2	207	Floor tile	1
2	207	Glass	4
2	209	Brick	1
2	209	Glass	3
2	209	Charred wood	5
2	209	Metal sheeting	1
2	209	Pottery	11
2	209	Metal/slag	6
2	210	Floor tile (complete)	5
2	210	Floor tile (fragment)	15
2	213	Bone	1
2	213	Glass	2
2	213	Ceramic bottle stopper	1
2	213	Pottery	6
2	213	Slate	4
2	213	Metal/slag	5

2	213	Metal/slag	5
2	213	Metal/slag	23
2	213	Metal/slag	31
2	213	Metal/slag	5
2	213	Metal/slag	18
2	217	Button	1
2	217	Glass	4
2	217	Bone	1
2	217	Copper fastening	1
2	217	Metal/slag	23
2	217	Pottery	9
2	220	Metal	4
2	222	Glass	1
2	222	Metal/slag	19
2	222	Metal	1
2	222	Brick	1

Appendix 4 – Sample Register

**The excavation did not produce any deposits suitable for sampling, processing and further analysis in Queen's University Belfast.*

Appendix 5 – Field Drawing Register

<i>Drawing No.</i>	<i>Trench</i>	<i>Type & Scale</i>	<i>Detail</i>
1	2	Plan 1:20	Mid-ex plan detailing floor deposit Context No. 210
2	2	Section 1:20	North-east facing section
3	2	Plan 1:20	Post-excavation plan showing clay deposit Context No. 222

Appendix 6 – Clay pipe report – Ruairi O’Baill CCA

Introduction

A total of five clay tobacco pipe fragments were recovered from the excavation carried out at Newmills, Co, Tyrone, in August 2021. Initially it was thought that the two Contexts (Context Nos. 213 and 217) were separate deposits, but they have subsequently been proven to be the same.

The clay tobacco pipe fragments Context 213 in Trench 2

Three of the clay tobacco pipe fragments recovered from the excavation came from Context 213 in Trench 2 and consist of two fragments of clay tobacco bowl and one small fragment of clay tobacco pipe stem all from different pipes. Both the clay pipe tobacco bowl fragments are too small to get a definitive profile from but their suggested size, if complete, probably indicates that they date from the nineteenth century. One of the bowls is undecorated. The other bowl fragment has a very small portion of a maker’s stamp on it in the form of lettering close to where it has been broken. The letter ‘E’ is clearly visible and the preceding incomplete letter may be a ‘D’. If this is the case, that particular clay tobacco pipe may have been produced in Derry (Norton 2013). However, given the small portion of the stamp surviving this is by no means a conclusive identification.

The small fragment of clay tobacco pipe stem from Context 213 in Trench 2 appears to have a shallow linear incised decoration at one end, close where it has broken off.

The clay tobacco pipe fragments Context 217 in Trench 2

Two of the clay tobacco pipe fragments recovered from the excavation came from Context 217 in Trench 2 and consist of one fragment of a clay tobacco bowl and one small fragment of clay tobacco pipe stem both from different pipes. Both are undecorated.

The fragment of clay tobacco pipe bowl is missing its spur/heel but enough of the bowl survives to suggest that the clay tobacco pipe probably dates from between 1780-1840. A median date of circa 1800 is proposed for this artefact.

The small fragment of clay tobacco pipe stem from Context 217 in Trench 2 is from close to the junction of the pipe stem and the bowl. The fragment is badly abraded.

Discussion

By the early 17th century, the smoking of tobacco in clay pipes was regarded as a normal source of entertainment for all classes across Europe, including Ireland (Anon 1854). By the 19th century many towns in Ireland had their own clay pipe makers (Norton 2013). The clay tobacco pipes found at the Newmills excavation were presumably being smoked by those either living beside or working in the mills.