

2.7 The Roman canals and mills in trench 5

Catalogue of features

F960 G980620 Slot Mill 1

Rels: b. 584; cuts natural

Length: 1.5 m Width: 0.5 m Depth: 0.05–0.11 m

Description: Shallow linear slot with straight sides and squared ends, sharply cut. Aligned NNE–SSW.

Fill: (1) Brown silty soil with chalk grit contained slightly worn flints up to 90 mm, but most 30–50 mm.

F961 G989632 Slot

Rels: b. 584

Length: 0.9 m Width: 0.55 m Depth: 0.1–0.25 m

Description: Sub-oval hollow with deeper oval scoop in base at east end with sloping sides and dished base.

Fill: Light yellowish-brown chalky silt mixed with rounded chalk grit and containing a large number of abraded broken flints 50–120 mm.

Small Finds: (1) 2862 Iron fragment, Pb

Artefacts: Pottery, flint

F962 G994651 Scoop

Rels: b. 584; cuts natural; ?c.b. F997

Length: 0.9 m Width: 0.7 m Depth: 0.12 m

Description: Subrectangular hollow with deeper oval scoop in base at south end with sloping sides and dished base.

Fill: (2) Gritty puddled chalk deposit.

(1) Worn broken flint nodules 50–90 mm mixed with flint gravel 20–30 mm set in greyish-brown silty soil mixed with rounded chalk grit.

Small Finds: None

Artefacts: (1) Pottery, bone, stone; (2) pottery

F966 H024680-H002665 Slot Mill 2

Rels: b. 584; c. natural

Length: 2.8 m Width: 0.3 m Depth: 0.18–0.26 m

Description: Linear slot partly eroded away so discontinuous and terminating on the north-east at ph 1203/F998, which may have destroyed this end of it. A series of small stake-holes 80–100 mm diameter occur at 0.2–0.3 m intervals along its west edge. It is very vestigial over much of its length, but at the south-west end, where it is best preserved, it has straight steep/vertical sides and a flat/dished base.

Fill: (1) A high density of worn, broken flints 30–80 mm and a single fragment of limestone slab 100 mm set in brown silty soil.

Small Finds: (1) Iron: 2977, 3095 6 nails; 2861 Pb fragment

Artefacts: (1) Pottery, stone

F967 H050782 Drain-off channel

Rels: b. 624; cut by F968

Length: 2.5 m (excav.) + c.6 m unex. Width: top: 2.5 m; base: 1.8 m Depth: 1.4 m

Description: Curving sinuous mill leat branching off the main channel F968 to run south-east

into pond F1056 or join with exit channel F1008. Only a wedge-shaped area of the channel was excavated. This revealed irregular steeply sloping/vertical sides with small scoops and hollows eroded along it. The base was irregular with a very deep oval hollow scoured into it at the north end, the rest of the base to the south-east being higher and fairly flat, though small shallow scoops had been eroded over the whole of the base.

Fill: 587, 603, 624

Small Finds: See 587, 603

Samples: See 603

Artefacts: See 587, 603

F968 H07 Mill leat Mill 2

Rel: b. 622, 623 and 584; cuts F967, F969

Length: 3.4 m (excav.) + c.10 m unex. Width: top: c.4.4 m; base: 3.4 m

Depth: c.1.25 m

Description: Broad linear channel running NNE–SSW with fairly steeply sloping sides, best preserved on west, eroded on east with fairly flat, undulating base with shallow scoops and hollows eroded in it.

Fill: Contains 581, 583, 588, 600, 622, 623

Small Finds: See fill layers

Samples: See fill layers

Artefacts: See fill layers

F969 H06 Mill leat Mill 1

Rel: b. 573, 598; c. natural

Length: 8 m Width: top: 2.6–2.25 m; base: 1.5–1.3 m Depth: 0.75 m

Description: Straight linear channel with very even steeply sloping sides and flat level base. Aligned NNE–SSW, it turns abruptly at its south end where it narrows abruptly as it joins into F1042. It is divided from F1042, the mill race, by structure F1044. The whole channel gradually narrows from north to south.

Fill: Contains 585, 586, 591, 599

Small Finds: See fill layers

Samples: See fill layers

Artefacts: See fill layers

F970 H055620-H085580 Pond Mill pond 2

Rel: b. 584, 628, 635; c. natural

Length: >7.0 m Width: >6.8 m Depth: 0.7–1.8 m

Description: Large sub-oval feature partially exposed by excavation trench, but continuing to south and east. It had steeply sloping or vertical sides with curving steps and scoops eroded in the edges stepping down to an irregular base made up of conjoining circular–oval scoops and hollows of various sizes (including F1036–8) eroded into the base. Though this must have been a deliberately cut feature originally much of its final shape and form must have resulted from erosion caused by the fast, turbulent flow of water pouring out of the mill race (F971/F974).

Fill: Contains 589, 610, 615, 625, 683, 641, 644, 645, 648, 649, 663, 664, 680, 682

Small Finds: See fill layers

Samples: See fill layers

Artefacts: See fill layers

F971 H022650-H036528 Mill race Mill 2

Rel: b. 584; cuts natural; continuous with F974

Length: 3.5 m Width: 1.0–1.5 m Depth: 0.5–1.4 m

Description: Narrow sinuous channel varying from fairly shallow at the west end to extremely deep to the east. At the east end the channel is formed of a series of interconnecting rounded subcircular scoops and hollows, but to the east there is one large deep rounded hollow with very steep sloping, in places undercut, sides. The base shallows again at the east end to join into F974. The shape of the channel results from the scour and erosion from the flow of turbulent water.

Fill: Contains 590, 601, 602, 604, 605

Small Finds: See fill layers

Samples: See fill layers

Artefacts: See fill layers

F974 H040626H Mill race terminal

Rel: Continuous with F970 and F971; b. 584; cuts natural

Length: 0.8 m Width: top: 1.2 m; base: 0.6 m Depth: 0.55 m

Description: Circular hollow with sloping or stepped sides, rounded bowl-shaped base, forming east end of mill race channel where it flows into pond F970. Shape a result of erosion and water scour.

Fill: 590, 606, 607, 608

Small Finds: None

Artefacts: Pottery

F975 G987567 Circular hollow

Rel: b. 574; c. 591, 600, 615, F969

Diameter: top: 1.2 m; base: 0.9 m Depth: 0.38 m

Description: Circular bowl-shaped hollow with gently sloping sides forming continuous slope with dished base.

Fill: (2) Thin layer over base of hollow consisting of brown silty soil with worn broken flints 40–70 mm and flint gravel.

(1) Infilling most of the hollow was a dark brown silty soil mixed with a little small chalk and containing a low density of worn broken flints 50–80 mm, rarely up to 120 mm, scattered throughout but increasing in density to the base.

Small Finds: (1) Chalk bead

F977 H010652-H038671 Slot Mill 2

Rel: b. 584; cuts natural

Length: 3.75 m Width: 0.25 m Depth: 0.4–0.23 m

Description: Straight linear slot with rounded terminals, aligned NE–SW cutting across F1043. The north-east end has been severely eroded. It had straight steep sides and a flat base with small rounded hollows occasionally along it.

Fill: (2) Discontinuous along the north-west side of the slot were worn flint nodules 60–90 mm set in small flint gravel. [Possibly packing alongside timber set in slot.]

(1) Brownish-grey silty soil relatively stone-free apart from a little small flint gravel and rounded chalk.

Small Finds: (1) Iron: 2997 4 nails

F978 G955590 Slot Mill 1

Rel: b. 631; c. 630

Length: 1.85 m Width: top: 0.74 m; base: 0.36 m Depth: 0.45 m
Description: Linear slot with straight edges and flat base. Steeply sloping/vertical side on west, very shallow on east. Terminates at edge of F1042/F1044 at north-east and at ph 1197/F999 at the south-west, which may be a continuation of this slot. The slot appears to pair with F960 on the other side of F1042.
Fill: (1) Light yellowish-brown clayey soil containing a scatter of worn flints 40–80 mm and rounded chalk grit up to 10 mm.
Artefacts: Pottery, bone, stone

F979 G994608 Subrectangular post pit Mill 1
Rels: b. 584
Length: 0.88 m, base 0.68 m Width: 0.68 m, base 0.5 m Depth: 0.56 m
Post void: 0.5 m wide
Description: Large rectangular post-hole with straight steeply sloping sides with sharp angles and flat base. A shallow oval hollow occurs in the base on the north-east side.
Fill: (3) [Packing] Small rounded chalk lumps set in hard packed puddled chalk contained a few worn broken flints 50–120 mm.
(1) [Fill of post void] Greyish-brown silty soil containing a little flint gravel *c.*20 mm and a moderate density of small rounded chalk grit and fragments up to 15 mm, densest in the upper part of the fill. Scattered charcoal fragments present.
(2) Across the top of the feature sealing both layers 1 and 2 was a mix of greyish-brown silt and flint gravel 20–60 mm containing occasional charcoal fragments.
Artefacts: (1) Pottery, bone, oyster shell

F980 H000570 Mill pond 1
Rels: b. 629
Length: 4.7 m Width: >1.1 m Depth: 0.5 m+
Description: Small area of edge of pond exposed and partly excavated (a more extensive area of the feature presumably lay to the south of the excavation). It consisted of a series of interconnecting irregular oval–subcircular hollows getting progressively deeper from the north-west edge towards the centre of the pond.
Fill: 646, 681
Small Finds: (1) Iron: 2895, 2934 15 +15 nails, 2961 strip, 3160 bar; CuA: 2915, 2925, 2931, 2932 coins, 2916 object, 2917 wire
Samples: 3950, 4002 stone
Artefacts: (1) Pottery, bone, tile, oyster shell; (2) pottery

F981 G998675 Hollow
Rels: b. 622; cut by F975
Length: 0.3 m Depth: 0.12 m
Description: Two conjoined small subcircular hollows, the north-west one more sharply defined, the south-east a small scoop with dished profile. A small square stake-hole lies immediately adjacent between the two holes on the south side and forms part of the group. [Small stake- and/or post-holes]
Fill: (2) Filling the base was a thin layer of yellowish-grey chalky grit mixed with small worn flint gravel.
(1) Thin dark brown layer composed of charcoal, ash and slag.
Samples: 3934 charcoal, 4042 soil

F985 G965580-G980620 Building Terrace: group number Mill 1

Rels: b. 631, 634

Length: 5.8 m Width: 3.2 m Depth: ~

Description: A group number used to refer to Mill 1 and its associated components. Its basic structure is defined by two large rectangular post-holes on either side of the mill race and a series of two or three linear slots on either side of the leat at right angles to it. Various post-holes in the vicinity are probably also part of the mill structure, though less symmetrically arranged than the other elements.

Fill: Composed of F960, ?F961, F978, F979, F986, F988, F952, F993, ?F999, F1042, F1044, ph 1192, ph 1195, ph 1198

Small Finds: 3120 iron nail

Artefacts: Pottery, tile, bone, oyster shell

F986 G967590 Slot Mill 1

Rels: b. 631

Length: 3.4 m Width: c.0.6 m Depth: 0.12 m

Description: Linear slot with only the west edge surviving as a straight scarp aligned NNE–SSW. The slightest hint of the other side occurs at its south-west end. Faint hollows in the base may have been spade marks. It terminates on F1042 and its line is interrupted by the post-hole F993 and ph 1121 lies at its south-west end.

Fill: (1) Brownish-grey silt mixed with rounded chalk grit.

F988 G966572 Slot Mill 1

Rels: b. 631; uncertain to ph 1195, ph 1198

Length: 2.5 m Width: 0.52 m Depth: 0.06 m

Description: Straight linear shallow slot aligned NNE–SSW with sharply defined edges and flat base. Its line is interrupted by post-holes ph 1195 and ph 1198.

Fill: (1) Light brown chalky silt containing well-rounded chalk grit up to 10 mm.

Small Finds: (1) Iron: 2939 hook, 3087 nail, 3161 bar; 3020 glass bead

Samples: 4024 charcoal

Artefacts: Pottery, tile, bone, stone

F992 G984605 Beam slot Mill 1

Rels: b. 584; c. natural

Length: 1.3 m Width: 0.8 m Depth: 0.13 m

Description: Shallow linear slot aligned NNE–SSW parallel and to the east of F960. It is interrupted by post-hole F979. Most of this feature has been eroded away.

Fill: (1) Very little fill survived: it consisted of brown silty soil with chalk grit and containing a moderate density of worked broken flints 60–130 mm.

F993 G957585 Post pit Mill 1

Rels: b. 631; c. ph 1204

Length: 1.2 m Width: 0.8 m [post void 0.55 m] Depth: 0.7 m

Description: Large rectangular post pit with steeply sloping straight sides, with sharp angles and a flat base.

Fill: (2) [Packing] This layer extended around the sides of the post pit but was thickest on the south-west. It consisted of chalky brown silt mixed with gritty chalk marl [redeposited natural] mixed with a few worn broken flints 35–50 mm with a few flecks of charcoal and the occasional potsherd. On the base of the post-hole were two large sandstone blocks, fragments of broken millstone placed on top of each other and beside these a large flint nodule, all with

a maximum dimension of c.250 mm. [These appeared to form a pad for the timber post.]

(1) [Fill of post void] Greyish-brown silty soil containing scattered chalk grit, flecks of red fired clay and occasional small flint gravel. The post void is set off-centre towards the north-east end of the post pit.

(3) This layer filled the hollow in the top of the feature sealing both void and packing. The greyish-brown silty soil contained occasional worn flints, with the upper part generally more gravelly.

Small Finds: Iron: (1) 2926 12 nails, 3074 9 staples, (2) 2973 7 hobnails, (3) 3104 nail;
Stone: (2) 3062–3 millstone fragments, (3) 3131 millstone fragment

Artefacts: (1) Pottery, bone, stone; (2) Pottery, bone; (3) Bone

F997 G994645 Pit Mill 2?

b. 584; c. natural; ?c. F962

Length: 0.8 m Width: 0.8 m Depth: 0.25 m

Description: Circular hollow with gently sloping sides joining with bowl-shaped base.

Fill: (2) Infilling the base of the hollow was a light greyish-brown chalky silt with a little rounded chalk grit concentrated over the base of the feature.

(1) Small flint gravel and pebbles c.25 mm mixed with worn broken flints 35–120 mm set in light brownish-grey silty soil with chalk grit and containing rare burnt flints.

Artefacts: (1) Pottery, flint, stone

F998 H035690 Channel

Rels: b. 637; equivalent to F1056, F1008, ph 1203

Length: 2.0 m Width: 1.8 m Depth: 0.7 m

Description: Curving channel apparently joining with or running through more extensive pond F1056 and ultimately running into F1008. The west end only was excavated. Here the feature was irregular with the sides stepped down in a series of rounded scoops and scallops of increasing depth (including ph 1203) with a series of interconnecting sub-oval rounded scoops and hollows formed in the base. The whole effect is distinctly of turbulent water eroding the natural.

Fill: 642, 643

Artefacts: (1) Pottery, tile, bone

F999 G940578 Slot Mill 1

Rels: b. 631; rel. to F978 and F1000 unclear

Length: 2.3 m Width: top: 0.6 m; base: 0.18 m Depth: 0.4 m

Description: Linear slot with straight steeply sloping sides and a flat base. It was overcut at its north-east end as ph 1197. Irregularities at the south-west end may be associated with F1000.

Fill: (1) Brownish-yellow silty soil with rare charcoal fragments and fairly stone-free apart from scattered worn flints up to 40 mm and a scatter of rounded chalk grit.

Small Finds: (1) Iron: 2992 2 nails

Artefacts: (1) Pottery, bone

F1000 G933575 Pit/ditch terminal

Rels: b. 630, 631; uncertain to F999

Length: ~ Width: top: 1.15 m; base: 0.4 m Depth: 0.88 m

Description: Circular or oval feature with dished base and steeply sloping sides. This has only been partly exposed and just the east side excavated. This could be either one half of a large circular post-hole or pit or the rounded terminal of a linear ditch extending westwards below

the unexcavated layer 631. Irregular hollows in the end of F999 may relate to this feature indicating it actually extended further south-east.

Fill: (2) Filling the lower half of the feature was a dark brown soil virtually stone-free apart from an isolated flint and lens of eroded rounded chalk grit at the top on the north side.

(1) Above was a thick deposit of dark brown silty soil with a little chalk grit and containing a low density of worn broken flint nodules 30–120 mm and small flint gravel. The larger flints tend to concentrate towards the top of the layer. [Natural silting with ploughsoil eroded into the feature.]

Samples: 4022 flotation

Artefacts: (1) Pottery, tile, bone; (2) pottery

F1001 H095605 Scoop Mill pond 2

Rels: b. 645; within F970

Length: 0.65 m Depth: 0.18 m

Description: Small irregular rounded scoop in upper edge on north side of pond F970.

Fill: (1) Dark grey silt containing a low density of flint gravel and pebbles 25–40 mm, flint and chalk grit and mortar grit.

F1007 H020670 Group No. Mill 2

Rels: b. 628, 647

Length: 5.0 m Width: 4.0 m

Description: This is a general number used for Mill 2. The area has suffered a certain amount of erosion so that evidence of the structure essentially survives only over the southern half of the area. The main evidence is the mill race F1043 branching off the main channel F968. This has a number of stake-holes associated with it and is cut across by two parallel slots (F966, F977) 1.5 m apart and 3.8 m long. The mill leat F971 begins just to the east of these features. Possible post-holes to the south of the mill race (F981, F997, F962, ?F961) may have been associated with the mill structure.

Fill: Composed of F966, F977, F971, F981, ?F997, ?F962, F1043

F1008 H090615 Channel Mill 2/3

Rels: b. 637, 614

Length: >1.5 m Width: 2.8 m Depth: 1.15 m

Description: Only a 1.5 m wide section was excavated across this feature. The channel had steep, vertical sides with curving scours and scoops along them and deep rounded, interconnecting oval/circular hollows scoured into the base. At the east edge the floor of the channel is shallower than to the west (reflecting a similar pattern to F971 to the south). This channel appears to take the outflow from both F967 and F998, which possibly merged into some sort of pond (F1056) first.

Fill: 650, 660, 665, 678, 679, 688, 689

Small Finds: See fill layers 650, 660, 665, 678

Samples: See fill layer 650

Artefacts: See fill layers 650, 660, 678

F1036 H035585 Oval hollow in base of pond Mill pond 2

Rels: b. 625; part of F970

Length: 0.9 m Width: 0.54 m Depth: 0.2 m

Description: Rounded oval hollow with sloping sides and dished base, with shallower step on south side. [Result of erosion on base of pond F970.]

Fill: (1) Light greyish-yellow puddled chalk containing a few worn flint nodules 80–120

mm.

F1037 H038578 Oval hollow in base of pond Mill pond 2

Rels: b. 625; part of F970

Length: 0.98 m Width: 0.5 m Depth: 0.18 m

Description: Oval hollow with smaller circular/rounded scoops within it. Formed in base of pond F970 as a result of erosion.

Fill: (1) Dark grey silt with chalk grit and containing a high density of flint nodules 50–150 mm, frequently with black Mn deposit on their surface.

Small Finds: (1) 3110 Fe 5 nails

Artefacts: Pottery, tile, stone, oyster shell

F1038 H037570 Oval hollow in base of pond Mill pond 2

Rels: b. 625; part of F970

Length: 0.5 m Width: 0.32 m Depth: 0.04 m

Description: Subcircular hollow eroded into base of pond F970.

Fill: Light greyish-yellow puddled chalk with rare small flint gravel.

F1039 G900700 Track way

Rels: b. 574

Length: 10.0 m Width: 7.0 m Depth: 0.14–0.2 m

Description: Metalled area composed of layers of flint gravel, nodules or burnt flint scalplings running along the shoulder of high ground immediately to the west of channels and mills. This may have been part of a metalled track running up to the villa enclosure and buildings or part of a metalled yard associated with the mills.

Fill: Composed of 576, 577, 579, 661, 662, 690

F1042 G975592 Mill race Mill 1

Rels: b. 687

Length: 4.0 m Width: top: 1.1 m; base: 0.82 m Depth: 0.3 m

Description: Narrow channel aligned NW–SE extending from the end of the main channel F969, where it is cut across by the structure F1044 (possible sluice gate), to the mill pond F980. The channel was regularly cut with steeply sloping sides and a flat base. It had possibly been timber-lined in the area of the mill structure and wheel as the first section appears to have suffered very little erosion. Only in its lower half closer at the pond does it become irregular surviving as an area of irregular interconnecting sub-oval scoops.

Fill: 613, 626, 627, 716

F1043 H010655 Mill race Mill 2

Rels: b. 628, 647; cuts natural

Length: 5.3 m Width: ~ Depth: 0.06–0.2 m

Description: This feature survives only as a positive scarp cut into the south side, where a straight sloping edge runs SE–NW from the edge of F971. The two slots F966 and F977 cut across it at right angles and on the north side running from the north end of F977 eastwards is the merest hint of a shallow scarp possibly defining the other side of the channel. However this would create a very wide channel at this point and it may be this related to later erosion activity of the river bed. Four circular/oval stake-holes c.100 mm wide, a trapezoidal [?plank-shaped] hole 240 x 80 mm were cut along the south edge and two square stake-holes 80 and 120 mm wide at the western length. There were also a number of other circular stake-holes around the outer edges at the west end and over the base of the feature. These features

probably relate to structures associated with the mill race or the mill structure itself.
Fill: None (overlying layers 628, 647 extended across whole feature and adjacent areas).

F1044 G965606 Sluice gate Mill 1

Rels: c. base of F969/F1042

Width: 0.9 m Depth: 0.4 m

Description: Structure composed of four or five post-/stake-holes, four set in a line across F1042 and a fifth slightly to the west of the group. The post structure possibly formed a sluice gate across the upper end of the mill race.

Fill: Comprises ph 1205, 1208–10, 1214

F1047 G97 Natural gully

Rels: b. 687, 578

Length: 1.3 m Width: 0.16–0.4 m Depth: 0.04–0.21 m

Description: Irregular dog-legged length of gully with deep V-shaped profile: essentially a naturally formed feature, probably periglacial, though could possibly be an erosion gully.

Fill: Not recorded, but essentially the same as F1048–F1050.

F1048 G973701 Natural gully

Rels: b. 687, 578

Length: 1.1 m Width: 0.3 m Depth: 0.14 m

Description: Short sinuous linear slot with rounded U-shaped profile [of natural, probably periglacial formation].

Fill: Brown clayey soil with a little chalk grit and occasional angular flints 10–50 mm.

F1049 G962679 Natural gully

Rels: b. 687, 578

Length: 5.8 m Width: 0.3–0.8 m Depth: 0.05 m

Description: Discontinuous slot/gully excavated partly at its east end where it subdivides into intercutting runnels. A natural feature, probably periglacial in origin, though at the east end it looks as though it may have formed through heavy erosion of run-off near the edge of the channel F969.

Fill: Brown clayey soil containing scattered angular flints 15–40 mm and chalk grit.

Small Finds: (1) 3112 Fe nail

Artefacts: (1) Pottery, flint

F1050 G960693 Natural gully

Rels: b. 687, 578

Length: 1.4 m Width: 0.18–0.24 m Depth: 0.08 m

Description: Irregular linear slot/runnel with rounded U-shaped profile – essentially a natural periglacial feature.

Fill: Brown clayey soil containing scattered angular flints 20–60 mm with small patches of puddled chalk and rounded chalk grit.

F1056 H030760 Pond Mill 3

Rels: b. 637, 614; associated with F967, F968, F998, F1008

Length: 5.0 m Width: 4.0 m

Description: An amorphous area between channels F968, F967, F998 and F1008. It may be a feature in its own right, possibly a pond or it may merely result from the number of large features converging in this area. Without full excavation it is not possible to clarify this

further.

Fill: Contains 637, 614