

Archaeological Investigations on the Cumbria Institute of the Arts Campus, Stanwix, Carlisle, 2004

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In 2004, Oxford Archaeology North excavated two trenches within the campus of the Cumbria Institute of the Arts at Stanwix, Carlisle, prior to construction works. The earliest archaeological features comprised a series of plough-marks, a buried turf line and a probably contemporary ditch, part of an extensive system of arable fields, known from earlier excavations in the area, that pre-dates the construction of the Hadrian's Wall frontier system in the AD 120s. Sealing these remains was a thick deposit of compacted earth and clay, the significance of which is unclear. One hypothesis is that it was associated with the construction, perhaps in the AD 160s, of a parade ground for the stone cavalry fort at Stanwix, which was the largest on Hadrian's Wall. Alternatively, it may have been deposited during construction of the Wall itself, perhaps as upcast from the Vallum ditch, which passed within 30m of the excavations.

IN 2004, Oxford Archaeology North (OA North) was commissioned by Swarbrick Associates, on behalf of the Cumbria Institute of the Arts, to undertake an archaeological excavation on the campus of the Cumbria Institute of the Arts, Stanwix, Carlisle (NY 40370 57290). The work took place following an application for Scheduled Monument Consent and planning permission to roof over a courtyard between existing buildings. The fieldwork was undertaken in September 2004.

The college campus at Stanwix is situated in an area of considerable archaeological importance; it lies wholly within the boundaries of the *Frontiers of the Roman Empire: Hadrian's Wall World Heritage Site*, and is statutorily protected as a Scheduled Monument (SM 28484). The main college building is situated between the line of Hadrian's Wall on the north, and the probable course of the Vallum, which at this point lies *c.* 200m south east of the Wall (Fig. 1). The site is also located *c.* 500m north-east of the Roman fort of Stanwix, the largest of the Hadrian's Wall forts.

Following a preliminary phase of evaluation (OA North 2004), two triangular trenches (A and B), with a total area of approximately 100m², were excavated within the courtyard (Fig. 2), separated by a north to south baulk, 2m wide, which was retained in order to avoid live services.

Results

Phase 1 (Pre-Roman/early Romano-British Activity)

The natural subsoil, an orange-pink sandy clay of variable character, was recorded at depths of 24m aOD in Trench A, and 24.22m aOD in Trench B. The earliest archaeological features recorded comprised a series of plough- or ard-marks (3 (Fig. 2; Fig. 3)). These were V-profiled, 20-100mm in width, and extended across the full

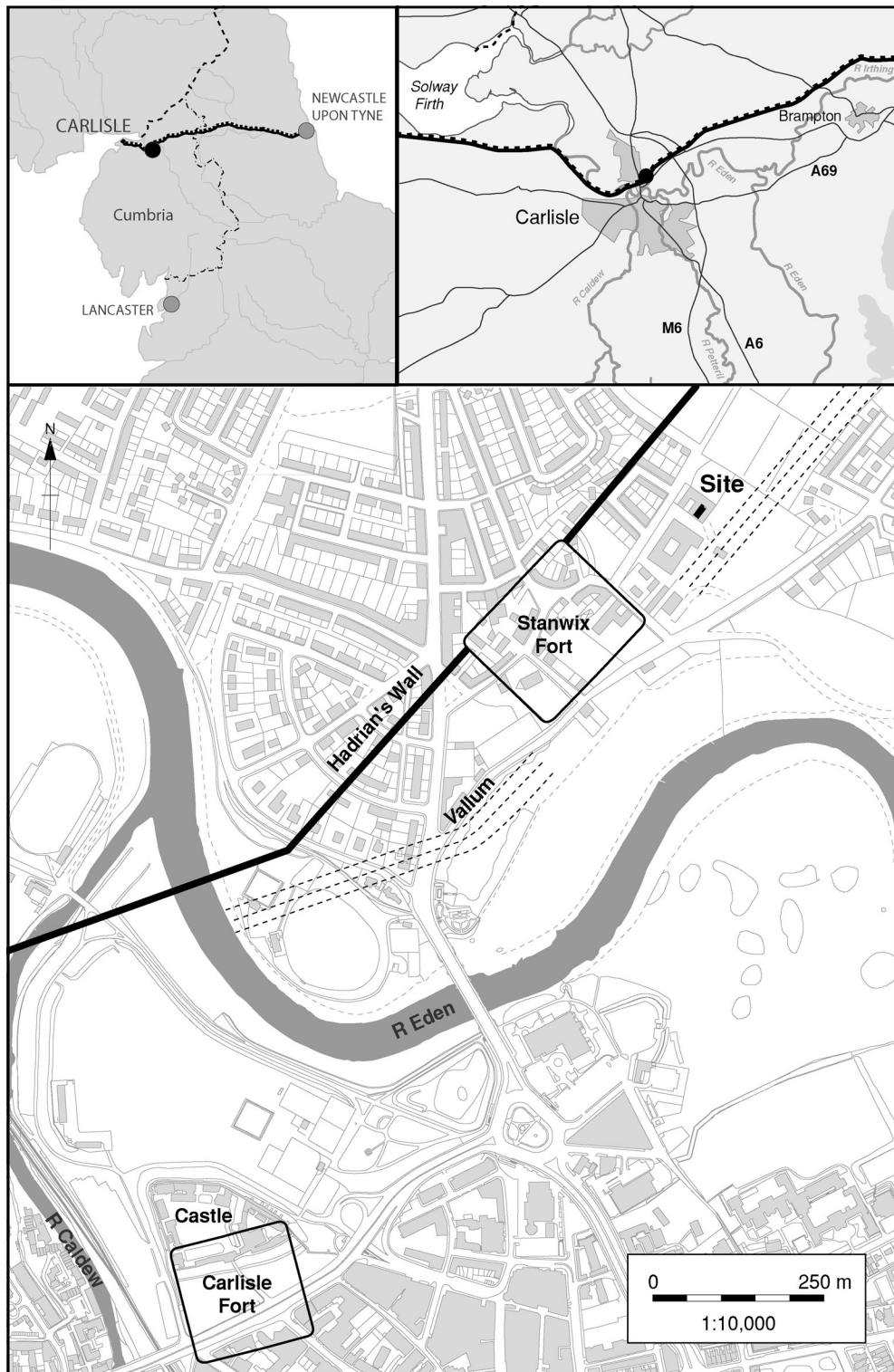


FIG. 1. Location map.

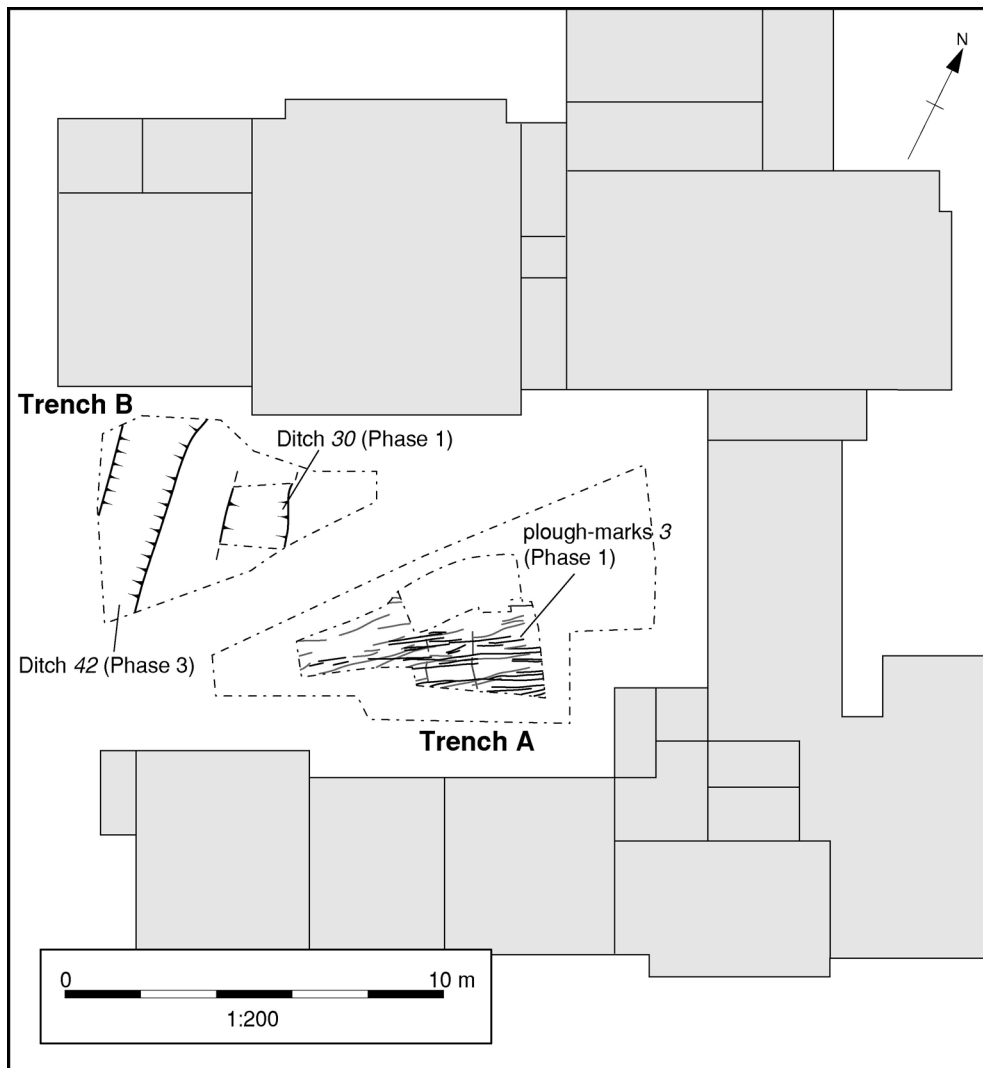


FIG. 2. Plan of Phase 1 plough-marks (3) and ditch 30. The location of Phase 3 ditch 42 is also shown.

extent of Trench A. They were also present in Trench B, but were not fully recorded there, given the difficult working conditions. Most were aligned north-north-east to south-south-west, although a few were noted perpendicular to this alignment.

The plough-marks were filled with, and sealed by, an extensive layer of dark grey-black organic clay-silt (2, 29; Fig. 3). This deposit, which can be interpreted as a buried turf line, was up to 0.12m thick, at the northern end of the site, though it became increasingly thinner towards the south. Further plough-marks were recorded that clearly cut into 2/29, indicating a second phase of agricultural activity. These features were similar in character to those beneath the buried soil, and shared the same alignment.

In Trench B, a V-profiled ditch (30), 2.1m wide at the lip and in excess of 1.45m deep, was recorded on a north west to south east alignment (Fig 2). Only a short segment of this feature, *c.* 2m in length, was exposed, though it extended beyond the excavated area in both directions. The base of the ditch was not reached, due to the proximity of the modern water table and the instability of the excavated section, so its stratigraphic relationship with the plough-marks and the buried soil horizon could not be established. However, it lay directly beneath the same deposits that sealed both the plough-marks and the soil (Phase 2, *below*), and can therefore be securely assigned to Phase 1.



FIG. 3. Phase 1 plough-marks (3) in Trench A, from the south west. Contemporary buried soil 2 is visible at the base of the site sections, beneath dumped deposits of Phase 2 (4/5).

The earliest recorded fill of ditch 30 comprised a blackish-grey humic clay-silt. This was sealed by a clean, mid-grey-brown silty sand, approximately 0.4m thick, which was in turn overlain by a further accumulation of black organic clay-silt, 50mm thick. Overlying this was 0.33m of firm, mid-grey sandy silt, containing a few sub-rounded pebbles.

Phase 2 (Roman Activity)

Sealing the buried soil and plough-marks of Phase 1 was a thick accumulation of compacted material (4, overlain by 5, in Trench A (Fig. 3); 41 (not illustrated) in Trench B), that completely covered both the excavated areas, except where it had been removed by modern disturbances. Layer 4 filled a number of the stratigraphically latest Phase 1 plough-marks (*ie* those cutting the Phase 1 buried soil) in Trench A, suggesting that the marks were fresh when this material was deposited. In Trench B, the upper part of ditch 30 was filled with compacted dumps of yellowish-orange

mottled clay and orange-pink clay, which probably represent deliberate infilling of what remained of the feature at the beginning of Phase 2.

The earliest Phase 2 deposit (4/41) comprised a pale blue-grey clayey silt, 0.4m thick, containing pink clay lenses and mottles and occasional sub-rounded stones. It was sealed by a further 0.4m of pale/mid-orange-pink silty clay (5/40) containing sub-rounded cobbles. This covered the northern half of Trench A, becoming thicker towards the north, but had been entirely removed over the southern half of the area, and over the whole of Trench B, probably as a result of post-medieval agriculture or horticulture (Phase 3, *below*).

Phase 3 (Post-Roman Activity)

In Trench B, the Phase 2 deposits were cut by a north-west-to-south-east-aligned ditch (42 (Fig. 2)), at least 2m wide and over 1m deep, which could not be bottomed due to a collapse of the excavated section. Ceramic building material fragments recovered from its fill suggested that it was of post-medieval origin. The ditch was sealed by an accumulation of dark-grey-brown silty soils, up to 0.9m thick. These deposits, which covered the whole of the areas investigated, yielded a quantity of eighteenth- to nineteenth-century pottery, and appeared to represent post-medieval agricultural and/or horticultural activity. They were cut and overlain by modern features and surfaces.

Finds (Christine Howard-Davis)

With the exception of small quantities of late post-medieval and modern material, the excavations yielded only two sherds of pottery of archaeological interest. The earliest is Roman, a small, abraded fragment of oxidised gritty ware from a post-medieval deposit. It would seem to date to the second century AD, and was probably made locally. The other, from the Phase 3 post-medieval plough soil/horticultural soil, is from the base of a late seventeenth/early eighteenth-century mottled-ware vessel.

Additionally, a single piece of worked flint was recovered, also from a post-medieval deposit, which seems to be an element broken from a larger blade. The form of the piece and the pattern of wear are consistent with its use as a strike-a-light. Dating is problematic, however, as flint strike-a-lights are an undiagnostic but long-lived type.

Charred and Waterlogged Plant Remains and Pollen (Elizabeth Huckerby)

A 30-litre environmental bulk sample was taken from the Phase 1 buried soil in Trench A (2), and a soil monolith was taken through buried soil 2 and the overlying deposit (4; Phase 2). The bulk sample was processed for the assessment of charred and waterlogged plant remains, and the monolith for the assessment of pollen, though no detailed analysis was undertaken (see OA North 2006 for a detailed methodology).

The assemblage of waterlogged seeds in the bulk sample includes plants typically associated with arable cultivation or open ground, including wild radish (*Raphanus raphanistrum*) and pale persicaria (*Persicaria lapathifolia*), though no cereal remains

were present. This is consistent with the physical evidence for pre-Roman or early Romano-British arable agriculture represented by the Phase 1 plough-marks. A similar plant assemblage was recorded from a buried soil beneath the fort in Carlisle, c. 1km to the south, again in association with pre-Roman plough-marks (Huckerby and Graham 2009, 931-2). The presence of waterlogged seeds and charred remains of sedge and rush further suggest that the ground was quite damp at this time.

Assessment of the pollen assemblage from the Phase 1 buried soil suggests that the locale included areas of cleared land, together with stands of alder and hazel. Despite clear stratigraphic evidence for arable agriculture, though, the pollen assemblage as a whole is more indicative of a pastoral regime, with only a single grain of cereal-type pollen being tentatively identified. However, this could have been due to the small sample size, and also to the fact that cereals typically produce relatively little pollen.

Discussion

Pre-Roman arable agriculture

The excavations of 2004 were the most recent in a series of small-scale archaeological works carried out within the grounds of the Cumbria Institute of the Arts at Stanwix. Similar work, together with several larger interventions, has also been undertaken in the fields adjacent to Tarraby Lane, north and north east of the Institute campus. Together, these investigations have revealed evidence for the existence of an extensive system of arable fields of probable pre-Roman/early Roman date (represented by Phase 1 at the 2004 site) in the area north east of the Hadrian's Wall fort at Stanwix.

The earliest archaeological work in the vicinity, and the most extensive to date, was carried out in 1976 around Wall Knowe, north east of the campus (Smith 1978). This revealed a series of V-profiled ditches, broadly orientated north east to south west and north west to south east, forming part of a rectilinear field system. The ditches were associated with plough-marks and buried soil horizons similar to those recorded in 2004, and analysis of some of the buried soils yielded cereal pollen (Balaam 1978, 55). At least one of the ditches appeared stratigraphically earlier than the stone phase of Hadrian's Wall, having been completely filled with silt by the time the Wall was built (Smith 1978, 23). That the field system as a whole pre-dated the Wall was suggested by the alignment of the boundary ditches, as this was clearly not influenced by the alignment of the Wall itself (*ibid*), and by the fact that it extended on both sides of the Wall. On the evidence of these investigations, it was concluded that extensive agricultural activity in the area began sometime during the pre-Roman Iron Age, and continued until the establishment of the Hadrian's Wall frontier system in the AD 120s (*op cit*, 35-7). It was considered that, at the time the Wall was built, the area around Wall Knowe comprised a patchwork of open fields bordered by hedges and ditches. Environmental evidence further indicated that the comparatively poorly-drained zones between areas of raised, drier, ground would have been covered by alder and fringed with hazel/alder scrub (Balaam 1978, 56).

Since the 1970s, traces of this field system have been recorded at several other locations, both within the Institute campus and in the fields to the north and north

east (OA North 2007). It is now clear that the system covered at least 17ha (*op cit*, Fig. 8), and may have been considerably more extensive than this. No evidence for pre-Roman arable agriculture has yet been found in the vicinity of the fort at Stanwix, immediately south west of the Institute, suggesting a possible southern limit to the field system somewhere within the southern part of the campus. However, archaeological works within the fort have, for the most part, been of limited extent (Zant 2011, 33), and few sites have been excavated to the level of the natural subsoil.

Whilst the fields were presumably associated with a nearby farmstead or settlement, the precise location of this is currently unclear. A series of (unpublished) evaluations and excavations undertaken by the former Carlisle Archaeological Unit (CAU) in 1993 at Knowefield, and adjacent to Beech Grove, north of the Institute campus (CAU 1993a; 1993b; 1993c; Esmonde Cleary 1994), revealed concentrations of postholes, stakeholes, and cobbled surfaces suggestive of a dispersed pattern of settlement. These remains were seemingly associated with field boundary ditches similar to those seen elsewhere, whilst a pair of parallel ditches at Knowefield may have formed part of a trackway. The date of this activity is not clear, though a pre-Roman and/or early Roman date seems likely.

Despite the number of archaeological investigations undertaken in the area, dating evidence for the origins and development of the field system itself remains extremely slight. All that can be said is that the fields were certainly in existence before the stone phase of Hadrian's Wall was built, which in this area may not have occurred until the AD 160s (Breeze 2006, 60), and presumably (though stratigraphic evidence is lacking) they also pre-date the Turf Wall, work on which probably commenced in AD 122-3 (Breeze and Dobson 2000, 66).

The Roman period

Whilst it is possible that the pre-Roman field system continued in use into the late first/early second century AD, it seems likely that the construction of Hadrian's Wall in the early AD 120s marked the end of arable agriculture in the area, particularly in view of the fact that much of the area would have lain in a potentially 'militarised zone' between the Wall and the Vallum (Breeze 2006, 86-7). In the vicinity of Wall Knowe, the Wall and the Vallum were driven straight across what appears to have been a well-ordered agricultural landscape, with a total disregard for the existing alignment of field boundaries (Smith 1978, 37). Further south, the impact of the construction of the presumed primary Wall fort at Stanwix is not known, nor is there any evidence for the effect the subsequent construction of the much larger stone cavalry fort may have had on the pre-existing landscape.

Immediately north east of the stone fort, several archaeological interventions within the Institute for the Arts campus, including the 2004 excavation, and in the field immediately to the north east (McCarthy 1999, 166; OA North 2007, 46), have demonstrated that the remains of the pre-Roman fields were directly sealed by thick layers of redeposited clay and earth (Phase 2). This material has been tentatively interpreted as a levelling-up deposit for a parade ground associated with the stone cavalry fort (McCarthy 1999 166; Breeze 2006, 345). However, this hypothesis

remains to be proven, and it should be noted that similar clay and earth deposits were found in the tops of some of the early ditches excavated at Wall Knowe (Smith 1978), at too great a distance from the fort to have been associated with the construction of a parade ground. Another possibility is that the material represents spreads of upcast generated by excavation of the Vallum ditch (perhaps material surplus to that required for construction of the Vallum mounds), since the Vallum crosses the entire area on a north-east to south-west alignment, and passes little more than 30m east of the Ceramics Courtyard site. The precise position of the turf phase of Hadrian's Wall in this area is unclear, although what was interpreted as a trackway associated with the Turf Wall was discovered adjacent to Beech Grove, north of the college campus, in 1976 (*op cit*, 23-4). If this interpretation is correct, it suggests that the Turf Wall may have lain on or close to the line of the later Stone Wall, some considerable distance (*c.* 100m) north-west of the 2004 site. It is perhaps unlikely, therefore, that the Phase 2 deposits derived from the demolition of the Turf Wall, although layer 4/41 was not dissimilar in nature to decayed turf.

Whatever its precise significance, it is clear that the Phase 2 material was deposited when at least some of the underlying agricultural features were still visible, as the upper parts of several of the recorded field boundary ditches, including ditch 30, were filled with it. Indeed, at the 2004 site, some of the latest plough-marks were also filled with Phase 2 material, indicating that a final episode of ploughing must have occurred not long before these deposits were laid down. If Phase 2 represents upcast from the Vallum ditch, or was associated in some other way with the initial construction of Hadrian's Wall, this would suggest that the fields remained in use up to the early AD 120s, or thereabouts, though some of the field ditches may have ceased to be maintained before this (Smith 1978, 37). On the other hand, if Phase 2 is associated with the stone fort's parade ground, it would imply that the site was ploughed as late as the AD 160s, the period when the fort, and presumably also the putative parade ground, is thought to have been built (Caruana 2000, 75-6). However, the site lies between Hadrian's Wall and the Vallum, and it is unlikely that the local 'native' population would have had access to this area when the Wall was operational, let alone be permitted to maintain fields there. This might lend support to the idea that all the ploughing pre-dated the construction of the Wall (in which case the Phase 2 deposits may indeed represent Vallum upcast or some such material), but it is also conceivable that farming between the Wall and Vallum was permitted for a time when Hadrian's Wall was temporarily abandoned following the Roman reoccupation of southern Scotland in the early AD 140s. Following this hypothesis, the plough-marks recorded in 2004 could represent a late phase of agricultural activity that occurred immediately prior to the reoccupation of the Wall, which appears to have been fully recommissioned by the early AD 160s (Hodgson 2009, 30). Alternatively, it is possible that the latest episode of ploughing was related to the construction of the putative parade ground itself, since rituals involving ploughing are attested in the Roman world in association with the foundation of settlements and the construction of other significant features, such as roads (Dilke 1971, 41).

The post-Roman period

The precise significance of the probable post-medieval ditch recorded in Trench B at the Ceramics Courtyard site (Phase 3, 42) is not known, partly because it could not be fully investigated due to the collapse of the excavated section. However, since it does not appear to have been a particularly imposing feature it probably served as some form of boundary marker. Thick accumulations of post-medieval dark soils, similar to those that blanketed the site (Phase 3), have been found in most other archaeological investigations undertaken on the periphery of the medieval and post-medieval village (OA North 2007, 49), which appears to have been centred on the Church Street/Kells Place area, around a small, two-cell church that was replaced in the nineteenth century by the present church of St Michael the Archangel (Taylor 1982, 17). It would therefore appear that large areas surrounding the settlement core remained as open fields and/or gardens well into the nineteenth century, as is indeed attested by late eighteenth-mid-nineteenth-century maps of Stanwix village (OA North 2007, 50-1).

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