

Excavations at Delta Farm, Franschoek: Report 2008

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List of Abbreviations

avg.	average
BP	before present
c.	<i>circa</i>
dim.	dimension(s)
LOE	limit of excavation
max.	maximum
min.	minimum
sec.	Section

Other abbreviations

cardinal points (e.g. Northwest, south-east)..... NW, SE, etc.

cardinal orientations (e.g. north-south, east-west)..... N-S, E-W, etc.

Introduction

As a result of ongoing construction work at Delta Farm, Franschhoek, the Archaeology Contracts Office (ACO) was contracted to investigate a farm building. The building, thought to be a C19th wine cellar or pressing house, was being renovated to create a restaurant and venue for wine tasting and sales. Excavations inside the building were undertaken by the ACO over a period of 8 weeks from July to September 2008.

Background

Site Location

The Delta estate (farm 1460) in the Groot Drakenstein region of Paarl in the western Cape, lies on the Delta Road off the R45, close to its junction with the R310 (Fig. 1). It is located at approximately 33°51'49.46" S 18°59'26.68" E.

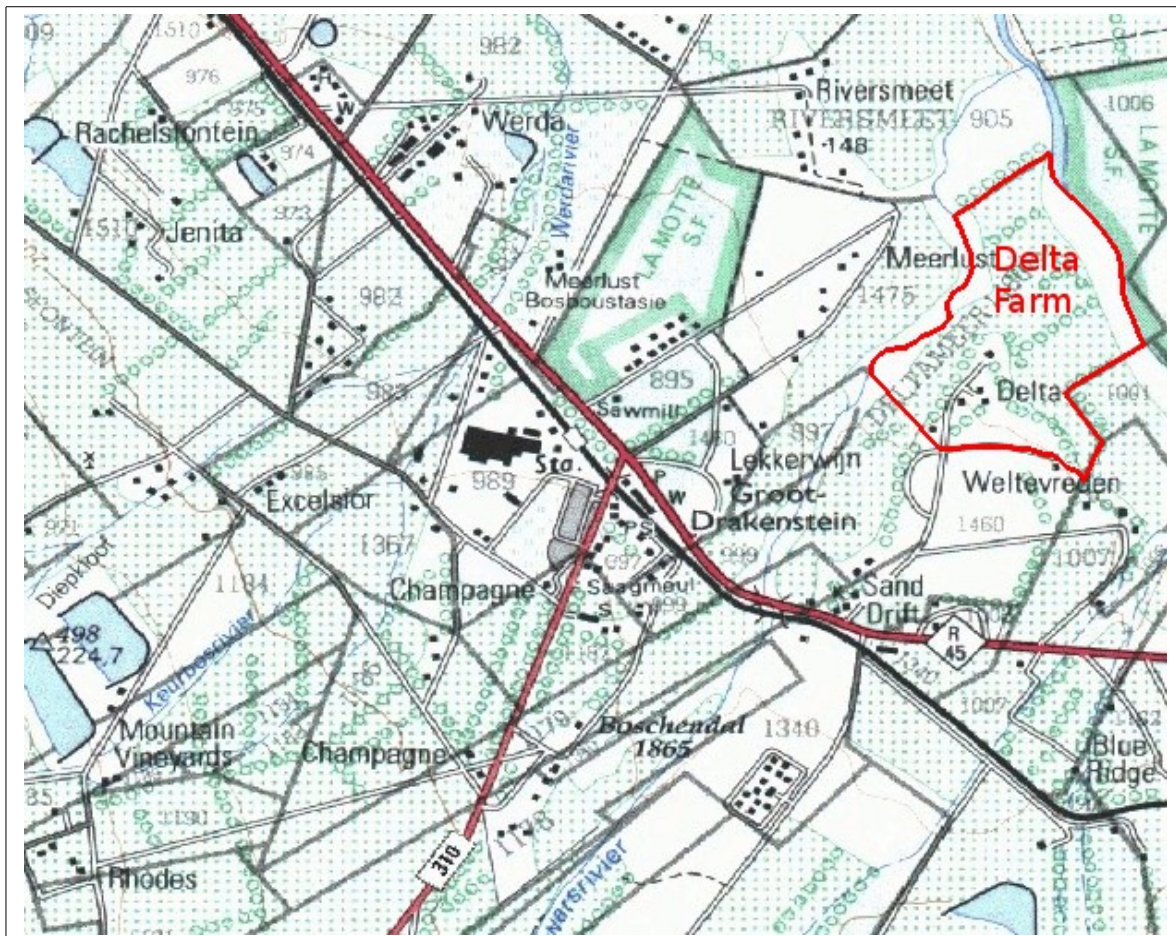
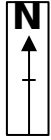


Figure 1: 3318DDStellenbosch. Map showing approximate boundaries of Delta Farm, in relation to the R45.

(Mapping information supplied by Chief Directorate: Surveys and Mapping. Website:

Amongst the buildings that comprise the current farm *werf* are a T-shaped manor house, used as the dwelling of the current proprietor, and the building that is the subject of this report, situated c. 89m to the south-south-west of the manor house (Fig. 2).



Previous Fieldwork

In 2005 the ACO were contracted to investigate the area between the manor house and the subject of this report for any evidence of previous structures (Orton, Halkett & Hart unpublished). This investigation revealed the stone foundations of what has been interpreted as the original farm dwelling. From historical research, this is believed to represent the residence of the two original occupants of the farm, Hans Silberbag and Callus Louw, who were granted the farm in 1690 (Randle 2004). The structure was constructed in at least two phases, being enlarged from a single-room dwelling to a larger building with a cobbled courtyard and a hearth. The associated ceramic assemblage indicated that the site was abandoned by 1740.

Adjacent to this building, a stone tool scatter was discovered with formal tools and waste material found *in situ*, indicating that this was a pre-historic settlement site. The artefacts have been dated to approximately 6 000BP (Orton 2005).

In addition to these two distinct sites, a well was found c. 15m NW of the building investigated in 2008. Although a farm inventory records the presence of a well on the farm in 1835, excavations of this well in 2005 did not conclusively prove that this was feature recorded on the inventory.

Site Description

The proximity and shared alignment of the building with the historical manor house to the NNE (evident on the aerial photograph; Fig 2) immediately suggests that these structures are associated and broadly contemporary. The manor house has been the subject of a separate building analysis, and a date in the early C18th has been attributed to its earliest component; a dormer gable on its western façade bears a date of 1831, which is believed to date the last significant addition to the building (Mark Solms pers. comm.)

The northern section of the building that is the subject of this report houses the Museum van de Caab, and before the current redevelopment the southern three-quarters had been converted into six farmworker apartments which had been unoccupied since 2002 (Fig. 3). The section that houses the Museum had been extended to the west in the C20th, as had the six apartments in a separate C20th extension onto the *stoep* along the buildings western elevation; this latter extension was undertaken in the 1950s (Mark Solms pers. comm.). All of the structures on the *stoep*, the internal walls of Apartments 1, 2 and half of 3, had been demolished prior to the archaeological investigation. The internal divisions of the remaining half of Apartment 3 and the three other to the south are still extant and have been incorporated into the current redevelopment (Fig 3).

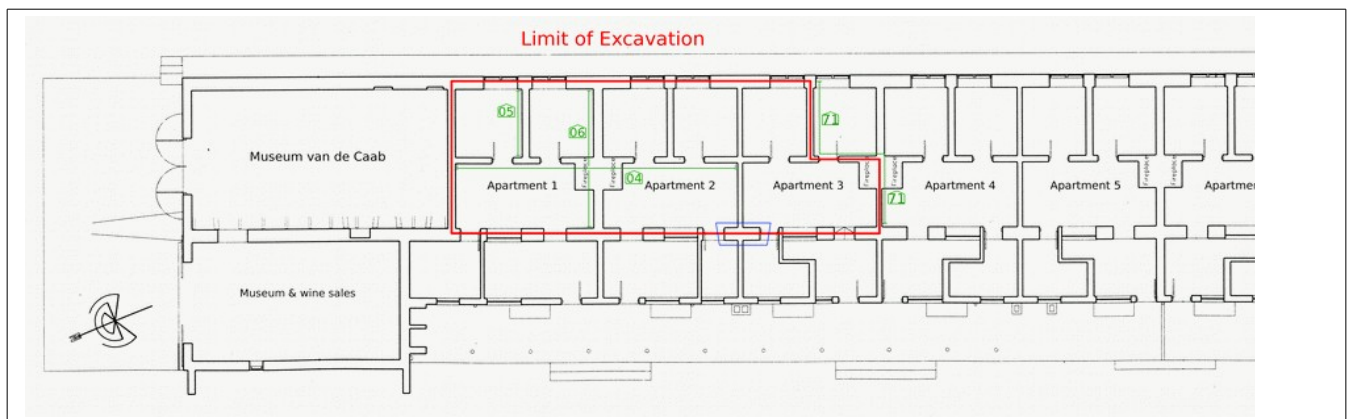


Figure 2: Plan of building prior to the current redevelopment showing internal divisions of six farmworker apartments and the Museum van de Caab in the northern section.

Red outline shows area of the 2008 excavation; blue indicates location of previously blocked double doorway on the western building elevation, re-opened during the current redevelopment.

The pre-C20th building is rectangular in shape, measuring c. 50m by 6m, with its long-axis on a NNE-SSW alignment. The excavation area corresponds to the footprint of the demolished apartment divisions inside the pre-C20th building, comprising about one quarter of the total building footprint. Extending across the full width of the building (c. 6m), its northern limit is the southern wall of the Museum and extends c. 14.8m south to the surviving wall of Apartment 3. A further 3.0m by 3.0m area immediately south and adjacent to the western building wall, extending south to the northern wall of Apartment 4, was also investigated (Fig 3). The area described above will be referred to as “the site” or limit of excavation (LOE), as shown in Figure 3.

Background to 2008 Excavation

During a site visit on 16 July 2008, a meeting was held with the proprietor of Delta Farm, Prof. Mark Solms, and the project architect, Mr. Trevor Thorold, to assess the building and the construction work already undertaken. In addition to the demolition of internal divisions of the farmworker apartments and the structures on the *stoep*, the cement render was completely removed from the external western elevation and the internal floor level had been partially truncated to different depths across the limit of excavation.

From the exposed western elevation, it was clear that the base of the western wall along the entire length of the building was constructed with rolled sandstone cobbles and boulders. These can be locally sourced at a shallow depth below topsoil across the entire estate, and in fact form the underlying river-terrace on which the building stands. Within the exposed stone-built sections of the western elevation, two broad construction phases could be discerned. The wall to the south of the double door in the western elevation (Fig 3) was built entirely with rolled boulders (except for obvious later blocking of doors and windows with brick; see below), in certain places surviving to the height of the roof beams where it was finished in a neat, flat course. To the north of the double door into the building, the western elevation was built with rolled boulders to a height of c. 1.20m from ground level and finished in a neat, flat course, with the upper part of the wall built with brick.

This type of build survives within the northern section of the building, housing the Museum van de Caab, and has been left exposed since the renovations for the Museum in 2005 on the internal faces of both the eastern and western building walls. It is also best preserved in this section of the building as it was never converted into apartments. The bricks used in this build are brownish-red in colour, have no frog (depression along one of the larger faces) and measure c. 0.22m x 0.11m x 0.07m. They are quite friable and can easily be broken by hand, suggesting a relatively low or inefficient firing, and don't appear to have the uniformity of factory manufacture.

Along the western elevation, various other distinct demolition and construction episodes were evident, indicating numerous alterations made to the western façade over the years. All of these distinct builds were constructed with brick, though the type of brick used varied significantly between each one: from less-uniform, more friable, frog-less bricks, varying in colour from brownish-red to pale brown; to more uniform, harder and “sharper-edge” bricks, with a frog and a uniform colour (dark red or orange-red, but consistent within each distinct building episode). It was clear that the latter are C20th, factory manufactured bricks, whereas the former could still be the product of local, small scale manufacture and are evidently of an earlier date.

It was not possible to fully record the western elevation during this site visit and, when the actual archaeological investigation started, render had been re-applied to all external building walls. An elevation showing the different construction episodes was recorded by the project architect, Mr. Trevor Thorold, together with a plan of the internal apartment divisions prior to any construction work on site (presented as Fig 3). Phasing all of the construction episodes exposed along the western façade is, however, made very difficult due to the sheer number of alterations made, not least as a result of doors and windows for the C20th farmworker apartments being alternatively opened or blocked.

Within the limit of excavation (LOE), the internal divisions of the farmworker apartments (walls labeled 04, 06, 05 and 71; Fig 3) were demolished prior to the archaeological investigation. All but a few fragments of the apartments' concrete cement floor had also been removed to expose a second cement floor below it. The lower cement floor survived across the width of the building in the northern half of the site, and had been removed from the southern half of the site to expose a stone built wall foundation, running E-W across the width of the building. In addition to this foundation, construction staff had also exposed a number of other internal structures running both east-west and north-south in the southern half of the site.

After the initial site visit it was decided, in consultation with the proprietor and project architect, to halt the construction works until a full archaeological investigation of the building and its internal structures was completed. The ACO was subsequently contracted to carry out the investigation and this report presents the results of archaeological excavations undertaken between July and September 2008.

Methodology

Single context recording was used throughout the excavation. Each individual stratigraphic unit (whether a deposit, cut or structure) that was exposed, partially or wholly excavated was assigned an individual context number from a running register. In addition to single stratigraphic units, context numbers from the same register were also assigned to groups of contexts that formed larger structures. For instance: stand-alone pillars constructed with a foundation cut, stone cobble foundation and brick superstructure (each with an individual context number) were assigned group numbers as a single structure for ease of reference.

A recording sheet was filled in for each context number assigned to every deposit, cut or structure. This contained empirical data for each context (such as: colour, inclusions, extent and thickness of deposits; shape and dimensions of cuts; and dimensions, fabric and build of structures) as well as possible interpretations for each context (such as: natural silting of features, deliberately laid floors or demolition rubble; post-hole, pit, or foundation trench; and foundation, wall, threshold or pillar).

In addition, the relationship between each context and every other context it had a physical interface with was precisely recorded on the context sheets. This was then used to produce a Stratigraphic Matrix diagram, given in Appendix 1. The Matrix diagram includes every context number and illustrates the stratigraphic relationships between them, showing the sequence of deposition, truncation or construction on site. Interpretation of the features they represent allows the grouping of contexts within this sequence into distinct phases of activity (see Appendix 1).

Once the dating of the artefacts recovered from individual contexts was determined, absolute dates could be assigned to each phase. The dating evidence may also result in some features needing to be re-assigned to a different phase. However, although contexts may move up or down along vertical lines into different phases, their relative sequence can not be altered as it was shown in the stratigraphy. Further notes on the Matrix diagram are given in Appendix 1.

Excavation

Deposits and features were excavated in reverse stratigraphic sequence. The uppermost, most recent context in the sequence was identified, fully exposed and recorded before excavation to reveal the next stratigraphically underlying context(s) in the sequence. This process was repeated until either a “single event horizon” was reached (such as a continuous floor surface

or the base of a pit) and it was decided to excavate no further, or until all anthropogenic deposits were removed to expose the underlying natural river-terrace deposit.

All discreet cut features, such as pits or post-holes, were half-sectioned to exposed a section through the deposits and a profile of the cut. Once the section was recorded, if it was required to excavate the underlying deposits, the remaining fill of the feature was fully excavated before proceeding to the excavation of underlying context(s) in order to avoid artefact contamination. The same principles applied to linear cut features (such as foundation or robber trenches) but instead of half-sectioning them, one or more transects were excavated across them to expose a profile of the cut and the sequence of fills in section.

Where appropriate, excavation of layers (such as floor surfaces or buried topsoil) was undertaken as an open area. Once a layer was fully exposed, levels taken across it and (where appropriate) recorded in plan, it would be fully excavated to expose the underlying context(s). If this applied to layers extending across the whole limit of excavation (LOE), unexcavated baulks were left to record the thickness, slope and sequence of deposits in profile. When excavating smaller areas or trenches, this information was recorded from the sides of the trench.

In the case of structures, the minimum amount of excavation was undertaken to fully characterise them in terms of dimensions, fabric and type of build, and their place in the stratigraphic sequence. In the case of larger, continuous structures (such as internal walls or foundations), wherever possible the overlying and surrounding deposits were excavated in sequence, but the actual structure left in place. In each case, if a structure was to be fully exposed, a suitable baulk or trench side was left unexcavated adjacent to the structure to record the construction sequence in profile prior to surrounding deposits being fully excavated.

In the case of discreet structures whose extent was fully exposed within the LOE (such as stand-alone pillars), a section was excavated through the structure to expose the foundation cut (if any) in profile and characterise it as described above. This was not undertaken for every structure: when two or more discreet structures were clearly related in terms of their position (in both space and within the stratigraphic sequence), alignment, construction methods and materials used, at least one of these was excavated as a sample.

If the complete excavation of a structure was required, the same excavation process as that described for cut features was employed: the deposited (built) components of the structure were fully excavated to expose the foundation cut (if any), before proceeding to the excavation of underlying context(s).

As the uppermost contexts were excavated first, this began with the less truncated, more recent deposits in the northern half of the site. As excavation progressed and contexts from the same

stratigraphic horizon were exposed across the site, certain areas were targeted with smaller trenches to further characterise features, structures and their stratigraphic sequence.

Recording

In addition to the contexts sheets described above, every context (deposit, cut or structure) was also recorded on a scale plan and/ or section drawing, illustrating context interfaces. Each drawing was assigned a number from a running register for plans and sections respectively. These were then cross-referenced and entered into the individual recording sheets for the respective contexts illustrated in each drawing. Conversely, each context is labeled on the plans and sections with their respective number. A 5m by 5m grid was laid out with measuring tapes, with drawing points for plans and section locations measured as offsets from the grid. All plans were hand drawn at a scale of 1:20, except when dealing with a small feature or detail that required a larger scale of 1:10.

All excavated sections through individual features (cuts and structures), trench or baulk profiles, and selected structure elevations, were hand drawn at a scale of 1:10 illustrating context interfaces exposed. Drawing measurements were taken as offsets from a horizontal datum, the height of which was measured with a dumpy level in relation to a temporary bench mark (see below). All section points at either end of the datum line were located on at least one plan.

A roof beam, that will remain exposed in the redeveloped building, was selected as a temporary benchmark for recording heights with a dumpy level and a graded survey staff. An arbitrary value of 10 metres was assigned to the bench mark, with all heights given for levels of deposits on plans and for section/ elevation datums being relative to this.

Finds Processing

All artefacts recovered in the course of the excavation were retained for analysis. The only exception was with large quantities of building material, such as plaster or brick fragments, where only a sample was retained. Each artefact was stored in a plastic bag labeled with the respective context number for the deposit from which the artefact was recovered. The artefacts from each context were then separated into types of materials and sent to respective specialists for dating and further analysis.

Results

A detailed description of all investigated contexts and their stratigraphic relationships will follow. As mentioned in the Methodology, these were excavated in reverse stratigraphic sequence and will be described in the order they were excavated (i.e. the uppermost or most recent contexts first). As the least truncated, and therefore most recent deposits were within the northern half of the site, these will be described first.

Over the course of the investigation, the excavation strategy changed from a more open area one, where deposits and features were fully excavated (except for baulks), to one where specific areas were targeted for excavation of smaller trenches to answer specific questions or clarify stratigraphic relationships. A description of these areas and the reasons for their investigation, together with the results of their excavation, will be presented as sub-sections in this chapter.

(NB although the building's long-axis is strictly on a NNE-SSW alignment, for ease of description in this report this is taken as a N-S alignment, relating to the site's grid north; with E-W being perpendicular to the building's long-axis)

Description of deposits in the northern half of site

The uppermost deposit in the stratigraphic sequence was a concrete cement floor (01) of which only two fragments survived *in situ* (Fig 4). Concrete 01 represents the floor surface of the farmworker apartments, the last function the building served prior to its current redevelopment. Concrete floor 01 was laid directly onto two different bedding layers: a dark sandy silt with common brick and cement mortar fragments in the NW corner of site; and a light orange coarse sand in the NE corner of the site (bedding layers 02 and 03 respectively).

Apart from the areas beneath the two intact fragments of floor 01, bedding layers 02 and 03 had been partially truncated during the current redevelopment across their whole extent and completely removed beyond 3.5m south of the northern limit of excavation (LOE). Mid- to late-C20th material was recovered from bedding layer 03, including plastic sweet-wrappers and glass marbles. Wrought iron fittings, possibly from an old hinge or door bracket, were recovered from deposit 02 together with C20th building materials. Given their disturbance, a scale drawing was not made of their extent in plan, but they were preserved in the unexcavated baulks on Figure 4 and can be seen on Section 10 (Fig 10).

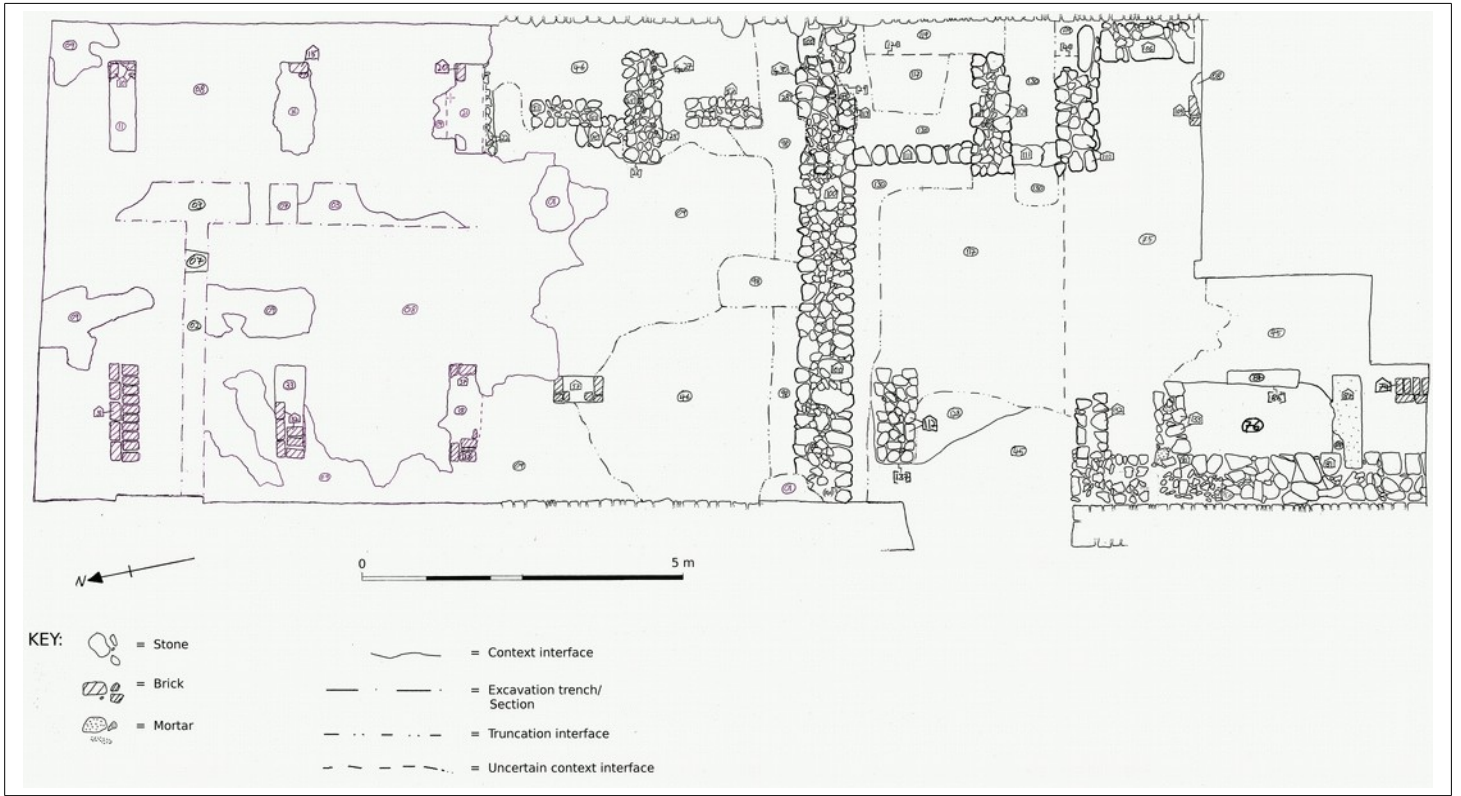


Figure 3: Plan showing archaeological levels exposed during the current redevelopment.

Bedding layers 02 and 03 stratigraphically overlay the walls forming the internal divisions of the farmworker apartments (walls 04, 05, 06 and 71; Fig 3). Walls 04, 05 and 06 were demolished prior to this investigation; wall 71, delineating the southern LOE, is still extant and has been incorporated into the current redevelopment.

The bricks used in the construction of wall 71 (only the base of the wall was exposed beneath the plaster render) did not appear to have the uniform colour or hardness associated with modern, factory manufactured bricks. Instead, they varied in colour from orange-red to dark brown, though the majority were orange-red. They were relatively more friable than modern bricks, but had still been well fired. It was not possible to determine whether they had a frog indentation or not. In contrast, it was clear during the demolition of walls 04, 05 and 06 that these had been constructed with modern brick, this being the reason why they had already been demolished but wall 71 left standing; as there had been doubts as to the latter's relative modernity (Trevor Thorold pers. comm.).

Directly underlying these walls was a sifted-mud mortar layer (07), which served as the bedding for the first brick course and, in the case of wall 71, shown to also have been used as the mortar bond. Layer 07 was disturbed by the demolition of walls 04, 05 and 06, but survived as an intermittent c. 0.35m wide strip (c. 20mm in thickness) running the exact course of the demolished walls. It also exactly bisected the north-south interface between bedding layers 02 and 03, showing that layers 02 and 03 were used as bedding layers in the respective front and back rooms of Apartment 1, prior to cement floor 01 being laid. Mud mortar 07 survives in both N-S and E-W baulks on Figure 4.

Directly underlying mud mortar 07 was a cement floor (08), which was also physically overlain by bedding layers 02 and 03. Cement floor 08 extended the E-W width of the building and was extant for 7.3m south from the northern LOE (Fig 4). To the south of this point, floor 08 had been truncated by current construction works, though fragments of it survived directly beneath wall 71 along the southern LOE. This indicates that cement floor 08 extended as far as the southern LOE and potentially continued the length of the building to the south. It also extends beyond the northern LOE as far as the northern wall of the building, and is currently in use as the floor surface of the Museum van de Caab.

Cement floor 08 was considerably less substantial than the overlying cement floor 01 (avg. thickness of 30mm and 150mm respectively) and this was reflected in a general sag of floor 08 from the eastern and western building walls towards the centre of the building. This was evident as a shallow depression of floor 08 running N-S along the centre of the building and can still be observed on the current floor of the Museum to the north.

Directly underlying cement floor 08 were two deposits (layers 09 and 73), which served as deliberate bedding layers in preparation for pouring the concrete for floor 08. Layer 09 consisted of a silty sand, containing a high quantity of crushed brick fragments, with its extent in plan being identical to that of the surviving overlying floor 08 in the north half of site. It was a heterogeneous mix of a dark greenish soil with crushed brick fragments, representing a deliberately deposited bedding surface.

Layer 73 was a compact, yellow silty sand with abundant grit, and performed the same function in the southern half of the site as bedding layer 09 to the north; it was exposed in section along the southern LOE (Fig 12; sec 05 and 12) and presumably continued to the south of the LOE as the bedding layer for floor 08 in this part of the building.

These were not substantial deposits in terms of thickness and layer 09, as a result of the sag in overlying floor 08, in some areas was very compressed and not discernibly continuous in section, but was recorded in Sections 06, 10 and 04 (Fig 10).

East-west brick pillars

A total of six discreet, stand alone structures were exposed stratigraphically below bedding layer 09 (structure 31 and structure groups 14, 19, 24, 36 and 41; Fig 5). These consisted of rectangular structures with overall dimensions averaging c. 1.30m E-W by c. 0.50m N-S, with their long axis on an E-W alignment. They were arranged in two parallel rows of three, directly facing each other, along the east and west sides of the building (Fig 5). These six structures are part of a larger group of twelve exposed within the area of investigation, the remaining six having been exposed prior to the investigation and are described below.

Of the six below the surviving portion of cement floor 08 in the northern half of the site, structure 31 in the NW corner of the site was the best preserved (Fig 5). Structure 31 represents the remains of a rectangular, brick-built structure, of which one course survives at a slightly higher level than that of surrounding cement floor 08. Dark orange-red, well fired but friable bricks (measuring c. 0.22m x 0.11m x 0.08m) were used with sifted soil as a mortar bond. The surviving brick course consists of a row of 10 bricks laid flat, side-to-side, with their long-axis on a N-S alignment; and a row of 5 bricks immediately north laid flat, end-to-end, on an E-W alignment. Structure 31 is clearly the remains of a taller structure that was subsequently demolished to the height of a single course.

Given that pillar 31 survives at a higher level than that of cement floor 08, this indicates that the cement for floor 08 was poured around pillar 31. Where floor 08 had survived intact in the vicinity of the other five structures (groups 14, 19, 24, 36 and 41), it was also obvious that the concrete for 08 had been poured around existing rectangular structures of similar dimensions to pillar 31 (c 1.20m by 0.4m). Most of these had been evident as rectangular “voids” in the cement of floor 08, as the preservation of the brick structure was poorer than that of pillar 31 (Fig 5). These two parallel rows of rectangular pillars extended north beyond the LOE and can still be clearly observed as rectangular gaps in the current floor of the Museum (cement floor 08). For conservation and display purposes, no further excavation of pillar 31 or floor 08 was undertaken in the NW corner of the site.

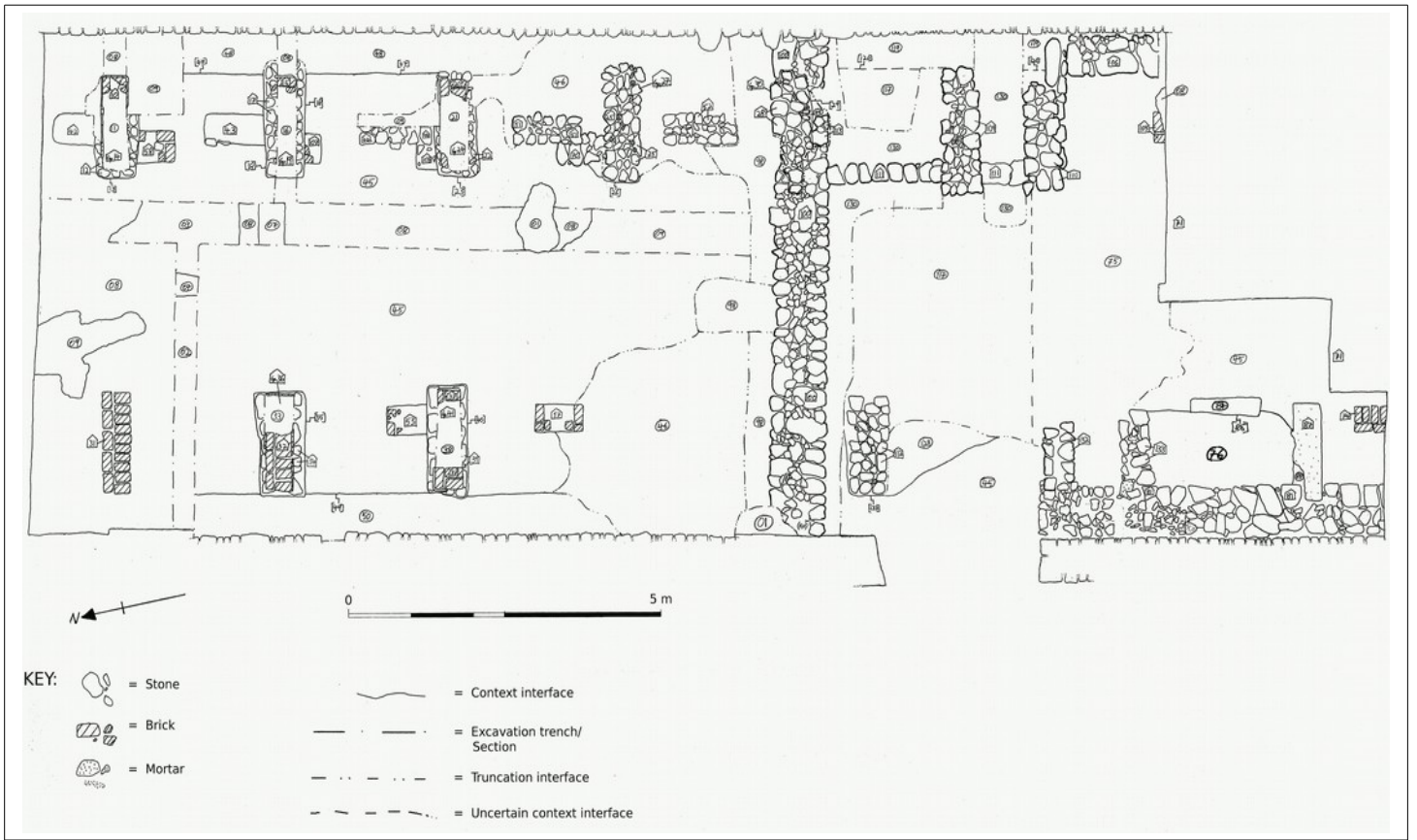


Figure 4: Plan showing E-W brick pillars below cement floor 08.

The remaining five E-W brick pillars in the northern half of site (groups 14, 19, 24, 36 and 41) were partially or wholly excavated, showing their construction methods and materials to be identical:

- Each had a brick-built rectangular super-structure (structures 10, 15, 20, 32 and 37 respectively), which were probably similar to pillar 31 though only fragments of bricks from their respective first courses survive. Where they survive, bricks were bonded with a sifted soil mortar.
- This soil mortar survived as a bedding layer (deposits 11, 16, 21, 33 and 38 respectively), on which the first course of bricks was laid.
- The respective bedding layers overlay and bonded a foundation of rolled cobbles (structures 12, 17, 22, 34 and 39), the dimensions of the cobbles averaging 0.20m x 0.12m x 0.10m and ranging up to 0.40m x 0.20m x 0.12m. The rectangular foundations were one course deep, with smaller stones in the gaps on top to level the course, and their overall dimensions varied between 1.20m to 1.40m E-W, by c. 0.50m N-S.
- The cobble-foundations were tightly packed into rectangular foundation cuts (13, 18, 23, 35 and 40 respectively) of similar dimensions: 1.30m to 1.50m E-W; 0.45m to 0.60m N-S. A section was excavated through Groups 14 and 36 (Fig 8; sec 01 and 03), showing their respective foundation cuts 13 and 35 to have near vertical sides with a sharp break of slope at the top and base, with a depth of c. 0.2m.

As mentioned above, in addition to these six pillars (structure 31 and groups 14, 19, 24, 36 and 41) there were a further six rectangular E-W structures, partially truncated during the current redevelopment. Of these, only the lower cobble foundations survive with no brick superstructure. These were structure groups 27 and 30, and structures 109, 110, 112 and 132, all located in the southern half of the site (Fig 5). Groups 27 and 30 were composed of cobble foundations 25 and 28; and foundation cuts 26 and 29 respectively. The foundation cut (137) also survived for cobble foundation 112, but as all deposit surrounding cobble foundations 109, 110 and 132 had been completely removed (along with the foundation cuts that would have truncated them) these structures were recorded as overlaying structures from much earlier phases (see Appendix 1 and below).

Although no brick-built element survived on any of these pillars (groups 27 and 30; pillars 109, 110, 112 and 132), small rolled brick fragments were evident on the exposed surface of all these cobble foundations, suggesting an original overlying brick structure that had subsequently been demolished. These cobble foundations were of similar overall dimensions, and constructed with identical materials to the five partially excavated cobble foundations of E-W brick pillars in the northern half of the site (groups 14, 19, 24, 36 and 41). Furthermore, all twelve structures are arranged into the two parallel N-S rows along the east and west side of the building described above, strongly suggesting that all twelve are contemporary and share a common function.

Features underlying E-W brick pillars

With the exception of the north-western pillar (31; remained unexcavated), all partially excavated E-W brick pillars in the northern half of site (groups 14, 19, 24, 36 and 41) truncated a rammed earth floor (45; described below). Three of these pillars (groups 19, 36 and 41), however, also cut into the upper fills of two linear cuts (47 and 49), which in turn directly truncated floor 45.

The eastern end of the foundation cut (18) for E-W pillar group 19 directly cuts deposit 48, adjacent to the eastern building wall (Fig 5). Deposit 48 directly overlay 89, and both of these were deliberate backfills of linear cut 47 (sec 02 and 07). The western end of foundation cuts 35 and 40 (pillar groups 36 and 41 respectively) both directly cut deposit 50, representing the single backfill of linear cut 49, close to the western building wall (Fig 5; sec 3 and 8, Fig 8 and 10).

Cuts 47 and 49 are linear trenches on a N-S alignment, running parallel and adjacent to the eastern and western building walls respectively (Fig 5). They are both c. 0.5m wide and extended c. 7.5m south from the northern LOE. At this point their respective fills had been truncated during the current redevelopment, and their continuation to the south could not be discerned but is likely. Trench 47, adjacent to the eastern building wall, could be seen in plan continuing to the northern LOE. Trench 49, on the western side, was evident up to the unexcavated section of cement floor 08 and is likely to have also continued to the north.

Upper fill 48 of trench 47 was identical in appearance and composition to that of bedding layer 09 for cement floor 08, with the interface between layer 09 and fill 48 not present in section (sec 07). This shows that, at least the upper part of N-S trench 47, was still open when it was deliberately backfilled with 48, and that this was essentially the same deposit as bedding layer 09. This indicates the final backfilling of trench 47 and the preparation (layer 09) for the laying of cement floor 08 are contemporary events.

Aside from the crushed brick and c. 10 medium sized (80mm x 50mm x 30mm) mortar fragments (some fire-blackened with soot) several artefacts were recovered from backfill 48: two pieces of a conjoining serrated iron object; two pieces of flat, clear glass; the base of a brown glass bottle (as yet undated); and a sherd of European refined earthenware, dated to the C19th (see Appendix 2). The lower fill (89) of trench 47 was a darker brown, siltier deposit that also contained building debris in the form of small concrete and brick fragments, the former establishing a C20th date for backfill 89.

The sections through both trenches indicate that they were excavated from the centre of the room towards the outer walls: the western side of trench 47 has a sharp, near vertical break of slope at the top of the cut; changing to a more gradual concave side; leading to a gentle break of slope at the base, adjacent to the eastern building wall (sec 02 and 07). Trench 49 mirrors this, with its eastern side having a sharp break of slope at the top; leading to a shallower, concave side; and a gentle break of slope at the base adjacent to the western building wall (Fig 10; sec 11 and 08). Both trenches have an average depth of c. 0.25m below the surface of floor 45, the surface from which they were cut.

Both trenches 47 and 49 are cut directly into rammed earth floor 45, as the interface of these trenches was no seen through overlying deposits in either plan or section (sec 07 and 04 respectively; Fig 8). However, the edge of the cut for each trench (47 and 49) with floor layer 45 is unexpectedly regular and almost vertical: this is evident for both

cuts in the excavation profile (sec 11 and 07; Fig 10), and the vertical edge to layer 45 at the interface with both cuts (47 and 49) was clearly observed during excavation. This suggests that these vertical edges to floor layer 45 are the original configuration of this compacted layer. Had floor surface 45 extended to and abutted the eastern and western building walls, the subsequent truncations cut directly into it (N-S trenches 47 and 49) would have left an irregular, fragmented edge to layer 45; or at the very least cut it with a concave break-of-slope, as was the continuation of the profile to both trenches below layer 45 (Fig 8; sec 03, 04 and 07). The implication of these factors is that floor surface 45 was laid abutting and respecting pre-existing structures, set in approximately 0.5m from the eastern and western building walls, that were subsequently removed by demolition cuts represented by N-S trenches 47 and 49 respectively. This interpretation is discussed in the following chapter.

In addition to all fully exposed E-W pillars in the northern half of site cutting floor 45, three of the six pillars partially truncated by the current construction works in the southern half of the site could also be shown to directly cut floor 45. There was enough deposit surrounding cobble foundations 25, 28 and 112 to discern their associated foundation trenches (26, 29 and 137) directly cutting a portion of floor 45 (the first two context numbers in this sequence of three E-W pillars are the respective foundation cuts of groups 27 and 30; Fig 5). This further supports the inclusion of these structures as part of the group of six E-W brick pillars to the north, as they are demonstrably of a contemporary phase (i.e. cutting into floor 45; Appendix 1).

Floor 45 was a deposit consisting predominantly of coarse, green-coloured sand and some silt, that has been rammed into a compacted, flat layer c. 60-80mm thick. It extended across the building E-W and c. 9.5m south from the northern LOE, with its continuation to the south truncated during the current construction works (Fig 5). However, segments of floor 45 could be traced along the edges of the LOE in the southern half of the site, and it clearly survived in the south-westernmost portion of the site. It extended 3.3m north from the southernmost LOE in the western half of the building (Fig 5); and continued south below wall 71 along the southern LOE (Fig 12; sec 05). This indicates floor 45 extended across the entire site and continued beyond the LOE to the north and south.

North-south stone pillars

The green-sand deposit of floor 45 was itself laid around a different series of discreet, stone-built foundations (structures 42, 43, 44, 51, 52 and 113; Fig 5). Three of these (structures 42, 43 and 44; situated in the northern half of the site) had survived undisturbed, allowing their overall dimensions and stratigraphic sequence to be clearly recorded. The three southernmost structures (51, 52 and 113) had been exposed and partly truncated during the current redevelopment, but their association with the former three structures was evident (see below).

These six structures consisted of a single course of sub-rounded sandstone fragments (avg. dim. of 0.10m x 0.10m x 0.05m; max. dim. of 0.20m x 0.13m x 0.07m), set together in a rectangular shape, with the same green-sand deposit used for floor 45 subsequently rammed between them to serve as a bond to the stones. Although irregular in shape, over half of the stones used in the construction of these structures appeared to have been selected for having one or two flat faces to be used as bedding surfaces (i.e. upper and lower face of the single surviving course). The vast majority of building stone was unaltered and used as it had been procured, though there were about 5 stones distributed between the six structures that had been deliberately faced on one side to give a straight edge to their respective structure.

Structures 44, 51 and 52 have survived undisturbed by later features and, although the overlying deposit of floor 45 had been partially or wholly truncated from around structures 51 and 52, it was evident that the structures themselves remained undisturbed by the current redevelopment. All three are rectangular in plan, measuring on average 0.95m by 0.37m, with their long axis on a north-south alignment. They are arranged on the ground in a north-south row, with a regular gap of c. 2m between each structure's centre point, and their eastern sides situated c. 1m from the eastern building wall (Fig 5). These structures have been interpreted as a row of free-standing, rectangular pillars, of which only the lowermost stone-built course survives.

The continuation of this row of pillars to the north is represented by structures 42 and 43. Although the southern extend of both these structures have been truncated by pillar groups 14 and 19 respectively, they appear to be of similar dimensions to N-S pillars 44, 51 and 5, all five having the same average width of c. 0.37m E-W. Furthermore, all five structures are arranged in the same N-S row, situated c. 1m from the eastern building wall; and the northern ends of structures 42, 43 and 44 are situated c. 2m from each other (sequentially from north to south), thus maintaining the uniform 2.0m gap with pillars 51 and 52 to the south (Fig 5).

Structure 113 represents the remains of a further N-S pillar to the south of pillar 52. Although structure 113 is substantially truncated (the northern end by pillar group 30 and the southern end, together with most of surrounding deposits, during the current redevelopment), there was enough evidence to support its inclusion in the same group of N-S pillars. The surviving structure (113) has an E-W width of 0.38m, similar to the other N-S pillars, and it is the same distance from the eastern building wall (c. 1m) as the other pillars, locating it in the same N-S row. In addition, there was enough deposit surviving at the northern end of 113 to show the foundation cut (29) for E-W pillar group 30 cutting floor 45, which in turn directly overlay structure 113, thus exhibiting an identical stratigraphic sequence to that observed with less disturbed N-S pillars to the north (pillars 42, 43 and 44; Fig 5). The continuation of this sequence of pillars to the south of structure 113 is likely, though evidence for this would have been removed during the current construction works.

As mentioned above, the same green-sand deposit was used as both a bond to these N-S stone pillars and as the floor surface (45) laid around them. This construction method means that, unlike the overlying east-west pillars cut into floor 45 (see p. 13), there were no foundation trenches for the N-S stone pillars. Instead, the lowermost stone courses for N-S pillars 42, 43, 44, 51, 52 and 113 were laid directly onto an underlying floor surface (comprising of layers 46, 60, 75 and 117; described below), and then packed in place by the green-sand deposit which formed floor surface 45.

N-S brick pillars

A third set of rectangular pillars was found to underlie the two distinct groups of pillars described above. This third set comprised of structures 58, 53, 57, 70, 74, 105, 107 and 108. The majority of these structures were partially or wholly truncated as a result of the construction of the two overlying set of pillars. Of the eight pillars in this third set, only one (57) was not truncated by overlying features (or construction works) and had its full extent in plan exposed within the LOE (south of E-W pillar group 41, on the west side of the building; Fig 5). Pillar 57 measured

0.65m N-S by 0.35m E-W, with its western edge located 1.25m from the west building wall. It was constructed with brick and only fragments of the lowermost course survived.

With the exception of pillar 70 on the eastern side of the building, the construction of all other pillars in this group was with brick, of which only the lowermost course survives to different extents. The bricks used varied in colour from reddish-orange to pale yellow-brown, measuring c. 0.22m x 0.11m x 0.07m. They were friable to the touch and that, together with the paler yellow-brown colouring of some of them, suggests a lower heat, less efficient firing process.

The best surviving example of this brick coursing is pillar 74, located in the SW corner of the site, adjacent to the southern LOE. Bricks with their long-axis aligned E-W were laid flat and side by side in a row aligned N-S; a second N-S row of bricks, laid flat and end to end, was laid immediately west of the first row. Given the average size of each brick and inferring the overall dimensions of pillar 74 were similar to that of pillar 57 to the north, it would follow that the first row would have comprised of a total of five bricks laid side by side; with the row immediately west comprising of a total of three bricks laid end to end (the southernmost bricks in both rows of pillar 74 lay beyond the southern LOE; Fig 5). A dark brown sifted soil was used as a mortar bond between bricks.

Pillar 70 (immediately north of E-W pillar group 27, on the eastern side of the building) was the only one of its group of eight that was not built with brick. Instead, its remains comprised of a single course built with sandstone, and in this respect more closely resembled the N-S stone pillars described above (see p. 17). However, its relationship in space and stratigraphically to other pillars (discussed below), together with the fact that the soil used as a bond between the stones of pillar 70 is a dark brown silty deposit, as opposed to the green-sand deposit used in the overlying stone pillars, indicates that this structure is part of the group of N-S brick pillars. This is further supported by its similar alignment and regular spacing with other N-S brick pillars on the eastern side of the building (pillars 58, 107, 108 and 105 from north to south, Fig 5).

The eight N-S brick pillars (58, 53, 57, 70, 74, 105, 107 and 108) were arranged in two N-S rows, running parallel and close to the eastern and western walls of the building. Each row was situated approximately 1.25m from the respective eastern or western wall, with the pillars placed within each row at a uniform gap of c. 2.00m from each other (measured between the same point on each pillar), and arranged more or less symmetrically on either side of the building (Fig 5). The row on the eastern side of the building comprised of pillars 58, 107, 108, 70 and 105 (given sequentially from north to south). Although these structures have been partially truncated by overlying pillars, it is still evident that all are located on the same N-S alignment and have the same average width of c. 0.36m (this last dimension could not be established for pillar 108 due to truncations by later structures). All respected the gap of c. 2m between each pillar: 1.93m between the respective southern edges of pillars 58 and 107; 1.85m between the northern edges of pillars 108 and 70; and, notably, 7.9m between the northern edges of 70 and 105, suggesting there had been three other pillars between them. These missing pillars were probably removed from the southern half of the site during the current construction works.

Only pillars 53, 57 and 74 survive from the row on the eastern side of the building. Their alignment into a N-S row is clear and the uniform gap of c. 2m is also evident: 1.96m between the northern edges of pillars 53 and 57; and 10.8m between the northern edges of pillars 57 and 74, allowing for four likely pillars between them that have not

survived. The pillar to the north of 53 in this sequence has also not survived, probably removed or substantially disturbed after the construction of E-W pillar group 36.

N-S brick pillars 70 and 108 were directly overlain by N-S stone pillars 51 and 44 respectively, and physically overlain by floor layer 45. All other N-S brick pillars (58, 53, 57, 74, 105 and 107) were directly overlain by floor layer 45. All eight N-S brick pillars were built directly onto an underlying floor surface that comprised of layers 46, 60, 75 and 117 (described below). All overlying group of N-S stone pillars described above (42, 43, 44, 51, 52 and 113; p. 17) were also built directly onto the same floor surface, but there is a significant difference between the two groups of pillars. Whereas the brick pillars had a brown sifted-silt as a bond to the structures, the overlying stone pillars had the same deposit used as a bond as that used for laying floor 45, indicating the latter are contemporary with floor layer 45 that overlies the N-S brick pillars.

The sequence of the three groups of pillars is clearly demonstrated in the northern half of the site, on the eastern side of the building. E-W pillar group 27 and N-S stone pillar 51 physically overlay pillar 70, indicating that structure 70 is the earliest out of the three (Fig 5); furthermore this clearly demonstrates that, although the remains of pillar 70 are built with stone, this structure cannot be part of the group of N-S stone pillars as it is directly overlain by one of those pillars (51). E-W pillar groups 14 and 19 to the north also clearly overlay the N-S brick pillars (58 and 107 respectively), but importantly they provide a relative sequence between the sets of pillars as they also overlay the N-S stone pillars (42 and 43 respectively; Fig 5). Thus the relative chronological sequence begins with the N-S brick pillars (58, 53, 57, 70, 74, 105, 107 and 108), followed by the N-S stone pillars (42, 43, 44, 51, 52 and 113), and lastly by the E-W brick pillars (groups 14, 19, 24, 27, 30, 36 and 41; structures 31, 109, 110, 112 and 132).

Investigation of specific areas

At this stage of the excavation, the deposits and structures exposed in the northern half of the site were at a closer stratigraphic horizon to those in the more truncated southern half; i.e. all exposed structures across the site broadly represented the same archaeological phases. The excavation proceeded to focus on specific structures and areas of the building that would further explore and clarify the stratigraphic sequence. These areas are illustrated in Figure 6 and the results presented for each one separately below.

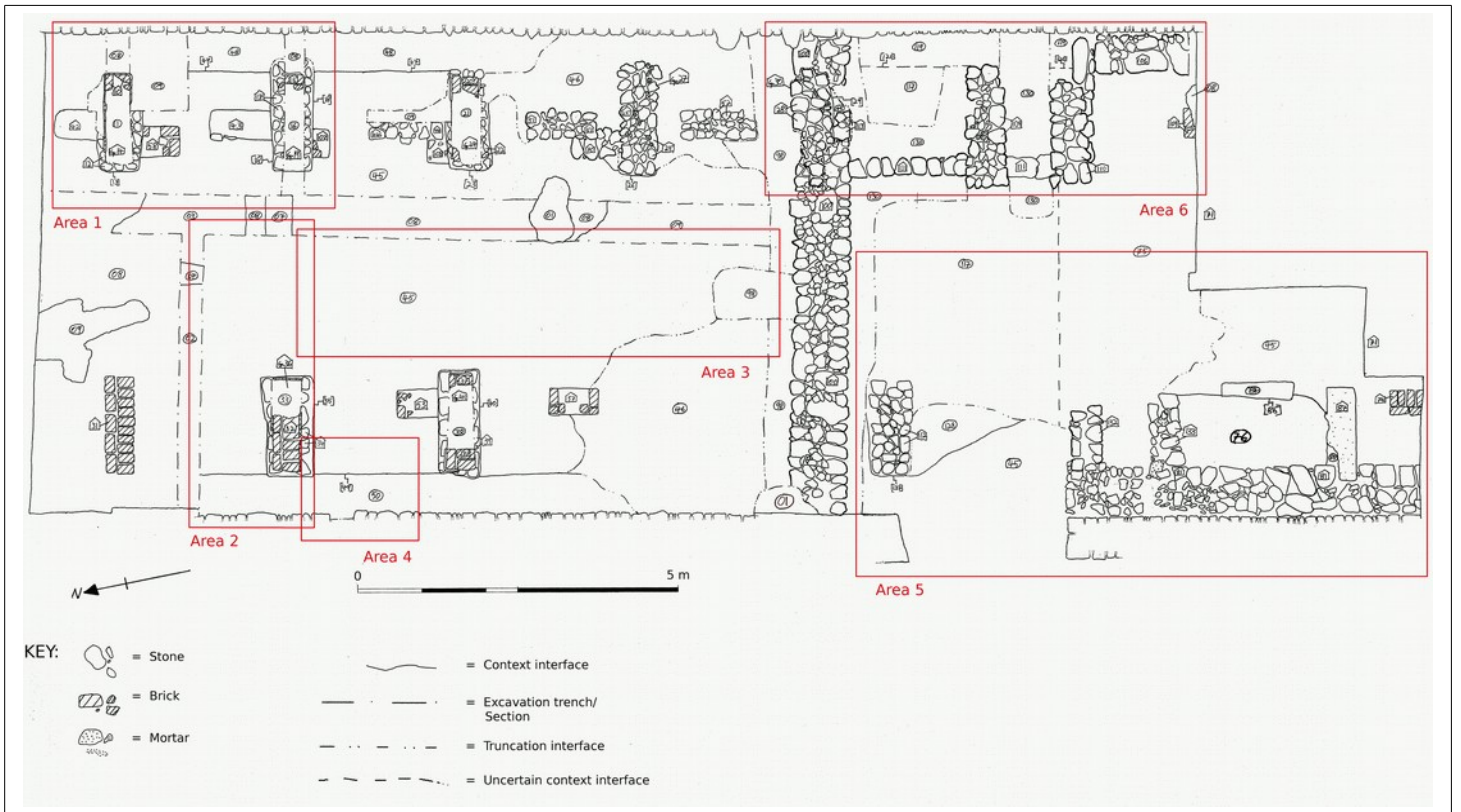


Figure 5: Plan showing Areas selected for specific excavation trenches.

Area 1

The group of pillars in the NE corner of site (E-W pillar group 14, N-S stone pillar 42 and N-S brick pillar 58) were investigated further. Section 01 (Fig 8) illustrates the relationship between E-W pillar group 14 and N-S stone pillar 42. The east facing part of Section 01 shows foundation cut 13 (of E-W pillar group 14) truncating pillar 42 to the north (Fig 7 and 8; sec 01). No interface or significant difference in appearance or composition was seen between the deposit surrounding the stones within pillar 42 and the adjacent deposit of floor 45, indicating both the construction of the pillar and laying of floor were contemporary.

A trench was excavated through floor layer 45 to the south of these structures, situated between pillar groups 14 and 19 to the north and south respectively. The excavation trench extended from the eastern wall of the building to the excavation baulk running N-S near the centre of the building (Fig 7).

Floor layer 45 was removed to expose an underlying floor surface (60), consisting of a dark brown silty deposit that had been deliberately rammed and compacted. Within layer 60 there were frequent brick and, notably, fragments of a hard white mortar. Floor 60 extended across the area of this trench and, apart from where it was partly truncated by N-S trench 47 adjacent to the eastern building wall, had an average thickness of 0.2m (sec 07).

A significant proportion of mortar fragments recovered from floor layer 60 were of a substantial size (max. dim. c. 0.30m x 0.15m), and had their surface moulded into spiral shapes. These mortar fragments represent the remains of a decorative render applied to a stone-built structure: the obverse side of the plaster, where it survived, had the indentations of the stones around which it had been applied.

In addition to a substantial quantity of moulded plaster fragments (>30 larger fragments kept as a sample), layer 60 also yielded two iron bolts, which may have been part of a timber structural element; and c. 10 fragments of thin, flat glass that appears to be from a window pane. The latter may have been collected from near the base of layer 60 and actually have originated from underlying layer 63 (see below).

The south facing profile of this trench shows N-S brick pillar 58 directly overlying floor layer 60, and floor 45 abutting the sides of the pillar with no foundation cut evident (sec 07). This indicates that pillar 58 was built as a free-standing structure directly onto the surface of floor 60, and then floor layer 45 was laid overlying both.

Directly underlying floor 60 was a layer (63) containing an abundant quantity of charcoal and ash, together with three partially burnt timbers (measuring c. 65mm x 65mm cross-section, up to 0.30m long). Layer 63 also yielded a significant amount of thin and flat broken glass fragments, probably from window panes, some of which displayed signs of warping as a result of intense heat. Layer 63 did extend across the area of the trench, but was irregular and patchy with a maximum thickness of c. 60mm.

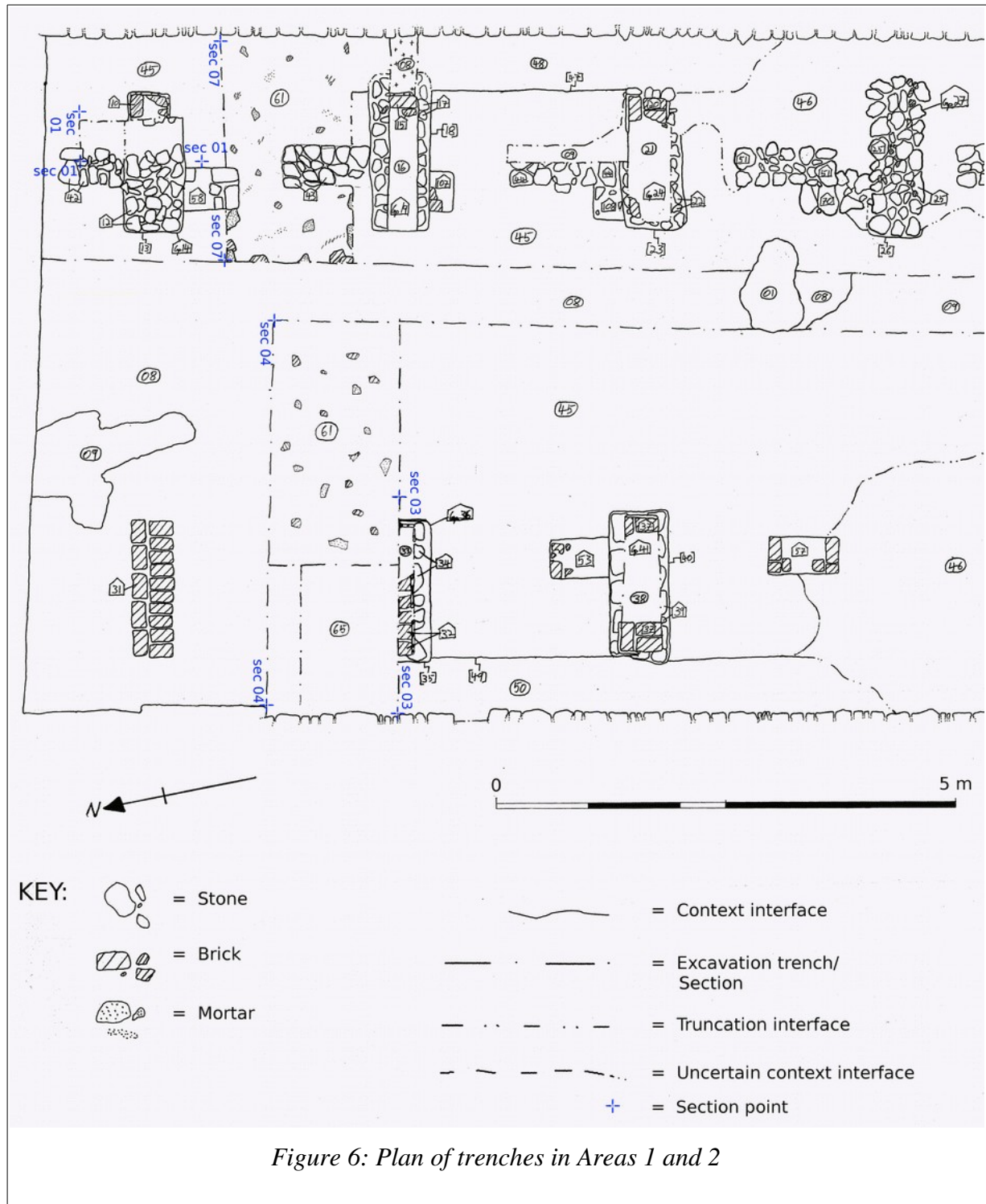


Figure 6: Plan of trenches in Areas 1 and 2

Burnt ash deposit 63 was excavated to expose a further floor surface (61), again consisting of a rammed silt deposit with crushed brick and white mortar fragments on the surface. The mortar fragments within floor 61 were small (max. dimension of 70mm) and, unlike those in overlying floor layer 60, were friable to the touch and did not have any moulded facets. Floor surface 61 extended across the area of the trench and, once exposed and recorded, was not excavated further in this area of site (Fig 7).

Area 2

On the western side of the building a similar trench was excavated through floor 45. It extended from the western building wall to the N-S baulk near the centre of the building, situated immediately north of and bisecting E-W pillar group 36 (Fig 7). Sections 03 and 04 were recorded as the respective north and south facing profiles of this trench (Fig 8). The upper portion of both trench profiles revealed the same sequence of contexts described above: foundation cut 35 (part of E-W pillar group 36) truncating both floor 45 and N-S trench 49 adjacent to the western wall (sec 03), with trench 49 also truncating floor 45 (sec 04; Fig 8).

The backfill (67) of small pit 68, directly underlying floor 45 and c. 0.35m from the western building wall, was exposed in the south facing trench profile (sec 04, Fig 8). Deposit 67 consisted of a loose yellow sand, with common brick and mortar fragments but no securely datable artefacts. Due to the disturbance caused by N-S trench 49, which also truncated backfill 67, the edges of cut 68 were not identified in plan during the excavation, but certainly did not extend across the trench to the south. Most likely, cut 68 represents a small pit directly cut into floor surface 60, which was subsequently deliberately backfilled with building debris (67).

Floor surface 60 was exposed beneath floor 45 and, had it not been for pit 68 and north-south trench 49 adjacent to the western building wall, floor layer 60 would have extended across the area of the trench and, therefore in conjunction with results from Area 1, across the width of the building E-W. This is shown in Section 03 by a surviving remnant of the base of layer 60 adjacent to the western building wall, below trench 49 (Fig 8). Like within Area 1, layer 60 was approximately 0.20m thick and overlay burnt ash deposit 63.

As in Area 1, burnt ash layer 63 directly overlay compacted earth floor 61. A 1.4m wide section adjacent to the western building wall and extending across the trench from north to south was excavated through floor surface 61; the continuation of 61 within this trench to the east was left unexcavated (Fig 7). Although completely truncated by pit 68 close to the

western wall of the building, the north-facing section does show that floor 61 extended across the width of the building, from its eastern to western walls (Fig 8; Sections 07 and 03 respectively). Floor layer 61 had a maximum thickness of 40mm and was far less substantial than overlying floor layer 60 with a thickness of 200mm (sec 03).

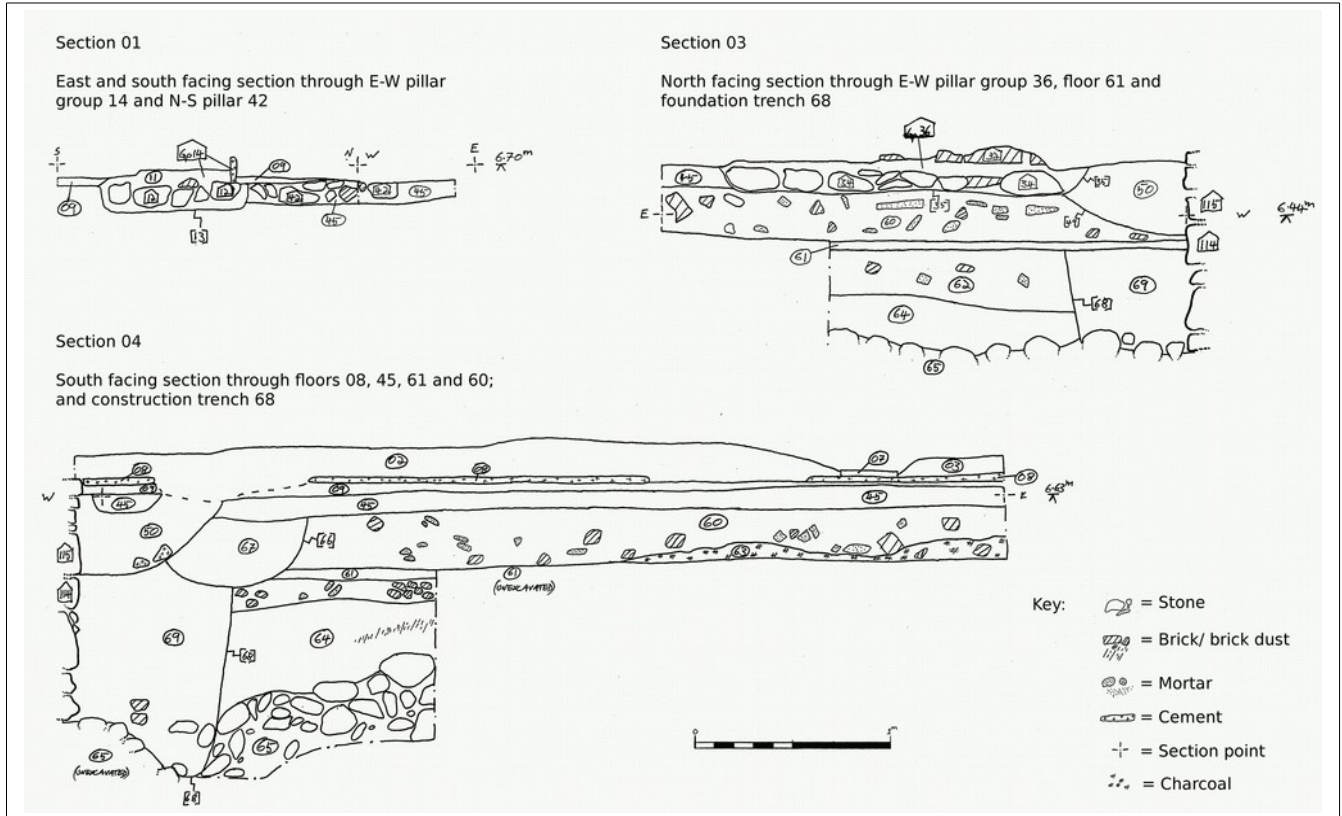


Figure 7: Illustration of trench profiles excavated in Areas 1 and 2

Sections 01, 03 and 04 (see Fig 7 for Section locations).

Floor 61 directly overlay deposit 69, representing the deliberate backfill of a foundation trench (68) adjacent to the western building wall (Fig 8; sec 03 and 04). Fill 69 was a pale brown, sandy-silt deposit containing occasional small brick fragments and flecks, but no datable artefacts.

Backfill 69 directly overlay the western building wall which, in this section of the building, was numbered 114 (sec 03 and 04). Structure 114 represents the foundation and lower courses of the western building wall, built with rounded and sub-rounded sandstone boulders and cobbles, with a dark brown sifted-silt used as a mortar bond. It survives to a maximum height of 0.53m, equivalent to four stone courses, above the base of its foundation trench 68 (sec 04). Above this height it was directly overlain by wall 115, representing a later reconstruction of the western building wall (see below).

Cut 68 represents the foundation trench for the construction of western building wall 114. Trench 68 had a near vertical east side and flat base. It was excavated to a varying depth of between 0.35m and 0.7m below the level of floor 61 (sec 03 and 04 respectively) down to the surface of the underlying river-terrace boulders (65).

Foundation trench 68 directly cut into a sandy-silt layer (62) that contained frequent small brick fragments and flecks of lime mortar. Layer 62 represents deliberately deposited soil, incidentally mixed with building debris, to form a flat construction terrace into which foundation trench 68 was cut. The thickness of levelling layer 62 varied from 0.12m to 0.23m from the northern to the southern side of the trench (sec 04 and 03 respectively). Two ceramic fragments were recovered from layer 62: a sherd of Chinese brown-glazed porcelain (late C18th – late C19th); and one of European refined earthenware (C19th; see Appendix 2).

Terracing layer 62 was deposited directly onto a sterile, brown sandy-silt deposit (64). Layer 64 represented a former topsoil horizon that had naturally accumulated over the underlying river-terrace deposits (65), and was subsequently buried by terracing layer 62. The thickness of buried topsoil 64 increased from 0.2m to 0.33m from the southern to the northern side of the trench (sec 03 and 04), contrasting the change in thickness of overlying levelling layer 62. Buried topsoil 64 was a relatively sterile in terms of inclusions, other than occasional, small (<5mm) rounded grit inclusions. It did yield a ceramic fragment of a pale bodied, coarse earthenware vessel (C18th in date) and the bowl end of a clay pipe-stem (with a date range from C17th - C19th; see Appendix 2).

Buried topsoil 64 directly overlay a natural deposit (65) of rounded sandstone cobbles and boulders (consisting c. 70% of the deposit) within a very fine, white sand matrix. The roundness of the cobbles and boulders within layer 65 indicate that they were substantially rolled and eroded by water action, suggesting a fluvial origin to this deposit. As a geological evaluation of the Delta estate has concluded, this deposit represents the final riverbed deposition of a palaeo-river before the river course narrowed to the west and NW, thus carving a deeper bed and leaving the area where the building now stands as an elevated river-terrace (this is discussed further in the Interpretation chapter). Cobbles 65 therefore represent the upper surface of this natural river-terrace; this deposit was not excavated further.

Area 3

The eastern end of the trench in Area 2 was extended to the south, and a 1.1m wide trench, running immediately west of the central N-S baulk, was excavated through floor 45. This

extended south as far as E-W wall 100 that had been previously exposed during the current redevelopment (Fig 9). The west facing profile of this trench was recorded as Section 10 (Fig 10). The stratigraphic sequence exposed in the northern segment of the trench is identical to that described for Areas 1 and 2: floor 45 overlay floor 60, which in turn overlay floor 61 (sec 10). However, a different sequence of deposits was exposed in the continuation of the trench to the south.

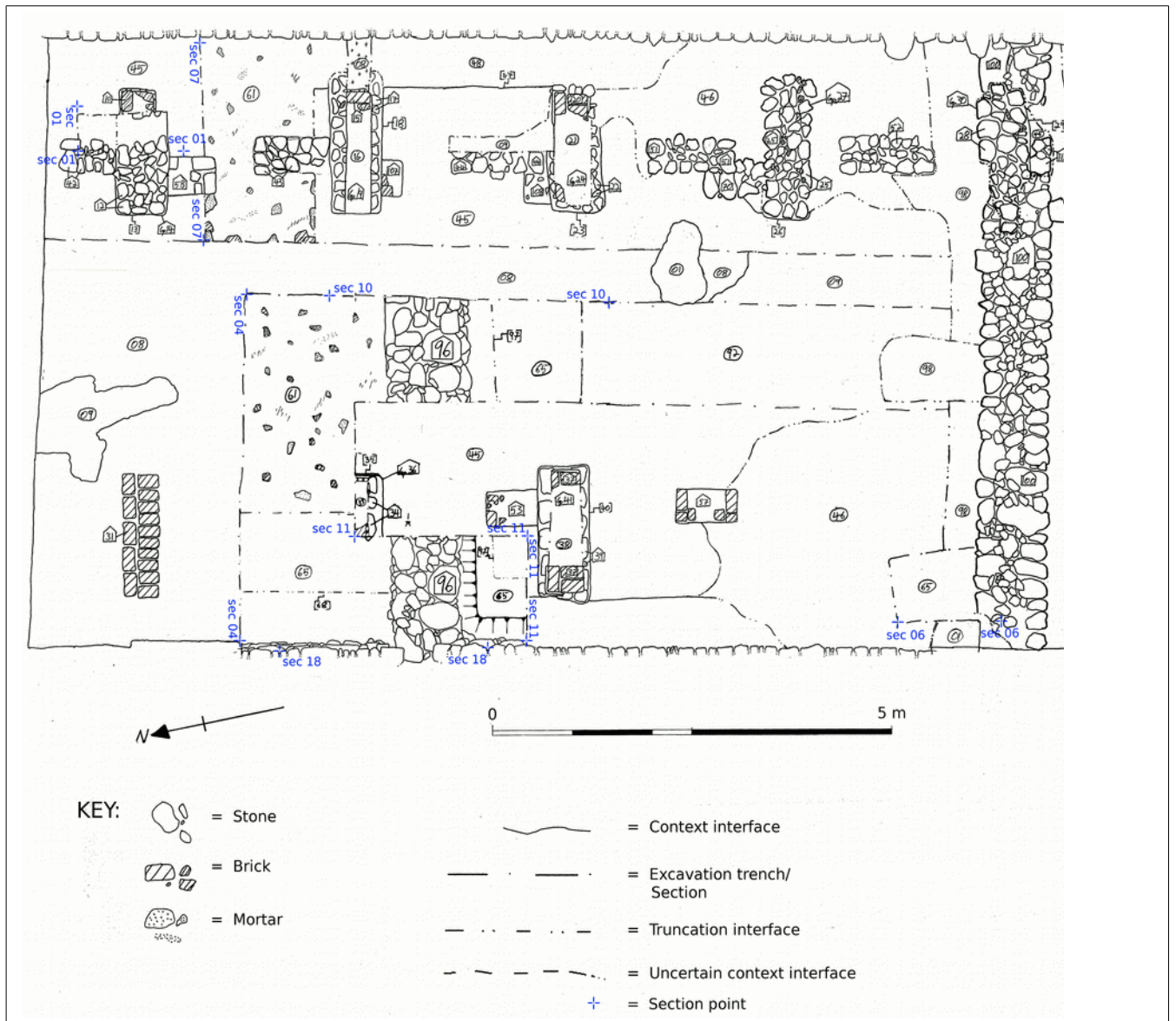


Figure 8: Plan of trenches in Areas 3 and 4.

As well as physically overlying floor 60, floor 45 also directly overlay a different layer (46), consisting of a dark brown sandy-silt deposit, that had also been deliberately compacted into a flat floor surface. Floor layer 46 directly overlay floor layer 60, with a clear interface between

both deposits highlighted in section by flecks of brick and white mortar (Fig 10; sec 10). The silty soil used for both floor layers 46 and 60 was very similar in appearance and composition, with the upper interfaces of both layers being on an identical level, thus indicating that both layers were components of the same floor surface. They were, however, quite distinct deposits: layer 60 contained abundant brick and mortar fragments, including moulded plaster; in contrast, overlying layer 46 had sparse, small brick fragments and only rare, small mortar fragments, none of them moulded. The significance of this variation in the frequency of inclusions between deposits forming the same continuous floor is discussed in detail in the Interpretation chapter.

Four bottle fragments of dark green glass were recovered from floor layer 46; one fragment from the neck of a bottle should be a diagnostic piece that may provide a narrow date range, but is yet to be analysed by a specialist.

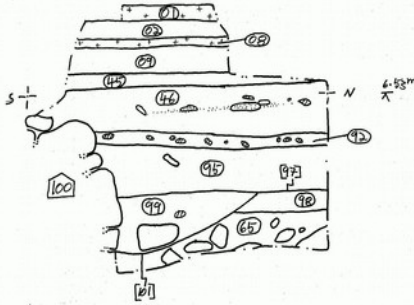
Floor layer 60 physically overlay the remains of an E-W wall (96), extending across the width of the trench (Fig 9 and 10). The stratigraphic sequence to the north of wall 96 was investigated in Areas 1 and 2 and described above. A description of deposits exposed to the south of wall 96 will follow, with wall 96 described in sequence.

To the south of wall 96, floor layer 46 directly overlay a pale brown, sandy-silt layer (92). Layer 92 had a maximum thickness of 50mm, extending the length of the trench from the southern face of wall 96 to the south as far as the north-south truncation made by construction staff, north of wall 100 (Fig 9). Deposit 92 was similar in composition to the underlying buried topsoil deposit (98; described below), but layer 92 had been slightly compacted and had a lower moisture content, also giving it a paler colour than the underlying buried topsoil layer 98. Layer 92 has been interpreted as an informal floor surface within the internal space to the south of wall 96. It is essentially the same composition as the underlying buried topsoil deposit (98); the sole difference being that the exposed surface, with repeated trampling underfoot over a period of time, became dryer and more compact. This resulted in the thin, 'informal' floor surface 92; i.e. not a deliberately laid floor.

Floor 92 directly overlay a sandy silt deposit (93) that was light orange in colour, due to the high proportion of crushed brick and larger brick fragments within it. Deposit 93 extended from the south face of wall 96, where it measured c. 0.12m in thickness, as far as 0.63m south where it terminated in a feather edge (Fig 10; sec 10). This deposit represents a deliberate construction backfill of a hollow adjacent to the southern side of wall 96, presumably due to slumping of the underlying foundation trench backfill 95. Once the hollow was filled and the ground next to wall 96 made level with the crushed-brick deposit (93), floor surface 92 accumulated over layer 93. No artefacts were recovered from levelling layer 93.

Section 06

East facing trench profile showing sequence of deposits north of E-W wall 100

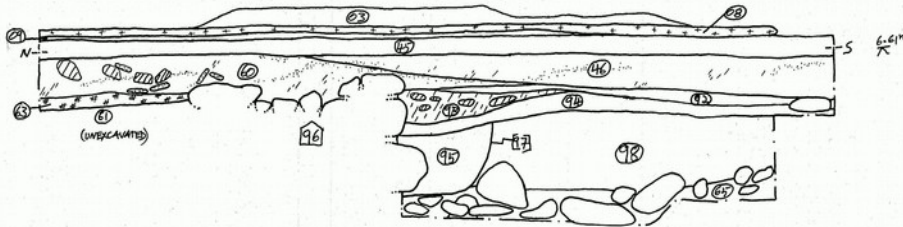


- Key:
- = Stone
 - = Brick/ brick d
 - = Mortar
 - = Cement
 - = Section point
 - = Charcoal



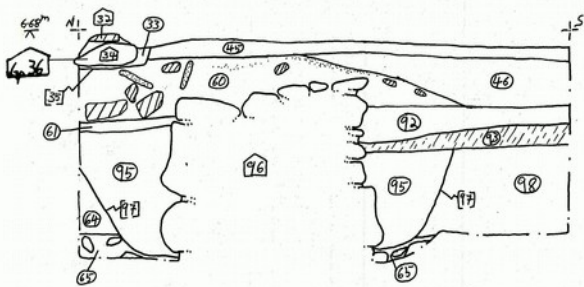
Section 10

West facing cross-section of wall 96 overlain by floors 08, 45 and 46/ 60; with floor 61 to the north (unexcavated), and floor 92 overlaying foundation cut 97 to the south



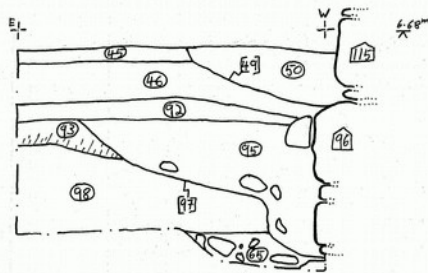
Section 11

West facing trench profile showing cross-section of wall 96, with floor 61 to the north overlying backfill 95 of foundation cut 97



Section 11

North facing trench profile showing deposits adjacent to western building wall: foundation 97 for wall 96, overlain by later rebuild 11.



Section 18

East facing elevation showing cross-section of E-W wall 96 and its relationship with the western building wall; abutted by wall 114 to the north and overlain by rebuild 115

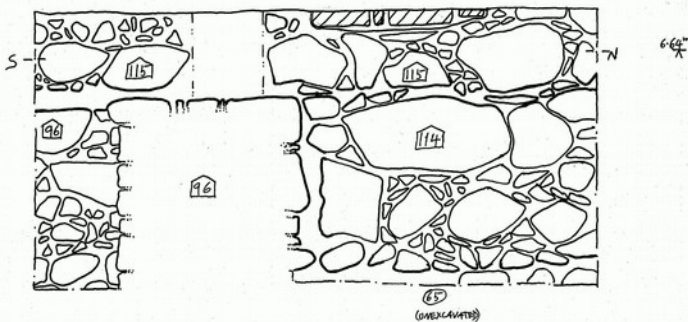


Figure 9: Illustration of trench profiles excavated in Areas 3 and 4

Layer 93 directly overlay a pale brown, sandy-silt layer (94). Like overlying floor 92, deposit 94 was a thin layer (maximum thickness of 50mm) that extended the length of the trench, from the southern face of wall 96 to the south as far as the truncation made by construction staff, north of wall 100 (Fig 9). Again, layer 94 was similar in composition to the underlying buried topsoil deposit (98), but the former was more compacted with a lower moisture content. In contrast, layer 94 had a greater frequency of brick and mortar inclusions than either deposits 92 or 98; and its deposition was less regular than overlying 'floor surface' 92, resulting in a more uneven upper surface to layer 94 (evident in Section 10).

Layer 94 has obviously resulted from very similar formation processes to overlying layer 92. However, rather than represent the ground surface that had formed or stabilised after the area to the south of wall 96 was enclosed within the building footprint, layer 94 represents the exposed (and presumably exterior) ground surface prior to the construction of wall 96. Hence the greater occurrence of brick and mortar inclusions within layer 94, representing the external ground surface while E-W wall 96 was being built; but, in contrast, their relative absence from overlying 'floor surface' 92 indicates this formed after the construction was completed, and the (newly enclosed) internal space was in use.

A c. 1.30m long section extending south from wall 96 and across the width of the trench E-W was excavated through layer 92, with its continuation to the south left unexcavated (Fig 9). Immediately south of wall 96, buried ground surface 94 directly overlay deposit 95, representing the deliberate backfill of the foundation trench (97) for wall 96 (sec 10). Backfill 95 was a pale brown, sandy-silt deposit that was very similar to the underlying buried topsoil layer (98), but with a darker hue. Backfill 95 yielded two conjoining ceramic fragments from a vessel of Chinese export *Famille Verte* porcelain, dated to the early C17th.

Backfill 95 directly overlay E-W wall 96. The construction of wall 96 is similar to that of 114 and the base of the outer building walls: built with rounded sandstone cobbles and boulders with a sifted-silt used as a mortar bond. Wall 96 represents a substantial foundation (0.80m average width N-S) that survives to a height of c. 0.40m (equivalent to three rough courses) in this trench. Once exposed in this trench, additional areas were excavated to further investigate wall 96 and a more detailed description of its extent and stratigraphic sequence is given below.

Wall 96 was built directly onto the base of foundation trench 97, which had a near vertical south side and a flat base. Trench 97 was cut directly into, and from the surface of, a buried topsoil horizon (98) to a depth of 0.23m. The base of foundation trench 97 exposed the surface of the underlying river-terrace boulders (65) onto which wall 96 was constructed (sec 10).

Layer 98 represents the naturally accumulated topsoil overlying the river-terrace deposits (65). It is identical in appearance and composition (being essentially equivalent) to buried topsoil 64 to the north of wall 96; these were assigned different context numbers (64 and 98) to account for and identify variance in the spatial distribution of artefacts, within the equivalent buried topsoil layer, across the building footprint. Layer 98 therefore represents the buried topsoil

layer to the south of E-W wall 96 and north of wall 100 (Fig 9 and 10; sec 06, 10 and 11). No artefacts were recovered from buried topsoil 98 in this area of site, though other trenches excavated through this deposit did yield finds; these are described below.

Excavation of this trench stopped once the upper surface of river-terrace deposit 65 had been exposed beneath buried topsoil 98 to the south of wall 96.

Area 4

As a result of exposing E-W wall 96 within Area 3, a trench was excavated through floor 45 adjacent to the western building wall at the point where the course of wall 96 was projected to meet it (Fig 9). Section 18 recorded the east facing elevation of wall 96 meeting the western building wall; the combined west-facing and north-facing profiles of the trench were recorded as Section 11 (Fig 10).

Section 18 illustrates the cross-section through wall 96 as it meets the western building wall and clearly shows different construction phases (Fig 10). The continuation of the western building wall to the south of the cross section through wall 96 is keyed-in to the cross-section of wall 96, indicating this is a continuous wall built at the same time (up to the height of the cross-section through 96 in the centre of the drawing; sec 18). The segment of the western building wall to the north (114), clearly abuts the north face of the cross-section through wall 96, indicating this is a later construction phase than wall 96. As such, this segment of the building's western wall represented a different context and was numbered 114; this section of the western building wall was also exposed in Area 2 (see above; p. 25).

Both the keyed-in continuation of 96 to the south and wall 114 to the north only survive to the same height as the cross-section of wall 96 (approximately 0.60m from the base of the foundations, equivalent to 4/ 5 rough courses). Both walls 96 and 114 were demolished down to this level and the upper part of the building's western wall (115) was built onto both, directly overlying wall 114 (sec 18). The interface between wall 115 and 114 is not very clear in the elevation (though it is more prominent between 115 and underlying 96 to the south), but this re-building of the western building wall can also be deduced from other structural elements; this is discussed in detail in the Interpretation chapter.

It is also worth noting that all three structures (walls 96, 114 and 115) had identical construction methods and materials: rolled sandstone boulders in rough courses, with a sifted-soil bond. The brick illustrated within wall 115 in Section 18 is in fact part of a subsequent blocking of an opening cut into the original fabric of wall 115.

However, from the exposed and (subsequent to this investigation) known continuation of this structure to the north within the Museum van de Caab, wall 115 is in fact built with stone only to a height of approximately 1.20m from current ground level. Above this, the exposed elevation within the Museum shows that it was built with brick for the remainder of its height. The bricks used were dark red in colour, with no frog indentation, and were very friable when originally exposed, suggesting an inefficient (low-heat) firing; this section of the wall has since been treated with a consolidant and left exposed as a feature within the Museum.

The east- and north-facing sections through the deposits in this trench (Fig 10; sec 11) essentially show the same deposits and stratigraphic sequence to that observed and described for Areas 1, 2 and 3. The only aspect not exposed in the above areas is the northern face of wall 96, below floor 61, with its foundation trench (97) cut into the buried topsoil deposit (64) to the north (equivalent to buried topsoil 98 to the south of wall 96; sec 11).

Once Section 11 was recorded, the deposits overlying wall 96 (floor surfaces 45, 46 and 60) between Areas 2 and 3 were removed to fully expose the course of the wall in the western half of the building. At c. 1.50m from the western building wall, a post-hole (122) had been cut into the centre of wall 96 (Fig 16). Post-hole 122 measured c. 0.16m in diameter and was dug into the top of wall 96 to a depth of c. 0.20m. It was filled with a loose, beige sand deposit (121) with brick fragments that had been used as post-packing.

Given that such a feature could not have been part of the original wall structure, it must have been cut into wall 96 after it was demolished to its extant height. As this feature was not evident in the directly overlying floor surface (consisting of layers 46 and 60), it cannot be the site of a post that was in use during the phase represented by floor surface 46/ 60. Post-hole 122 must therefore belong to a reconstruction 'sub-phase', after wall 96 is demolished but before layers 46 and 60 are laid as a new floor surface over the demolished remains. Most likely, post-hole 122 represents a temporary timber structure used during the building's redevelopment associated with the demolition of wall 96, such as scaffolding or props for structural elements (e.g. roof timbers previously supported by wall 96).

Adjacent to the western wall of the building, wall 96 is c. 0.70m wide and survives to a height of 0.65m (4 to 5 rough courses) above the base of the foundation trench. This is relatively higher than the remains of the same structure within Area 3, adjacent to the N-S baulk near the centre of the building (c. 0.40m, or 3 rough courses; sec 10). This increase in the height of the extant foundation (or relative deepening of the foundation cut) observed in the continuation of wall 96 from east to west, is a reflection of the underlying river-terrace deposit (65) sloping down from east to west and SE to NW. This required the foundation trenches for the building walls towards the western and northern parts of the building to be dug relatively deeper, so that the upper surface of the river-terrace boulder deposit (65) was exposed to provide a solid base on which to build.

It is worth noting that in Area 4 (and the extension of that trench to the east towards Area 3), buried topsoil 98 yielded several artefacts dating to the early and mid-1700's . These consisted of two fragments of Chinese porcelain: one blue and white underglaze; and a later fragment of incised porcelain (dated to the early and mid-C18th respectively). Other ceramics with a broader date range included two fragments of European salt-glazed storage vessels (C18th); and two fragments of ceramic pipe stems (C17th – C19th; see Appendix 2). Stone artefacts and an iron object were also recovered from buried topsoil 98.

Area 5

Other than cleaning the exposed structures, up to this point no archaeological excavation had been undertaken in the southern half of the site. Deposits in this half of the site had been wholly or partially removed by construction staff during the current redevelopment. Therefore, determination of the relative sequence of structures could only be based on physical relationships between them (as there were no deposits overlaying or surrounding them for deeper stratigraphic analysis), and relied heavily on inference of stratigraphic relationships observed in the less disturbed northern half of the site.

In the southern half of the site, the uppermost deposits in the stratigraphic sequence were located close to the SW corner of the site, and immediately inside the double doorway through the western elevation. Floor layer 45 (described above, p. 66) survived in the southernmost area of site (in the western half of the building), together with one of the N-S brick pillars (74) that continued beyond the southern LOE (Fig 6; described above, p. 18). Other exposed structures were evident through the surface of floor 45, namely:

- Stone structure (81) built immediately adjacent to the western wall of the building, running north-south for c. 4.60m from the southern LOE as far as the south side of the western door into the building, with a uniform width of c. 0.65m.
- At c. 0.80m north from the southern LOE, a stone-built structure (87), with a white lime mortar 'capping' surviving across the top of it, extended east from structure 81 at right angles to it. Measuring 0.38m in width, structure 87 extends 1.00m east from the eastern edge of structure 81.
- Structure 133, situated 3.10m north from the southern LOE, had an identical configuration to structure 87: measuring 0.37m in width and extending 0.95m east from structure 81, structure 133 also had vestiges of white lime mortar, although this was more fragmented than the mortar on structure 87.
- Situated 0.90m east of structure 81, and equidistant between E-W structures 87 and 133, are the vestiges of another possible structure represented by cut 85 (filled with

deposit 84). It is a roughly rectangular feature, measuring 0.94m in length and between 0.15m and 0.22m in width at the north and south ends respectively. Cut 85 is likely to represent the vestiges of a beam-slot or some other structural element, and is discussed in more detail below.

Remnants of floor layer 45 also survived in the northern part of Area 5, immediately inside the door in the western elevation. There was enough of layer 45 surrounding structures 112 and 132 (to the north and south of the doorway respectively) to indicate that these were in fact the stone foundations for two E-W brick pillars that had truncated floor layer 45 (see above, p.13); E-W pillar 132 also physically overlay N-S structure 81 (Fig 6).

A trench was excavated through floor 45 in the SW corner of Area 5, to the east of N-S structure 81 and bisecting N-S brick pillar 74 (Fig 11). Section 05 recorded the north facing profile of this trench and part of the overlying elevation of wall 71 that delineated the southern LOE (Fig 12). Down to floor 45, the deposits and their sequence in this trench was identical to that encountered in the northern half of site; the only subtle difference was that in this Area a coarser sand layer (73) was used as a bedding layer for overlying concrete floor 08, instead of bedding layer 09 used in the northern half of the site (see above, p.12). Floor 45 directly overlay N-S brick pillar 74.

Like the other N-S brick pillars, structure 74 was built directly onto a dark brown, compacted soil floor surface (75). Although layer 75 is a different deposit to the floor surfaces onto which the N-S brick pillars were built onto in the northern half of site (floor layers 46 and 60), all three represent the same contemporary floor surface; this was determined by their respective stratigraphic relationships and the fact they all had similar physical levels (i.e. close relative spot-height measurements that indicate a continuous, level floor surface; as was also the case for floor layer 117 described below).

Aside from similar spot-heights with deposits 46 and 60, layer 75 was also very similar in composition (dark brown, compacted sandy-silt). Although, like layer 46, it did not contain abundant brick and moulded plaster fragments as found within layer 60 (see above, p.22). Two conjoining fragments of Chinese blue and white underglaze porcelain were recovered from layer 75, with a date range falling between the 17th and 18th centuries (see Appendix 2).

E-W structures adjacent to western wall

A second trench was excavated adjacent to N-S structure 81, situated immediately north of and bisecting E-W structure 87. The trench extended to the western LOE of this SW section of the site (Fig 11). **Sections 08 and 09** illustrate the respective north-facing and a segment of the south-facing profiles of this trench. As the remaining sequence of deposits within the trench to

the south (described above; sec 05) is identical to those recorded in Sections 08 and 09, the description of deposits will continue as excavated in the northern of the two trenches.

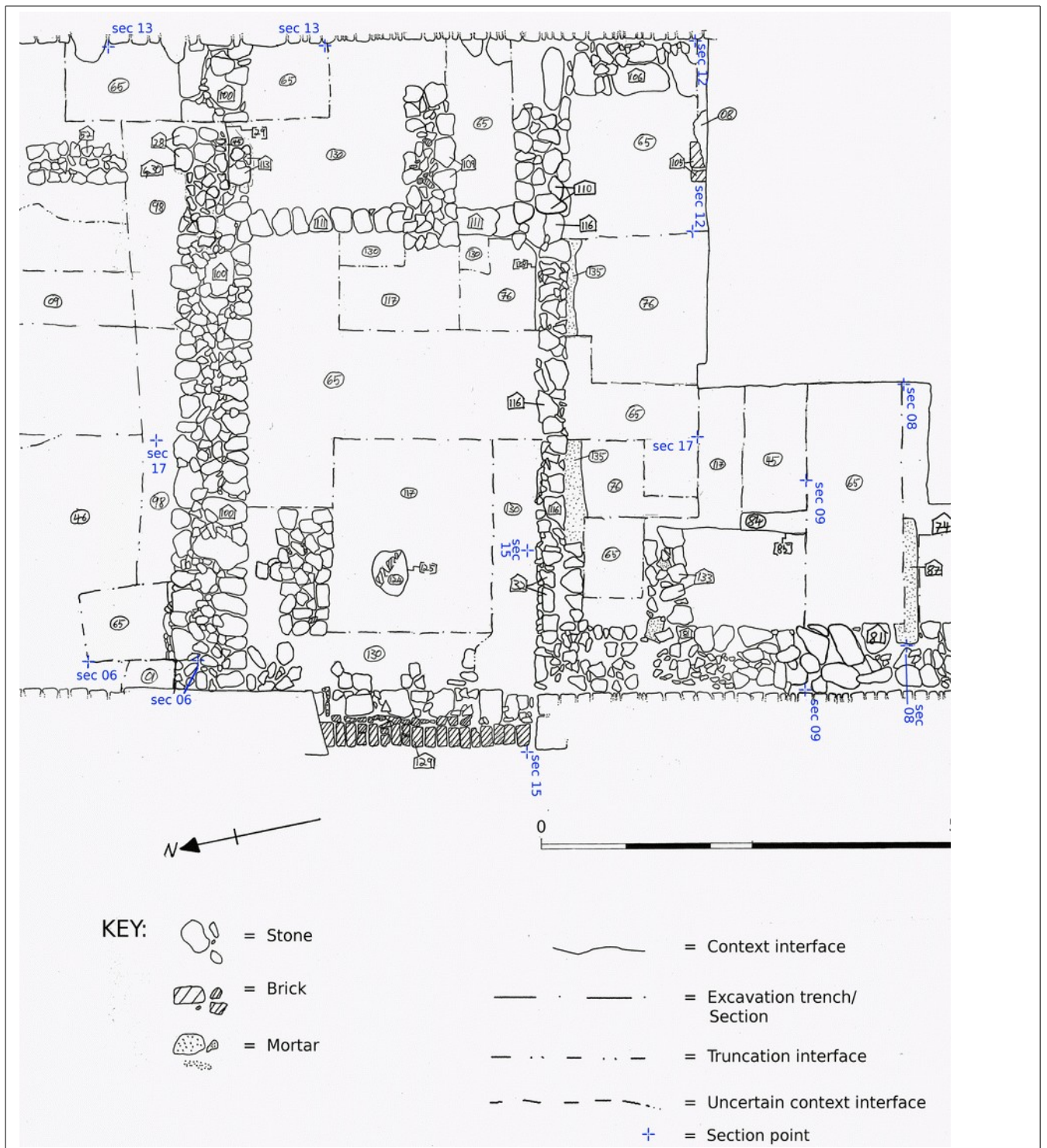


Figure 10: Plan of trenches in Areas 5 and 6.

The north edge of the trench excavated a cross-section through the south end of cut 85 that clearly shows it truncating floor 75 (sec 09). This trench section does not show the direct relationship between cut 85 and floor 45, but in plan it was evident that floor 45 respected the edges of cut 45. However, it did not appear as if slot 85 was cut into floor 45, as the edge of the floor layer (45) at the interface with cut 85 is near vertical and has a sharp break-of-slope. This would imply an impossibly 'neat', non-fragmentary cut into floor layer 45.

More likely, cut 85 represents a shallow foundation 'trench', cut directly into underlying floor 75, for a small rectangular structural element (such as a slot for a wooden beam, or a small, one brick-wide foundation), around which floor 45 was subsequently laid. This resulted in a sharp, vertical interface between the edge of layer 45 and the putative structure; rather than an irregular and fragmented edge to floor 45, which would indicate construction-slot 85 had been cut into it. Another factor supporting this interpretation is the relationship of construction-slot 85 and E-W structures 133 and 87 to the north and south respectively, discussed further in the Interpretation chapter.

Fill 84 of construction-slot 85 consisted of a loose, dark brown silty-sand deposit, with rare fragments of building debris (brick and mortar flecks). These, however, were not enough to strongly indicate that cut 85 had been for a brick (or stone) and mortar foundation. The loose consistency and silt content of fill 84 may represent the remains of a wooden beam that, after it was no longer in use and floors subsequent to 45 were laid over it, decomposed entirely leaving a dark, silty deposit in a larger void. It is also possible that a brick or stone structure was entirely removed from construction-slot 85, and that a loose deposit (84) gradually accumulated inside the cut in the intervening demolition/ construction period before a new floor (overlying 45) was laid. As the deposits overlying this feature were truncated, it is impossible to be certain at which stage in the stratigraphic sequence or how the feature ceased to be in use.

The north facing section through this trench (sec 08) shows floor 75 directly overlying E-W structure 87; i.e. floor layer 75 was laid directly abutting the east face of an existing structure (87), rather than there being a foundation cut for the latter truncating floor 75. Structure 87 was rectangular in shape (measuring 1.00m E-W and 0.38m N-S), built with sandstone cobbles and a pale white, sandy mortar. Only a single stone course survives, with the friable white mortar surviving almost intact across the top of the entire stone course and partly over structure 81 to the west. An identical mortar was also found within structure 133 to the north which, amongst other factors, suggests that structures 87 and 113 are associated: both have similar overall dimensions (c. 1.00m E-W by 0.38m N-S); and both have the same configuration, in that they are built perpendicular to and adjoining N-S structure 81 adjacent to the western building wall (Fig 11).

Construction-slot 85 is likely to also be directly related to E-W structures 87 and 133. This is inferred from the positioning of slot 85, aligned perpendicular to structures 87 and 133, in line with their eastern extent and equidistant between them. This is also inferred from the fact that, as well as respecting the edge of construction-slot 85, floor layer 45 also appears to roughly

respect the rectangular area 'enclosed' by N-S slot 85 and structures 81, 87 and 133 (Fig 6). The absence of layer 45 from this rectangular area does not appear to be the result of truncation by construction staff or a product of excavation, thus implying the presence of an existing structure within that area at the time floor layer 45 was laid around it. The interpretation of this possible structure is discussed in the following chapter.

The relationship between E-W structure 87 and N-S structure 81, when observed in plan, suggested they were contemporary, as the white mortar was continuous over the interface between either structure (Fig 6). However, there is no mortar on any other part of structure 81 (except adjacent to structure 133), and the stratigraphic sequence exposed in [Section 08](#) does not entirely support this.

Structure 87 was built directly onto a compacted floor surface (76) that was also physically overlain by floor 75 ([sec 08](#)). Floor deposit 76 is of a similar composition to overlying floor 75 (dark brown, compacted sandy-silt), but there is a sharp interface between them in section which was also distinct when excavating in plan, with layer 75 'peeling-off' onto the obvious surface of floor 76. This 'obvious surface' to floor 76 was made more so by a very thin, reddish-brown, dusty residue that survived in patches and appeared to be almost an oxidised patina, or staining, of layer 76.

The floor surface represented by layer 76 is composed of a second layer (88), laid immediately adjacent to N-S structure 81, with its upper interface at the same level as that of floor layer 76 to the east (Fig 12; [sec 05](#), [08 and 09](#)). Layer 88 has a greater sand fraction, with a greater frequency of tiny red (possibly brick) and beige-sand (possibly decayed mortar) inclusions, than layer 76. The direct relationship of layer 76 overlaying layer 88 is most clearly seen in [Sections 05 and 09](#), but they are nevertheless contemporary components of the same floor surface (max. thickness of 70mm). The section along the southern LOE indicates that floor layer 88 continues beyond the LOE to the south ([sec 05](#)), and it did not extend beyond E-W structure 133 as it was not encountered in the trench excavated immediately north of 133.

N-S structure adjacent to western wall

Floor layer 88 directly overlay (was deposited abutting the east face of) N-S structure 81. Structure 81 was built with rolled sandstone cobbles and boulders, of irregular size and shape, packed in a pale brown, sandy-silt deposit. It was built abutting (and therefore directly overlay) the western wall of the building (numbered 82 in this section of site; Fig 12, [sec 05 and 09](#)). Structure 81 had an average uniform width of 0.65m E-W from the western building wall (82) and extended c. 4.60m north from the southern LOE, as far as the south side of the double doorway in the western building elevation (Fig 11). A single course survives and, apart from the fragments of white mortar associated with E-W structures 87 and 133, there is no

conclusive evidence for an overlying structure or what this might have been. Structure 81 was built onto and directly overlay layer 77 (described below).



*Figure 11: Illustration of trench profile excavated in Area 5
Section 05 (see Fig 11 for Section location).*

Floor layer 88 also directly overlay the fill (90) of small pit 91 (sec 08). Fill 90 was a silty-sand deposit, with loose consistency and containing occasional brick inclusions but no artefacts. Cut 91 was a circular feature (c. 0.42m in diameter) and was dug to a depth of 0.28m below the lower interface of floor 88. In profile, the eastern side of cut 91 had a sharp break-of-slope at the top of the cut, with a steep ($>45^\circ$) concave side leading to a gradual break-of-slope at the base; its western side had a sharp break-of slope at the top of the cut, with a stepped side (concave-convex-concave) leading to a gradual break-of slope at the base; the base of the cut was concave.

Cut 91 possibly represents the remains of a post-hole, with a deeper socket for the post against the eastern edge, and a wider but shallower part of the cut to the west for the post-packing (sec 08). The distinction between post-pipe and packing was not evident (with only the single fill 90 discerned within 91), which may have resulted from the putative post being deliberately removed and disturbing the post-packing, rather than it decaying *in situ*. Post-hole 91 was cut directly into the upper surface of layer 77.

As well as post-hole 91, floor layer 88 also directly overlay layer 77. This layer consisted of a sandy-silt deposit that had been coloured reddish-orange by the high concentration of crushed brick dust, also containing small (<30mm) rolled brick fragments and flecks of lime mortar inclusions. It represents a 'made-ground' layer that was deliberately deposited to create a level terrace ahead of the building's construction. Layer 77 had an average thickness of 50mm (max. 100mm), extending from the southern LOE as far north as E-W structure 133 and continuing to the north in Area 5 and NE in Area 6 as layer 130 (described below). No finds were recovered from this deposit.

Along the southern LOE, levelling layer 77 directly overlay pure sand deposit 78, that was very fine grained and white in colour (Fig 12; sec 05). This sand is similar in colour and composition to the sand component of the underlying river-terrace boulder deposit (65), though deposit 78 has a greyer, 'dirtier' appearance than layer 65, indicating the former is a re-deposition of the naturally formed river-terrace sand (65). Deposit 78 had a maximum thickness of 60mm along the southern LOE (sec 05) and did not extend north across the trench excavated in the SW corner of the site. It therefore represents a discreet, deliberate re-deposition of natural river-terrace sand 65 as part of the levelling event associated with overlying layer 77. No artefacts were recovered from deposit 78.

Levelling deposit 78 directly overlay a pale brown silt deposit (79) with a small fine sand fraction. It was very similar in all these factors with underlying buried topsoil layer 80 (described below), which in turn was equivalent to buried topsoil layers 64 and 98 in the northern half of the site (described above; pp. 26 and 30). The only noticeable difference was that layer 79 had a darker, 'dirtier' appearance than underlying buried topsoil 80. This, together with the fact that there is a thin layer of crushed brick (83; described below) between layers 79 and 80, indicate that layer 79 was not naturally formed, but represents material derived from the buried topsoil layer elsewhere that was deliberately re-deposited in this area of site. In this respect it is associated with the levelling of the construction-terrace for the building, also represented by directly overlying layers 78 and 77 (Fig 12).

The thickness of levelling layer 79 varied across the two trenches excavated in the south of Area 5: c. 0.15m thick along the southern LOE (Fig 12); 0.06m to 0.10m thick from below structure 87 to the eastern LOE of this south-western area of site (sec 08); and increasing in thickness to 0.20m along the south-facing profile of the northern trench (sec 09). This variation in thickness is a reflection of what had been the gently undulating ground surface (represented by the upper interface of buried topsoil 80) prior to the levelling event represented by overlying layers 79, 78 and 77. The only artefact from levelling layer 79 was an unidentified iron object, probably cylindrical in shape though the heavy corrosion on its surface masked this, measuring 120mm by 20mm.

Levelling layer 79 directly overlay a very thin (< 15mm) layer of pale brown sandy-silt (83), a high proportion of which consisted of crushed brick dust, and contained frequent small brick fragments and occasional flecks of lime mortar (Fig 12; sec 05, 08 and 09). Crushed brick layer 83 was an ephemeral layer that was interrupted in its extent across the SW area of site

(eastern end of [sec 08](#)) and was only encountered in the southern two trenches in Area 5. Layer 83 probably represents activity related to the construction of the building, given that it contains brick and lime mortar inclusions, but its thin and ephemeral extent does not suggest that this was a deliberate levelling layer. More likely it is the result of a relatively short-term, gradual accumulation of brick fragments and dust that was derived from the surrounding area.

Layer 83 therefore represents the very first activity on site related to the construction of the building, such as materials arriving and being unloaded in the vicinity, even prior to the ground-works in preparation for actual construction (i.e. before the deliberate levelling of a construction-terrace). In this respect, the general slope down of layer 83 from east to west ([sec 05 and 09](#)) reflects the original natural topography of the land surface prior to the building's construction.

Directly underlying crushed brick 83 was buried topsoil layer 80, similar in composition and essentially the same as buried topsoil layers 64 and 98 in the northern half of site (described above; pp. 26 and 30). Buried topsoil 80 was on average 0.15m thick in this SW area of site and directly overlay natural river-terrace deposit 65. Layer 80 did yield several pre-historic artefacts, consisting of struck quartzite flakes; these are discussed further in the following chapter.

Once the river-terrace deposit (65) was exposed, no further excavation was undertaken in these trenches.

E-W internal dividing wall

A trench was excavated along the east side of Area 5, situated close to the centre of the building and extending north from wall 71 along the southern LOE as far as E-W wall 100 (Fig 11). The east-facing profile of this trench was recorded as Section 17 (Fig 13). As floor 45 had been truncated from this area of the building, the uppermost deposit excavated in this trench was floor layer 75; this had been previously excavated in the SW of Area 5 (see above p. 34).

Floor layer 75 extended for c. 1.70m north from the south end of the trench (c. 4.70m from the southernmost LOE) at which point it directly overlay floor layer 117. Although this relationship had not been evident in plan, it was clear in the trench profile with small mortar and brick inclusions along the base of layer 75 delineating the interface between the deposits (Fig 13; sec 17). Both layers 75 and 117 consisted of a similar dark brown, sandy-silt that had been deliberately compacted into the same floor surface. The only difference being that layer 75 contained more brick and mortar inclusions than 117, particularly in the immediate vicinity of E-W wall 116 (described below). Of the two artefacts recovered from layer 117, no specific

date can be attributed to the iron nail and, similarly, the possible date range for the ceramic pipe stem ranges from the 17th to the 19th Century.

Again, although two distinct deposits, layers 75 and 117 represent the same floor surface that continues in the northern half of site as floor layers 60 and 46 (see above; pp. 22 and 27), as established by stratigraphic relationships and similar spot-height measurements across the upper interfaces of the respective layers.

Floor layers 75 and 117 had a uniform thickness of c. 0.10m, with layer 117 extending as far as c. 0.40m south of E-W wall 100, at which point it had been completely removed to the north during the current redevelopment (Fig 13; sec 17). Most of the corresponding continuous floor surface (46) to the north of wall 100 had also been completely removed from around the wall, except for a small segment of deposit at the western end of wall 100, close to where it meets the western building wall. Section 06 was recorded as the east facing profile of a small trench excavated at this point (Fig 10). It shows floor layer 46 physically overlying wall 100, thus indicating that wall 100 was no longer in use when floor layer 46 (and, by inference, equivalent floor surface layer 117 to the south) was laid over its demolished remains.

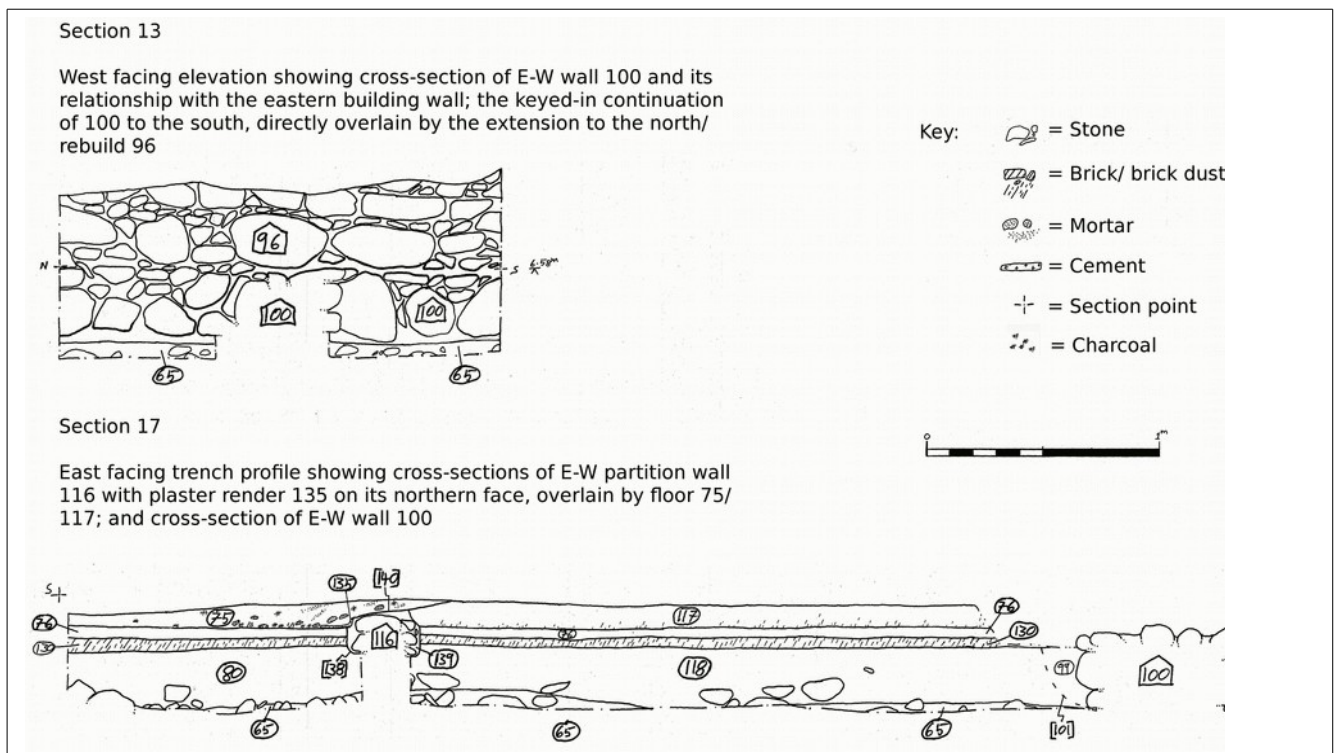


Figure 12: Illustration of trench profiles excavated in Area 6
Sections 13 and 17 (see Fig 11 for Section locations).

At the point where it had an interface with overlying layer 75 (c. 4.70m from the southernmost LOE), layer 117 directly overlay cut 140. Cut 140 represents the demolition of an underlying E-W wall (116) and as such is significant primarily as an event, with its overall shape and extent (obviously the same as that of wall 116 which it demolished) not being relevant.

The uppermost deposit that demolition cut 140 truncated was a lime plaster render (135), white in colour with common fine sand inclusions. Render 135 only survived at the very base of wall 116 and as a thin 'over-spill' onto underlying floor surface 76 (both described below). Once wall 116 had been fully exposed, it was clear that only the southern face of the wall had been rendered, with plaster 135 practically continuous on the floor surface (76) to the south but with no evidence of it on the northern side of wall 116. The significance of this is discussed further in the Interpretation chapter.

Render 135 directly overlay deposit 139. This represented the deliberate backfill a construction trench (138) for E-W wall 116. Backfill 139 contained only occasional brick and mortar inclusions, yielding no datable artefacts.

Wall 116 was directly overlain by backfill 139, built with irregular sandstone blocks (c. 0.20m x 0.11m x 0.10m; max. dim. 0.30m x 0.20m x 0.15m) and a sifted-soil used as a bond. It extended E-W across the building and measured c. 0.30m in width N-S, with only a single, very irregular 'course' surviving to a height of c. 0.15m from the base of its foundation trench 138 (sec 17). In fact the remains of wall 116 are so irregular that it more closely resembles a tipped-rubble foundation, rather than a course of individually placed stones. Wall 116 was physically overlain by cobble foundations 110 and 132 for the E-W brick pillars described above (p. 13), close to the eastern and western building walls respectively (Fig 11).

Wall 116 was constructed (or deposited as stone rubble) directly into the base of foundation trench 138. The sides of foundation trench 138 had a sharp break-of-slope at the top of the cut; with regular, nearly vertical sides; and a relatively sharp break-of-slope at the base of the cut, which was flat. Foundation trench 138 was cut from the surface of, and directly into, floor layer 76 (sec 17), which had also been excavated in the SW of Area 5 (see above p. 37).

Plaster render 135 that had been applied to the south face of wall 116, 'over-spilled' and physically overlay the surface of floor 76 to the south of the wall (Fig 13; sec 17). This indicates that floor 76, although truncated by the construction of wall 116, was the floor surface that continued to be in use after wall 116 was built and rendered with plaster 135. As rendering with plaster 135 would have been the final process in the construction of wall 116 (i.e. no floor surface would be subsequently laid above render 135), the fact that it directly overlay floor surface 76 means that this was the contemporary floor in use after the construction of E-W wall 116.

Floor layer 76 continues to the north of wall 116 as far as c. 0.40m south of E-W wall 100 where, like overlying floor 117, it had been completely removed during the current redevelopment (sec 17). However, unlike the floor surface represented by layer 117, layer 76 did not have a corresponding floor surface to the north of wall 100, and as such wall 100 must have been the original northern extent of floor surface 76.

Directly underlying floor layer 76 was a sandy-silt deposit (130) containing small (<30mm) brick fragments and a high quantity of crushed brick dust, with occasional flecks of lime mortar. Layer 130 represents the continuation of levelling layer 77 in the SW corner of Area 5 (described above; p. 39). Levelling layer 130 was exposed from the southern end of the trench, and at c. 1.20m north was also truncated by foundation cut 138 for wall 116. It continued to the north of wall 116 as far as 0.12m south of wall 100, where it had been completely truncated during the current redevelopment (sec 17). In this area of site, levelling layer 130 had a maximum thickness of 60mm; it yielded no datable artefacts.

To the south of wall 116, levelling layer 130 directly overlay buried topsoil deposit 80 described above (p. 40). To the north of wall 116, layer 130 directly overlay layer 118 which was essentially the same as buried topsoil 80 to the south, but was assigned a different number to give spatial distinction to artefacts recovered from the same layer on either side of the wall. Layer 118 extended north from wall 116 and continued uninterrupted as far as the cut for the foundation trench (101) for E-W wall 100 (Fig 13; sec 17). Within this trench the buried topsoil layers (80 and 118) had an average thickness of 0.22m. A fragment of imported Chinese blue and white underglaze porcelain (dating to the mid-C18th; Appendix 2); a number of possible struck stone artefacts; and two iron objects (possible agricultural equipment) were recovered from layer 118.

The cut of foundation trench 101 was not clearly identified in the east-facing trench profile, cutting into buried topsoil layer 118 as expected (sec 17). This is not unusual, given that once the foundation trench (101) was excavated into sandy-silt layer 118 and wall 100 built within it, the trench would then be backfilled with the same sandy-silt material that had been recently dug as backfill 99. The difference in appearance and composition between buried topsoil 118 and backfill 99 would be minimal, except for maybe some building material inclusions within 99 or a well defined tip-line showing the edge of cut 101, neither of which were evident in section.

However, the east-facing profile of the small trench excavated at the western end of wall 100 did show foundation trench 101 cutting into the buried topsoil layer (98) to the north of wall 100 (Fig 10; sec 06); and given observed construction methods of similar walls on site, this foundation cut (101) has been drawn into Section 17 (Fig 13). As with similar walls (and shown in sec 06), foundation trench 101 was excavated to the upper surface of the river-terrace boulders (65) and wall 100 built directly onto these. It is assumed that foundation trench 101 would have been cut into levelling layer 130, though this relationship was truncated and cannot be proven (sec 17).

Wall 100 extended across the width of the building E-W and was built with rolled sandstone boulders and cobbles, held together with a sifted-soil bond. Its average width was 0.75m N-S and it was built with irregular, rough courses; of which 2 to 3 survive in this trench to a height of 0.35m above the base of foundation trench 101 (sec 17). At its western end, wall 100 survives to a height of 3 to 4 courses (c. 0.50m above the base of foundation trench 101; sec 06). Wall 100 stratigraphically overlay the base of foundation trench 101, and was directly overlain by backfill 99. The relationship of wall 100 with the outer building walls was investigated in Area 6 and is discussed below.

Buried topsoil layers 80 and 118 directly overlay river-terrace deposit 65. Excavation of this trench stopped once layer 65 was exposed.

Repairs to floors near the entrance to the building

The double doorway in the western building elevation is the only extant access from the exterior into the site. Although substantially disturbed by the current construction works, there were vestiges of floor layer 45 immediately inside the doorway as one of the uppermost surviving deposits. Layer 45 extended 1.20m east of the western LOE, and along the immediate entrance into the building: from E-W pillar 132 to c. 2.70m north where it was completely truncated during the current redevelopment (Fig 6). A trench was excavated through layer 45 across the threshold of this entrance into the building and the area immediately inside the building, extending for c. 2.00m east from the western building wall. **Section 15** recorded the north facing profile through the layers overlying the threshold (Fig 11).

Once the area was cleaned of modern overburden and floor layer 45 clearly exposed, indentations and flaws were evident on the surface of floor 45. These had subsequently been filled and levelled with a coarse, yellow sand deposit (126) that had then been deliberately compacted in place. Layer 126 represented a deliberate repair of the numerous flaws on floor surface 45 in this area, presumably resulting from exaggerated wear and tear caused by increased traffic through the doorway. Some of these flaws extended the full thickness of layer 45 and had been subsequently filled with repair deposit 126.

The distribution of repair deposit 126 in plan was therefore irregular and 'patchy'. This, coupled with the initial cleaning of current construction deposits from this area, meant that the majority of repair deposit 126 had been archaeologically excavated before it was realised that it represented an *in situ* deposit, and not modern overburden. As a result the distribution and extent of deposit 126 was not recorded in plan, but roughly extended between E-W structures 112 and 132, and c. 1.50m east from the entrance to the building. The stratigraphic relationship of repair 126 directly overlying floor 45 was recorded in section (**sec 15**).

Directly underlying floor layer 45 was another repair layer (127), consisting of a silty-sand deposit that had been coloured orange-red by the high quantity of crushed brick within it. Layer 127 represents the repair of underlying floor surface 117, and its distribution was similar to repair 126 of floor 45; as floor 117 had suffered greater wear and tear in this area of site for the same reason (i.e. elevated traffic through the entrance immediately west). Layer 127 directly overlay floor 117 as well as deposit 128, the latter situated along the length of the threshold to the building's entrance (western end of [sec 15](#)). Repair deposit 127 yielded two datable artefacts: a sherd with applied decoration of a German salt-glazed storage vessel, dating from the C17th to C18th; and a fragment of Chinese brown-glazed stoneware vessel, a type in use up to the C19th.

Post-hole 125, situated c. 0.90m east from the entrance to the building and 0.40m south of E-W pillar 112 (Fig 11), was cut directly into repair layer 127. The post-hole backfill (124) contained relatively large (120mm x 90mm x 50mm) brick inclusions, that had clearly been positioned in the cut to pack the post in place. Backfill 124 was entirely covered by floor layer 45 and only exposed after this had been removed, indicating the post had not been a feature in use after floor 45 was laid. As it was cut into the repair deposit (127) for underlying floor 117, it was also not an original feature of the phase represented by the laying of floor 117, but dug directly into its repair (127) at a later date. Also, the location of post-hole 125, positioned close to the central point of the threshold just inside the entrance to the building, poses some questions with regard to its interpretation. If these features (the post-hole and the doorway) are contemporary, then the sighting of a permanent or temporary post immediately inside and nearly central to the entrance into the building, is incongruous with ease of access and egress. The relationship between these features is discussed further in the next chapter.

As discussed above, floor layer 117 is part of the same floor surface represented by layers 46, 60 and 75 in other areas of the building (pp. 40, 27, 22, and 34). Floor layer 117 extends close to the brick-built threshold (129) of the entrance to the building, with layer 117 being directly overlain by deposit 128 that represents the fragmented remains of threshold 129 (see below). Due to rodent disturbance immediately inside the entrance to the building, the actual physical relationship between floor 117 and threshold 129 was destroyed, leaving a gap of c. 60mm between the two. However, it was clear whilst excavating (and is illustrated in [sec 15](#)) that floor 117 respected threshold 129 and that both were in use at the same time, suggesting they may have been laid and built in the same construction phase.

In this area of site, floor layer 117 physically overlay construction-terrace layer 77, with no evidence for the intervening floor surface 76 exposed in other parts of Areas 5 and 6. Once layer 77 was exposed, no further excavation was undertaken in this area.

Brick-built threshold

Along the length of the threshold for the double door in the building's western elevation, repair layer 127 directly overlay an orange-brown, sandy-silt deposit (128) that contained frequent, slightly rounded brick fragments (avg. dim. 50mm x 30mm). Layer 128 directly overlay, and represented the fragmented remains of, a brick-built threshold (129) that spanned the entire entrance to the building (Fig 11). The mechanical stress on this structural element (threshold 129), resulting from constant traffic of people and presumably goods walking or being transported over it, is evident from its eventual partial survival as a deposit of broken and crushed brick (128). From this, the need for the overlying repair deposit 127, to both the threshold and the floor surface (117) in the entrance to the building, is evident.

Deposit 128, representing the fragmented remains of brick threshold 129, yielded a fragment of European Willow Pattern ceramic dated to the C19th. Given that it was recovered from the degraded threshold deposit 128, the dating of this artefact could be significant because of the context it was recovered from (the dilapidated remains of threshold 129) and especially as this was sealed by repair layer 127 ([sec 15](#)).

Threshold 129 was built with red bricks (measuring c. 220mm x 110mm x 80mm), originally laid in two rows of bricks spanning the depth of the threshold (i.e. the width of the western wall); a sifted-silt soil was used as a bond. Each N-S row consisted of approximately 19 bricks (18 exposed in plan) with their long-axis aligned E-W, laid flat and side-by-side, extending the length of the threshold (c. 2.10m N-S). Only the western row survives relatively intact, with the remnants of the western ends of some of the bricks from the eastern row also evident *in situ* (Fig 11). The bricks used appeared to have been well fired, but were friable to the touch. Being part of a threshold, they were substantially rounded and worn, but minor irregularities in their manufacture (that suggest they were not mass-produced in a C20th factory) could still be discerned. Brick threshold 129 was built directly onto the stone fabric of the underlying western building wall, numbered 82 in this section of the site.

Immediately west of threshold 129 (on the western end of [Section 15](#)) there was a pale orange, coarse-sand deposit (131) of very loose consistency, that physically overlay threshold 129. In fact, coarse-sand 131 directly overlay the western edge of floor 45, but was only overlain by the modern cement render on the wall to the south of the threshold and by the poured concrete *stoep* immediately west; the latter had been laid during the course of the current redevelopment. Coarse-sand 131 has therefore been interpreted as a modern deposit associated with the laying of the current concrete *stoep* in 2008.

Once exposed and recorded, brick threshold 129 was left unexcavated.

Area 6

As within Area 5, the deposits and structures in Area 6 were also truncated to various depths during the current redevelopment. The uppermost contexts exposed by construction staff were the remains of structures discussed above: E-W brick pillars, consisting of group 30 and foundations 109 and 110 (p. 13); and N-S stone pillar 113, truncated by E-W pillar group 30 (p. 17; Fig 5). The other structures already exposed in Area 6 included:

- A stone-built structure (106) built immediately adjacent to the eastern wall of the building, running north-south and extending north for 1.40m from the southern LOE. Structure 106 had an average width of 0.50m, with construction materials, methods and layout reflecting those observed for N-S structure 81 adjacent to the western building wall (see above; p. 37).
- A stone-built, single course structure (111) that extended from underneath the north side of E-W pillar foundation 110 for c. 2.60m north, as far as E-W wall 100. E-W pillar foundation 109 to the north of 110 also physically overlay N-S structure 111.
- E-W wall 100 extending across the width of the building, and in this area of site was physically overlain by E-W pillar group 30 and N-S stone pillar 113. Wall 100 was excavated in Area 5 (described above; p. 44), but was further investigated in Area 6 and is described below.

The uppermost surviving deposits of substance in terms of areal extent across Area 6 were floor layers 75 and 117, both components of the same floor surface either side of E-W wall 116 (see above, pp. 34 and 40). A cut for a N-S trench (120) was identified running adjacent to the building's eastern wall, situated to the north of E-W pillar foundation 109 and south of E-W wall 100 (Fig 5). The western edge of cut 120 was not evident in plan and the feature was only noticed in section whilst excavating a trench across wall 100 adjacent to the eastern building wall (Fig 11).

From this trench it was possible to determine that cut 120 extended approximately 0.45m from the eastern wall of the building, and presumably extended to the south as far as the north end of N-S structure 106, though this was not confirmed through excavation. The western edge of trench 120, projected from the observed width of the cut in section during excavation, closely relates to the extrapolated continuation of the western edge of the cut for N-S trench 47; the latter situated adjacent to the eastern building wall in the northern half of the site (Fig 5). It is likely that trench 120 represents the continuation in the southern half of the site of trench 47 but, as overlying and interceding deposits were truncated, this was not proved in the excavation. It could, however, be of importance for the absolute dating of construction phases, given the rare relative abundance of datable ceramics recovered from the backfill (119) of N-S

trench 120; this consisted of fifteen ceramic fragments with dates ranging from the mid-19th to the early 20th Centuries. This is discussed further in the Interpretation chapter.

Backfill 119 was the sole fill within trench 120 and consisted of a dark brown, sandy-silt deposit, with occasional small (<50mm) rolled brick inclusions. It was very similar in appearance and composition to floor layer 117, which had been directly cut into by trench 120. In contrast, layer 117 was compacted into a homogeneous solid layer; whereas backfill 119 was a more heterogeneous mix of solid lumps of similar sandy-silt to layer 117, mixed with a paler silt deposit and more brick inclusions. Deposit 119 is therefore likely to represent the fragmented remains of floor deposit 117 that had been truncated by N-S trench 120, was subsequently mixed with other incidental deposit(s) and debris from the surrounding area, and then deliberately backfilled into trench 120. The fact that trench 120 was backfilled with the same up-cast it created, and that the up-cast deposit (backfill 119) did not substantially differ from the parent material (layer 117; i.e. was not mixed further with other demolition/construction debris), suggests trench 120 only stayed open for a short while and was (almost) immediately backfilled. Possible interpretations for this feature are discussed in the following chapter.

Partition walls

The upper surface of floor layer 75 (equivalent to floor 117 to the north) survived intact across the southern third of Area 6. There was, however, vestiges of overlying deposits beneath wall 71 along the southern LOE, including an *in situ* fragment of overlying cement floor 08 and the northern end of N-S brick pillar 105 extending 0.16m north from the southern LOE (Fig 11). A trench was excavated through floor 75 in Area 6, situated between the southern LOE, N-S structure 106 to the east, and E-W pillar 110 to the north. **Section 12** recorded the north-facing profile of this trench; all deposits overlying floor layer 75 in this trench and their stratigraphic sequence had been investigated elsewhere on site and are described above.

As observed in Area 5, floor layer 75 physically overlay the demolished remains of E-W wall 116 (p. 40), and once layer 75 was excavated in Area 6 the continuation to the east of wall 116 could be traced along the northern edge of the trench, below E-W pillar 110 (Fig 11).

From under the NW corner of pillar 110, a stone built structure (111) extended north for 2.60m as far as E-W wall 100. Structure 111 survived as a single course of similar sized stones (uniform width of c. 0.24m E-W; max. dim. of individual stones c. 0.35m), placed side-by-side in a row aligned N-S. Other than its linear alignment, there was no obvious coursing or bonding to identify this as a structure, with the majority of the stones not even clearly overlapping with the one next to it (Fig 11). N-S structure 111 is likely to represent the remnants of a stone footing for a wall that, judging by the relatively slight width of 111, was not load bearing but represented an internal division or similar structure.

The exact position of wall 111 within the stratigraphic sequence was difficult to establish, as the overlying and surrounding deposits had been removed along the majority of its extent during the current redevelopment. Aside from E-W pillar foundations 109 and 110 physically overlying wall 111, it also appeared as if the northernmost stone within 111 physically overlay E-W wall 100. However, as no overlying courses survive on either wall 100 or 111, there is ambiguity as to whether N-S wall 111 overlay (and was therefore later than) E-W wall 100, or whether they were both keyed-in components of a contemporary structure or building phase. The stones for wall 111 appeared to have been placed directly onto underlying buried topsoil layer 118 (see above; p. 43); when exposed by construction staff the deposits around wall 111 had been excavated to slightly below the base of the structure, thus truncating any possible relationship with the interceding levelling layer 130.

As the only extant deposit surrounding wall 111 was located beneath the western end of E-W pillar 110. The SW corner of 110 was excavated to try and establish a more precise stratigraphic relationship for wall 111. The stones of overlying pillar 110 were removed to reveal the south end of wall 111 meeting and terminating at the continuation of E-W wall 116 (Fig 11). Although walls 111 and 116 only survive as 'single course' structures, there were enough smaller packing stones for each structure that clearly overlapped each other, indicating N-S wall 111 and E-W wall 116 were contemporary structures.

Although at first sight there are apparent differences in their respective construction methods (wall 116 is a rubble foundation tipped into foundation cut 138, whereas wall 111 appears to be individual stones place in a row), this may be the result of truncation by construction staff: if the surrounding deposits, including associated foundation trench (138) and backfill deposit (139), were to be completely removed along the length of E-W wall 116 it might also just appear as a row individual larger stones, similar to N-S wall 111. In fact, below E-W pillar 110, the cut of foundation trench 138 for wall 116 turned at a right angle to the north, and was continuous as the foundation trench for N-S wall 111; the overlapping stones at the interface between both walls (111 and 116) is further, irrefutable proof that these were contemporary structures.

Deposits in the SE of Area 6

In the SE corner of the site, floor 75 directly overlay floor layer 102 which represents the continuation of (and is the same deposit as) floor layer 76 in Area 5 (described above, p. 37). Both layers (102 and 76) consisted of a similar dark brown, deliberately compacted, sandy-silt deposit. Floor 102 extended across the trench and had a maximum thickness of 80mm, with its eastern edge laid abutting and directly overlaying structure 106. Across the trench to the west, it physically overlay and completely covered layer 103, described below ([sec 12](#)). As well as

the noted presence of mortar fragments, a shard from a clear glass vessel was recovered from floor layer 102; specialist analysis pending.

N-S structure 106 was built with rolled sandstone cobbles and boulders, of irregular size and shape, packed in a pale brown sandy-silt deposit. It was built abutting (and directly overlay) the eastern wall of the building, had a uniform width of c. 0.55m and continued beyond the southern LOE (Fig 11). Only a single, rough course of stone survives.

In all these respects and in its relative stratigraphic sequence (i.e. being directly overlaid by the same floor surface and directly overlying the building's outer wall), it exactly mirrors N-S structure 81 adjacent to the building's western wall in Area 5. These factors strongly indicate structures 106 and 81 represent identical, contemporary features on the respective east and west sides of the building; the possible interpretations for these structures are discussed further in the next chapter.

Structure 106 directly overlay a thin layer of pale brown silt (103) that contained frequent brick and lime mortar fragments. The latter occurred as flecks dispersed throughout the deposit and also as larger, flat fragments (max. dim. = 350mm x 100mm x 10mm; avg = 50mm x 30mm x 10mm) that lay horizontally along the base of the deposit (sec 12). The mortar fragments were white in colour, with coarse-sand inclusions, and very friable to the touch. Although the mortar fragments appeared to have been formed into flat and coherent pieces (albeit with no discernible smooth finish) that were predominantly deposited horizontally within layer 103, their sporadic occurrence across the trench and relative thinness (<12mm) precludes them from representing a formal structure or floor. Most likely they represent the debris related with the original construction of the building that naturally accumulated on the underlying buried topsoil 104 (described below).

In this respect, layer 103 represents the same material and event as levelling brick-dust layers 77 and 130 in Area 5 to the south (pp. 39 and 43). However, in this trench layer 103 is less substantial (max. thickness <20mm) and can not be regarded as a significant levelling deposit, but is rather the thin edge of such a deposit (layer 77/ 130) in the SW quarter of the site.

Construction-terrace layer 103 directly overlay a buried topsoil layer (104), consisting of a pale brown, sandy-silt deposit that was identical and equivalent to all other buried topsoil layers in other areas of site (64, 80, 98 and 118). In this trench, buried topsoil 104 increased in thickness from 0.13m to 0.20m from the east to the west end of the trench (sec 12), directly overlying river-terrace deposit 65 which was left unexcavated. Ceramics recovered from buried topsoil 104 comprised of: a sherd of coarse yellow-glazed earthenware dated to the early C18th; a fragment of Chinese blue and white underglaze porcelain (C18th); and a decorated fragment of a pipe stem with a date range from the 17th to 19th Centuries (see Appendix 2).

E-W wall 100

Wall 100 had been previously investigated within Area 5 and by a small trench at its western end, close to the western building wall (Fig 10, sec 06; described above p. 44). Within area 6, wall 100 was physically overlain by E-W pillar group 30 and N-S stone pillar 113, close to the eastern building wall. A trench was excavated across wall 100, to the east of and partially sectioning E-W pillar group 30, adjacent to the eastern LOE (Fig 11). The west facing elevation of the cross-section of E-W wall 100 meeting the building's eastern wall was recorded as Section 13 (Fig 13).

At its eastern end, wall 100 survived to a height of only c. 0.30m, equivalent to one or two rough courses, and the width across the top of the wall was only 0.45m (compared to a minimal width of 0.70m along the rest of the wall to the west). However, the base of the wall was 0.60m wide at its eastern end (sec 13), which was comparative to its continuation to the west (sec 17; Fig 13).

Albeit not very clear, but still evident on the elevation and certainly observed during excavation, was the continuation of the eastern building wall to the south being keyed-in to the cross-section of E-W wall 100 (sec 13). Although all that survived of this keyed-in structure along the eastern building wall was a single course of large (c. 0.30m x 0.20m) boulders finished flat with smaller cobbles, this suffices to prove that the E-W wall 100 was originally built as part of the building's outer walls to the south. By implication, the continuation of the building to the north of wall 100 represents a later extension.

Wall 100 most likely represents the northern extent of the original building footprint, with its NE corner illustrated in Section 13 as the cross-section of wall 100 and its continuation to the south; the directly overlying continuation of the eastern building wall above 100 and to the north has been numbered 96, which is also the east-west wall extending across the building to the north. The reason for this is that the exposed elevation of E-W wall 96 meeting the western building wall in Area 4 (Fig 10, sec 18; described above, p. 31) showed that E-W wall 96 was keyed-in to the continuation of the outer building wall to *its* south, and that the continuation of the western building wall (114) to the north of wall 96 represented a later extension. As E-W wall 96 and its continuation as the western building wall to the south were the earliest observed structural elements of the extension to the north of wall 100, this extension immediately north of and overlying wall 100 in Area 6 was also numbered 96 (Fig 13; sec 13).

When comparing the two elevations recording the two sequential extensions of the building footprint to the north (sec 13 and 18, in Areas 6 and 4), there is a major difference in the construction sequence for each extension. The east-facing elevation in Area 4 shows that the building extension to the north of wall 96, represented by wall 114, was built abutting the northern face of wall 96 (sec 18). This indicates wall 114 respected wall 96 and that the latter

remained as an extant structure after wall 114 was built; i.e. wall 96 remained as an internal E-W division within the new building footprint as extended by wall 114 to the north. Both walls (96 and 114) were only reduced to their recorded surviving height of c. 0.65m at a later date by the construction of overlying western building wall 115 (sec 18); evidence supporting this interpretation is discussed in the following chapter.

In contrast, the west-facing elevation in Area 6 shows that the building extension to the north of wall 100, represented by wall 96, did not respect the north face of wall 100. Instead, wall 96 was built directly over the demolished remains of wall 100, which had been reduced to the height of one course (sec 13). This indicates that, rather than remain an internal division, E-W wall 100 was completely demolished to below floor level during the same construction phase that extended the building footprint to the north with wall 96.

As observed elsewhere on site, in Area 6 wall 100 directly overlay the base of the cut of foundation trench 101. Foundation trench 101 and its backfill 99 were not recorded in section in Area 6 as they had been removed during the current redevelopment. Trench 101 would have been dug to expose the surface of the river-terrace boulder deposit (65), onto which wall 100 was then built. No further excavation was undertaken once river-terrace deposit 65 was exposed.

Interpretation

This chapter discusses possible interpretations for all contexts investigated in the course of the excavations. Once a detailed analysis of all stratigraphic relationships across the site was coupled with interpretations for individual and groups of features, it was possible to discern distinct phases over the course of the site's history. Given the nature of the site, these invariably represented either demolition and/ or construction events that changed the building's form, internal layout, appearance and ultimately function over time. Each of these aspects will be discussed in detail for each phase. Other factors, such as the history of the economy of the Delta estate or its relative growth and status that may be reflected in the archaeology of this building, although largely beyond the scope of this report, will be briefly discussed.

At least seven different construction phases (Phases I to VII) were identified in the fabric of this building and underlying deposits; with Phases I, III and V each further divided into two respective sub-phases. All contexts described in the Results chapter were assigned to one of these Phases or sub-phases. A detailed description of all phases will follow, given in chronological order and beginning with a description of the site formation prior to any construction (i.e. pre-Phase I), with the contexts from each phase presented as distinct events within that Phase.

Stratigraphic Matrix

The Stratigraphic Matrix diagrams given in Appendix 1 illustrates the stratigraphic sequence for all contexts as observed in the course of the excavation. This overall sequence was subdivided into the seven distinct Phases, with the horizontal dashed lines representing the start of a new Phase and their respective numbers (I to VII) given on the right margin of the diagram (Appendix 1, p. 104). A separate matrix diagram is given for the E-W pillar groups in Phase VI that illustrates the relationships between the respective components of each pillar group (Group Matrix diagram, p. 105). Notes on the reading and rules of this diagram are also given in Appendix 1.

Dating

Absolute chronological dates for each phase were obtained from the ceramics recovered from all deposits. The ceramic analysis and dating was undertaken by Jane Klose, the results of which are summarised in Appendix 2 (separate Volume).

Unfortunately there was a marked paucity of ceramics recovered (42 fragments in total from all contexts), and therefore a paucity of dating evidence from across the site. Many of the date ranges of the ceramics recovered from each individual phase usually span the time periods of Phases I to IV, and the small number of artefacts precludes any meaningful statistical analysis to attempt to identify variance or 'date clusters' within and between the assemblages from each phase. As a result, the best strategy for attributing absolute dates to each phase is likely to be a synthesis of the archaeology of this building (as presented in this report), together with a detailed historical analysis and an investigation of the broader archaeological landscape of the Delta estate which is beyond the scope of this report.

(NB all individual ceramic fragments referred to in the text will be followed by an individual accession number given in parenthesis: with the prefix SD08/ followed by the context number/ followed by the sherd number, if there was more than one from the respective context. These are listed in Appendix 2)

Site Formation: *from 3 million years BP – late C17th*

The earliest deposit exposed on site was the layer of rolled cobbles and boulders within fine white sand (65). Layer 65 represents riverbed deposition of a substantial palaeo-river system, extant today as the Dwars river located c. 300m to the west of site and demarcating the current Delta estate's western boundary. As the course of this palaeo-river narrowed over time, a new riverbed was cut deeper into the pre-existing riverbed deposits (represented by 65) to the west of site, thus leaving the area where the building now stands as an elevated river-terrace.

The edge of this river-terrace is still evident today to the west and NW of site. The ground surface immediately west of the building is relatively flat for a distance of around 40m, at which point the ground dramatically slopes down to the west; the break-of-slope of this terrace has been accentuated by the construction of a terracing courtyard wall at a mid-point on the slope, and then the ground surface uphill from it (to the east) raised to further level the ground surface between the courtyard wall and site. Nevertheless, this deliberate terracing event only accentuates the naturally formed, underlying topography and did not significantly increase the difference in height between the elevated river-terrace level and that of the subsequent river bed to the west, which is about 2 metres vertically.

The subsequent riverbed to the west of the river-terrace is the current floodplain of the Dwars River. The actual current course of the Dwars is a further c. 200m to the west and NW, but has not carved any subsequent terraces. The building therefore stands on the first raised river-

terrace of the Dwars River. According to a study on the geology of the Delta estate, undertaken by Prof. John Compton, it would take in the order of 2 to 3 million years for the river to cut the valley floor 2 to 3 metres and carve out the present day raised river-terrace gravels (Compton unpublished). Given that this is the most recent raised terrace of the Dwars River, as no others have subsequently been carved by the river, it follows that all deposits overlying this river-terrace (layer 65) cannot be older than 2 to 3 million years, as this area of the estate would have been an active river bed prior to that time.

Once this terrace was formed and the river no longer flowed over the site, sediment began to naturally accumulate over the river cobbles and boulders (65), which over time gradually formed an overlying topsoil. This topsoil was represented on site by a continuous layer of pale brown, sandy-silt deposit that extended over and completely sealed the underlying river-terrace deposit 65. This naturally accumulated topsoil was eventually covered and truncated by the buildings construction in subsequent phases.

This continuous topsoil layer was represented by layers 64, 80, 98, 104 and 118 in different areas of the site. Although all of these contexts represent material derived from a natural sedimentation process, this topsoil deposit may have been significantly altered during the building's construction, and as such all of these contexts have been assigned to Phase Ia; the reasons for this and the distribution of the various topsoil layers across site are discussed further below.

The entire assemblage of struck stone artefacts from the site were recovered from this naturally accumulated topsoil layer, namely from contexts 80 and 118 within Area 5 (Fig 13). The lithic assemblage consists of dozens of (potentially) struck quartzite pieces from both contexts (80 and 118), but with no identified formal tools recovered; however, analysis of the assemblage by a specialist is still pending. These artefacts are representative of prehistoric hunter-gatherer activity on the raised river-terrace during this phase. A stone artefact scatter had been previously recorded during the archaeological excavations, undertaken by the ACO on the Delta estate in 2005; that assemblage was the subject of the report by Jason Orton (2005). The 2005 excavations were located in the area to the north of this building, situated between the current farmhouse and this building (Fig 2); the lithic scatter was excavated c. 42m north of this building.

The lithic assemblage recovered during the current excavation is quite probably a continuation of the scatter excavated in 2005 and represents identical activity. However, the current assemblage recovered from within the building footprint cannot be considered as surviving *in situ*, due to the likelihood of disturbance of these deposits (80 and 118) caused by construction activity in subsequent phases. Nevertheless, the nature of this disturbance (discussed below) would not have transported these artefacts a significant distance. Therefore the location of their primary deposition can be interpreted as having been in the immediate vicinity of the site (if not actually originally deposited within the footprint of the subsequent building), but their relative relationship and distribution cannot be used to analyse them as an *in situ* artefact scatter. However, this lithic assemblage does highlight the potential for investigation of

prehistoric activity in a less developed area of the estate, and in the Franschoek valley as a whole.

Although the broad dating of the lithic assemblage by classification is yet to be done by a specialist, it is likely to be of a similar date to the assemblage from 2005 dated to around 6 000 years BP (Orton 2005). Hunter-gatherer activity on the site was probably sporadic but recurrent from the date the river-terrace formed, up until the European occupation of the surrounding land. We know that in the case of the Delta estate (or 'Zandvliet' as it was known then) this period began in the year 1690, when historical records show that the land surrounding the site was granted to Europeans Callus Louw and Hans Silberbag (Randle 2004).

Phase I: *mid-C18th*

Phase I represents the beginning of the colonial period at the Delta estate. Within the LOE, this is most obviously represented by the construction of a building, but also includes the period of time between the arrival of European settlers at the estate in 1690 (as determined by historical records) and the actual date the building was erected. Although practically impossible to establish a precise time-frame for this interval, it is nevertheless included in the phasing for the site: Phase Ia represents this interval together with the preparation of the site for construction; Phase Ib begins with actual construction and first use-phase of the building.

Phase Ia: terracing ahead of construction

Most likely very little differed within the LOE during this sub-phase: the site would have continued to be open ground on an elevated river-terrace with natural vegetation. This is represented by the same deposits as the topsoil layers in the previous Phase (64, 80, 98, 104 and 118), but the imported European ceramics recovered from layers 64, 98, 104 and 118 obviously represent this or later phases. These ceramics were deposited incidentally within these layers as a result of either unrelated activity in the vicinity of the site or, more likely, during the deliberate levelling of the ground in preparation for construction of a building.

The first deposit that indicates there were preparations on site for construction is a thin layer of brick dust (83) that accumulated over the natural topsoil layer (80) in the SW of Area 5 (described in Results, p. 40). Directly overlaying brick and mortar dust 83 was a layer of pale brown, sandy-silt (79) identical to the underlying natural topsoil 80. However, the presence of

(anthropogenic) brick dust (83) between the two layers (80 and 79) indicates that overlying layer 79 cannot also be a naturally accumulated topsoil and must represent anthropogenic derived deposition; not least because it would take a time-period in the order of hundreds of years for layer 79 to accumulate to a thickness of 0.15m through natural formation processes (Fig 12). Therefore, layer 80 represents the natural topsoil, subsequently covered by brick-dust 83, that is in turn overlain by a deliberate levelling layer (79) of re-deposited topsoil derived from the immediate vicinity of the site. In this respect, it is of note that topsoil layer 80 contained only pre-historic stone artefacts, whereas overlying 79 yielded an iron object (possibly a nail or spike) which is undated but certainly post-colonial.

Due to the similarity between buried topsoil layer 80 and overlying re-deposited topsoil levelling layer 79, it was only because a thin (<15mm) layer of brick dust (83) survived that it was possible to distinguish one from the other (sec 05, 08 and 09). Brick dust layer 83 was only extant within Area 5, and as such the ability to distinguish between naturally formed topsoil and re-deposited material to level a construction-terrace was limited to the SW portion of Area 5. All other buried topsoil layers across the site (64, 98, 104 and 118) therefore represent both the pre-Phase I natural topsoil build-up and the overlying Phase Ia re-deposited levelling topsoil (had it been required in that area of site to create a level terrace). As a result they may contain artefacts from both Phases, and for this reason all buried topsoil layers have been included in Phase Ia, with the pre-historic stone artefacts recovered from them considered as residual finds.

The earliest ceramics from these deposits are pipe stems that may be as early as the C17th, but as they are still used during the C19th their presence cannot date the levelling of the construction terrace. Of note was a fragment of a Dutch pipe stem which had a been decorated with a ray-motif recovered from layer 104, in the south of Area 6. Early C18th dates were attributed to a fragment (SD08/104/2) from a coarse, earthenware and yellow glazed vessel also within 104; and a sherd of Chinese blue and white underglaze porcelain (SD08/098/3) from layer 98.

Other sherds represent vessels that were in use throughout the C18th, but it is the dating of two sherds specifically in use from the mid-C18th onwards that indicate this buried topsoil/terracing layer cannot be earlier than this date: these were a sherd of Chinese incised porcelain (SD08/098/4) from layer 98; and a sherd of Chinese blue and white underglaze porcelain (SD08/118) from layer 118 (see Appendix 2). Given that all built structures on site overlay this buried topsoil (layers 118 and 98 represent the buried topsoil below the Phase I and II building footprints respectively), all structures must date from the mid-C18th or later.

The remaining deposits within Phase Ia were a thin layer of re-deposited white river-sand (79) within the SW corner of Area 5 (Fig 12; sec 05), overlain by a layer containing a high quantity of crushed brick and mortar fragments extending across most of Area 5 (represented by layers 77, 103 and 130; Matrix diagram, p. 104). These represent the upper levelling layers of the construction-terrace, with the uppermost crushed brick layer (77, 103 and 130) reflecting the natural underlying topography of the river-terrace and topsoil sloping down from east to west:

the crushed brick levelling layer is thinnest as layer 103 within Area 6 on the eastern side of the building (max. thickness <20mm; [sec 12](#)); increasing to 60mm within Area 5 in the centre of the building (Fig 13; sec 17); and having a maximum thickness of 100mm in the SW corner of Area 5 (Fig 12; sec 05), thus compensating for the slope and providing a level construction-terrace.

Phase Ib: construction and use of Phase I building

The beginning of this sub-phase is marked by actual construction, with the digging of foundation trenches for the Phase Ib building footprint into the prepared construction-terrace of Phase Ia. As E-W wall 100 was shown in Area 6 to be keyed-in to the continuation of the eastern building wall to the south (p. 51), E-W wall 100 is interpreted as the northern end-wall of an earlier building. E-W wall 100, together with the eastern and western building walls to its south, are the earliest structural elements investigated on site. E-W wall 100 is therefore interpreted as marking the northern end-wall of the *very first* building erected on site (Phase I building), with its eastern and western extent forming the NE and NW corners of that building.

This would make the original building approximately 26-27m long, from the current southern building wall to E-W wall 100. The possibility of an earlier building to the south of the LOE, with E-W wall 100 representing the northern extent of an extension to the north of the hypothetical earlier building, is unlikely; however, in light of the evidence from subsequent Phases within the LOE, this should not be completely discounted.

Evidence supporting the interpretation that E-W wall 100 was the northern extent of an original building, was observed on the eastern building façade to the south of the LOE when the outer cement render had been removed. The position of two casement windows on the eastern elevation (subsequently blocked with brick), that obviously belonged to an earlier phase than the subsequent configuration of the building as farmworker apartments, had been recorded by the proprietor, Prof. Mark Solms; the eastern building wall and the window openings had been re-covered with render by the time of the archaeological investigation. The distance between the southern window and the SE corner of the current building was the same as that between the northern window and the location of E-W wall 100 (Mark Solms pers. comm.). The point where E-W wall 100 meets the eastern building wall was interpreted by excavation as the NE corner of an earlier, possibly original, building; the symmetrical positioning of two windows on its eastern façade in relation to this length is congruous with this interpretation.

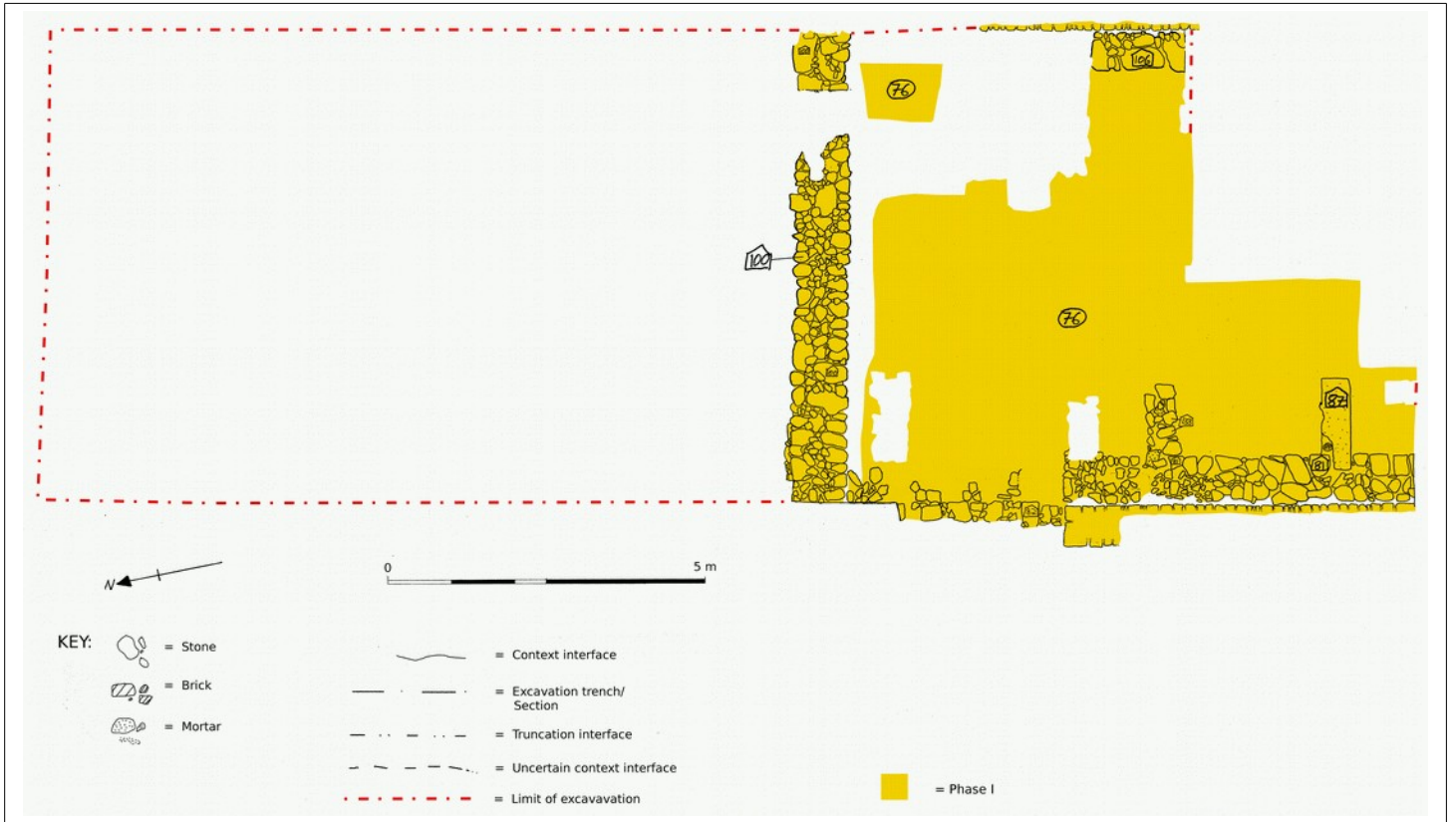


Figure 13: Plan of Phase I features within the limit of excavation.

Given that E-W wall 100 was keyed-in to the continuation to the south of the eastern and (logically) western building walls, all were therefore the same, contemporary structure. The continuation of the western wall to the south of 100 (at least the stone-built foundations and surviving base numbered 82 in Area 5; sec 05 and 09), can be considered equivalent to E-W wall 100, as illustrated in the Site Matrix diagram (Appendix 1). The same can be said for the foundation and lower courses of the eastern building wall to the south of the E-W tract of 100, which have been assigned the same number (100) in Area 6 (sec 13 and 12).

Construction methods and materials

The materials used in the construction of the outer building walls (82 and 100), as with all structures within the LOE built with stone, could have been (and most probably were) quarried from the actual site or its immediate vicinity. The rolled sandstone cobbles and boulders used as construction blocks constitute the immediate underlying geology (river-terrace deposit 65), and occur frequently on the ground surface and at shallow depths across Delta Farm; the sifted-soil used as a mortar bond in the stone and brick structures within the LOE consists of a brown sandy-silt, very similar and most likely derived from the naturally occurring topsoil.

The cut of foundation trench 101 for wall 100 was therefore one of the earliest contexts of Phase Ib, representing the foundation trench for the footprint of the earliest (Phase I) building investigated within the LOE. This foundation trench (101) as with its subsequent backfill (99) was only excavated adjacent to the E-W tract of wall 100 within Area 5 (Fig 10 and 13; sec 06 and 17). Foundation cut 101 was dug through the underlying construction-terrace and buried topsoil layers of Phase Ia, to expose the underlying river-terrace boulder deposit (65), thus providing a solid base onto which the foundations for the outer building walls (82/ 100) were built. This foundation cut also undoubtedly served as a quarry, providing construction blocks from the river-terrace boulders (65). The bowl end of a Dutch pipe stem (SD08/099; dates spanning C17th – C19th) was recovered from foundation trench backfill 99.

Post-hole (91), cut into levelling layer 77 (Area 5; sec 08), was also amongst the earliest contexts within Phase Ib. This feature is probably associated with the construction of the walls, such as for securing scaffolding posts or similar construction supports. Once construction was completed, the wooden posts to this and similar features would have been removed and, if within the building footprint like post-hole 91, deliberately backfilled (90) and subsequently covered by a floor surface (88).

Internal structures and features of the Phase I building

The following features constructed on site were the N-S stone-built structures adjacent to and abutting the western and eastern building walls (represented by 81 and 106 respectively; pp. 50 and 37). Structures 81 and 106 survived as a single course of sandstone cobbles and boulders, packed in topsoil-derived material and laid directly onto terracing layers 77 and 103 respectively (sec 05, 08 and 12). The possible function for these structures is discussed below, but what is obvious is that they were not structural building supports given the absence of deeper, more substantial foundations.

Directly overlying structure 81 was one of the floor layers (88) that comprised the compacted-earth floor surface of the Phase I building (layers 76, 88 and 102). Floor layer 88 was only encountered adjacent to N-S structure 81 in Area 5 (sec 05, 08 and 09) and probably served as a bedding layer to hold the stones of structure 81 in place while the floor surface was being laid elsewhere in the building. Alternatively, it could be something as mundane as a different 'barrow-load' of soil (88) used to lay the floor surface in this specific area of the building, to that used immediately north and east (76 and 102).

Layer 76 (although representing the same floor surface) directly overlay layer 88 and represented the continuation of the floor surface towards the centre of the building in Areas 5 and 6 (Fig 11 and 13; sec 17). The equivalent floor surface in the SE of Area 6 was represented by layer 102. Like deposit 88 directly overlying N-S structure 81 on the eastern side of the building, layer 102 directly overlies the equivalent N-S structure 106 within Area 6 (sec 12). This further proves that both 81 and 106 were structures within the Phase I building, given that the first ever floor surface laid within the building (layers 88 and 102) directly overlies them. A fragment from a clear glass vessel was recovered from floor layer 102; a date for this artefact is yet to be determined by a specialist.

The only other possible Phase I features were the east-west structures 87 and 133, built adjacent to N-S structure 81 and directly overlying the Phase I floor layer 76 (structure 133 was left unexcavated; see Appendix 1). These structures have been tentatively assigned to Phase I mainly because of their close physical association of abutting N-S structure 81, and because of their interpreted function (discussed below). However, other evidence suggests that E-W structures 87 and 133 may in fact be from a later phase: the fact that white mortar was used in the construction of both 87 and 133, when no trace of mortar was found on adjoining structure 81 (except where 87 and 133 had been built directly abutting 81; Fig 5); and that both structures 87 and 133 were built *onto* the Phase Ib floor surface (layer 76), whereas N-S structure 81 was built directly onto the terracing levels (77) of Phase Ia and subsequently *overlain* by the equivalent Phase Ib floor surface (layer 88; sec 08). As the deposits directly overlying structure 87 were from Phase IV (floor layer 75) and there were no deposits overlying 133 (exposed by construction staff), there is no reason as to why these structures could not be assigned to any later Phase between, and including, I to IV. This is expanded on in the Phase IV section below.

Synopsis of the Phase I building

Although only a small northern section of the original Phase I building was exposed within the LOE (a maximum 7.00m length from the southern LOE to E-W wall 100), there was sufficient evidence to inform us on the construction and dating of the earliest structure on site. The survival of internal structures from this original building, although not fully exposed within the LOE and therefore not fully characterised, could still shed light on the use this building was put to when originally constructed.

The function of the Phase I building is unlikely to have been domestic, given that there are no internal divisions to the building in this Phase (at least within the LOE), suggesting a more industrial or storage purpose to the building.

The Delta estate for the greater part of its history has been a wine farm, and this building was reported to have been the historical cellar used for wine production on the estate (Mark Solms pers. comm.).

As the only internal structures to the Phase I building were the N-S structures 81 and 106 adjacent to the building's side walls, and possibly the E-W structures (87 and 133) extending east from structure 81. In order to test the hypothesis that this building was the historical cellar on Delta Farm, parallels were sought for similar structures in other cellars involved in wine production.

Still to this day it is imperative in wine cellars (used for either production or storage) to maintain wooden barrels and casks elevated off the ground to prevent them from coming into contact with common spillages on cellar floors; this avoids contamination of the wine and potential rotting of the barrels. Presumably it also offers a practical way of stacking and stabilising large cylindrical objects.

In many modern cellars, this stacking of barrels off the ground is evidently achieved with modern structures and materials. In more rustic examples the same result can be accomplished (and has been observed by the authors) with small, free-standing pillars. These sometimes may just comprise of large stones on the ground, usually arranged in two rows set approximately 1.0m – 1.3m apart, often running the length of the cellar parallel to an outer building wall with one row usually situated immediately adjacent to and abutting the outer wall. Wooden planks or beams are then laid across the top of the pillar rows, running the length of the building on either side, which in turn support the barrels off the ground in stacks of one or more high.

Such examples were incidentally recorded by Leipoldt, where photographs of historical buildings still being used as wine cellars show variations of this type of barrel supports (Leipoldt 2003; pp. 432-433). Other examples have also been observed at L' Ormarins Farm, Franschhoek, where, although an obvious C20th reconstruction in an earlier C18th/ C19th building, this layout can be seen as it may have appeared in a wine cellar of the period ('Old Cellar Building' at L' Ormarins Farm, Franschhoek).

The exact height represented by the single stone course of N-S structures 81 and 106 can only be postulated. N-S structures 81 and 106, situated adjacent and running parallel to the western and eastern building wall respectively (Fig 14), could however very plausibly represent the remains of such barrel supports running the length of the building on either side. The lack of foundation trenches for either structure 81 or 106, built directly onto the construction-terrace layers (77 and 103), indicates that they were not load-bearing structures. Although likely to have originally been higher than their extant remains, if their function was as ledges for supporting wine barrels they would not have needed to be over 0.40m tall; when considering ease of placing and removing wine barrels from these supports they would want to be kept to a minimum height, therefore probably not exceeding 0.20m as this would be sufficient clearance from any spills on the cellar floor.

The possibility of structures 81 and 106 representing a wall footing for floorboards is unlikely, based on the overall depth of such a footing as formed by these structures. Both 81 and 106 extend over 0.50m from the respective outer building wall, which would be an excessive span for supporting floorboards; also no corresponding N-S supports (in either stone or timber) were found along the centre of the building, essential for laying floorboards across the width of the building. Likewise, any possible 'decorative' purpose for N-S structures 81 and 106 is not apparent. Other

likely interpretations of any such non load-bearing structure, adjacent to a building wall, whose function is not that of a ledge for 'shelving' or for use as a work-surface, are not evident to the authors. Both these functions would require structures 81 and 106 to not exceed an appropriate working, or loading and unloading, height.

E-W structures 87 and 133, built abutting the N-S support ledge (81) on the eastern side of the building, appear to form a support for a rectangular structure. If the interpretation of the Phase I building's function as wine cellar is correct, this structure may have formed a rectangular tank: the super-structure built in either brick or stone (the remains of which have not survived) and rendered smooth with lime plaster (vestiges surviving on both structures 87 and 133), potentially used for pressing grapes. However, as mentioned above, structures 87 and 133 could also be assigned to later Phases, and the putative tank may have been built during Phase IV (discussed below).

Historical records dating to 1710, two decades after the 1690 land grant, list amongst the (then named Zandvliet) estate's property: 7 wine leaguers (600 litre wine barrels); 15 maturation casks; and brandy making equipment (Randle 2004). If the building's function was industrial, its association to wine production and interpretation as a cellar is not unfounded, as this was the produce on which the estate's economy was based at the time. However, its use for an alternative function (such as storage for farm equipment or other produce) cannot be completely discounted.

Phase II: *late C18th*

The extension of the building's footprint to the north of E-W wall 100 (the northern extent of the Phase I building) marks the beginning of Phase II within the LOE. This also coincides with the demolition of E-W wall 100 and the construction of an internal E-W division (wall 116) within the northern part of the Phase I building. Figure 15 illustrates the Phase II features and deposits within the LOE.

Extension of the building's footprint to the north

At the start of Phase II the eastern and western building walls were extended to the north of the Phase I northern building wall (E-W wall 100). E-W wall 96, c. 5.40m to the north of wall 100, represents the northern extent of the footprint of the Phase II building (Fig 15). This Phase II northern end wall (E-W wall 96) was shown to be the same structure as the western building wall to the north of the Phase I wall 100. The east-facing elevation recorded at the point where E-W wall 96 meets the western building wall (Fig 10; sec 18), clearly shows the continuation of the western building wall to the south of wall 96 keyed-in to the E-W cross-section of 96, indicating that they were from a contemporary construction phase (see p. 31). Therefore the eastern and western building walls to the south of E-W wall 96 are keyed-in, continuous structures that represent the Phase II extension to the north of wall 100.

At the same time that this extension was built to the north, E-W wall 100 (representing the northern end-wall of the Phase I building) was demolished. The eastern and western building walls of the Phase II extension (96) were then built directly over the reduced remains of wall 100. This was evident in the west-facing elevation of the point where E-W wall 100 meets the eastern building wall in Area 6 (Fig 13, sec 13; described above p. 51). As the height of E-W wall 100 was reduced to below the Phase I and Phase II floor surfaces (76 to the south and 92 to the north of 100; sec 17), it therefore ceased to be an extant structure within the Phase II building.

One of the earliest contexts in Phase II is the cut of foundation trench 97, outlining the footprint of the building's extension to the north, into which the foundations of wall 96 were built. As with all other observed foundation trenches for outer building walls within the LOE, cut 97 truncated the underlying buried topsoil and construction-terrace deposits and went as deep as the surface of the river-terrace boulder deposit 65, thus providing a solid base for the wall foundations.

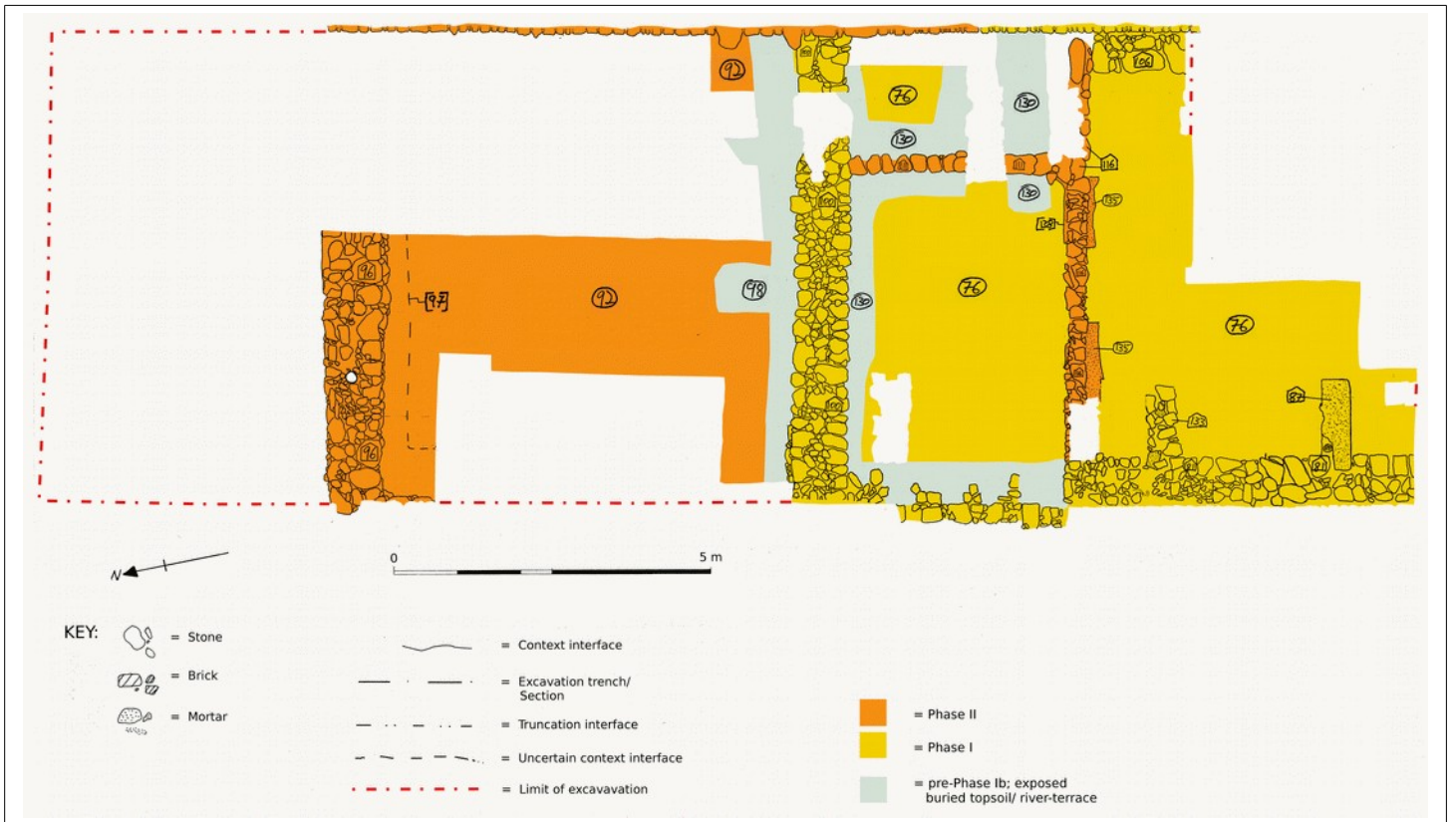


Figure 14: Plan of features during Phase II.

Foundation trench 97 was cut into buried topsoil/ construction-terrace layers 64 and 98 to the respective north and south of E-W wall 96 (Area 4; Fig 10, sec 11), and also truncated foundation trench backfill 99 to the north of E-W wall 100 (eastern end of wall 100; Fig 10, sec 06). Foundation trench 97 was backfilled with deposit 95, which directly overlay the foundation of wall 96. Backfill 95 yielded two conjoining ceramic fragments (SD08/095/1 and SD08/095/2; Appendix 2) from a vessel of Chinese export Famille Verte porcelain, dated to the early C17th.

Although from the backfill of a construction trench, the early C17th date of the ceramics recovered from it may not necessarily date the construction of the Phase II building extension. The material for backfill deposit 95 would have derived from the up-cast created by foundation trench 97 cutting into buried topsoil/ construction-terrace layers 64 and 98. As these layers may have been deposited or disturbed during the Phase Ia levelling event, the artefacts within them (and therefore within backfill 95) may be residual; this is discussed further below.

Dating of Phase II

The ceramic fragment from layer 64 (SD08/064/1) was recovered within the upper part of the layer, most likely pertaining to the levelling-terrace part of the deposit. This was also the case with the ceramics recovered from layer 98, close to the south face of E-W wall 96. Excluding two pipe stem fragments (C17th – C19th), the date range of two Chinese porcelain sherds from layer 98 (SD08/098/3 and SD08/098/4; respectively dated to the early and mid-C18th), and all other ceramic artefacts from layers 64 and 98 falls within the C18th (see Appendix 2).

The levelling of a construction-terrace in this area of the site (Areas 1, 2, 4 and the northern part of Area 3; Fig 6) could either have occurred during the original levelling episode described in Phase Ia, or have been a levelling event associated with and specific to the Phase II extension of the building to the north. Given the work involved in such a task, the latter is possible as there may have been little incentive to level a larger construction-terrace than that required for the construction of the Phase I building. The former, however, is not improbable given the evidence for the C17th domestic building, excavated in 2005 (Halkett & Hart, pub. pending).

The building investigated in 2005 was situated approximately 47m to the NNE of the site. Beyond, on the same alignment to the NNE, is the historical manor house (c. 89m from the site), with its earlier elements believed to date to the C18th (Mark Solms pers. comm.). Expending the raw materials (essentially topsoil) and labour (slaves), to obtain a level ground surface between either the building revealed in the 2005 excavations or the manor house and the Phase I cellar, was probably considered worthwhile. As such, artefacts may be present in the buried topsoil layers across site (64, 80, 98, 104 and 118) that were deposited during a general terracing event during Phase 1a.

When taking this into consideration, the ceramic fragments from layer 98 (truncated by the Phase II extension wall 96) that provide the narrower, earlier C17th dates (SD08/098/3 and SD08/098/4; Appendix 2) should not necessarily date the Phase II building extension. Although the upper part of layer 98 may have been the result of levelling at the beginning of Phase II, that deposit (and the ceramics within it) would have derived from the surrounding topsoil. This could mean that the ceramics are residual artefacts from Phase I; i.e. they may have been originally deposited during Phase I and remained in the surrounding topsoil, and therefore would not date the levelling ahead of

construction of the Phase II building extension. The same applies to the ceramic fragments recovered from backfill 95 of foundation trench 97 (p. 66).

The best contextual dating for the Phase II building extension was a ceramic fragment recovered from the silt bond of the eastern building wall within Area 6. It was a sherd of European pearlware (SD08/096), with a date range from the late C18th to the early C19th. This sherd was recovered whilst cleaning the pointing between the stones *above* the interface between the lower Phase I coursing of this wall (100) and the overlying Phase II reconstruction of the eastern building wall, represented by wall 96 (sec 13; described above p. 51). This sherd, having been recovered from the actual fabric of wall 96, gives a neat, late C18th *terminus post quem* date for the construction of the Phase II building extension.

Internal space within the Phase II extension

The deposit overlying the foundation trench backfill (95) of wall 96 was layer 94, extending down the centre of the building, between wall 100 and wall 96 within Area 3 (sec 10). Layer 94 was, however, absent from the NW corner of the Phase II extension within Area 4 (sec 11). This layer was a slightly compacted version of underlying buried topsoil 98 and represents the upper surface of 98 being trampled during the construction of the Phase II building. Directly overlying this was a final levelling layer of crushed brick (93) that did extend within and between the northern part of Area 3 and Area 4 (sec 10 and 11, Fig 10; described above p. 28).

This would appear to have been the extent of the preparation for the floor within the Phase II extension to the north of E-W wall 100. Overlying these layers was layer 92 that did extend across all trenches excavated between wall 96 and wall 100 (Areas 3 and 4, and within the small trench excavated adjacent and immediately north of the western end of wall 100; Fig 9 and 10, sec 10, 11 and 06). Layer 92 is taken to represent the 'floor surface' within this area of the Phase II building, but it amounts to no more than a disturbance and trampling of underlying sandy-silt topsoil layer 98 (described above p. 28), and was not a deliberately laid layer. This is the only area within the LOE that, once enclosed within the building footprint, did not have a formally laid floor surface; the implications of this are discussed further at the end of this section.

Internal dividing walls within the northern section of the Phase I building

At the same time that the building footprint was extended to the north of wall 100, internal divisions were constructed within the northern part of the Phase I building exposed within the LOE. These consisted of E-W wall 116, running across the width of the building, parallel to and 2.80m south of E-W wall 100; and N-S wall 111, extending north from 116 as far as the south face of wall 100 within Area 6 (Fig 15). During excavation it became clear that both N-S and E-W elements (111 and 116) were keyed-in and therefore components of a continuous, contemporary structure; this relationship between 111 and 116 is illustrated in the Stratigraphic Matrix diagram (Appendix 1) and is described above (pp. 42 and 48).

The earliest context associated with the construction of walls 111 and 116 was the foundation trench (138) for these structures. Foundation trench 138 was cut directly into the Phase I floor surface (76) and a stone-rubble foundation was tipped into the foundation trench, flush with the surface of floor layer 76 (represented by the surviving remains of 111 and 116). An overlying structure would have then been built onto this rubble foundation. As vestiges of this no longer survive it is impossible to say with certainty what construction materials were used, but the relative narrowness of rubble-foundations 116 suggest that brick was used: a broader structural base and cross-section is required for stability when building with irregular blocks (such as the rolled sandstone boulders), as they will not stack on each other neatly across a small surface area.

A render of lime plaster (135) was then applied to the south face of wall 116, which survived along the base of wall 116 and had 'over-spilled' onto floor surface 76. Plaster 135 survived as a 0.10m to 0.20m wide strip running E-W on the surface of floor 76, adjacent to the south side of wall 116 (Fig 15 and 13, sec 17). As plaster render 135 would have been applied as a finish to wall 116, the fact that render 135 survived on both the face of the wall along its base and physically overlay floor layer 76 is very significant. This indicates that layer 76, although truncated by the construction of wall 116, was also the contemporary floor surface when E-W wall 116 was an extant, complete structure. It would have been counter-productive to apply plaster render 135 to wall 116 and to subsequently lay a floor surface against the applied finish; aside from the fact the floor surface (layers 75 and 117) overlaying plaster 135 and floor 76 also overlay the demolished remains of wall 116 and therefore cannot be contemporary.

The absence of plaster render from the northern face of wall 116 was not due to differential preservation and should be interpreted as an original, intentional feature of the structure (i.e. the north face of wall 116 was deliberately left without plaster). N-S wall 111 was too disturbed during the current redevelopment to determine whether a render had been used. The implications of the differential finish on either face of E-W wall 116 is discussed at the end of this section.

Synopsis of the Phase II building

The evidence from this phase reflects significant alterations to the building, in terms of both physical layout and function. Not only was the building's overall footprint extended to the north, but there was also the first evidence for the creation of partitions within the building. During Phase I, apart from structures adjacent to the outer side walls, the building appears to have had an open-plan layout; though this is only based on observations within the LOE and there may have been internal divisions within the Phase I building to the south. Together with evidence for the creation of at least two separate and distinct spaces within the Phase II building, there is also evidence that strongly indicates the newly built extension and the Phase I building were used for different functions.

Internal divisions constructed during Phase II are represented by E-W wall 116 and its N-S component 111. As described above (p. 48), these were built together and are components of a continuous structure. Section 17 (Fig 13) shows a cross-section of both E-W wall 116 and the Phase I northern building wall 100, and clearly illustrates the difference in overall dimensions and construction methods between the two E-W walls. Wall 100 was 0.73m wide, with the base of its foundation *built* at a depth of 0.35m below floor 76, directly onto river-boulder deposit 65. In

contrast, wall 116 was 0.23m wide, with the base of its foundation at a depth of 0.12m below floor 76, the stone rubble for its foundation having been *tipped* directly onto the sandy-silt topsoil deposit (layers 80 and 118). These differences reflect the fact that wall 100 was a load bearing end-wall to the building, whereas wall 116 was clearly a slighter foundation for an internal division.

Divisions within a building obviously imply a difference in the function or activities in each divided space. The fact that in the construction of E-W dividing wall 116 the decision was taken to apply a lime render to the south but not the north face of the wall, indicates that a superior finish was required in the space to the south of wall 116. This is emphatically supported by the fact that no formal floor was laid within the area enclosed by the contemporary extension to the north (i.e. between E-W walls 96 and 100).

The section of Phase I floor layer 76 within the newly created division at the northern end of the Phase II building (between E-W walls 100 and 116) most probably continued to be used during Phase II, as was the case to the south of wall 116. But the Phase I floor layer 76 would have only extended as far as the Phase I northern building wall (E-W wall 100). To the north of E-W wall 100 (up to E-W wall 96), the Phase II ground surface consisted of a thin, trampled layer (92) of the underlying buried topsoil layer 98. This is the only example from all Phases investigated within the LOE, where an area of site enclosed by the building's footprint did not have a formal floor laid during its (first) use-phase.

As E-W wall 100 was demolished to below floor level, and the northern extent of floor 76 probably damaged in the process, there must have been some reparations over the demolished remains of wall 100 to create a level surface between the floor layers 76 to the south and 92 to the north. However, as these deposits were completely removed during the current redevelopment, the exact configuration and demolition/ restitution sequence can only be speculated.

It is not only evident that the spaces either side of E-W partition wall 116 had different functions, but also that the one undertaken in the division to the north was a much rougher one than that to the south. As no obvious alterations were made to the structures to the south of the partition, this area presumably continued in its function as a wine cellar. No internal structures, other than N-S wall 111, were exposed within the Phase II extension making it difficult to interpret its function with confidence.

The use for the space to the north of partition wall 116 may have been related to wine production and served as further storage for the cellar, but this is unlikely for several reasons. Other than for a short period during the year when the wine is pressed, a wine cellar is primarily a building used for storing wine barrels. If the newly created space was to also serve as storage for the cellar, there would be no apparent need for a partition. Furthermore, if the presence of possible ledges and supports are the basis for interpreting the Phase I building as a wine cellar (as these would be required for the correct storage of barrels), their absence from the Phase II extension would signify that barrels were not stored in this area; there is little else a wine cellar needs storage space for.

More likely, the rougher purpose for the space created in the northern part of the Phase II building was an ancillary one completely unrelated to wine production, and could be one of many on a working farm: storage of agricultural equipment, livestock, or even slaves. N-S wall 111 appears to form a partition for a small (1.50m wide) rectangular

division on three sides, between it, the eastern building wall and E-W wall 116 to the south. Wall 111 extends to the north as far as E-W wall 100 which would have formed the north side to the rectangle, except that wall 100 was no longer extant above floor level during this phase. As wall 111 does not continue to the north of wall 100, this may have been its original northern extent, forming a rectangular room (2.80m N-S by 1.50m E-W) open to the north. This may have served as a single stall or stable for a horse, but there's no conclusive evidence supporting this interpretation; this rectangular division may just have been a smaller storage space for agricultural equipment (for hand tools, etc.) within a larger one for the same purpose. It is also just as likely that the Phase II extension building served a multitude of purposes (such as housing agricultural equipment, a pack-horse and slaves) at the same time.

There was no evidence of entrances into the Phase II extension from either the exterior or through E-W partition wall 116. However, as the southern wall (116), eastern, western and northern walls (all 96) of this extension were demolished to below floor level in subsequent phases, evidence for possible thresholds may have been destroyed; the cement render on the Phase II eastern building wall (96) was not removed during the course of the excavation, and as such the possibility of an exterior doorway along the eastern façade could not be investigated.

Phase III: *early C19th*

This phase is characterised on site by a further extension of the building's footprint to the north of the Phase II extension. No alterations were made to existing Phase I and Phase II structures to the south of E-W wall 96. As such, all activity assigned to Phase III within the LOE is limited to the area of site north of E-W wall 96.

Phase III has been divided into two sub-phases: Phase III_a represents the construction and use-period of this second extension to the north of the Phase II extension of the original building; and Phase III_b represents the destruction by fire of the Phase III_a building extension.

Phase III_a: second extension of the building's footprint to the north

The earliest context of Phase III is a levelling layer of crushed brick (62) that was deposited directly onto buried topsoil/ construction-terrace 64, immediately north of E-W wall 96. Levelling layer 62 is unlikely to have formed part of the Phase Ia construction terrace. It contained a high concentration of small, crushed brick fragments and dust. Had this been deposited as part of the Phase Ia construction terrace, it would have necessarily represented the upper layer of an exterior ground surface, until it was eventually enclosed within the Phase III building footprint and physically overlain by floor 61. Any such layer deposited during a Phase Ia levelling episode would have certainly eroded quickly with wind and rain, mix with surrounding soil, and would not retain such high concentrations of brick dust (sec 03 and 04; described above p. 26). Levelling layer 62 therefore represents a

deliberate deposition for a construction-terrace that is contemporary and specific to the construction of the Phase III extension (wall 114).

In this respect, the ceramics recovered from levelling deposit 62 are extremely significant as they were recovered from an ideal context (single event, deliberate deposit; opposed to slowly accumulated over decades/ centuries), that is directly associated and contemporary with the construction of the Phase III extension. Two sherds were recovered, both with date ranges spanning the C19th: a fragment of Chinese brown-glazed porcelain (SD08/062/1), dating from the late C18th to the late C19th; and one of European refined earthenware (SD08/062/2), dated to the C19th. These were also the only datable artefacts recovered from all Phase III deposits.

Levelling layer 62 was directly cut by the foundation trench (68) that extended north from wall 96 along the same tract as the western building wall, delineating the footprint of the Phase III extension. Again, the base of foundation trench 68 exposed the upper surface of the river-terrace boulder deposit (65), and the foundations for wall 114 were built directly onto this solid base.

Wall 114 represents the continuation of the western building wall for the Phase III extension to the north of wall 96 (Fig 10, sec 18; see p. 31 for description). It is thought that the Phase III extension established the overall building footprint that survives to this day, encompassing the area currently used as the Museum van de Caab to the north of the site. Wall 114 also represents the first unequivocal use of brick as a construction material within the fabric of this building. The continuation of wall 114 within the Museum to the north (left with its fabric exposed as a feature) was built to a height of 1.20m in the standard way of all other stone-built structures exposed on site: with irregular, rolled boulders and cobbles, in rough courses and held together with a sifted-silt bond. Above 1.20m, wall 114 was built in brick (see Background chapter, p. 5). Although the use of brick on site in previous phases was suggested by the presence of fragments within levelling layers and floor surfaces, none had yet been found as part of a built structure.

As well as directly overlying the base of its foundation trench (68), wall 114 was also built abutting (and therefore stratigraphically overlying) the north face of wall 96. Section 18 clearly shows that wall 114 is built respecting the earlier Phase II wall (sec18; described above p. 31), suggesting E-W wall 96 (the northern end-wall to the Phase II building) remained an extant structure during Phase III.

Deposit 69 was used to backfill the foundation trench (68) for wall 114. A compacted earth floor (61) was then laid directly up to western (Phase III) building wall 114, directly overlaying backfill 69, and directly up against the north face of E-W wall 96 (Fig 10; sec 10 and 11). The fact that the first floor surface (61) within the Phase III extension is laid physically abutting the northern end-wall (96) of the Phase II building is significant. Had the Phase III extension been a similar construction process to that executed in the Phase II extension, where the previous northern end-wall (E-W wall 100) was demolished to below floor level, with the eastern and western Phase II extension walls (both 96) built directly over it (Area 6; sec 13); it would follow in this case that the Phase II northern end-wall (E-W wall 96) would be demolished and the Phase III extension wall (114) built over it, with floor layer 61 *subsequently* laid over the demolished remains of E-W wall 96. The fact that floor 61 was laid abutting, and therefore respecting, E-W wall 96 indicates this remained an extant structure throughout Phase III.



Figure 15: Plan of features during Phase III.

This is evident from Sections 10 and 11 illustrating a cross-section through E-W wall 96 with the Phase III and Phase II floor surfaces (61 and 92) on the respective north and south sides of 96 (Fig 10). Both floor surfaces were at equivalent levels on either side of wall 96, whose (subsequently) demolished remains are still clearly higher than both floors, indicating that this was obviously still the case when floor 61 was laid and in use.

During Phase III, E-W wall 96 would therefore have served as a partition between the more rustic, Phase II 'barn' division to the south; and the newly built Phase III extension, complete with a laid floor (61), to the north. No evidence was found for an access between these spaces within the Phase III building which, given that partition wall (96) survives above the floor levels (61 and 92) on either side of it, evidence of thresholds would have survived if present (sec 10 and 11). However, just under half of the remaining course of E-W wall 96 remains unexcavated in the eastern half of the building, where a doorway through 96 linking the spaces to the north and south may have existed.

Phase IIIb: fire damage to the Phase IIIa extension

Phase IIIb is solely characterised by an ashy layer (63), containing occasional burnt timbers and high quantity of charcoal throughout the deposit. Layer 63 directly overlay floor 61 and, although patchy, was essentially continuous and covered floor layer 61 across Areas 1 and 2 (described above pp. 23 and 24). Burnt ash layer 63 is the result of a fire that seems to have been localised within the Phase IIIa building extension, to the north of E-W wall 96. This must have, nevertheless, substantially damaged this section of the building; the burnt timbers recovered from this layer probably representing the remains of the burnt, collapsed roof structure.

The other find of note within burnt layer 63 was the presence of a significant amount of thin, flat glass fragments (up to 100mm by 60mm in size), dispersed throughout the deposit in Areas 1 and 2. Some of these appeared to have been warped as a result of the heat from the fire represented by layer 63. Given they are thin and flat fragments, none with obvious rims or curves to signify a type of vessel, they must be fragments of window panes, indicating that the windows in the Phase III extension were glazed; the significance of this is discussed below.

Synopsis of the Phase III building

This Phase again witnesses additions to the building in not just its extent, but also potentially in its functions. The partition maintained between the Phase II building and the Phase III extension to the north indicate that the latter was not a continuation of the rustic, putative barn built in Phase II. On the other hand, if the Phase III extension was to also serve as a wine cellar then it would make more sense to have built it adjoining the existing Phase I cellar structure to the south. In addition, the presence of window glass within burnt ash layer 63, apart from indicating a high-standard of finish to the Phase III extension, also precludes this section of the building from being associated with wine production. Good ventilation is essential for keeping noxious fumes to a minimum, and therefore glazed windows would be an unnecessary and costly feature.

The purpose of the Phase III extension is unclear. Its floor surface (61) was only exposed in two small areas within the LOE (Areas 1 and 2), in total extending a maximum of 2.00m north into the Phase III extension within Area 1 (Fig 16). The limited area of the Phase III building investigated within the LOE and the absence of any internal structures inevitably makes interpretation of its function speculative. However its apparent superior finish, indicated by the presence of window glass, strongly suggests this was not an agricultural building. It may even have served a domestic purpose, such as a *Jonkerhuuis*, on the estate.

In any case, the glazing of windows on any building that wasn't the manor house is an indication of the relative wealth of the estate at the time. This wealth and the growth that preceded it is also evident in the continuation of a substantial building programme, reflected in three major construction phases of this building alone, spanning a relatively short period of approximately 100 years. This trend is re-emphasized in Phase IV.

Of interest as well is how that growth has been reflected in the archaeology of this building: in terms of both actual, physical growth of the building on the ground; and, by inference, the growth of the estate's economy through time. Following the construction of a wine cellar in the mid-C18th (Phase I), less than 50 years later (or, just as possibly, within less than half that time), it was necessary to extend the original building by a total of 6.00m (Phase II). In the first quarter of the C19th it was again necessary to extend the building by a further c. 15m (Phase III).

As the buildings from each Phase (I-III) represent distinct functions from each other, the decision apparently was taken to build two additional extensions onto an existing building, rather than two new buildings to fulfil these new functions. This would have obviously saved on construction materials and time. But it nevertheless (or precisely because of this practice) reflects an organic, cellular growth to the building. This growth or successive extension was not necessarily haphazard. But certainly, apart from the initial construction of the Phase I cellar, does not appear conceptualised or planned from inception.

This may also be an accurate reflection of the estate's economy from the construction of the Phase I building in the mid-C18th, up to the early C19th to which Phase III is dated. That would be one of continual, organic growth, with extra buildings erected as they were required and could be afforded. Its overall economy and related planning not necessarily haphazard, but possibly also not exactly conceptualized or defined. This trend is dramatically altered in Phase IV.

The dating of Phase III to the first quarter of the C19th is very secure, partly due to the context from which it was obtained. Construction-terrace layer 62 represents a single event deposition specific to the construction of the Phase III extension, and the C19th ceramic sherd (SD08/062/2) recovered from it means this extension could not have been built prior to the C19th.

As the dating for the succeeding Phase IV construction is very unlikely to be later than 1830, the dating of Phase III can be narrowed to the first three decades of the 1800s. Had the factors that instigated the alterations and redevelopments undertaken in Phase IV been demonstrably from dilapidation of earlier structures, or a reasonably evaluated construction programme, then the date of Phase III may have been narrowed to possibly even the first decade of the 1800s. The expense of construction and fitting of the Phase III extension would not have been

undertaken in the first quarter of the C19th, if the remainder of the building were to need renovation, or was expected to be entirely redeveloped, by 1830 (see below).

Given that the fire in the northern section of the building (associated with deposits from Phase IIIb) appears to have been the instigating factor in the Phase IV redevelopment, making it entirely unforeseen and unplanned, means that it is impossible to narrow the date range for Phase III with 'likely' dates in relation to construction dates for Phase IV. The Phase III extension may have been built in the mid-/ late-1820s and burnt down a few years after its construction, prompting a shortly followed redevelopment prior to 1830. The same could be said of a possible construction date for the Phase III extension at the turn of the century: with its potentially soon followed destruction by fire offering a new 'canvas' and opportunity for redevelopment, still within the first decade of the C19th.

Phase IV: *beginning c. 1800 – 1830*

Construction during Phase IV is best characterised on site as a major redevelopment of, and repairs to, the existing Phases I – III building. Repairs focused on the fire damaged northern section of the building, represented by the Phase III extension. However, the redevelopment and renovation of existing internal structures during Phase IV was extensive throughout the entire site, not least with respect to the western building elevation. This was almost entirely re-built in the centre of the building, and was altered over the whole 50m length of the building, to create the configuration that resulted in the earliest surviving structural features (namely the double door and four arched windows) still extant on the building's western façade.



Figure 16: Plan of features during Phase IV.

Demolition of partition walls and laying of continuous floor

The earliest events in Phase IV were the demolition of Phase II structures: that of E-W wall 96; and of partition walls 116 (E-W) and 111 (N-S). These demolition events are respectively represented by the cut of a post-hole (122) into the top of the reduced remains of E-W wall 96 (Fig 16); and by cut 140, representing the raising of wall 116 to the level of floor surface 76 (described above pp. 32 and 42). The latter is a straight forward demolition event, whereas post-hole 122 most likely represents a socket for a temporary timber structure related to the demolition of wall 96, such as a scaffold post or prop for structural elements (e.g. roof timbers previously supported by wall 96). The demolition of these structures (walls 96, 111 and 116) significantly altered the internal layout of the overall building by removing the only partition walls so far identified within the LOE. It thus produced a continuous, open-plan layout of the interior of the building across the site. This obviously had implications regarding the function of the redeveloped space, discussed below.

The demolition of E-W wall 96 undoubtedly damaged the western and eastern building walls at either end of the structure, as the continuation of the side walls to the south were still keyed-in to the E-W component of wall 96. The next stage in the Phase IV redevelopment was to rebuild these outer building walls, the western side represented by wall 115 in Areas 2 and 4. Rebuild 115 necessarily overlay the reduced remains of the continuation of wall 96 to the south, and those of the Phase III extension (114) to the north (Fig 10, sec 11 and 18; described above p. 31).

The relationship between the Phase III floor (61) and the Phase II northern building wall (E-W wall 96) demonstrated that the latter remained as a partition wall within the Phase III building, respected by the Phase III extension wall 114 to the north (see Phase III; and Results p.31). This is highlighted by the presence of an arched window on the western building façade, situated vertically above the point where E-W wall 96 meets the western building wall. During the Phase II building, this point of the western elevation was the NW corner of the building, and part of the window's span was beyond the northern extent of the Phase II building. During Phase III, E-W wall 96 would have remained as the cross-section of a partition wall between the Phase II building and the Phase III extension. The arched window vertically above (slightly offset to the north of) the cross-section of E-W wall 96 therefore could not have been a feature on the western elevation prior to the demolition of E-W wall 96 and the construction of overlying wall 115 (Fig 10; sec 18). As this demolition/ reconstruction event is shown stratigraphically to belong within Phase IV, the arched window must therefore also be an architectural feature dating to Phase IV or later.

The only other possibility would be if this feature had been created as a blind-window during the Phase III extensions for some aesthetic purpose. This is extremely unlikely, given the extra effort and logistical problems involved with such a feature, for what was essentially a (or, more strictly, an agglomeration of) farm building(s). This window and other changes to the western building façade are discussed in detail at the end of this section.

A dark brown, compacted silt floor surface was then laid over the demolished remains of E-W walls 96 and 116. This floor surface, although consisting of at least three distinct deposits divided into four contexts (46, 60, 75 and 117; see Results chapter for full description), was laid in a single construction event that extended across the continuous, open-plan space created by the demolition of the Phase III partition walls (96, 111 and 116).

The soil composition of the four layers representing this floor surface (46, 60, 75 and 117) was identical, the only difference between them being the relative quantities of building materials (brick and mortar fragments) as inclusions within each deposit. In this respect, there was a substantial and significant difference between layers 46 and 60, representing the continuous floor surface to the respective south and north of E-W wall 96 (Fig 10; sec 10 and 11). Layer 60 contained frequently occurring brick fragments and also an abundance of white mortar fragments, many of which displayed a spiral shaped relief moulded on one surface. These pieces would have originated from a decorative structural element and are likely to represent the demolished remains of the end-gable for E-W wall 96, which had formed the Phase II northern building wall.

The fact that fragments of an end-gable for a Phase II wall (96) are present in a Phase IV demolition and subsequent floor-laying event, is further evidence that E-W wall 96 was retained throughout Phase III. Pertinently, the moulded surface of some of the plaster fragments was blackened with soot, suggesting they were exposed to the fire at the end of Phase III. Furthermore, the fact that *all* moulded plaster fragments were recovered from floor layer 60 to the north (the direction the gable faced) and none were in the directly overlying layer 46, representing the continuation of the same floor surface to the south (sec 10 and 11), gives an indication of the demolition/ construction sequence. As E-W wall 96 and associated plastered gable were demolished, the remnants of the structure would fall primarily to the north; E-W wall 96 would naturally collapse or demolish in this direction, as it was keyed-in to the walls to the south. This demolition rubble was then exclusively (within excavated deposits) incorporated into the floor deposit (60) laid to the north of wall 96, but was absent from the next section of the same floor (layer 46) laid to the south of wall 96.

The demolished remains of E-W partition wall 116, and the equivalent continuous Phase IV floor (layers 75 and 117) subsequently laid over them, follow a similar construction sequence in Area 5 (Fig 13; sec 17). Floor layer 117, representing the continuation of the Phase IV floor to the south of E-W wall 100, was laid up to the north face of E-W wall 116. Wall 116 was then reduced to below the Phase IV floor surface by demolition cut 140, with the next section of the Phase IV floor to the south (layer 75) subsequently laid over the demolished remains of 116. As a result, although identical in soil composition and components of the same floor surface, layer 75 contained a marked greater occurrence of building debris (broken brick and mortar fragments) within it than layer 117.

Brick-built threshold

It is also during Phase IV that a brick built threshold (129) was constructed spanning the double doorway in Area 5, situated at the mid-point of the western elevation as comprised by the Phase I building and the later Phase II and III extensions to the north (Fig 17; described above p. 46). Threshold 129 was built directly onto the fabric of the underlying western wall (82), which was a continuation of, and equivalent to, the Phase I northern building wall (E-W wall 100; see Appendix 1). The construction of the brick threshold may signify the first inception of a door at this point in the building's western elevation. But it could also have been a Phase IV widening of an earlier doorway, the vestiges of which were destroyed in the widening process. The evidence, however, suggests the former is true.

In the centre of the building, the Phase IV floor in Area 5 (layer 117) was laid physically overlaying and sealing the earlier Phase I floor 76, which had continued to be used throughout Phases II and III. Adjacent to the western building wall in Area 5, layer 117 was laid abutting the bricks of threshold 129, but was the *first* floor surface to abut the western building wall in this area. It physically overlay the underlying Phase Ia construction-terrace deposit (130) and, immediately adjacent to western building wall 82, overlay an ephemeral N-S alignment of sandstone boulders (Fig 11). These boulders possibly represent the demolished remains of the continuation of Phase Ib N-S ledge 81 to the south.

If these boulders do in fact represent the continuation of a Phase I structure (81) abutting the Phase I western building wall (82/ 100), then it follows that there cannot have been an entrance into the building at this location before Phase IV, as N-S structure 81 would have obstructed it. As the Phase IV floor layer 117 was the first deposit to overlay the putative remains of structure 81, the latter must have been demolished (in the area spanning the width of the doorway) during Phase IV. The fact that there was no floor surface from an earlier Phase respecting a possible earlier entrance, indicates that brick threshold 129, with the Phase IV floor layer 117 laid adjacent to and therefore contemporary with it, represents the earliest entrance into the building at this point in its western elevation.

N-S brick pillars

Once a continuous floor (layers 46, 60, 75 and 117) had been laid across the LOE, two rows of free-standing rectangular pillars were built with brick directly onto this floor surface. This group of Phase IV pillars, of which the remains of eight survive within the LOE, had their long-axis on a N-S orientation and are described above (58, 53, 57, 70, 74, 105, 107 and 108; p. 18). These pillars were arranged in two N-S rows running the length of the LOE, parallel to and situated c. 1.25m from the respective eastern and western building walls. In this respect, they potentially represent the layout and arrangement of a possible version of supports for wine barrels in a wine cellar; described above for Phase Ib.

The configuration described does call for corresponding pillars or, in the case of the Phase I wine cellar, continuous ledges abutting the outer building walls to offer supports at the 'back' of the elevated wine barrels. These appear to be lacking from the Phase IV structures, making the interpretation of the N-S brick pillars as versions of wine cellar barrel supports unfeasible. However, the cuts for N-S trenches 47 and 49, running adjacent to the western and eastern building walls in the northern half of the site, may be an indication of such structures.

Trenches 47 and 49 are cuts that stratigraphically relate to Phase VI (see Stratigraphic Matrix; Appendix 1), but partially truncated the Phase IV floor layers 46 and 60 along the observed extent of the cuts in the northern half of the site. N-S trench 120, situated adjacent to the eastern building wall within Area 6, probably represents the continuation of trench 47 in the southern half of the site, given that it also truncated the Phase IV floor layer (117) in Area 6 (see Results chapter for full descriptions). The width of these cuts from the respective eastern or western wall is equivalent to the dimensions for N-S structures 81 and 106, interpreted as the remains of support ledges for the Phase I cellar. It is entirely feasible that N-S trenches 47, 49 and 120 represent demolition cuts of similar ledges

abutting the outer walls of the Phase IV building. Possible reasons for the deliberate demolition of these structures are discussed in the Phase VI section below.

Later Phase IV deposits

There were two other deposits from this Phase located within Area 6. To the east of brick threshold 129, in the immediate vicinity of the entrance to the building, deposit 127 had been compacted into flaws within the underlying Phase IV floor (117). This section of the floor surface clearly required repair from excessive wear and tear, as a result of an elevated level of traffic through the exterior doorway to the west. Repair deposit 127 directly overlay deposit 128 which represented the fragmented remains of the inner row of bricks of threshold 129. The eventual survival of this row of bricks as some *in situ* fragments (Fig 17) and a deposit of crushed brick (128), gives an indication of the stress on this structural element and the need for the repair to threshold 129 and floor 117 at the entrance to the building. As both floor threshold 129 and floor 117 were built and laid at the start of this Phase, the repair to them represented by layer 127 is interpreted as happening towards the latter part of Phase IV (see Stratigraphic Matrix diagram; Appendix 1)

Other possible Phase IV features

The presence of N-S brick pillars built across the site during this phase, in conjunction with other supporting evidence (such as architecturally stylistic traits in the rebuilt Phase IV western façade; discussed below), has led us to interpret the Phase IV building as a cellar for wine production. N-S ledge 81 together with E-W structures 87 and 133 perpendicular to it (all within Area 6; Fig 6) have been interpreted as supports for a rectangular feature. Given the proposed interpretation of the Phase I and IV building's function as a wine cellar, this feature is suggested to represent a tank for pressing grapes or some similar rectangular cistern. Structures 87 and 133 were described in the Phase Ib section above and, as was mentioned (p. 61), there are elements of their construction that aren't exactly concurrent with other internal Phase I structures. As there are no intervening contexts between directly underlying Phase I floor 76 and directly overlying Phase IV floor 75, there is nothing in the stratigraphy to preclude structure 87 (and by association unexcavated structure 133) from having been built at the start of Phase IV (see Stratigraphic Matrix; Appendix 1).

The fact that E-W structure 87 was built onto the Phase I floor (76), as opposed to being laid onto the underlying construction terrace and then having floor layer 76 laid abutting it (observed with other Phase I internal structures 81 and 106), is inconsistent with all three being contemporary structures. It gives the impression that structure 87 was not planned at the beginning of the Phase I construction, and would have been an 'afterthought' if it was built during Phase I. There is also the more incidental evidence of lime mortar, surviving on the upper surface of E-W structures 87 and 133, that also physically overlies N-S ledge 81 at the point where the structures meet (Fig 5). If all

three were contemporary Phase I structures built with the same materials, other mortar fragments would be expected to survive on different areas of the surface of ledge 81, which was not the case. However, the reason for this discrepancy could also be due to the possibility that lime mortar was only required for these specific parts of the overall structure (i.e. those of 81 in contact with E-W structures 87 and 133).

Conversely, the construction sequence for structure 87 just described also is not concurrent with the other internal Phase IV features, namely the N-S brick pillars (58, 53, 57, 70, 74, 105, 107 and 108). With the pillars, the continuous Phase IV floor (layers 46, 60, 75 and 117) was laid and the brick structures then built directly onto the floor surface; in the case of E-W (stone-built) structure 87, it was built onto the floor surface 76 (in use up to the end of Phase III), and then the Phase IV floor (layer 75) was laid abutting it.

In either event, as both the Phase I and Phase IV buildings have been interpreted as wine cellars (the former remaining one throughout Phases II – III), the putative pressing-tank or cistern represented by E-W structures 87 and 133 would be appropriate in either phase. The ambiguity in its exact phasing may even be a reflection of its construction belonging to either intervening Phase II or III, but there was no stratigraphy to confirm or refute this. Whatever this feature was, it certainly was respected by Phase IV and subsequent Phase V floor surfaces, proving it was an extant feature from at least the beginning of the Phase IV cellar.

Dating of the Phase IV building

Of the datable artefacts recovered from the continuous Phase IV floor surface across the site, only two of the component floor layers (46 and 75) provided finds with a narrow enough date range to be relevant. Layer 75 yielded two conjoining fragments (SD08/075/1 and /075/2) of Chinese blue and white underglaze porcelain, dating from the C17th to C18th; a date is yet to be attributed by a specialist to the fragments of bottle glass from layer 46. Given the secure dating of preceding Phase III to the first quarter of the C19th, the ceramics from layer 75 must be seen as residual artefacts from an earlier period incorporated in a Phase IV deposit. However, the dating of the glass bottles from within layer 46 could further refine the dating of the interface between Phases III and IV.

The most representative artefactual date for Phase IV was recovered from the later Phase IV deposit (128) overlying brick threshold 129. The sherd from fragmented threshold deposit 128 was dated to the C19th, and significantly this was overlain by repair layer 127 over fragmented threshold 128 and associated floor 117. This broad C19th date cannot necessarily be seen as representing the construction of Phase IV, as it was obviously recovered from deposits representing degraded Phase IV structures and therefore from the latter part of this Phase. However, this date is obviously more representative of Phase IV than the C17th – C18th date of the ceramic recovered from layer 75.

The best dating for the construction of Phase IV actually comes from historical evidence and from analysis of architectural styles. As described above (p. 78), the demolition and reconstruction sequence of the western building wall 115 in Area 4 (where the cross-section of E-W wall 96 meets the western building wall; Fig 10, sec 18), indicates the arched window at this point in the western building elevation could only be a product of a Phase IV (or later) construction event. Upon the removal of the cement render preceding this excavation, three other identical

arched windows (all subsequently blocked) had been exposed along the building's western façade. The northernmost of these is situated to the north of the LOE, within the section of the building currently housing the Museum van de Caab (Fig 3). This section of the western building wall has not been re-rendered and the window, complete with its later brick blocking, is currently exposed. The remaining three windows to the south have been re-opened and incorporated into the design of the current redevelopment.

The four windows were arranged symmetrically along the 50m extent of the overall western building façade (as established during Phases I – III), with two placed either side of the centrally situated double doorway (threshold 129). This overall arrangement clearly indicates these are all related structural elements, which is supported by the stratigraphic sequence; brick threshold 129 is certainly a Phase IV structure, and the arched window within Area 4 can only be Phase IV or later. In addition, the northernmost arched window within the Museum section of the building clearly shows that it was knocked-through the fabric of an earlier phase wall. Because this area of the building was not converted into workmen apartments, the western building façade was unaltered by later phases, and the arched window is the sole conversion made to the fabric of the original wall. As this original wall is the continuation of Phase III extension wall 114 and the arched window is a later addition, this must also be Phase IV or later.

This specific architectural style, namely of tall, arched windows, is typical of wine cellars at the Cape dating from 1800 to 1830 (Walton 1989: p. 79). This is compatible with both the archaeological interpretation of the function of the building, and dating of Phase IV in relation to that of other Phases. Historically, this period also saw a boom in wine production in the Franschhoek valley, with Cape wines being exported to Europe in vast quantities. As this farm's involvement in wine production during this period is established from historical records relating to the Delta estate (Randle 2004), had this been a lucrative enterprise (as the records also suggest), this would have been the period when such a wine cellar, with its typical arched windows, would have been built on the estate.

Synopsis of the Phase IV cellar building

Although this is the first Phase on site that is not represented by an extension to the building footprint, the construction programme appears to have been as elaborate, if not substantially more so, than any preceding Phase. The unification of the interior of the building into an open-plan layout with a continuous floor (presumably the 50m length of the building) does away with the divisions and associated functions represented by the Phase II and III extensions. It redeveloped these sections of the building into a wine cellar, whilst at the same time connecting them to and renovating the existing Phase I cellar building to the south.

The alterations to the façade described above gave the entire building an overall symmetry, concurrent with the interpretation that the building's space and use was unified during this Phase. The creation of arched windows on the façade, however, has no basis in functionality of the building as a cellar and is purely aesthetic or stylistic. However, the creation of a double doorway is likely to be primarily functional, allowing access for carts to be loaded and unloaded within the building. A second double doorway at either the northern or southern end of the building, for ease of egress of said cart without the need to turn around or back-up, would also be expected as a standard feature in a wine cellar of the period. It is also thought that a dormer gable (removed in a subsequent

phase) had once existed over the double door on the western elevation (Trevor Thorold pers. comm.), which most probably was constructed when this door was created at the start of Phase IV.

This addition of purely aesthetic structural elements to a working building has wider implications. It would have been just as feasible, not to mention easier and using less resources, to unify the internal space created in the first three Phases, convert it into a cellar and place a double doorway in the centre of the western elevation, without also adding four arched windows and a dormer gable. The resources and effort expended solely on appearance may reflect broader aspects of the estate's economy at the time. It certainly marks a change in the conceptual planning of the building programme on this site, as exemplified by the extensions of the preceding Phases II and III: these are seen as a gradual development of the site, with extensions for different functions being added as they were required and/ or the resources for their construction could be spared. The Phase IV expansion and renovation of the original Phase I cellar reflects a more coherent, purposeful redevelopment of the existing building into the single function of wine production, together with the added structural elements to make it *look* like a wine cellar of the period.

From the Phase IV building programme we can deduce a dramatic growth in both the wine production and relative wealth of the estate during the preceding three Phases represented on site. It is of note that both the Phase IV major redevelopment to the entire building and the Phase III construction of a supposedly higher status extension (inferred from the presence of glazed windows; see Phase III, p. 74), are both dated to the first quarter of the C19th. While the damage caused to the latter in the fire at the end of Phase III may have precipitated the redevelopment of the entire building in Phase IV, resources were nevertheless available to not only repair the damage to the recently built Phase III extension, but also expand and renovate the estate's cellar into an imposing 50m long, central-gabled structure.

These factors point to wine production on the estate offering more than just a comfortable subsistence economy. The archaeology of this building suggests it was being actively (perhaps even aggressively) invested in, and undertaken at an industrial level of production. The frequency and character of the buildings successive redevelopments, points to this having been a significant, lucrative business interest; this is also reflected in the historical records for the estate (Randle 2004).

In addition to this, the concessions made to and resources expended on aesthetic factors, some directly related to wine production (i.e. making the building *look* like a wine cellar with arched windows), or the construction of a decorative dormer gable in the centre of the building's façade, have a bearing on the projected and perceived status of the estate. The proprietors at the time wished to project the image of the estate as an important and successful wine producer. The alterations made to the western façade would certainly have played an important role in convincing local rival wine-producers and, perhaps more importantly, any visiting wine merchant that this was certainly the case.

Phase V: mid-/ late-C19th

Phase V is characterised on site by overall renovations and small adjustments to the layout of the pillars from the Phase IV cellar building. As the open-plan layout of the interior of the building (within the LOE) established in the preceding Phase was maintained, evidence of the Phase V renovations were evident across the entire site and, presumably, were effected throughout the entire building beyond the LOE.

Contexts from Phase V were divided into two sub-phases: Phase Va relates to features created at the beginning of this phase, but were not extant after the Phase V renovations were completed; Phase Vb relates to Phase V features that remained extant throughout its use-phase.

Phase Va: truncation of Phase IV deposits

Post-hole 125 was cut directly into the late Phase IV floor repair (127), immediately east of the double door within Area 5 (Fig 11). As described in the Results chapter (p. 45), the siting of a post nearly central to the entrance into the building is incompatible with ease of access into and out of the building. Post-hole 125 must therefore represent the socket for a temporary structure, such as a scaffold post or structural prop, that was dug directly into the repaired Phase IV floor surface (127) at the very end of that phase. This would have been erected as part of the renovations undertaken at the beginning of Phase V, but was removed prior to the laying of the Phase V floor layer 45 which overlay the backfilled (defunct) post-hole. The siting of post-hole 125 near the entrance may represent a reconfiguration of that doorway, such as the removal of the putative dormer gable (Trevor Thorold pers. comm.) that would have been part of the Phase IV construction.

One other similar feature was the cut of a small pit (66) directly into the Phase IV floor surface (layer 60) within Area 2 (Fig 8; sec 04). The purpose of cut 66 is not clear: the feature is too wide and the base too broad for it to serve as the socket for a post; likewise its fill (67), consisting of a loose yellow sand containing brick and mortar fragments, would not serve as appropriate packing material for a possible large post within a broad, shallow socket. All that can be said of this feature is that it was a discreet, circular-shaped cut into the Phase IV floor (60), that was backfilled with general (loose) building debris. As such, it is extremely unlikely that this would have been done to the active floor surface of the Phase IV floor, leaving it in relative disrepair while this floor (60) was still in use (sec 04). Therefore, given that it was directly overlaid by the Phase V floor layer 45, it must represent some intermediate, undetermined construction activity, that took place between the end-use of the Phase IV floor (60) and before the Phase V renovations were completed.



Figure 17: Plan of features during Phase V.

The only other feature in Phase Va is the cut for a possible construction slot (85), situated in the southern half of Area 6 (Fig 18). Construction-slot 85 has characteristics of features from both sub-phases: it was cut directly into the Phase IV floor in the south of Area 6 (layer 75), but the structure it represents was extant during Phase Vb. This was shown by the sharp, vertical edges of the Phase Vb floor layer (45) at the interface with the rectangular sides of cut 85, indicating the former was laid abutting (and therefore respecting) an extant rectangular structure represented by slot 85. The perpendicular alignment and equidistant positioning of construction-slot 85 with E-W structures 87 and 133, also suggested all three could have been associated structures (Fig 18).

E-W structures 87 and 133, together with N-S ledge 81, have been interpreted as supports on three sides for a possible rectangular pressing-tank or cistern, that could have been constructed at any stage since Phase Ib and was certainly in place and incorporated into the Phase IV redevelopment (see above; pp. 63 and 81). The fact that this rectangular feature was incorporated and extant after the Phase V renovations is indicated by the fact that the edge of Phase Vb floor layer (45) respects the whole area demarcated by structures 87, 133, 81 and slot 85; to the north, south, west and east respectively (Fig 18; see results, p. 36 and 36). Construction slot 85 has therefore been interpreted as a shallow foundation for a small (probably brick built) support along the previously unsupported eastern edge of this putative rectangular tank that was extant throughout Phase Vb, with floor layer 45 subsequently laid against this structure.

Phase Vb: renovations to cellar interior

The renovations undertaken in Phase V essentially focussed on re-building the row of Phase IV N-S brick pillars positioned c. 1.25m from the eastern building wall. These were replaced by a new set of rectangular pillars, of which only the first course of stone-built foundation survives. These are described in the Results as N-S stone pillars 42, 43, 44, 51, 52 and 113 (p. 17; Fig 18). Similarly to the Phase IV N-S brick pillars, the Phase V pillars were built with their long-axis aligned N-S; they were placed at regular intervals to each other within their N-S row; and the N-S row they were placed in ran the length of the LOE, parallel to and with a uniform gap of c. 1.00m from the eastern building wall. Because the Phase V row of pillars was slightly offset by c. 0.25m to the east (with individual pillars offset to the north) of the row of underlying Phase IV pillars, the latter were only partially truncated by the Phase V structures.

The construction sequence for the Phase V N-S stone pillars was to lay the stones for their foundations (structures 42, 43, 44, 51, 52 and 113; Fig 18) directly onto the Phase IV floor surface (layers 46, 60, 75 and 117; Fig 17), truncating the Phase IV pillars down to this level where their footprints overlapped. The green-sand deposit of floor layer 45 was then compacted directly onto the stone foundations of the Phase V pillars, and around both these and the surviving edges of the Phase IV brick pillars. The remainder of the Phase IV pillar structures that hadn't been truncated by the stone pillars were then reduced to the level of the Phase V floor surface (45), thus leaving an 'imprint' of their demolished brick structure visible on the surface of floor 45.

As with all other internal features of preceding phases, the Phase V stone pillars were also subsequently demolished to the height of a single course. Although no evidence of an overlying superstructure survived on the surface of the

stone foundations, given the use of brick in the pillars from the previous phase, it is likely this material was also used in the construction of the Phase V pillars.

It is worth noting that there was no evidence for a corresponding row of stone pillars along the western side of the building. The reason for this could be that the Phase IV pillars along the western side of the building did not need replacing at the end of Phase IV. This is unlikely, as the effort and disruption involved with the Phase V renovations throughout the cellar building would not justify leaving older, dilapidated pillars when new ones could be built requiring little more effort or resources. It's more likely that during Phase V this area, adjacent to the western building wall within the LOE, instead of being used for storage of wine barrels was put to a different use involved in the process of wine production. This putative other use, however, left no traces in the archaeological deposits.

At the beginning of Phase V, floor layer 45 was laid physically overlying and sealing the Phase IV brick threshold, as far as the outer face of the western building wall (Fig 18). The last Phase V deposit (126) represents a repair to floor layer 45 at the entrance to the building, and extended c. 1.20m east into the building. As this is a repair of an original Phase V feature, 126 is seen as representing the final part of this Phase (see Stratigraphic Matrix; Appendix 1).

Possible earlier features retained in the Phase V cellar building

Other than the Phase Va construction slot 85 and its associated rectangular structure (see above, p. 87), floor layer 45 also respected the the Phase I cellar structures (81 and 106). These structures are interpreted as representing support ledges for elevated wine barrels, running adjacent to the respective western and eastern building walls in the southern half of the site. In addition to these earlier cellar features, layer 45 also appeared to have been laid abutting structures that were subsequently completely demolished in Phase VI. These possible structures were aligned N-S and were situated immediately adjacent to the eastern and western building walls in the northern half of the site. The E-W width of these putative structures is equivalent to the width of cuts for Phase VI N-S trenches 47 and 49, adjacent to the respective eastern and western building walls; also equivalent with the width of N-S trench 120, representing the likely continuation of trench 47 within Area 6 in the southern half of the site (Fig 5).

As described in the Phase IV section (p. 80), it is entirely feasible that these trenches represent demolition cuts of erstwhile structures similar in configuration and function to the N-S support ledges in the Phase I building (structures 81 and 106). If this interpretation is correct, the presence of these ledges adjacent to the building walls in the northern half of the site would, like the corresponding Phase I structures in the southern half of the site, also have been respected by the Phase V cellar floor (45).

The most convincing evidence for this was observed in the excavated sections across the cuts of N-S trenches 47 and 49, within Areas 1 and 2 respectively (sec 07; Fig 8, sec 03 and 04). Because these cuts were evidently created during Phase VI (see below), they must have been dug from at least the surface of the Phase V floor (layer 45). As described in the Results chapter (p. 16), the near-vertical edges of layer 45 at the respective interfaces with cuts 47 and 49 are a strong indication that floor 45 was laid abutting and respecting existing structures, set in from the

respective eastern and western building walls. It is this physical configuration of the edges of floor layer 45, together with the parallels observed in the Phase I cellar (N-S structures 81 and 106), that points to there having been similar support ledges adjacent to the building walls in the northern half of the building; these had to have been previous (or at the very least contemporary) features to the Phase V renovations for floor layer 45 to be laid vertically abutting them.

The evidence pointing to these ledges being from a previous phase is the fact that the cuts of demolition trenches 47 and 49 were dug to below the level of Phase V deposits, also truncating (at least in part) the underlying Phase IV floor layers 46 and 60 (sec 11; sec 03 and 07). The probable continuation of demolition trench 47 in the southern half of the site as N-S cut 120 (Area 6; Fig 6) also truncated the Phase IV floor surface in that area of site (layer 117). This suggests that the putative structures demolished by these cuts (47, 49 and 120) were originally constructed from a deeper level than the Phase V deposits and required the truncation of underlying Phase IV floor layers to completely remove them, as they were structural elements contemporary with those earlier floors.

Synopsis of the Phase V cellar building

The renovations undertaken to the cellar building during Phase V did not significantly alter its character, layout or function. These comprised primarily of laying a new compacted earth floor and repairing some of the Phase IV internal cellar structures. It is also worth noting that earlier cellar related features, namely the putative pressing-tank in the SW corner of the site (E-W structures 87 and 133; and construction slot 85), were retained during this Phase. This is indicated by the fact that floor layer 45 was laid respecting these structures and the rectangular area delineated by them (Fig 18). The only perceivable alteration from the Phase IV cellar structures is the apparent removal (or at least non-replacement) of the row of N-S brick pillars from the western side of the building.

The dating of the Phase V cellar renovations from artefactual material is impossible, given the complete absence of datable finds from any Phase V contexts. The mid- to late-C19th date attributed to the undertaking of these renovations is based on a reasonable estimate made from the date of the preceding Phase IV redevelopment in conjunction with historical analysis.

The late C19th phylloxera pandemic, caused by a tiny insect that feeds on the roots and leaves of vines, had decimated Franschoek's vineyards by the late 1890s. Records relating specifically to the Delta estate state that wine production had ceased on the farm by 1899 as a result. As such, the Phase V renovations would not have happened after that date or, presumably, the years leading up to it, when the effects of the "phylloxera plague" would have already begun to be felt by wine producers. Investment in an industry whose imminent future was uncertain, as a result of a blight not even apprehended at the time let alone believed to be combatable, would be highly unlikely.

The archaeological evidence clearly indicates that, at the beginning of Phase V, wine production continued to be regarded the mainstay economy of the Delta estate. Significant investment was made in the form of a full renovation and overhaul of its existing production facilities, which must surely date to before the effects of the

phylloxera insect on the Franschoek vineyards were noticed. However, the same historical records also show that the Delta estate was still producing award winning wine in 1894, and this alone may have been sufficient impetus for renovating the existing cellar on the estate. The date of the Phase V renovations could therefore plausibly be towards the very end of the date range ascribed to this Phase, potentially dating to the early 1890's.

Phase VI: from 1921

Phase VI sees yet another overhaul and change in the configuration of the internal building structures. The overall building footprint and internal open-space plan remained unaltered, but the changes to the configuration and dimensions of the Phase VI internal structures suggests a change in function to the building, corroborated by historical evidence.

Demolition of previous structures

All the structures from the cellar building of preceding phases were demolished at the start of Phase VI. This included all extant Phase V N-S stone pillars, together with the rectangular pressing-tank in the SW of Area 6 (represented by cut 85, structures 87 and 133), and any overlying structures to all other associated features in the southern half of the site, leaving only a single foundation course (represented by N-S ledges 81 and 106; Fig 18). In addition to this, the Phase VI N-S trenches 47, 49 and 120 are interpreted as cuts for the demolition of foundations of similar structures in the northern half of the site (discussed in Phase V; p. 88). Also described was the observation that demolition trenches 47 and 49 were cut directly into the Phase V floor surface (45), with the cut interface not evident through overlying deposits in plan or section, indicating that these must be Phase VI features. Floor layer 45 had been truncated during the current redevelopment within Area 6 in the vicinity of trench 120, and as such this precise phasing could not be proven for this feature, however the likelihood that trench 120 is the physical continuation of trench 47 to the north is suggested in plan (Fig 5 and 19).

Support for this interpretation, and further clarification on the demolition/ construction sequence, comes from observations of the upper fill (48) of N-S trench 47 within Area 1 and the (stratigraphically) overlying bedding deposit 09 for cement floor 08. Both backfill 48 and bedding layer 09 are identical deposits with no observable interface in section. This indicates they are in fact the same, equivalent deposit, representing both a contemporary final backfill (48) of N-S trench 47, and the simultaneous preparation (bedding layer 09) for the laying of the Phase VI cement floor 08 ([sec 07](#); described above, p. 16). As the cut of trench 47 is backfilled with an obvious Phase VI context (i.e. the equivalent deposit to the Phase VI bedding layer 09), this proves that trench 47 is a Phase VI cut contemporary with the laying of cement floor 08; it would not have been a cut from a previous Phase, left as an open trench in the floor surface while the building was in use, until it was eventually backfilled by the bedding layer (09) for the Phase VI cement floor (08). The possible reasons for the demolition of these putative N-S ledges in the northern half of the site during this Phase will be discussed below.

An explanation is also required as to why these putative structures (represented by N-S trenches 47, 49 and 120) were demolished in the northern half of the site, but those interpreted as the (original) continuation of identical structures in Areas 5 and 6 (N-S ledges 81 and 106) were not. A plausible hypothesis that explains this discrepancy is based on the fact that the inferred continuous N-S ledges, adjacent to the building walls and extending the length of the LOE, were composed of structures built in different Phases. N-S ledges 81 and 106 were a component of the Phase I cellar that presumably extended as far as that building's northern wall (E-W wall 100). These may have been kept within the section of the Phase I building incorporated in the Phase II agricultural building extension (i.e. to the north of Phase II E-W partition wall 116). It would not have been until Phase IV, when the building was unified and fully converted to a cellar, that the suggested continuation of these ledges into the northern half of site would have been built.

A possible reason for their demolition and the survival of the Phase I structures to the south could be down to physical levels across the site. In Areas 5 and 6, the Phase IV floor layer 75 physically overlay the earlier (and also deeper) Phase I structure 81 and 106. When the foundations for the continuation of these structures to the north was built in Phase IV, they would presumably have been built in the same construction method observed for all such structures from all phases; that of laying the first course directly onto the previous ground surface without a foundation trench, which would inevitably result in the foundations for the later Phase IV ledges being laid at a higher (physical) level than the corresponding Phase I ledges to the south (81 and 106). Consequently, when it came to the construction of the Phase VI structures across the site, it was only the higher Phase IV foundations for the N-S ledges that required complete removal, whereas the same Phase VI structures could be built over the lower Phase I foundations surviving as structures 81 and 106.

Amongst other artefacts, backfill 48 of N-S demolition trench 47 yielded a sherd of European refined earthenware (SD08/048) dated to the C19th, but it was the presence of small cement fragments within underlying fill 89 that dates this feature to the C20th. The backfill (119) of trench 120 within Area 6 (the interpreted continuation of demolition trench 47 in the southern half of the site) provided a relative abundance of datable artefacts (15 ceramic fragments in total, SD08/119/1 – SD08/119/15; Appendix 2). The majority date to the latter part of the C19th, but again the presence of four sherds of English cream-ware also date demolition trench 120 to no earlier than the beginning of the C20th.

E-W brick pillars

The Phase VI internal structures are characterised by the construction of rectangular pillars across the entire site, with their long-axis aligned E-W, arranged in two parallel N-S rows on the eastern and western side of the building. The remains of twelve such pillars survived within the LOE (structures 31, 109, 110, 112 and 132, and structure groups 14, 19, 24, 27, 30, 36 and 41; described above, p. 13). In the main Site Matrix diagram, only the group numbers are given for the E-W pillars represented by structure groups; for an expanded matrix of the respective components of each group see the Group Matrix diagram, also in Appendix 1.

The Phase VI pillars differed substantially from all other similar structures from any of the preceding Phases, not least in their greater overall dimensions and 90° rotation of their long axis compared to N-S pillars of Phases IV and V. The other major difference was that the Phase VI pillars were built with individual construction trenches, cut directly into the Phase V floor surface (45). These were then packed with sandstone cobble foundations and a brick structure built onto the stone foundations; in this respect probably reflected the construction method of the Phase V N-S stone pillars, their brick superstructure not having survived, though the latter had no corresponding foundation trenches.



Figure 18: Plan of features during Phase VI.

The foundation trenches for three of the E-W pillar groups (19, 36 and 41), as well as truncating the Phase V floor layer 45, were also cut directly into the upper fills of N-S demolition trenches 47 and 49 adjacent to the eastern and western building walls (Fig 5; described above p. 15). It is this direct relationship between the backfills of the demolition trenches (48 and 50) and the construction trenches for the E-W pillars, that explains the logistical need to demolish the putative N-S ledges of the Phase IV cellar with trenches 47 and 49. The earlier Phase IV structures must have obstructed the planned location for the E-W pillars, and so were removed to allow room for the stone foundations of the Phase VI pillars.

The demolition/ construction sequence for Phase VI pillar foundations would therefore have been as follows: initial demolition of Phase IV cellar ledges with cuts 47, 49 and 120; at the same time, construction cuts for all E-W pillars would have been dug; the demolition trenches (47, 49 and 120) would then have been backfilled to the level of the base of foundation cuts for the E-W pillars; the stone foundations for each pillar would then have been placed within each foundation cut, directly overlying part of the backfill of the demolition trenches in the case of groups 19, 36 and 41, and therefore 'cutting' the upper portion of these backfills (50 and 48 within trenches 47 and 49 respectively, Fig 5).

The upper brick structure of the pillars would then be completed, and the backfill for each pillar's foundation trench (and the bedding layer in preparation for cement floor 08) would then be deposited with the same material (represented by layer 09) as that used to backfill demolition trenches 47 and 49. This is why there is no observable distinction between backfill 48 and bedding layer 09, as they are the same deposit from a contemporary construction episode. However, as they represent two stages in the sequence they have been assigned different context numbers.

Phase VI cement floor

Once the bedding layers 09 and 73 (in the northern and southern half of the site respectively) were laid in place, a c. 40mm thick layer of cement concrete (floor 08) was poured around the completed E-W pillars. Cement floor 08 continued beyond the LOE to the north and south, most likely extending across the interior of the whole building; this is the floor surface currently in use within the Museum van de Caab, immediately north of the LOE, where the locations of at least a further six E-W pillars (subsequently demolished) can be seen as rectangular gaps in the cement floor surface. The laying of cement floor 08 is the last event of Phase VI.

Synopsis of Phase VI building

Yet another major, and this time absolute, overhaul of the building's internal structures is evident during Phase VI. The only features that remained extant from previous phases within the LOE (irrespective of window openings) were the outer building walls and the doorway in the western building elevation. The E-W pillars constructed in this phase, although obviously more substantial and with a different configuration, may still have been interpreted as a different variant of the pillar supports expected in a cellar for supporting barrels. Historical research, however, indicates that such an interpretation of these features would be incorrect.

As mentioned in the Phase V section above, the phylloxera pandemic had decimated Franschhoek's vineyards by the 1890s, with the year 1899 marking the end of wine production on the Delta estate as a result. From this point on, fruit farming became the main economy on the estate (Randle 2004). The ceramics recovered from the backfill (119) of demolition trench 120 indicate an early C20th date (SD08/119/5, 119/6, 119/14 and 119/16; Appendix 2). This is emphatically supported by the presence of cement as a construction material in the floor and render applied to the E-W pillars. Given that the first cement factory in South Africa dates to 1921 (Tim Hart pers. comm.), the principal material for the Phase VI cement floor 08 would not have been readily available in Franschhoek before this time. This places the Phase VI constructions well into the C20th, with the cement used as a construction material providing a *terminus post quem* of 1921. The structures built at the start of Phase VI cannot therefore relate to wine production, since it had been defunct on the estate for at least two decades.

The overhaul of the building at the start of Phase VI did not alter the building's open-plan layout within the LOE (or to the north within the Museum section of the building), and the E-W pillars built throughout the interior must represent some storage or industrial purpose. Therefore the overall use of this building on the Delta estate for a utilitarian or industrial, as opposed to domestic or livestock related, function appears to be continued in Phase VI. As the records relating to Delta revealed that fruit farming was the mainstay of the estate at the time (Randle 2004), if the function of this building remained as a place to process or store produce, these structures must in some way relate to fruit production on (or exportation from) the estate. After harvest, the only processes involved in this type production at the source are sorting and packaging before transport. Other than storage of produce, which given its nature should be as short lived as possible, the E-W brick pillars should be representative of structures associated with such processes.

When assessing the requirements for the processing and packaging of fruit, these consist of a work surface at a comfortable working height to either sit or stand at and manually sort and pack fruit. The E-W brick pillars could then be interpreted as supports for a work surface, possibly made from wooden planks, running the length of the building adjacent to the eastern and western building walls. In this respect, the overall function of the Phase VI E-W pillars is not so different from that of N-S pillars in the preceding Phases when the building was used as a wine cellar. The differences in size, orientation and construction methods observed between the Phase VI pillars and those relating to wine production, must be a product of their respective specific purposes in fulfilling the function of supports as either a work surface or storage of wine barrels off the ground.

When assessing these specific purposes in relation to structural features, the factor to be considered is height from floor surface rather than the load to bear. In the case of supports for wine barrels, the mass of each barrel may be several hundred kilos; historical records list seven leaguers (600 litre wine barrels) as part of the estate's property in 1710 (Randle 2004). However, these loads were only required to have been lifted a short distance off the ground to avoid contact with spills, and therefore their respective pillar supports would have probably not have exceeded a

height of 0.20m to 0.40m from the floor surface. When considering loading and unloading (smaller, regular) barrels for export from the estate after maturation, the lower these pillars could be to the ground the better.

Given these specifications, support pillars built with stone or brick can offer stable support for substantial loads, even if they have a relatively small structural footprint, providing the support height remains a short distance off the ground. Although we have no way of knowing how high any of these pillars originally stood off the ground, the individual footprint for each of the Phase IV and Phase V pillars (associated with the use of the building as a cellar) have a relatively small footprint when compared to the Phase VI pillars. A logical conclusion could be that the Phase VI pillars were built to withstand a greater load than the previous cellar structures. However, this would be incongruous with their respective purpose: the overall load exerted on pillars used in the processing and packing (or even storage of crates) of fruit is presumably less than that of a single 600 litre barrel or a stack of smaller ones.

When assessing height specifications, however, there are different structural requirements when using stone or brick as construction materials. A comfortable, ergonomic working height ranges between from 0.80m to 1.10m, from sitting to standing, for light manual work (source: Canadian Centre for Occupational Health and Safety website; see bibliography). A height range between c. 0.70m and 1.20m would therefore be estimated for the Phase VI pillars, if a work surface was what they were designed to support. The minimum height within this range is almost double the estimated maximum height (0.40m) for pillars in a wine cellar. To build a free-standing structure of this height from brick or stone, a proportionately greater surface area for the footprint of said structure is required for stability, rather than necessarily its capacity to bear a greater or lesser weight. In other words, pillars with a footprint of a similar surface area to the Phase IV and Phase V cellar pillars (average 0.34m²) would possibly be inherently unstable if built to a height of 0.70m (much more so at 1.00m) from the floor level, regardless of the weight they were intended to bear. This is a possible reason as to why, when compared with the cellar pillars of (at most) half the estimated height, the footprints of the Phase VI pillar foundations had on average double the surface area (0.68m²) and were also further stabilised with (albeit shallow) foundation cuts packed with stone foundations.

A possible reason for the 90° rotation in the orientation of the long axis of the Phase VI pillars in relation to cellar pillars, with the subsequent added complication of demolishing previously existing N-S ledges against the side building walls, could be one of storage. If the above interpretation is accurate, and the Phase VI pillars had a larger surface area due to their greater height as supports for a work surface, this still would not preclude them from having a north-south orientation like the previous pillars. In fact, with the pillars' long axis on a N-S alignment, the total number of pillars required along the length of the N-S building would be fewer. Instead of demolishing the N-S ledges associated with the cellar phases adjacent to the eastern and western building walls, these could have been built up as corresponding work surface supports along building walls. However, with this potential configuration, the majority of the space beneath the c. 1.00m high work surface would be inaccessible behind a brick pillar and therefore 'dead-space'. By orientating the pillars E-W a much greater area becomes accessible in the spaces between the transverse cross-section of each pillar, allowing greater storage of perhaps crates of packed fruit. This practical, utilitarian reason could explain the change in alignment of the Phase VI pillars to an E-W orientation, and justify the extra work of demolishing earlier cellar structures that this alteration entailed.

Regardless of the interpretation of the Phase VI structures, the overhaul of this building in this Phase continues the same trend of intensive, closely followed phases of (re-)development of this building. Similarly to preceding Phases IV and V, the Phase VI redevelopment of internal structures was comprehensive and undertaken throughout the building. In addition, the laying of a cement floor (08) at the beginning of this Phase, though a common and

appropriate material used within modern buildings with a similar function, in the early C20th would have represented the use of a state-of-the-art construction material of the period. Its use within, what was essentially, a fruit-packing 'shed', again represents a substantial investment in this building that perhaps went beyond its purely utilitarian requirements.

In this regard, historical analysis has provided details on the source of this investment. In the year 1899, the farm was purchased by Harry Pickstone, and remained part of his estate until his death in 1939 when it was transferred to his widow (Randle 2004). Whilst under the ownership of Pickstone, there is evidence for a massive building programme across the whole of the Delta farm, with practically every extant older building at Delta farm today having evidence for some alteration or modernisation (such as cement floors) dating to this period. This pursuit of modernisation, and the obvious status implications carried with it, could explain the greater investment in the materials and construction methods used in the Phase VI redevelopment that perhaps went beyond purely utilitarian considerations.

Phase VII: from c. 1930s until 2002

The internal layout and function of the building changes entirely during this Phase. The internal space is partitioned into six farmworker apartments, arranged as a terrace from the south of the building. The northern section, currently housing the Museum van de Caab, was left as a store for agricultural equipment (Fig 3). Of this layout, the only currently surviving structures are the southern wall to the Museum, delineating the northern LOE, and wall 71 along the southern LOE (Fig 20); the apartment partitions to the south of the site have also been incorporated into the current redevelopment, and the layout of the extensions of these apartments onto the western elevation has been demarcated by a brick course exposed on the surface of the current concrete *stoep*.

The first event of Phase VII would have undoubtedly been the demolition of the E-W pillars. The partition walls for the divisions within and between each apartment were then built directly onto the Phase VI cement floor 08 (walls 04, 06, 05 and 71 within the LOE; Fig 3). A sifted-silt deposit 07, representing the mortar bond used in the construction of these walls, survived as a fragmented, thin bedding layer on the surface of floor 08 (Fig 20). This delineated the course of the Phase VII partition walls, which had been demolished prior to the archaeological investigation within the LOE.

Once all partition walls were constructed, a bedding layer in preparation for a poured concrete floor was then laid within each internal division, up against and directly overlying the partition walls. This was represented by layers 02 and 03 on either side of wall XX, partly surviving in the NE and NW quarters of the site. Cement floor 01 was then poured directly onto these bedding layers (02 and 03), representing the floor surface to all the Phase VII apartments; apart from two *in situ* fragments of this floor surface (Fig 20), this had also been completely removed from within the LOE during the current redevelopment.

Synopsis of the Phase VII building

There is little to add with regard to interpretation of the function of the building during this Phase: Figure 3 clearly shows the domestic divisions created in each of the six apartments. Also, a full analysis of these structures had already been undertaken by the architect of the current redevelopment, Mr Trevor Thorold, and is part of a separate heritage assessment (Thorold unpublished).

In relation to the preceding phases, the redevelopment of this building to serve as apartments for farmworkers reflects a change in how this structure was perceived. At the start of Phase VI the decision was made to maintain the building's function as industrial and, at apparent significant expense, redevelop the interior into a modern, fruit-processing facility. By the start of Phase VII, perhaps this building was already thought of as antiquated and no longer suitable for this purpose. The construction of a subsequent, newly built fruit-processing facility on the estate is known from historical records, and dates to the 1930s (Mark Solms pers. comm.). This date probably marks the end of the industrial use for this building, and its conversion into domestic apartments probably occurred soon after.

This redevelopment of the building was actually undertaken in two stages: the first involved the creation of the four southernmost apartments in the southern half of the overall building (Apartments 3 – 6; Fig 3); at a later stage, the partitions for Apartments 1 and 2 were built at the same time that bathroom and kitchen facilities were added onto the *stoep* in front of the western building elevation. This second stage was completed within living memory and is dated to the mid-1950s by current staff at Delta farm, who used to live in or regularly visited these apartments.

The apartments remained occupied by families, with the northern Museum area used as a store for agricultural equipment until 2002, when more suitable accommodation for staff at Delta farm was provided elsewhere on the estate. The building remained unoccupied and in disuse until the redevelopment of the interior of the northern section into the Museum van de Caab in 2005. The southern portion of the building remained unaltered, until the current redevelopment and excavations in 2008.

Recommendations

Due to the developer's decision to turn this excavation into a display, the site was, ultimately excavated to beyond CRM standards. In order to turn the excavation into a display, a glass floor was laid across the LOE. Beyond the trenches necessary for the archaeological investigation, the deposits were further excavated for the purpose of establishing the integrity of the display and aesthetics, as well as for digging a number of square trenches for the footings of the steel frame that was to support the glass floor.

Once the square footings had been dug and the site 'shaped' to the required configuration for display, all exposed deposits and structures were sprayed with between three and four coats of a diluted PVA glue solution; consisting of five parts water to one part glue. Concrete was then poured into the square trenches and the steel footings were bolted to these. The frame was fitted to the footings and a ventilation system was installed to regulate air flow beneath the glass floor. This ventilation system incorporated a hepa filter for purification of the air and silica gel crystals for humidity control. The specially tempered glass was laid down in metre squares and sealed with silicone sealant.

The transformation of the site from an archaeological excavation into a display had two outcomes that affect the recommendations for the site. The first of these is that the site has been investigated to a point where no further mitigation is required. We were allowed sufficient time and scope in our work to excavate enough of the site to understand it fully.

The second outcome is that, having been turned into an exhibition, the site required the input of a conservator, and this input needs to be sought periodically in the future too. The floor will need monitoring for such things as rodent and insect activity, moisture build up and mould formation, as well as the physical deterioration of the excavation. It was suggested that the air circulation be changed from an extraction action to a pushing of air through the area, and this change should be considered (Nancy Child 2008). The hepa filter and silica gel crystals will also need periodic replacement. The glass panels are predicted to have a lifespan of ten years, but should the need arise, they can be individually lifted, replaced and resealed.



Figure 20: Phased plan of archaeological deposits left exposed beneath current glass floor.

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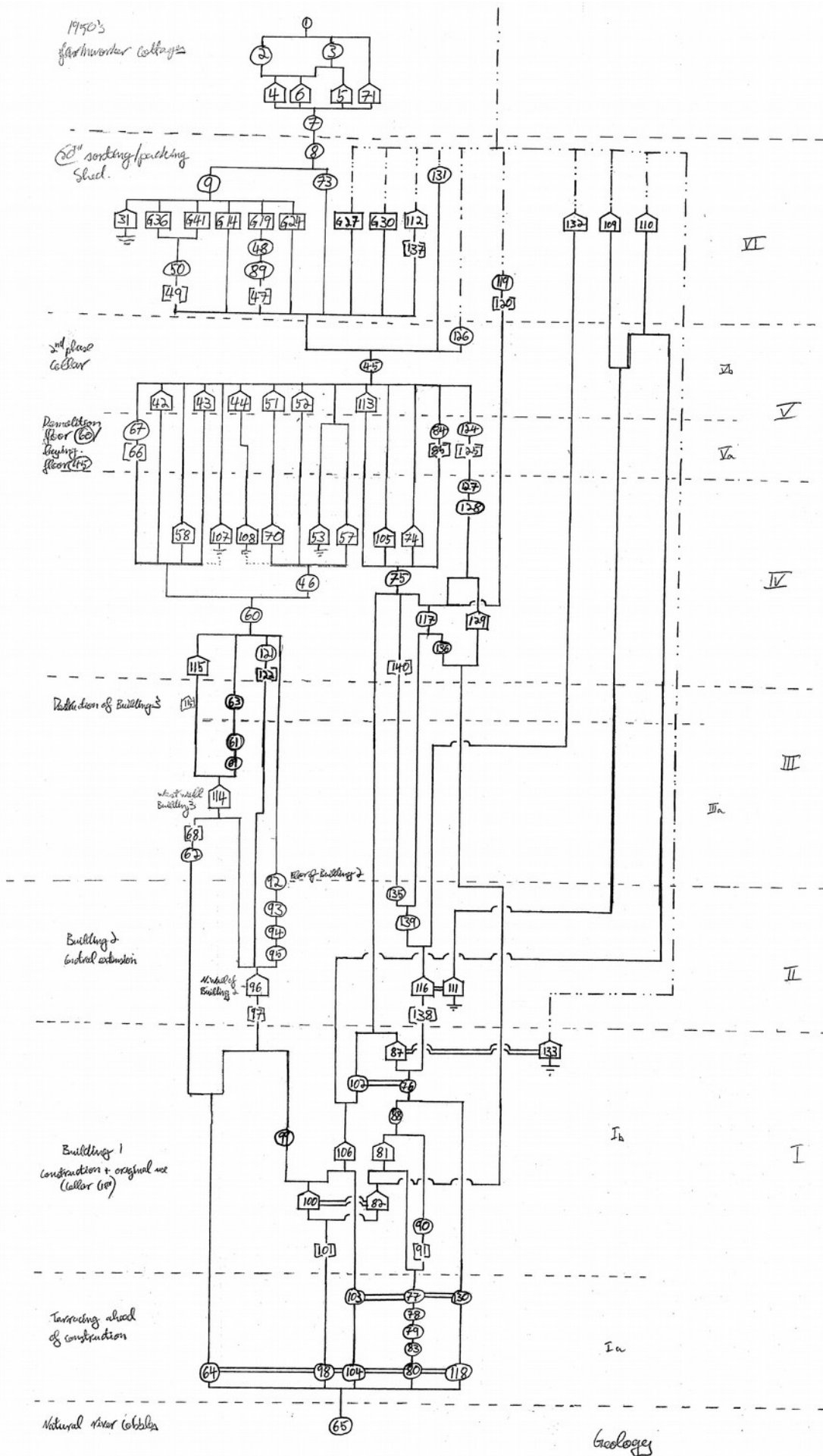
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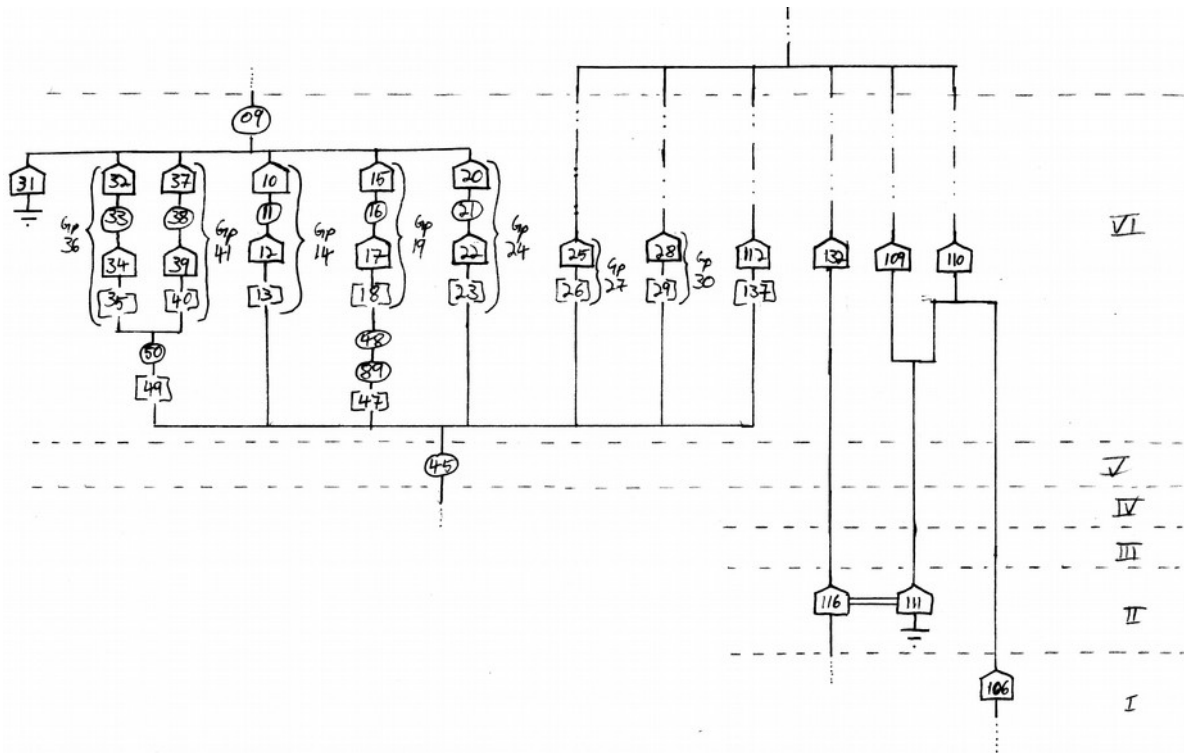
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Appendix 1: Stratigraphic Matrix diagram



Group Matrix diagram



Notes on Stratigraphic Matrix diagram

The conventions used in the Matrix diagrams to signify each type of context (whether deposit, cut or structure) follows that used on all site drawings:

- 08 - deposit number (fill or layer);
- [23] - cut number;
- 100 - structure number.

The relationship of any given context with every other context that it shared a direct stratigraphic relationship with, is represented by solid vertical and horizontal lines. Each direct over- or under-lying stratigraphic relationship for each individual context can be traced by the lines above and below it respectively, but only in a single direction at a time. For instance, the line leading up from wall 100 in Phase 1 branches out to both backfill 99 and structure 106, indicating wall 100 was directly overlain by both backfill and structure. The line leading down

from structure 106 branches to indicate it directly overlies both wall 100 and layer 103. However, the line leading down from backfill 99 indicates that it only directly overlay wall 100 but not layer 103, as a relationship between contexts can only be followed either up or down a vertical line at a time.

Solid horizontal lines that are interrupted when crossing a vertical line indicate relationship paths between contexts that have no bearing on the relationship represented by the vertical line. Double solid horizontal lines between contexts indicate that both (or more) context numbers represent the same, identical deposit or features in different areas of site. The same rule described above applies for double horizontal lines that are interrupted when crossing a vertical line.

Lines drawn with a dash-dot-dot represent an overlying truncation of the deposit or structure during the current redevelopment. Lines below a context ending in an arrow pointing down indicated this context remains unexcavated.

As well as representing physical relationships between archaeological contexts, the vertical dimension of the Matrix diagram is also a representation of their relative dates. This is exemplified by the division of the sequential Phases (I – VII) along the right margin; the horizontal dashed lines indicate the start of the subsequent Phase or sub-phase. On the left margin are listed the interpretations for these phases as given in the Interpretation chapter.

In addition to this broader phasing, wherever two or more contexts were interpreted as being contemporary but had no direct stratigraphic relationship they were placed on the diagram at the same horizontal level as each other within their respective phase. For instance: all E-W pillar groups within Phase 6, although they have no direct stratigraphic relationship with each other and were variously overlain by and overlay different contexts, were nevertheless built 'at the same time' and are placed at the same horizontal level on the diagram; the same can be said for N-S structures 81 and 106 within Phase Ib, located at either side of the building but nevertheless interpreted as identical, contemporary structures.

One other important aspect of this diagram is that it records all observed and *proven* stratigraphic relationships on site (i.e. no speculated relationships are linked by solid lines). This means that although single or whole groups of contexts may move either up or down vertical lines into different Phases, as absolute dating evidence recovered from specific features could suggest, their relative sequence as illustrated on the diagram can not be altered without proof through excavation. In other words, as the illustrated relationships were physically observed during excavation, any dating or other evidence that suggests this sequence is incorrect should be exhibited in the site's stratigraphy.

For instance: any number of artefacts may be recovered from within cut 138, assigned to Phase II, that suggest it more closely correlates to dates of artefacts recovered from features of a later

Phase. There is nothing in the recorded stratigraphy precluding cut 138 and all the overlying contexts within Phase II (structures 116, 111, and deposits 139 and 135) from moving up into either Phases III or IV. It may even push overlying contexts further up the diagram into later phases; however, any evidence that suggests these contexts are *stratigraphically* more recent than directly overlying demolition cut 140 in Phase IV, or any other context directly above, must be shown in the stratigraphy through excavation before it can be accepted.

Appendix 2: Ceramic Report