

Introduction

Some comments have been received on the Interim Report on the Jordan River Levee Excavation (April 2010). Most of these comments relate to issues that will be covered in the final report. Specifically, things like dating, final artefact analyses, ground penetrating radar and geomorphology will be addressed only when the final report is produced over the next few months, and it is not intended to add substantially to these topics until then. Moreover, while the final data sets for these topics will embellish the reporting on the site, they will not substantially alter our interim determination of either the age, character, or significance of the site. For the most part, the interim report should equip people with sufficient information to begin discussions about management of the site and its surrounds. - this was the prime purpose of issuing the interim report.

Several comments we have received relate to the notion of how we might best define the Jordan River site. This is certainly an important issue, and one not given perhaps enough prominence in the interim reporting. As it has considerable bearing on how the site is managed into the future, we thought it prudent to elaborate further on the topic in this addendum to the interim report, prior to issuing the final document.

The discussion below relates to an "archaeological" definition of the site. It is important to note that this may be different from the Aboriginal definition of the site, or cultural landscape. While the archaeological research may have a bearing on how Aborigines define a site, they may use a different set of criteria for both defining the area of a site and assessing its importance. A separate cultural report is presently being prepared by the Aboriginal community.

Historic Context

The site (designated TASI 10757) was located by Stone and Everett (2008) during their survey for the Northern Section of the Brighton Bypass. They described the site and its setting as follows:

The floor of the Jordan River valley between the South Line Railway and the east bank of the Jordan River contains the Jordan River floodplain. This is a Late Quaternary to Holocene depositional unit of fine sand, silt and clay that forms a ~200 m wide alluvial flat within the proposed bypass corridor. The present-day Jordan River is inset below the flat in clayey channel deposits lined by willows. The flat is capped by a prominent silt levee that forms the upper floodplain surface.

TASI 10757 is an extensive surface scatter of stone artefacts located on the alluvial flat on the west side of the Jordan River. The landform containing the artefacts is ~1000 m long and ~300 m wide. Artefacts are distributed across the entire Northern Section where it crosses this landform and for at least 100 m either side of the Northern Section boundaries. On the basis of this survey sample, the boundaries of TASI 10757 are inferred to approximate the entire alluvial flat.

A significant geomorphic feature of the alluvial flat containing TASI 10757 is a >2 m thick levee formed by the gradual overbank deposition of silt. Twenty artefacts (mostly waste flakes struck from chert and silcrete) are exposed on the silty soil surface. More may be buried and possibly stratified by deposition of the silt, in which case, the levee may preserve an important record of technological change.

TASI 10757

Site Type: Open campsite represented by scatter of stone artefacts.

Location: This site is located between the South Line Railway and the Jordan River on the southeastern outskirts of Brighton downstream from the rail bridge.

GDA References: 0521774 5271980 (northernmost artefact recorded), 0521776 5271882 (approximate centre of site), 0521828 5271800 (southernmost artefact recorded).

Environmental Setting: The site is located on a large alluvial flat between the main channel of the Jordan River and the rail line that skirts the adjoining basalt hillslope. Silt levee deposits cap the alluvial flat, forming an elongate ridge parallel with the river. These deposits have been ploughed and sown with crops. Sandstone cliffs form a backdrop to the site. These contain several small, "unoccupied" shelters.

Site Aspect: East.

Site Size: The alluvial landform containing the artefacts is ~1000 m long and 300 m wide. This is larger than the area indicated by the GDA references above.

Visibility: Ploughing has exposed ~30 % of the alluvial soil surface. Shallow subsurface sections (~50 cm deep) are available along the fenceline fronting the inset river channel.

Site Contents: Twenty artefacts were visible on the surface. Most were waste flakes <4 cm struck from chert (~90 %) and silcrete (~10 %). Other artefact types

included chert scrapers (1 flat and 2 thick-edge), a large siltstone core and a 5 cm long silcrete blade.

Management Considerations: Proposed construction of embankment will disturb part of the site. Subsurface archaeological investigation is required to provide more information about the scientific significance of the site. Permit from AHT will be required for the investigation and any subsequent works.

Stone and Everett (2008).

The above description was based on an intensive surface survey conducted at a time when ground surface visibility in the area was good to excellent (reported to be ~30%).

Discussion

With the hindsight of our preliminary excavation results, a number of points have emerged which suggest the site definition above should be modified, or at least brought into question. These are detailed below.

1. The Original Site Description:

The original description is somewhat contradictory in its assessment of site size. Initially it states that "Artefacts are distributed across the entire Northern Section where it crosses this landform and for at least 100 m either side of the Northern Section boundaries." It says that "twenty artefacts are visible on the surface". The map of the site in the report does not show the distribution of these 20 artefacts. However, later in the report it is stated that: "A significant geomorphic feature of the alluvial flat containing TASI 10757 is a >2 m thick levee formed by the gradual overbank deposition of silt. Twenty artefacts (mostly waste flakes struck from chert and silcrete) are exposed on the silty soil surface." This description seems to indicate that in fact the 20 surface artefacts are concentrated on the levee feature, not the entire floodplain as previously stated.

As the mapping of TASI 10757 in the Stone Everett (2008) report does not show the artefact distribution, it is difficult to reconcile these contradictory statements. However, mapping held by the Environmental company responsible for the overall assessment, GHD, in fact shows that the 20 artefacts are confined almost entirely to the levee deposit and are not spread across the entire floodplain (see Figure 1). It appears from this mapping that 17 of the artefacts are located on the levee and 3 are just off - 2 to the east and 1 to the west.

2. Site Registration:

Given the distribution of surface artefacts, and the obvious contradiction outlined above, raises the question about why the entire floodplain was designated as TASI 10757. Certainly if the consultant was able to demonstrate that the entire floodplain had significant archaeological potential then this could have been simply highlighted in the report and a programme of action outlined to proof the contention. Site 10757 could then have been modified to accommodate such findings. It seems odd that an entire land system is designated as a site without any real data.

3. What is On Either Side of the Levee and Should it Form Part of the Site:

Comments on this point should be read with reference to **Figure 2** which is a schematized version of the floodplain and levee.

The modern floodplain to the east of the levee (between the levee and the Jordan River) according the GHD mapping contains 1 artefact which is located

a metre or so from the face of the levee. There is another artefact that was relocated by Paton that is actually on the face of the levee. It seems highly likely that both of these finds are derived from the levee and have been moved by natural or human agencies. No artefacts were located on the body of the modern floodplain itself despite an intensive survey by Stone and Everett (2008) with conditions of 30% ground surface visibility. Moreover, two 50cm X 50cm test pits were excavated in this area as part of the Northern Bypass test pitting programme. These pits, dug to a depth of 45cm showed a homogeneous black clay devoid of any cultural material. It should also be noted that a dam for wet sieving was excavated by machinery on the floodplain. This dam measured approximately 4m X 5m and was dug to a depth of about 110cm. The digging was monitored by the Aboriginal Heritage Officers and the Principal Archaeologist. Again, the sediments were all a homogeneous black clay containing no visible Aboriginal artefacts. Of great relevance, however, was the location of a European house stove and several piles of modern brickwork at a depth of about 1 metre below the surface. This of course indicates massive and significant disturbance of this modern floodplain. Presently, there is certainly no evidence to suggest there is any signs of Aboriginal occupation on the modern floodplain to the east of the levee. Figure 2 shows the most likely formation process for the levee. To test this archaeologically via an excavation programme would be a significant and costly undertaking without any foreseeable benefits based on present evidence.

To the west of the levee Stone and Everett (2008) located 1 artefact during their surface survey. This is shown on Figure 1 and is situated some 30m west of the levee. Our excavations towards the western edge of the levee (Pits 6-8) indicate that Pit 8 is off the levee but nevertheless does contain some artefacts. It is likely that others will be present, sub-surface further to the west in a scalloped pattern. Some of these may have been deposited by Aborigines, but many will have been moved by ploughing and modern movement of the top 20cm of the sediments. Our excavations have demonstrated quite clearly that the top 20-30cm of the levee and surrounds has been ploughed and highly disturbed. To test archaeologically exactly where the artefacts end west of Pit 8 would require a large number of test pits to be spread across the zone of potential impact, as the site will not end in a straight line. This is the only way to define the edge of the site archaeologically. While this may be worthwhile if we were dealing with the intact levee itself, here we would only be defining artefacts completely out of situ and in a plough zone. Moreover, to the west of Pit 8 the area is a backswamp that regularly fills with standing water. Such an area is unlikely to have in situ archaeological deposits. Again, Figure 2 illustrates this graphically.

It could be argued that there may be some potential for artefacts to be present in the lower, older floodplain unit beneath the topsoil. This is a possibility, albeit a low one. Our findings from the 4 sondage pits found no cultural material in this layer. Moreover, an inspection of the quarry face to the south where we took our OSL samples showed no sign of human activity. So far this

is an interesting geomorphic unit, certainly worthy of some form of investigation if it to be highly disturbed.

4. General Comments

Definitions of site boundaries will always be a matter of some debate. And one must always bear in mind that this is a scientific, or archaeological definition, and not an Aboriginal one. Nevertheless, several observations can be made:

- it would appear that the original assessment of the site by Stone and Everett (2008) is an amalgam of a surface recording, a geomorphic recording and an unstated potential archaeological assessment. It would have been prudent to recognise this during the registration of the site and question its boundaries accordingly.
- there is no significant evidence for the site between the artefacts recorded by Stone and Everett (2008) on Figure 1 and the Jordan River.
- between the western edge of the levee (Pit 8) and the present edge of the site, there is only 1 stone artefact and this is outside the area of potential impact. It is likely that there will be some additional sub-surface artefacts in this area contained within disturbed deposits. It should be noted that this area is a backswamp and is unlikely to have been occupied and have any in situ archaeological material. There is some very limited potential for artefacts to be located in the ancient floodplain and if this is to be highly disturbed a mitigation plan should be formulated.

Overall, the most significant scientific part of the site is the levee itself for the reasons stated in the interim report. Nevertheless it needs to be recognised that this assessment does not take into account Aboriginal views and assessments of sites and cultural landscapes.