ARCHAEOLOGICAL ASSESSMENT OF THE EAGLE FARM AGRICULTURAL ESTABLISHMENT, FEMALE FACTORY AND PRISON, EAGLE FARM, BRISBANE, QUEENSLAND.

STAGE 2.

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ACKNOWLEDGEMENTS.

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1. INTRODUCTION.

This second stage of the archaeological investigation of the Eagle Farm Agricultural Establishment, Female Factory and Prison was commissioned on 12 April 1991 by the Australian Construction Services in Brisbane, Queensland. Its purpose was to complete the recommendations made in an earlier report on the site, namely:

Edward Higginbotham, 1990. Historical and archaeological assessment of the Eagle Farm Agricultural Establishment, Female Factory and Prison, Eagle Farm, Brisbane, Queensland. Australian Construction Services in Brisbane, Queensland.

The site is located within the present boundaries of the international airport at Eagle Farm, Brisbane. The boundaries of the site have been described by the Australian Heritage Commission as follows (Figure 1.1):

'Approximately 12 ha. located under and around the south-eastern end of runway 13/31 at Brisbane Airport, comprising the land occupied by and all foundations and portable artefacts of the former farm and prison/factory, as delineated in Department of Transport Plan BS 7216, dated July 1979.'

This plan, namely Commonwealth of Australia, Department of Transport, Queensland Region, BS 9216, indicates the site of the former penal establishment as shown on the survey by Henry Wade, entitled 'Moreton Bay District. Plan of Small Farms situate in the Parish of Toombul, County of ', submitted to the Surveyor General, with written descriptions, on 22 August 1842.

The above report made the following recommendations for test-trenches to assess the survival of the site:

1. a number of small test-trenches, 1 metre wide, should be excavated by machine at the southern end of runway 13/31, both through the runway surface and on the graded apron, in the vicinity of the archaeological site.

2 Wade 1842.
2. These test-trenches should not be placed close to the sites of historic buildings, and unnecessary disturbance of archaeological deposits should be avoided.

3. These test-trenches should be excavated through the fill of the runway, and through to natural subsoil, so that the complete soil profile can be recorded.³

The above report also outlined the three options for the conservation of the site, based on its survival:

Option 1. Conservation as a historic site.

The site is of national significance in terms of its association with other historic places in New South Wales, Norfolk Island, and Tasmania. Should it survive without substantial disturbance, then the archaeological site should be conserved in its totality. In order to ensure permanent protection, consideration should be given to making the site a national park or historic site under the appropriate state or federal legislation.

Option 2. Controlled redevelopment.

The cultural significance of the site would be reduced, if it had been substantially destroyed by the construction of the runway or by other means. In this case, the surviving archaeological remains should be conserved, but development of the site could be allowed under controlled conditions. Structures could be placed outside the areas of surviving archaeological evidence, or constructed so as not to disturb the underlying soil. The latter could be achieved by using concrete slab or beam over fill layers.

There will be a need to ensure the permanent conservation of the surviving archaeological remains after the site is redeveloped.

³ Edward Higginbotham, 1990. Historical and archaeological assessment of the Eagle Farm Agricultural Establishment, Female Factory and Prison, Eagle Farm, Brisbane, Queensland. Australian Construction Services in Brisbane, Queensland.
Under this option, an alternative solution might be to complete the excavation of the surviving archaeological deposits, thereby removing the necessity of controls over redevelopment.

**Option 3. Redevelopment without further archaeological investigation.**

If all of the site has been destroyed, then it could be sold for redevelopment without any control to conserve archaeological deposits.  

The findings of this report allow for the reconsideration of the above three options.

The site was gazetted on the Register of the National Estate on 15 May 1990, and therefore comes under the provisions of the Australian Heritage Commission Act of 1975, as amended.  

The site would also be protected under state legislation, namely the Heritage Buildings Protection Act, 1990, and the Cultural Record (Landscapes, Queensland, and Queensland Estate) Act, 1987, were it to be transferred from the Commonwealth.

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5 R.R. 16490.
2. RESULTS OF TEST EXCAVATIONS.

The test excavation of the site was carried out and completed on 21 May 1991. A total of seven test-trenches were excavated to assess the survival of archaeological remains. The trenches were dug by machine, recorded and photographed, and later backfilled. Each trench measured approximately 1 metre wide by 2 to 3 metres long, and was excavated through the soil profile to the B Horizon. They exact position of each trench is to be measured by surveyors and a plan attached to this report. Figure 1.1 indicates the approximate position of each trench.

The trenches were placed to gain an overall picture of the condition of the site. A total of four trenches were dug into the apron of graded soil surrounding the runway (Test-Trenches 1 to 4), one trench was placed on the edge of the apron (Test-Trench 5), and two trenches were excavated through the surface of the runway (Test-Trenches 6 and 7). Care was given to avoiding the position of buildings, as indicated in the historical survey (Figure 1.1).

The excavation of the test-trenches confirmed the survival of the majority of the archaeological site, except for existing service trenches, other cable trenches, and an area where the topsoil had been removed. The results of the excavation are described below.
Test-Trench 1.

Soil profile.

<table>
<thead>
<tr>
<th>Depth</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 10 cms</td>
<td>Turf.</td>
</tr>
<tr>
<td>10 - 75 cms</td>
<td>Gravel and metalling of runway apron.</td>
</tr>
<tr>
<td>75 cms - 1 metre</td>
<td>A2 Horizon. Topsoil, medium grey, slightly sandy clay, some charcoal flecks and sandstock brick flecks.</td>
</tr>
<tr>
<td>1 - 1.5 metres</td>
<td>A1 Horizon. Clay, mid grey, with rare orange mottling.</td>
</tr>
<tr>
<td>1.5 metres +</td>
<td>B Horizon. Sandy clay, light grey, 50% orange mottles.</td>
</tr>
</tbody>
</table>

Interpretation.

This soil profile indicates the survival of the original soil profile. The grey colour of the clays and topsoil indicates generally poorly drained conditions. The charcoal and brick flecks in the topsoil are consistent with the clearance of vegetation and the occupation of the site in the 1820s to 1840s.
Eagle Farm Agricultural Establishment, Female Factory and Prison. Stage 2.

Test-Trench 1.
Test-Trench 2.

Soil profile.

<table>
<thead>
<tr>
<th>Depth</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 5 cms</td>
<td>Turf.</td>
</tr>
<tr>
<td>5 - 40 cms</td>
<td>Gravel and metalling of runway apron.</td>
</tr>
<tr>
<td>40 - 55 cms</td>
<td>A2 Horizon. Sandy clay loam, mid grey, charcoal lens at top and flecks throughout. Fragment of a hand-made nail found in this horizon.</td>
</tr>
<tr>
<td>&gt;1 metre</td>
<td>B Horizon. Grey sandy clay, with 80% orange mottles and staining.</td>
</tr>
</tbody>
</table>

Interpretation.

This soil profile indicates the survival of the original soil profile. The grey colour of the clays and topsoil indicates generally poorly drained conditions. The charcoal flecks in the topsoil are consistent with the clearance of vegetation and the nail fragment is consistent with the occupation of the site in the 1820s to 1840s.
Test-Trench 2.
Test-Trench 3.

**Soil profile.**

<table>
<thead>
<tr>
<th>Depth Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 5 cms</td>
<td>Turf</td>
</tr>
<tr>
<td>5 - 20 cms</td>
<td>Metalling and gravel of runway apron.</td>
</tr>
<tr>
<td>20 - 60 cms</td>
<td>A2 Horizon. Silty clay topsoil, grey with 50% orange mottles.</td>
</tr>
<tr>
<td>60 cms - 1.2 metres</td>
<td>A1 Horizon. Light grey clay with orange mottles. There is some disturbance of the above horizons by cable trenches.</td>
</tr>
<tr>
<td>1.2 metres +</td>
<td>B Horizon. Sandy clay, light grey, with 80% orange mottling.</td>
</tr>
</tbody>
</table>

**Interpretation.**

This soil profile indicates the survival of the original soil profile. The grey colour of the clays and topsoil indicates generally poorly drained conditions.
Test-Trench 3.
Eagle Farm Agricultural Establishment, Female Factory and Prison. Stage 2.

Test-Trench 4.

Soil profile.

<table>
<thead>
<tr>
<th>Depth</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 5 cms</td>
<td>Turf.</td>
</tr>
<tr>
<td>5 - 40 cms</td>
<td>Gravel and metalling of runway apron.</td>
</tr>
<tr>
<td>40 - 45 cms</td>
<td>Sandy clay lens, orange yellow. Redeposited B Horizon.</td>
</tr>
<tr>
<td></td>
<td>Probable road metalling.</td>
</tr>
<tr>
<td>45 - 60 cms</td>
<td>A2 Horizon. Sandy clay loam, mid grey brown. Charcoal flecks.</td>
</tr>
<tr>
<td>60 cms - 1.1 metres</td>
<td>A1 Horizon. Grey clay with few orange mottles.</td>
</tr>
<tr>
<td>1.1 metres +</td>
<td>B Horizon. Sandy clay, light grey, with 50% orange mottles.</td>
</tr>
</tbody>
</table>

Interpretation.

This soil profile indicates the survival of the original soil profile. The grey colour of the clays and topsoil indicates generally poorly drained conditions. The charcoal flecks in the topsoil are consistent with the clearance of vegetation. The redeposited clay layer or lens is interpreted a road metalling. It is in the correct position, relative to the historic survey plan, to be the main entrance roadway to the Farm.
Test-Trench 4.
Test-Trench 5.

Soil profile.

<table>
<thead>
<tr>
<th>Depth Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 5 cms</td>
<td>Turf.</td>
</tr>
<tr>
<td>5 - 18 cms</td>
<td>Metalling and gravel, of runway apron.</td>
</tr>
<tr>
<td>37 - 63 cms</td>
<td>In situ burnt A1 Horizon clay, light grey, powdery and friable. Orange sandstock brick fragments and flecks. In another part of the trench, the top of the A1 Horizon has been burnt to a sufficiently high temperature to fire the clay into two laminated layers of hardened clay. The friable and powdery nature of the burnt A1 clay is similar to the breakdown of a poorly fired sandstock brick. Moisture breaks down the matrix of the fired clay, rendering it friable and powdery. In this same layer were found pieces of burnt timber and charcoal.</td>
</tr>
<tr>
<td>63 cms - 1 metre</td>
<td>A1 Horizon. Clay, light grey with 10% orange mottles.</td>
</tr>
<tr>
<td>1 metre +</td>
<td>B Horizon. Sandy clay, light grey, with 80% orange mottling.</td>
</tr>
</tbody>
</table>

Interpretation.

This soil profile indicates the survival of the original soil profile. The grey colour of the clays and topsoil indicates generally poorly drained conditions. The charcoal flecks in the topsoil are consistent with the clearance of vegetation.

The presence of poorly fired brick and the in situ burning of the underlying A1 Horizon is interpreted as evidence for a moderately intense fire in the vicinity. The most probable interpretation is for a primitive clamp kiln for sandstock brick. The brick type found would be consistent with the Government Farm, Female Factory and Prison. Of the bricks fired here, only the best examples would have been used in the construction of fireplaces and chimneys in the establishment, the remaining poorly fired bricks would have been abandoned. The local grey clay was highly suitable for brick manufacture.

It is very unusual to locate the kilns for the local firing of bricks for an establishment such as this. The trench was placed quite inadvertently on the side of a possible clamp kiln. This evidence adds another facet to the picture of the Eagle Farm Establishment,
and demonstrates the potential of archaeology to contribute to our understanding of the site.

**Test-Trench 5.**
Test-Trench 6.

Soil profile.

<table>
<thead>
<tr>
<th>Depth</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 30 cms</td>
<td>Bitumen. Upgrading of original runway.</td>
</tr>
<tr>
<td>30 - 65 cms</td>
<td>Metalling, gauge approximately 1 - 2 cms. Upgrading of original runway.</td>
</tr>
<tr>
<td>65 - 90 cms</td>
<td>Metalling, gauge approximately 1 - 2 cms. Upgrading of original runway.</td>
</tr>
<tr>
<td>90 cms - 1 metre</td>
<td>Bitumen. WWII runway.</td>
</tr>
<tr>
<td>1 - 1.1 metres</td>
<td>Gravel, tar stained. WWII runway.</td>
</tr>
<tr>
<td>1.1 - 1.15 metres</td>
<td>Disturbed A2 Horizon. Dark grey brown sandy clay. Extensive charcoal flecks and staining.</td>
</tr>
</tbody>
</table>

Interpretation.

This soil profile indicates the composition of the original WWII runway at the end of the runway, where metalling may be expected to be thicker. The runway was constructed with only the partial and possibly unintentional removal of topsoil. This method of construction is therefore not of the best quality or standard.

When the runway was upgraded to international standard, 60 centimetres of metalling were graded over the original surface, and then 30 centimetres of bitumen. This would have raised the surface of the runway by 90 centimetres along its centreline, sloping off towards each side. The raised apron around the runway would have only needed to be flush with the runway tarmac at its edges, explaining the depth of fill for the apron, as found in Test-Trenches 1 to 4.

The A1 Horizon survives to a depth of 60 centimetres above the B Horizon. This is consistent with the depths recorded in all other trenches. The A1 Horizon is therefore interpreted as intact at this point. It has not been shaved off during runway construction.
Test-Trench 6.
Upper profile.
Test-Trench 6.
Lower profile.
Test-Trench 7.

Soil profile.

0 - 24 cms  Bitumen. Upgrading of original runway.
24 - 40 cms  Metalling, gauge approximately 1 - 2 cms. Upgrading of original runway.
40 - 41 cms  Bitumen. WWII runway.
41 - 65 cms  Metalling and gravel. WWII runway.
65 - 90 cms  A2 Horizon. Silty clay, grey brown. Charcoal flecks and in situ burning of roots. Some of the clay in the soil has been scorched, and is now a light grey colour and powdery texture.
90 cms - 1.5 metres  A1 Horizon. Grey clay with yellow mottling.

Interpretation.

This soil profile probably indicates the standard composition of the original WWII runway for most of its length. This trench is sufficiently far from the end of the runway not to require extra metalling. The runway was constructed without the removal of the original topsoil, and in addition the tar seal is of minimum thickness. This method of construction is therefore of low quality and standard.

When the runway was upgraded to international standard, 16 centimetres of metalling were graded over the original surface, and then 24 centimetres of bitumen. This would have raised the surface of the runway by 40 centimetres along its centreline, sloping off towards each side. The raised apron around the runway would have only needed to be flush with the runway tarmac at its edges, explaining the depth of fill for the apron, as found in Test-Trenches 1 to 4.

The A2 Horizon and lower soil horizons survive intact. The evidence of burning is consistent with the clearance of vegetation for the Eagle Farm Establishment.
Eagle Farm Agricultural Establishment, Female Factory and Prison. Stage 2.

Test-Trench 7.
Upper profile.
Test-Trench 7.
Lower profile.
2.1. Conclusions.

Test-Trenches 1 to 7 have demonstrated the likely survival of archaeological deposits of the Eagle Farm Agricultural Establishment, Female Factory and Prison.

Every attempt was made to place the trenches to obtain a representative assessment of the survival of the soil profile. Only in the centre of the runway at its SE end was the soil profile disturbed by the partial removal of the A2 Horizon. Elsewhere disturbance is likely to be minimal, and the result of linear trenches associated with stormwater drainage and cables for runway lighting. The apron was composed of material foreign to the locality and could not have been obtained by digging in the vicinity of the archaeological site.

The survival of the soil profile indicates that the archaeological site may survive largely intact. Even the removal of topsoil in Test-Trench 7 and its vicinity will not strongly influence this outcome. The reason for this may be understood by a brief appraisal of the sequence of events since the closure of the Eagle Farm Establishment in 1838. With the collapse or demolition of the associated buildings, the site was turned over to the use of small farms. Cultivation of the topsoil is likely, resulting in the progressive disturbance of archaeological evidence in the A2 Horizon. Structural evidence, apart from possible brick fireplaces, is therefore unlikely to have survived in the topsoil profile in any case. Its later partial removal for runway construction is therefore of little consequence. This situation is consistent with a large number of early convict sites, and does not detract from their archaeological potential.

The good state of preservation of the site is indicated by the survival of road metalling at the top of the A2 Horizon in Test-trench 4. This evidence indicates that the site may not have been cultivated since its closure in 1838.

The topsoil will only have retained the inorganic artifacts associated with the Farm and later occupation. These artifacts will be available where the topsoil does survive.

The A1 Horizon will therefore retain a substantial amount of archaeological evidence, the bases of most post-holes for the timber buildings and palisades, floor surfaces, drains, rubbish pits and the like. The possible survival of a clamp kiln for bricks has been noted in Test-Trench 5, the location of this feature at the interface of the A1 and A2 Horizons being typical of what might be expected. The supply of fresh water to the
Eagle Farm Agricultural Establishment, Female Factory and Prison. Stage 2.

Farm may also have required the sinking of one or more wells, features which provide ideal situations for the survival of artifacts, including organic materials.

The survival of structural and artifactual evidence for this important archaeological site is therefore predicted from the test-trenches excavated.
3. RECOMMENDATIONS.

The earlier report proposed three options for the conservation of the site, depending on its survival (see chapter 1 of this report). The finding of this second stage of the archaeological investigation, that the site may survive largely intact, necessitates the reappraisal of these options, as follows:

Option 1. Conservation as a historic site.

The site is of national significance in terms of its association with other historic places in New South Wales, Norfolk Island, and Tasmania. Since the site may survive largely intact, it should be conserved in its totality. In order to ensure permanent protection, consideration should be given to making the site a national park or historic site under the appropriate state or federal legislation.

The minimum curtilage of the historical site is indicated by the heavy outline in Figure 1.1.

The potential to develop this important archaeological site as a centre for archaeological research, for general education purposes and museum activities is largely unrecognised. An assessment of its tourist and other potential should therefore be made. This assessment may also point to the use of the site as a central attraction, to be surrounded by appropriate development (hotels, conference centres, etc) to enhance this focus of interest.

The interpretation of the site need not be a costly process. Full scale archaeological excavation is not necessary for this purpose. Interpretation may be based upon small archaeological excavations and the wealth of existing historical documentation. This evidence will already allow for the reconstruction of the site (for example, by using space frames, as at Risdon Cove, Tasmania, or other sites in the USA).

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1 Edward Higginbotham, 1990. Historical and archaeological assessment of the Eagle Farm Agricultural Establishment, Female Factory and Prison, Eagle Farm, Brisbane, Queensland. Australian Construction Services in Brisbane, Queensland.
Option 2. Controlled redevelopment.

Even with the survival of the archaeological site, the area could be redeveloped under controlled conditions. Major structures could be placed outside the area of the archaeological site, or constructed so as not to disturb the underlying soil. The latter could be achieved by using concrete slab or beam over fill layers. The low key use of the site for car parking is a possibility, with fill layers protecting the archaeological deposits, and a restriction placed on any trenches likely to cause disturbance. In effect the runway construction layers have provided protection for the site, although they initially caused some disturbance.

There will be a need to ensure the permanent conservation of the surviving archaeological remains after the site is redeveloped.

Again, the minimum curtilage of the historical site is indicated by the heavy outline in Figure 1.1.

Under this option the site is conserved, allowing for the future realisation of its cultural significance. Bearing this in mind, it is inappropriate to subdivide the site into a number of separately owned parcels of land, since the future acquisition or use of the site for interpretation may be jeopardised by this action.

Option 3. Redevelopment after full archaeological investigation.

It has been suggested that the site could be released for redevelopment after archaeological excavation, sufficient to recover the full archaeological potential of the site. In this case, the cost of the archaeological investigation may be set off against the improved sale price of the land, once it is unencumbered by the archaeological remains.

This option is considered not to be viable, since even with total archaeological excavation, the site still retains its historical significance, potential to demonstrate the way of life of the occupants of the penal
establishment (educational and interpretive potential), and other aspects of its cultural significance. There is also the consideration that some of the archaeological remains may be recommended for in situ conservation as a result of their excavation.

The remaining cultural significance of the site, even after archaeological investigation, may result in options 1 and 2 being the only viable courses of action.