NOTICE OF GENERAL MEETING

The fifth General Meeting of the Society for 1983 will be held in the Museum Education Building, North Terrace, Adelaide at

8.00 p.m. MONDAY, 25th JULY, 1983

AGENDA

1. Apologies:

2. Minutes of previous General Meeting:
   Minutes of the previous General Meeting, held Monday, 27th June, 1983 to be confirmed. A copy of these Minutes is attached.

3. New Members:
   No new members were elected to the Society for this month.

4. Papers and Journals:
   Papers and Journals from other Societies and Organisations will be tabled at the Meeting.

5. Business:

6. Speaker:
   Mr. Tom Gara will give an address to the Society entitled 'Aboriginal Rock Art of the Burrup Peninsula, W.A.'

7. Supper and TRADING TABLE.

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A PRELIMINARY REPORT ON 7 RADIOCARBON AGE DETERMINATIONS
FROM PLUMBAGO HISTORIC RESERVE

M.F. Nobbs July 1983

Acknowledgements: The radiocarbon age determinations were paid from a grant made by the Sturt C.A.E. Staff Research Fund. This assistance and the kindly advice of two of two staff members, David Mcyle and Brian Caton, is gratefully acknowledged. Val. Campbell - supervising Archaeologist - gave freely of her time and her help is appreciated.

Plumbago Historic Reserve (Figure 1) was proclaimed an Historic Reserve under the Aboriginal and Historic Relics Preservation Act 1965, in August 1972, in order that the many sites indicating Aboriginal occupation and the relics of early European settlement, discovered during the initial site recording programme (M.F. Nobbs) would have some measure of protection. Eight small areas of the Reserve were placed on the Register of the National Estate in October 1980. Site recording carried out during the last 13 years has resulted in the location of numerous Aboriginal surface campsites, more than 30 hunting hides, 15 Rock Art sites, quarry sites, gnammas and cisterns. New sites are being discovered each year, for example, in 1983 a particularly fine Aboriginal bough shelter was discovered.

Figure 1.
The area under discussion is in the granite hills where an abutment of four tribal boundaries occurs. The Ngadjuri, with the Jadialara, a tribe with Dieri affinities, occupied the western part of the area and the eastern half of the Olary Province was occupied by tribes having affinities with the Darling River tribes (Tindale 1974, page 214). In 1865 J.P. Buttfield - Acting Protector of Aborigines, during his six monthly tour of the Government Ration stations under his charge, reported no signs of Aboriginal people between Koonamore and Bimbowie. Drought had been severe and to avoid the waterless country north of the hills, his route was probably through the area under discussion. (J.P. Buttfield). The Ngadjuri, after contact with Europeans, contracted towards the Flinders Ranges and the last horde to leave the Province, left Minburra at about 1905 (Tindale 1974, page 214). The people living in the eastern part of the Province left during 1892 to seek sanctuary on Pooilamacca station in western New South Wales (Mawson and Hossfeld 1926, page 17).

Pastoral occupation of the area began in the early 1850's. The drought of 1862 to 1866, accentuated by heavy grazing by sheep and cattle of native plants, severely disrupted the Aboriginal way of life. By 1910 they were no longer using the natural resources of the area.

The very numerous overall scatter of surface artifacts, especially on sandy patches in the granite hills, the very numerous occupation sites and hearths and the great variety of imported lithic material, all indicate Aboriginal occupation of the area before the arrival of Europeans. M.A. Smith, for his thesis, excavated three surface hearths on the Reserve and the radiocarbon age determinations are as follows:

ANU 2305 - Modern i.e., within the last 200 years.
ANU 2306 - 
ANU 2304 - 900 - 170 years BP.

(M.A. Smith 1980).

The current report refers to two sites located on the Reserve as a result of continuing site recording activities by the author. The following stratigraphic descriptions represent an initial examination of the sites and may vary in detail in a future report based on more detailed geological examination.

Two subsurface stratified hearths have been recorded from the Reserve. One is located in the hills to the south east of the homestead, in the bank of a large watercourse - the Cons Bore site. The other is located in sediments forming the floor of a gully draining the Ethidna hills - the Ethidina site. (see Figure 1.)

Cons Bore: This site occurs in colluvial, loosely packed sediment in the bank of a large watercourse at Cons Bore. The watercourse occupies a small flood basin within the hills. When flooding occurs the watercourse actively erodes the bank, which is 2 metres high at this place. This active erosion causes large slump features at the foot of the bank. No soil horizons are present and the sediments of the bank appear to be unsorted, red sandy clays resting on boulder beds and gravels. Boulder bed form the lowest layer of sediments, level with the creek bed. Above the boulder beds gravel - pebble layers occur in the form of lenses and truncated layers, interpersed with the red sandy clays of the upper sediments. (Figure 2.)

Carbon layer Gak 10314: Immediately above the layer of gravel - pebble lenses is a layer of red grey material, 1.5 m long and 5 - 8 cm thick. A piece of charred wood was exposed at one end of the red grey layer. This piece of charred wood, when removed proved to be a completely charred twig. This charcoal was collected and together with charcoal from the other end of the layer, was sent for radiocarbon age determination.
Hearth 1. GaK 9883: This hearth is located in the upper part of an extensive carbon rich layer containing heatstones. This layer, 1.2 metres long, extends from 35 cm deep at the upper end to a depth of 65 cm at the lower end. Carbon from the upper part of this layer - a distinct hearth - was collected for dating.

Hearth 2. GaK 9884: This hearth is located in the same layer of charcoal and sandy clay as Hearth 1, but 50 cm from ground level. Carbon from below heatstones was collected for dating.

Hearth 3. GaK 9886: This hearth is located 10 cm below Hearth 2, and carbon was collected from behind a heatstone and sent for dating.

Hearth 5. GaK 9883: Surface hearth. Carbon was collected from below heatstones of a surface hearth eroding from the top of a gully which joins the watercourse 20 metres downstream from the main site.

Results:

<table>
<thead>
<tr>
<th>Material</th>
<th>GaK</th>
<th>Date (BP)</th>
<th>Calibrated Age (AD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon layer</td>
<td>10314</td>
<td>11490 - 200</td>
<td>BC 9540</td>
</tr>
<tr>
<td>Hearth 3</td>
<td>9886</td>
<td>3930 - 120</td>
<td>BC 1980</td>
</tr>
<tr>
<td>Hearth 2</td>
<td>9884</td>
<td>1250 - 110</td>
<td>AD 700</td>
</tr>
<tr>
<td>Hearth 1</td>
<td>9883</td>
<td>630 - 90</td>
<td>AD 1320</td>
</tr>
<tr>
<td>Surface hearth</td>
<td>9885</td>
<td>500 - 100</td>
<td>AD 1450</td>
</tr>
</tbody>
</table>

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**Figure 2:**

- **Figure 2:**
  - **Cons Boer & Stratigraphy:**
    - Carbon layer
    - Gravel and pebbles in lenses and truncated layers
    - Boulder beds
    - Unsorted fine and coarse sandy clays
    - Stratigraphy uncertain
    - Inferred gravel and pebble lenses covered by slump material
    - Inferred boulder beds

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**Ethiadina site (Figure 3.):** The subsurface hearth at this site was found on the bank of a watercourse draining a gully south of Ethiadina Trig. At this place there is evidence of an early European building and it is probably the site of the earliest Pastoral Lease recorded for the area. 10 square miles were taken by J.W. Tyler in 1854, and named Ethiadina.

The banks of the gully at this site are both 1.8 m high and the creekbed has cut in colluvium of fine sandy clays and gravels. The lower half of the face of the bank is covered by a slump feature composed of more compacted sedimentary material similar to the sediments above.

Rabbits had been burrowing under three blackened hearthstones and had disturbed dark grey material containing pieces of burnt wood. Carbon was collected from below the stones and sent for radiocarbon age determination. Hearth 1.

A surface hearth at the head of the same gully, 100 metres away, produced carbon from below hearthstone 2. Hearth 2.

In many respects this site has similar environmental conditions to those found at Cons Bore.

**Results:**

| Hearth 1. | GaK: 9887 | 4280 - 120 BC 2330 |
| Surface hearth 2. | GaK: 9888 | 850 - 130 AD 100 |
The evidence afforded by the presence of apparently in-situ large fireblackened
hearthstones in otherwise fine sediments forming the banks of watercourses at
Cons Bore and 20 km away at Ethiadina on Plumbago Historic Reserve, indicates
that the whole area supported human occupation for more than 3500 years. A very
numerous surface scatter of flakes and stone tools at Ethiadina, and Smith's
radiocarbon age determination for 3 surface hearths at other places on the
Reserve, provide further evidence of human occupation extending to modern times.
Although Cons Bore Carbon Layer Gak 10314 did not appear to contain visible
evidence of human occupation, it does establish a chronology of sedimentation
for this site and by inference for the region as a whole.
Continuing investigations within the region, may enable correlations to be made
with surface dated materials in adjoining areas of the Arid Zone, such as the
willandra lakes system in western N.S.W. Further dated material will be needed
to establish firmly the sedimentary history of the region and the chronology
of human settlement.

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