ENVIRONMENTAL DESIGN
A CASE STUDY - 'COOLART'

Project submitted for - Master of Landscape Architecture,
Centre of Environmental Studies,
University of Melbourne.

By - Janet A. Schapper, B.Sc.
November, 1980.
TABLE OF CONTENTS

Summary and Major Recommendations .......................... 1
Introduction .......................................................... 5
Method Outline ......................................................... 6
Phase One - Program development and Identification of relevant factors .................................................. 7
  - Summary of Program ............................................. 13
Phase Two - Analysis of Factors and their implications for the Landscape masterplan .......................... 14
  2.1. Regional and Administrative Context ....................... 14
      2.1.1. Location .................................................. 14
      2.1.2. History of Purchase and Administrative Framework .... 14
      2.1.3. Western Port Regional Influences ....................... 19
      2.1.4. Planning Considerations ................................ 20
  2.2. Ecological Factors ........................................... 23
      2.2.1. Geology & Geomorphology .............................. 23
      2.2.2. Soils ...................................................... 26
      2.2.3. Climate & Associated Factors ......................... 30
      2.2.4. Vegetation ................................................. 31
      2.2.5. Wildlife .................................................. 46
  2.3. Historical Analysis .......................................... 52
      2.3.1. Archaeology ............................................. 52
      2.3.2. The History of Coolart .................................. 56
  2.4. Tourist Pressure Analysis .................................. 62
  2.5. Landscape Analysis .......................................... 64
      2.5.1. Landscape Character .................................... 64
      2.5.2. Views from outside the site ......................... 66
      2.5.3. Views within the site ................................ 68
      2.5.4. Exterior spaces ....................................... 68
      2.5.5. Existing conditions .................................... 69
<table>
<thead>
<tr>
<th>Phase Two</th>
<th>Summary of implications for masterplan</th>
<th>73</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase Three</td>
<td>Development of Land Units</td>
<td>75</td>
</tr>
<tr>
<td>3.1.</td>
<td>Land Unit Derivation</td>
<td>75</td>
</tr>
<tr>
<td>3.2.</td>
<td>Description of Land Units</td>
<td>78</td>
</tr>
<tr>
<td>Phase Four</td>
<td>Concept</td>
<td>80</td>
</tr>
<tr>
<td>4.1.</td>
<td>Access to site and circulation within it</td>
<td>80</td>
</tr>
<tr>
<td>4.2.</td>
<td>Water bodies</td>
<td>81</td>
</tr>
<tr>
<td>4.3.</td>
<td>Vegetation</td>
<td>83</td>
</tr>
<tr>
<td>4.4.</td>
<td>Other major site elements</td>
<td>83</td>
</tr>
<tr>
<td>Phase Five</td>
<td>Masterplan and Management Guidelines</td>
<td>85</td>
</tr>
<tr>
<td>5.1.</td>
<td>House and environs</td>
<td>85</td>
</tr>
<tr>
<td>5.2.</td>
<td>Ornamental garden</td>
<td>86</td>
</tr>
<tr>
<td>5.3.</td>
<td>Vegetable garden</td>
<td>88</td>
</tr>
<tr>
<td>5.4.</td>
<td>Orchard</td>
<td>88</td>
</tr>
<tr>
<td>5.5.</td>
<td>The new drive and parking area</td>
<td>89</td>
</tr>
<tr>
<td>5.6.</td>
<td>Luxton Drive</td>
<td>92</td>
</tr>
<tr>
<td>5.7.</td>
<td>Lagoon</td>
<td>92</td>
</tr>
<tr>
<td>5.8.</td>
<td>The New Wetlands</td>
<td>92</td>
</tr>
<tr>
<td>5.9.</td>
<td>Pasture</td>
<td>93</td>
</tr>
<tr>
<td>5.10.</td>
<td>Shelter plantings</td>
<td>93</td>
</tr>
<tr>
<td>5.11.</td>
<td>Farmyard</td>
<td>94</td>
</tr>
<tr>
<td>5.12.</td>
<td>Coast woodland</td>
<td>94</td>
</tr>
<tr>
<td>Summary</td>
<td></td>
<td>95</td>
</tr>
<tr>
<td>Appendix I</td>
<td>Coolart Reserve Committee of Management</td>
<td>96</td>
</tr>
<tr>
<td>Appendix II</td>
<td>Coolart Reserve Regulations</td>
<td>97</td>
</tr>
<tr>
<td>Appendix III</td>
<td>Coolart Reserve Management Strategies</td>
<td>99</td>
</tr>
<tr>
<td>Appendix IV</td>
<td>National Trust Citation of Lagoon</td>
<td>101</td>
</tr>
<tr>
<td>Appendix V</td>
<td>National Trust Citation of Main House and Buildings</td>
<td>103</td>
</tr>
<tr>
<td>Appendix VI</td>
<td>Bird List</td>
<td>104</td>
</tr>
<tr>
<td>References</td>
<td></td>
<td>106</td>
</tr>
</tbody>
</table>
LIST OF MAPS AND ILLUSTRATIONS

Table 1 - Program development - Activity requirements and associated factors

Map 1. Location of Coolart - Relationship to Melbourne
Map 2. Location of Coolart - Local
Map 3. Ecological Analysis - Geology & Geomorphology
Map 4. Ecological Analysis - Soils
Map 5. Ecological Analysis - Vegetation
Map 6. The Garden Environments of Coolart
Map 7. Ecological Analysis - Wildlife
Map 8. Historical Analysis - Archaeology
Map 9. Historical Analysis - History
Map 10. Landscape Analysis - Views & Exterior Spaces
Map 11. Landscape Analysis - Existing Conditions
Map 12. Land Units
Map 13. Concept
Map 14. Landscape Masterplan

Diagram 1. Soil Types
Diagram 2. Typical Cross section through the coast woodland, from coast to scarp
Diagram 3. Archaeological 'finds' at Coolart
Diagram 4. Derivation of Land Units
Diagram 5. Hardpaved stepdown areas in garden
Diagram 6. New Entry
Diagram 7. Screen to Somers Camp

Plate 1. The Bridge, 19/10/1907
Plate 2. The Bridge, August, 1980
Plate 3. Rolling open pasture
Plate 4. The Luxton Drive plantation
Plate 5. Bird's Eye View of the Garden, 3/1/1899
Plate 6. Coolart House from the Croquet Lawn, 19/10/1907
Plate 7. The Garden
Plate 8. Autumn colouring in the garden
Plate 9. Entry to the rose garden
Plate 10. The existing drive, approaching the house
Plate 11. The track down from the main drive to the shearing sheds.
Plate 12. The vegetable garden.
Plate 13. The Lagoon from the south
Plate 14. White ibis nesting on the lagoon
Plate 15. The Lagoon from the bird hide
Plate 16. The stables
Plate 17. The west side of the 'barracks and house
Plate 18. The new wetland
Plate 19. Farm buildings
Plate 20. The Minsmere bird hide
Plate 21. Site for the new drive - before
Plate 22. Site for the new drive - after
SUMMARY AND RECOMMENDATIONS

Summary of Process

An environmental design case study has been undertaken on the Coolart Reserve, a coastal property on the shores of Western Port Bay, Victoria. This reserve has been purchased by the State Government, primarily for its wildlife and conservation resources and also for its historic interest. The Committee of Management required a landscape masterplan and to this end the following report has been prepared.

Possibilities for uses and activities were examined and suitable uses were selected in Phase One. Relevant factors were analysed and their implications for the masterplan explored (Phase Two). Land units were derived by overlaying the key factors. These units were then described (Phase Three). The design was carried further, firstly to the broad concept stage (Phase Four) and finally to the masterplan stage (Phase Five). At the masterplan stage, management guidelines are applied to the units.

Major Recommendations

- The primary use of Coolart should be for conservation and wildlife education and related recreation, the secondary use for historic and cultural uses and farming.
- Management should be directed towards optimizing conservation values while providing for public access and environmental education.
- The lagoon is Coolart's single most important resource and must be managed for wildlife.
- The rural and landscape character of Coolart must be maintained, as an excellent example of the Southern Mornington Peninsula landscape.
- The new drive must be completed and parking and pedestrian circulation provided. This is a high priority.
- Negotiate to manage Luxton Drive as part of Coolart Reserve. This is also a high priority.
- Provide fire track and access to the southern 'panhandle' area. This is urgent.
- Provide nature trails and bird observation points.
- Construct new wetland areas on the flat below the house and in the Coolart 'arm' of Merricks Creek and link wetland habitats.
2. Link lagoon vegetation to coast woodland with plantings. 
   Encourage regeneration of woodland.
- Construct an interpretive centre.
- Design paths to disperse visitors and reduce pressure on nodes.
- Restore appropriate historic buildings and use in a compatible manner.
- Record and monitor wildlife, vegetation, historic items and visitor numbers in case modifications to the landscape plan become necessary.
- Lease paddock out for grazing.
- Finally, manage for the public to enjoy and wonder at the richness and diversity of this very special environment.
ACKNOWLEDGEMENTS

During the preparation of this report the Coolart Committee of Management, its Chairman, Sid Cowling and the warden, Graham Pizzey have been unstinting with their time. They have also provided information and feedback at short notice.

Gerard Dale, Professor Roger Martin and Professor Carrick Chambers provided valuable guidance and assistance at key points of the project.
The Author of this plan submits the plan to the Ministry for Conservation on the basis that all care has been taken in its preparation but the author disclaims all liability to the Ministry or any other person or persons for any loss or damage which may be suffered by the Ministry or any other person or persons arising or which may arise as a result of the use by the Ministry of any material contained in the plan and the Ministry will indemnify the Author from all claims of whatsoever nature and howsoever arising as a result of the use by the Ministry of the material contained in the plan. This plan is copyright and, subject to permitted use under the Copyright Act, no part may be reproduced by any process without written permission of the Author.
INTRODUCTION

When the planning and design of a large and complex estate is undertaken, the people involved in that planning may have differing viewpoints, not always compatible, as to the use of the particular property. When potential uses conflict and many factors must be considered, it is necessary to assess carefully and systematically the property's potential and the impact of the suggested uses on the environment. The valuable resources which prompted the preservation of the estate in the first place must not be lost to pressures such as tourism. An approach to this complex problem has been defined here and applied to a case study – Coolart Reserve.

Late in 1977 the Victorian Government purchased the property known as 'Coolart', a pastoral property on Western Port Bay, between Balnarring and Somers. The purchase was prompted by the presence of a number of outstanding features, the major ones being a lagoon, gazetted as a wildlife sanctuary, a frontage to Merricks Creek with its associated woodland area, two historic homesteads and their associated outbuildings and gardens and farm surroundings.

In addition to these important features Coolart has a delightful rural character and has the potential to become an important conservation and education centre.

The quiet atmosphere and peaceful surroundings offer visitors a respite from the noise and bustle of urban living and allow the public to observe and appreciate the natural environment.

The Coolart Reserve is run by a Committee of Management, whose members are drawn from various relevant government departments and interested groups of citizens. The Committee decided that a masterplan, of which a landscape masterplan would be a part, was desirable, so that the future planning and development of the Coolart Reserve could proceed systematically and priorities for implementation of projects could be set. To this end the following report and associated maps were prepared.
Phase One  - Program Development and Identification of Relevant Factors

The potential uses and activities were identified and the requirements for these were outlined. Factors influencing different uses/activities were listed for analysis.

Phase Two  - Analysis of Factors and their Implications for the landscape masterplan

Relevant factors were assessed and their influence on the masterplan was outlined. These included the regional context and administrative framework, ecological, historic and landscape factors and an estimate of tourist pressures.

Phase Three  - Development of Land Units

Key factors were overlaid and from the resultant composite, land units were delineated and described.

Phase Four  - Concept

A design philosophy was outlined and a broad concept was developed, identifying different land uses, circulation patterns and facility locations.

Phase Five  - Masterplan and Management Guidelines

The concept was further detailed to the masterplan stage and priorities and guidelines for management were developed.
Coolart was reserved for public purposes (conservation and education) in March, 1978. The primary emphasis is on conservation, with the education value of the reserve being largely achieved through its conservation resources (Committee of Management, 1979, p.2). Hence the general use of the property is defined by the terms under which it was reserved.

The history of the property is also important as Coolart was one of the earliest pastoral 'runs' on the Mornington Peninsula (Rogers, p.71, 1960). The two successive homesteads and their associated outbuildings have been classified by the National Trust (National Trust of Australia (Victoria), October, 1979, p.8).

As Coolart has a frontage to Merricks Creek and has access to Balmarring Beach via a footbridge and a short track across the dune system, this area will be included when considering potential uses, although it is not inside the Coolart boundary. Similarly the Education Department camp which adjoins Coolart, and the private road, formerly Coolart's drive will be included in use/activity considerations. Under the general headings of conservation, education, historic interest, certain specific activities and requirements and their associated factors are considered in Table 1.
<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>Compatibility with site</th>
<th>Justification of Compatibility</th>
<th>Requirements for Activities</th>
<th>ASSOCIATED FACTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beach &amp; River Oriented Activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swimming - Beach</td>
<td>+</td>
<td>Beach area is relatively pleasant and safe</td>
<td>Sandy beach, safe water</td>
<td>Geomorphology</td>
</tr>
<tr>
<td>Swimming - River</td>
<td>x</td>
<td>River polluted - not safe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surfing</td>
<td>+</td>
<td>Low impact activity. Surfers can walk onto beach from adjacent beach areas. Not very much surf, therefore not big demand.</td>
<td>Surf</td>
<td>Geomorphology</td>
</tr>
<tr>
<td>Dinghy sailing</td>
<td>x</td>
<td>No car access. Other nearby sites available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Boating</td>
<td>x</td>
<td>No car access. Other nearby sites available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waterskiing</td>
<td>x</td>
<td>No car access. Other nearby sites available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifesaving</td>
<td>x</td>
<td>Unnecessary. Safe beach</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACTIVITY</td>
<td>Compatibility with site</td>
<td>Justification of Compatibility</td>
<td>Requirements for Activities</td>
<td>ASSOCIATED FACTORS</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------------------</td>
<td>------------------------------------------------------------------</td>
<td>--------------------------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Shell collecting</td>
<td>+</td>
<td>Low impact activity, involving walking along beach</td>
<td>Good habitat for marine life</td>
<td>Water quality</td>
</tr>
<tr>
<td>Beach walking</td>
<td>+</td>
<td>Low impact activity</td>
<td>Pedestrian access to beach. Bridge over creek</td>
<td>Soils</td>
</tr>
<tr>
<td>Passive beach recreation -</td>
<td>+</td>
<td>Low impact activity</td>
<td>Pleasant beach Sandy area</td>
<td>Geomorphology</td>
</tr>
<tr>
<td>sitting, beach games etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fishing - River</td>
<td>x</td>
<td>Incompatible with conservation values. Natural system should be</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Beach</td>
<td></td>
<td>as undisturbed as possible</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scuba diving - collecting</td>
<td>=</td>
<td>Discourage. No car access, so difficult to get equipment in.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-observation/photography</td>
<td></td>
<td>No objection, however, difficult to get equipment in without car access</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature Oriented Activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Car-based nature observation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACTIVITY</td>
<td>Compatibility with site</td>
<td>Justification of Compatibility</td>
<td>Requirements for Activities</td>
<td>ASSOCIATED FACTORS</td>
</tr>
<tr>
<td>----------</td>
<td>-------------------------</td>
<td>--------------------------------</td>
<td>----------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Wildlife observation</td>
<td>+</td>
<td>Low impact activity, Good wildlife study area, Variety of habitats available</td>
<td>Wildlife habitats</td>
<td>Wildlife, Vegetation, Geomorphology</td>
</tr>
<tr>
<td>Plant studies</td>
<td>+</td>
<td>Wide range of vegetation types from the coast, inland</td>
<td>Diverse vegetation</td>
<td>Vegetation</td>
</tr>
<tr>
<td>Bush walking (Short walks)</td>
<td>+</td>
<td>Low impact activity</td>
<td>Area of natural bush and pleasant surroundings</td>
<td>Geomorphology, Vegetation, Land use</td>
</tr>
<tr>
<td>Formal conservation education/Interpretive Centre-based</td>
<td>+</td>
<td>Conservation &amp; wildlife values of surroundings excellent</td>
<td>Interpretive centre, Educational material, Nature trails, Proximity to car access</td>
<td>Land use</td>
</tr>
<tr>
<td>History oriented Activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Archeology - Digs</td>
<td>×</td>
<td>Inappropriate except when undertaken by an expert</td>
<td>Pedestrian access without destruction of site</td>
<td>Archaeology</td>
</tr>
<tr>
<td>Archeology - observation/display</td>
<td>=</td>
<td>May be appropriate when quality and distribution of sites have been assessed</td>
<td>Pedestrian access without destruction of site</td>
<td>Archaeology</td>
</tr>
<tr>
<td>Visiting historic sites - car access</td>
<td>+</td>
<td>Most historically important areas in Coolart have reasonable vehicular access</td>
<td>Historic buildings, Landscape</td>
<td>History</td>
</tr>
<tr>
<td>-pedestrian access</td>
<td>+</td>
<td>Low impact activity, High quality features</td>
<td>Historic buildings, Landscape</td>
<td>History</td>
</tr>
<tr>
<td>ACTIVITY</td>
<td>Compatibility with site</td>
<td>Justification of Compatibility</td>
<td>Requirements for Activities</td>
<td>ASSOCIATED FACTORS</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------------</td>
<td>-------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td><strong>Social Activities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Picnicking - access by car</td>
<td>+</td>
<td>Compatible when close to existing car access</td>
<td>Proximity to car access</td>
<td>Land use</td>
</tr>
<tr>
<td>-pedestrian access</td>
<td>+</td>
<td>Low impact activity</td>
<td>Pleasant surroundings</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pedestrian access</td>
<td></td>
</tr>
<tr>
<td>Barbeques</td>
<td>=</td>
<td>Fire risk seasonally high, generally undesirable except under very controlled conditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Camping</td>
<td>x</td>
<td>No vehicle access to appropriate areas, no facilities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sporting Activities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orienteering</td>
<td>x</td>
<td>Medium impact activity, other less sensitive areas more appropriate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bicycling</td>
<td>x</td>
<td>Not compatible with nature conservation values. Other less sensitive areas more appropriate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horse riding</td>
<td>x</td>
<td>High impact on environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trail bike riding</td>
<td>x</td>
<td>High impact on environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dune buggies</td>
<td>x</td>
<td>High impact on environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACTIVITY</td>
<td>Compatibility with site</td>
<td>Justification of Compatibility</td>
<td>Requirements for Activities</td>
<td>ASSOCIATED FACTORS</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------------------</td>
<td>--------------------------------------------------------------------</td>
<td>--------------------------------------------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>Jogging/Running</td>
<td></td>
<td>Other less sensitive areas more appropriate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walking</td>
<td>+</td>
<td>Highly compatible, good scenery &amp; interest areas, Low impact activity</td>
<td>Paths</td>
<td>Soils, Geomorphology</td>
</tr>
<tr>
<td>Viewing/Painting/Photography</td>
<td>+</td>
<td>Low impact activity, consistent with nature values &amp; education</td>
<td>Areas of interest, Scenic quality, Presence of wildlife</td>
<td>Wildlife, vegetation, Geomorphology</td>
</tr>
<tr>
<td>Car parking</td>
<td>+</td>
<td>Some essential in controlled areas as almost all visitors arrive at Coolart by car</td>
<td>Drive to take the numbers expected Parking areas in less sensitive zones.</td>
<td>Soils, Geomorphology</td>
</tr>
</tbody>
</table>

REFERENCES:

CULLEN, Managing Foreshore Reserves (Draft), 1979.
MOHR, MUGAVIN, STOREY, A Recreation Suitability study for the Brisbane Ranges, 1979.
MARTIN, McGREGOR, MATTHEWS, Churchill Island Masterplan, 1980.
WEIR, Recreation Parks managed by the National Parks Service, 1979.
### SUMMARY OF PROGRAM

From Table 1 it can be seen that the most suitable activities are as follows:

<table>
<thead>
<tr>
<th>Beach activities</th>
<th>Swimming</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shell collecting</td>
</tr>
<tr>
<td></td>
<td>Beach walking</td>
</tr>
<tr>
<td></td>
<td>Passive beach recreation</td>
</tr>
<tr>
<td>Nature Trails &amp; observation points</td>
<td>Bird observation</td>
</tr>
<tr>
<td></td>
<td>Wildlife observation (other than birds)</td>
</tr>
<tr>
<td></td>
<td>Plant studies</td>
</tr>
<tr>
<td></td>
<td>Bush walking</td>
</tr>
<tr>
<td></td>
<td>More formal conservation education, interpretive centre based</td>
</tr>
<tr>
<td>History</td>
<td>Archeological observations or displays</td>
</tr>
<tr>
<td></td>
<td>Visiting historic features by car or on foot</td>
</tr>
<tr>
<td></td>
<td>Walking</td>
</tr>
<tr>
<td></td>
<td>Viewing/Painting/photography</td>
</tr>
<tr>
<td></td>
<td>Car parking</td>
</tr>
</tbody>
</table>

The problem then is to provide for and optimise these activities so 'Coolart' may be fruitfully used and enjoyed by the public, while the conservation, historic and aesthetic values of the property are maintained and enhanced.
PHASE TWO

ANALYSIS OF FACTORS AND THEIR IMPLICATIONS FOR THE LANDSCAPE MASTERPLAN

REGIONAL AND ADMINISTRATIVE CONTEXT
ECOLOGICAL ANALYSIS
HISTORICAL ANALYSIS
TOURIST PRESSURE ANALYSIS
LANDSCAPE ANALYSIS
Phase Two

Analysis of Factors and Implications for Masterplan

2.1 Regional and Administrative Context

2.1.1. Location

Coolart is a coastal property on the southern Mornington Peninsula, located between Balnarring and Somers on Western Port Bay. It is about 80 km. from Melbourne and closer to the southern and south eastern suburbs. The journey takes about 1½ hours by car and is over relatively good to excellent roads, including freeways. This is considered to be a relatively easy day trip because of the good roads, although a little further than average day trip distance of 60 km. described by Mercer (1971).

The nearest railway station is at Bittern, a distance of about 5 kilometres. This is a small country station with infrequent train services and therefore train travel is not expected to be a significant mode of travel to Coolart under the present circumstances.

The nearby township of Balnarring is small and has an unhurried, rural character, although developments are going ahead. The coastal villages of Somers and Balnarring Beach consist predominantly of holiday homes, but also have a significant number of permanent residents, many of them having retired to the coast.

It seems that the potential of the beaches in this area has not been fully recognized by Melburnians and day visits could well be expected to increase.

Implications for Masterplan:
- Visitors will arrive at Coolart by car or bus, so adequate car parking must be provided.
- Tourist numbers may be expected to increase, therefore design for increased numbers.

2.1.2. History of Purchase and Administrative Framework

Prior to 1977 Coolart was a large pastoral property of 325Ha, owned by Mr. Thomas Luxton (McEwans Stores). In 1977 a strategic portion was purchased by the Victorian Government after negotiations with the owner regarding the subdivision. (Trust News, 1978).
MAR 1
LOCATION OF COOLAPT - RELATIONSHIP TO MELBOURNE
MAP: 2
LOCATION OF COOLART
MELWAY, MAP 193
This area, now known as Coolart Reserve, was reserved for public purposes (conservation and education) on 30th March, 1978, and was proclaimed in the Government Gazette of 5th April, 1978. Coolart Reserve was purchased for its unique natural resources, its history and its rural character, and it includes the lagoon, the frontage to Merricks Creek and the main house and outbuildings.

The remainder of the original property was subdivided into a number of small farms of about 20 Ha each. The former driveway has become a private road (Luxton Drive), which is owned by 'Coolart Estates', and is presently used as access by Coolart Reserve and several of the subdivision properties.

Coolart is run by a Committee of Management which was set up by the Premier's Department following the purchase in 1977. The organizations listed below were invited to nominate a representative to the 'Committee of Management for Coolart Reserve', which was established under the land act.

Organizations represented on the Committee are as follows:­

- Department of Crown Lands and Survey
- Education Department
- Environment Studies Association of Victoria
- Fisheries & Wildlife Division
- Ministry for Conservation
- Royal Australasian Ornithologists Union
- Westernport & Peninsula Protection Council

Members of the Committee (see Appendix 1) were appointed by the Minister for Lands on 6th April, 1978 and meet monthly, alternating between Coolart and Melbourne. Their Chairman is Mr. S.J. Cowling of Fisheries and Wildlife Division.

The Committee have recently appointed a warden, Mr. Graham Pizzey, a naturalist of many years standing, and have continued to employ Mr. Ken Roberts who formerly worked for Mr. Luxton. Mr. Roberts has worked at Coolart for 27 years, is a fund of information and has had much experience in all aspects of Coolart's management. Occasional labour is also employed when possible.
A set of regulations were drafted by the Committee (see Appendix 2) and were proclaimed in the Government Gazette on 17th January, 1979. The Committee has also developed some initial management strategies which form a framework and a reference for the landscape design (see Appendix 3).

The major management strategies which affect landscape planning are summarized below:

- The primary emphasis is to be on conservation, with access available to as wide a cross section of people as possible, consistent with the maintenance and enhancement of Coolart's resources. The education potential of Coolart would be primarily developed through its conservation values.
- A masterplan, including a landscape plan, is necessary and should incorporate public feedback.
- Appointment of a live-in professional Warden is necessary.
- The homestead and barracks should be used for conservation education.
- The Lagoon should be managed specifically for bird study and observation and, as Coolart's outstanding resource, must be protected and enhanced.
- Maintain the garden and its integral relationship with the house and farm. Design a new approach to the house.
- Provide a new public access route in from Lord Somers Road, to reduce pressures on lagoon (cars now travel over the lagoon's retaining wall and disturb the birds on the lagoon).
- The farming character of the relevant parts of Coolart should be retained.
- The Merricks Creek frontage should be managed for conservation, with controlled public access and appropriate revegetation. Management of Coolart should be co-ordinated with the management of the Balnarring Beach Foreshore area.
- The link with the Education Department Camp and Somers should be maintained.
- A day-use field centre should be developed.
- Revegetate with native and exotic species, appropriate to individual areas.
Management is largely funded by Government grants, although some additional income has been generated by the Committee, mainly from entry fees on open days and grazing fees.

Implications for Masterplan

- The management strategies set out by the Committee provide a framework for the landscape plan. In particular:
  * The major use for Coolart is conservation. In addition it has important history, education and landscape resources.
  * The lagoon must be maintained for bird habitats.
  * A new public access route must be provided.
  * An interpretive centre is required.

2.1.3. Western Port Regional influences

The Western Port region lies to the south east of Melbourne, on its semi-rural fringe. The present population of the region is about 45,000 compared with the adjacent metropolis of Melbourne which has a population of the order of 2.5 million. (Marsden, p.3, 1979).

The Western Port region has an essentially rural character, with strong and often conflicting demands existing for industrial, port, conservation and recreation uses.

Much of the region consists of a delightful rolling landscape of cleared pasture land or orchards, alternating with windbreaks of conifers and dense patches of native vegetation (Seddon, p.31, 1974 and Cockburn & Dunstone, p.4, 1975).

Industrial activity is important in the region and is likely to increase. Several large industrial complexes operate in the vicinity of Hastings, which is relatively close to Coolart, and they could have some long term effects on conditions there, particularly on the quality of wildlife habitats. Western Port also provides excellent deep water port facilities (S.O.P.P. No.1, 1976), which are scarce in Australia, particularly in areas close to large cities. (Ministry for Conservation, p.1, 1975). Utilization of this potential for port development will place a great deal of pressure on the natural systems of Western Port. Water quality could also be jeopardized, as exchange of water in the Bay is slow, due to its configuration, and the presence of French and Phillip Islands.
The estuaries and mudflat associations could be affected by pollutants and other changes in water quality such as dissolved oxygen and temperature. Pollutants could easily be carried into the tidal reaches of Merricks Creek and affect some of the richest and most diverse wildlife habitats on Coolart. Merricks Creek is already polluted at Coolart, due to septic tank runoff and stormwater drainage from Balnarring.

Due to an increasing awareness of the fragile nature of the ecosystems and a growing concern as to the impact of industrial development, the Western Port Bay Environmental Study was undertaken (Shapiro, 1975). Some of the industries in the area made major financial contributions towards this (Marsden, p.5, 1979).

Western Port is also popular for recreation, particularly swimming, fishing and boating, as evidenced by the many yacht clubs around the bay.

Thus the Western Port region has great potential for many uses, the major ones of which conflict, that is, industrial development and port facilities on the one hand and the maintenance of the existing rural character, conservation values and recreation uses on the other. This conflict has yet to be resolved.

Implications for Masterplan

- Not much can be done regarding overall changes in Western Port except to document the wildlife and their habitats, as a record against which possible future deterioration can be measured.
- Liase with local councils on management of the foreshore and Merricks Creek area, particularly regarding water quality.
- Maintain the rural character of Coolart as an excellent example of the characteristic landscape of this part of the Mornington Peninsula.

2.1.4. Planning Considerations

Coolart and its surroundings are in the area which comes under the jurisdiction of the Western Port Regional Planning Authority (W.P.R.P.A.), set up in 1969 by the State Government.
In general, for many routine matters, the W.P.R.P.A. delegates authority to the relevant local government authority, in this case the Shire of Hastings. As Coolart is owned by the Victorian Government, many of the regulations applicable to private property do not apply. However, the responsible planning authority retains planning controls but cannot exercise control over alteration and demolition of buildings.

Two Statements of Planning Policy have been issued by the Town and Country Planning Board covering sections of this region. Statement of Planning Policy No. 1 - Western Port (T.C.P.B., 1970 and as varied 1976) is primarily directed towards port and industrial development in the Hastings area. Statement of Planning Policy No. 2 - Mornington Peninsula (T.C.P.B., 1976) provides for the protection of the southern section of the Mornington Peninsula for its conservation and recreation significance, and requires the Regional Planning Authority to prepare a conservation plan. (Seddon, p.1, 1974 and Cockburn & Dunstone, p.2, 1975). The Western Port Bay Environmental Study (Shapiro, 1975) has led to the Government's adoption of a State Environmental Protection Policy (No. W-28) for the waters of Western Port Bay and its catchment (W.P.R.P.A., 1979). It is hoped that this would protect the coastal water quality.

Coolart was reserved for public purposes (conservation and education) on 30th March, 1978 under section 14 of the Lands Act, and was proclaimed on 5th April, 1978 (Government Gazette). The Ministry for Conservation delegates the authority for its management to the Coolart Reserve Committee of Management.

The National Trust of Australia (Victoria) has classified two aspects of Coolart. The lagoon is listed as a recorded landscape, for its historic interest, its bird habitats and its landscape values, that is, its preservation should be encouraged (see Appendix 4). The main house, along with the numerous brick outhouses, including the original homestead or 'Barracks', the dairy and butchery, the toilet block and the stables are listed as 'classified', that is, their preservation is essential (see Appendix 5).
A National Trust classification carries no statutory obligations; however, it would be appropriate that they should be consulted regarding any proposed alterations to the buildings.

In addition to the National Trust classifications, it is possible that Coolart would be a candidate for the National Estate Register of the Australian Heritage Commission. At the moment this federal organization does not provide any funding but it may do so in the future.

The 'Coolart Spit', an elongated sand spit at the mouth of Merricks Creek, has been recorded as a 'site of special scientific interest' by the Town and Country Planning Board (Bird, 1977), see Map 2.

**Implications for Masterplan**

- Record and monitor wildlife and habitats.
- Consult the National Trust of Australia (Victoria) where appropriate.
- Manage so as to preserve the Coolart sand spit.
2.2. Ecological Analysis

2.2.1. Geology and Geomorphology

Western Port Bay is an extensive sunkland or graben between two elevated fault blocks, or horsts. The Mornington Peninsula is one of these upthrown blocks, while the central portion of the Western Port region, consisting of extensive coastal plains and swamplands, is sunkland. This movement occurred along faults, one of which, the Tyabb fault, traverses the Coolart property. French Island and Phillip Island were also formed by uplift along minor faults. (Cockburn and Dunstone, p.4, 1975 and McGregor). The sea invaded the Western Port sunklands during Holocene times, that is, in geologically recent times, and tidal scour has since widened and deepened the valleys and tideways, forming deep water channels in the bay. It is likely that sea levels during Holocene times were 5-8 metres higher than present levels. The sea level may have fallen due to the isostatic movement of ocean floors over the last 6,000 years. (Thom & Chappell, 1975). As a result of this change in sea level, an old coastline has been marooned inland and now forms the scarp occurring between the main Coolart homestead and the sea.

The geology of Coolart is represented by three different types of bedrock material. The gently rolling low hills of the northern section of Coolart occur on the Tertiary Baxter Sandstones which consist of ferrigenous sandstone, sand, sandy clay and occasional gravels, which are ligneous in parts (Jenkin, 1979). Keble (1950) defines the formation as 'Tertiary fluviatile ferruginous sandstones'.

To the south west of the lagoon, in lower lying areas, are quaternary fluviatile deposits of clay, silt, sand and gravels. Towards the coast and below the escarpment is an area dominated by dunes running roughly parallel to the coastline. Merricks Creek with its attendant mudflats flows through this area beside a long, sandy spit and out into the sea.

Seddon (p.14, 1974) states that 'the geology of the Peninsula is a prime control both of soils and also of geomorphology'. This can be seen to be true at Coolart, where changes in geology give
COOLART RESERVE
ECOLOGICAL ANALYSIS
centre for environmental studies

GEOLOGY & GEOMORPHOLOGY
university of melbourne

scale 1:8000
october 1980

MAP 3
rise to distinctive changes in soils and also have expression in various geomorphic features. Each different geologic type has its characteristic landform. Low rolling hills and valleys are characteristic of the Baxter sandstones, while quaternary deposits give expression in flat low lying areas and the beach ridges consist of dune deposits. See Map 3.

The lagoon, although man-made, occurs on a natural drainage line, with quite an extensive catchment to the north. The new wetland area to the south west of the lagoon is also on the same drainage line, which then flows west to join up with Merricks Creek. At present, flow along these depressions is ephemeral and only occurs after heavy rain.

Various other depressions occur in the beach ridge area and are generally swales between the dune ridges. At the extreme western end of the Coolart property one of these depressions contains water and is known as 'the Billabong'. The Merricks Creek estuary is tidal in the vicinity of Coolart, hence the water is brackish, however, a transition to fresh water occurs in the small arm of the creek on the Coolart property. The creek margins are swampy and shallow and the water is slow-flowing. Merricks Creek flows behind a long sandspit which has deflected its mouth eastwards due to the presence of a predominantly west-to-east longshore drift. This has choked the mouth of the creek in the past and caused the river level to rise until it breached the bar across the river mouth. However, this apparently caused flooding of houses in Balnarring and this factor, coupled with coastal erosion, a general phenomenon along many sandy coasts around the world, resulted in the extensive Ports and Harbours structures at the mouth of the creek. (Bird, p.137, 1976, and House of Representatives Standing Committee on Environment and Conservation, 1980). This spit, known as the Coolart Spit, has been listed as a Site of Special Scientific Interest (Bird, 1977).

Implications for Masterplan
- Differing geology gives rise to distinctive soil types and masterplan implications relating to these will be dealt with in the soils section.
- Land on the seaward side of the scarp is low lying and subject to some coastal processes necessitating careful design and management.
- Merricks Creek is tidal at Coolart with a fragile ecosystem. Beware disturbance and attempts to manage the geomorphology (e.g. structures, groynes etc.).
- The catchment of the drainage line supplying the lagoon is relatively extensive and reliable and offers opportunities for further wetland development.

2.2.2. Soils

Four different soil types occur on the Coolart property. These have been mapped as part of the Western Port Bay Catchment Project, by the Soil Conservation Authority (1979). They have described the following units:

The Clyde, O'Connor, Balnarring flats and Beach ridge soils; in addition, auger holes were dug in each soil type. (Refer diagram 1 and Map 4).

Soil Types:

**Clyde (Cld)**

Characteristics - Occurs on rolling hills on the Baxter sandstones, with yellow duplex soils
- Low to moderate shrink-swell potential
- Landslip potential - nil
- Moderately well drained, moderate permeability
- Seasonal water table - temporarily ponded
- Moderate erosion hazard on exposed soil
- Rating for septic capability, fair to good
- Rating for building foundations, carparks and roads, fair to good

**O'Connor (Oco)**

Characteristics - Lower slopes and valleys on undulating country on the Baxter Sandstones, with yellow-brown duplex soils. (Lower slopes than the Clyde soils).
- Moderate to high shrink-swell potential
- Landslip potential - nil
- Imperfectly drained, moderate permeability
- Seasonal watertable - temporarily waterlogged
- Low erosion hazard on exposed soil
- Building and septic suitability fair as drainage and shrink-swell potential is a problem
DIAGRAM 1 - SOIL TYPES

CLYDE (Cld)

- Dark greyish brown fine sandy clay loam. pH 6.2. Clear transition to:
- Pale brown fine sandy loam with mottling. pH 6.0. Clear transition to:
- Yellowish brown medium to heavy clay, mottled. pH 6.0. Gradual transition to:

O'CONNOR (Oco)

- Dark brown fine sandy clay loam. pH 6.0. Clear transition to:
- Pale brown fine sandy loam with mottled. pH 6.0. Clear transition to:
- Yellowish brown medium to heavy clay. Mottled. pH = 6.0. Gradual transition to:
- Yellowish-brown medium to heavy clay. Mottled. pH 6.5 - 5

BALNABRING FLATS (Bal1)

- Dark brown to dark grey silty clay. pH 6.5
- Clear transition to:
- Greyish brown medium to heavy clay, faint mottling. pH 6.5. Gradual transition to:
- Brownish yellow heavy clay, faint mottling. pH 6.5

- Continuing with depth, rock beyond 2 m depth in places.

BEACH RIDGE (End)

- Very dark greyish brown sand. Loose consistency. pH 7.5
- Clear transition to:
- Pinkish grey sand. pH 8.0

- Continuing at depth.
O'CONNOR SOILS (Oc) ON
BAXTER SANDSTONES - LOWER SLOPES
YELLOW-BROWN DUMPLEX SOILS
FINE SANDY CLAY LOAM
- RELATIVELY STABLE

CLYDE SOILS (Cd) ON
BAXTER SANDSTONES - UPPER SLOPES
YELLOW DUMPLEX SOILS
FINE SANDY CLAY LOAM
- RELATIVELY STABLE

BALNARRING FLATS SOILS (BF)
ON QUATERNARY DEPOSITS
SILTY CLAYS - SEASONAL FLOODING

BEACH RIDGE SOILS (Brd)
SANDY SOILS - DUNE DEPOSITS
SUBJECT TO WIND & WATER EROSION

COOLART RESERVE
ECOLOGICAL ANALYSIS
centre for environmental studies

SOILS
university of melbourne

scale 1:8000
oCTOBER 1980
MAP 4
Balnarring Flats (Bal)

Characteristics - Flat, wide areas of alluvial deposits. Soils are darkened at the surface by organic matter and are seasonally wet.
- High shrink-swell potential
- Landslip potential - nil
- Very poorly drained, slow permeability
- High flood risk
- Seasonal watertable - seasonally waterlogged with some areas ponding.
- Erosion - nil
- Very poor for building foundations, excavations and septic capability.

Beach Ridge (Brd)

Characteristics - Sandy coastal areas which are active, dominated by linear dunes running roughly parallel to the waterline. Swales between the dunes are generally sandy with minor occurrence of mud (some tidally inundated).
- Shrink-swell potential - nil
- Landslip potential - Batters slump
- Very well drained, very rapid permeability
- No flood risk, however, tidal action and storm damage possible
- Seasonal watertable - nil
- Wind and water erosion high, particularly on foredune, also salting
- Poor for building foundations, roads etc. Very poor for sewerage lagoons, good for septic tanks.

Implications for Masterplan
- Clyde and O'Connor soils are suitable for buildings, roads etc. (N.B. New entry drive and carpark). Drainage is seasonal problem, thus drain adequately.
- Balnarring flats soil is poor for buildings, retains water well, is flat and lowlying; therefore suitable for wetland areas and low impact activities.
- Beach ridge soil has a high erosion potential, hence design for low impact and optimize vegetative cover to protect soil.
2.2.3. Climate and Associated Factors

Rainfall - The average annual rainfall is 863-889 mm (34-35 inches) and falls predominantly during the winter and spring. During a very dry year, levels in the various water bodies around Coolart drop and wildlife habitats are threatened.

Temperature - Mean daily maximum temperatures range from 25°C (February) to 12.5°C (July). Mean daily minimum temperatures range from 13°C (February) to 5°C (July). Frosts occur on a probable average of 4 days per annum (Seddon, p.30, 1974, Seddon, p.42, 1975). The weather is generally milder than Melbourne's, but unpredictable day by day.

Wind - Moderate to fresh southerly winds predominate in summer, particularly in the afternoons, due to the sea breeze effect. In winter, winds are mainly northwest to westerly and of moderate strength but can become strong to gale force during storms. (Seddon, p.30, 1974).

Fire - During the summer months fire can become a hazard at Coolart. Large areas of land on the southern boundary are covered with woodland and scrub, containing much vegetation litter. Vehicular access to this area has been poor, but pedestrian access is easy and relatively uncontrolled to date. In addition, huge belts of conifers surround the house and farm, the plantation along the drive being particularly dense.

Implications for Masterplan

- Design wetlands to optimize water conservation so as to maintain waterbird habitats throughout summer.
- Provide shelter from wind in key areas, e.g. picnic areas and wildlife viewing areas.
- Provide fire access tracks.
- Manage pedestrian access so that the warden is aware of who is on the property and where they are. This necessitates fencing at Bainarring Beach Road and a gate on Coolart’s Bridge.
Implications for Masterplan (Cont)
- Septic capability needs to be further investigated but is best on Cld and Oco soils.

2.2.4. Vegetation

2.2.4.1. Vegetation prior to and during early settlement

Prior to settlement, the land around Balnarring was covered by a Eucalyptus woodland (canopy cover less than 30%) with a grassy floor. On more sandy soils and closer to the coast, this merged into a Banksia and Casuarina woodland, with a restricted zone of Coast Tea Tree on cliff tops or on sand dunes close to the high water mark (Calder, p.22, 1975).

In 1827 Howell journeyed 'about six miles below Sandy Point in the direction of Cape Schanck and saw 'good open forest land and the grass long and fresh' (Calder, p.17, 1974). Prior to 1835 Wattle bark was stripped in Western Port and shipped to Van Diemens Land (Byrne, 1930).

A map of 1842 shows the Coolart area, described as Merricks Station - Callert, covered by 'Open forest of Gum, Lightwood, Oak and Honeysuckle, with good grass'. Creek margins were lined with Tea Tree and She Oaks predominated towards Sandy Point. (Coolart Committee of Management Brochure, 1979).

The woodland in from the coast was predominantly Messmate (Eucalyptus obliqua), with Manna Gum (Eucalyptus viminalis), generally closer to the coast and merging with the Banksia/Casuarina woodland, and possibly Peppermint (Eucalyptus radiata). Eucalyptus viminalis occurs here in the coastal form, as a tree of about 10 metres tall, with rough bark and bushy crowns, compared with the taller, straighter and smoother barked forms found in inland gullies. This difference is possibly a function of soil moisture and nutrient levels. (P.Y. Ladiges, 1974).

The growth of shrubs and climbers was relatively sparse, the grassy floor consisting predominantly of Kangaroo Grass (Poa seiberana and Poa labillardieri). The large population of
kangaroos and wallabies probably helped maintain this grassy condition by grazing on grasses and edible shrubs (Calder, p.22, 1975).

The Balnarring Reunion of 1913 reported land south of Merricks to be 'heavily timbered chiefly with Messmate' and there were 'hundreds of trees to the acre, the stumps of which can be seen now' (Balnarring Reunion, in Calder, p.18, 1974). The W.R. Grimwade photographs of Coolart in the 1890s show bracken areas with huge eucalyptus stumps, the remains of a woodland area. A Messmate and Peppermint woodland still exists on acid soils with a clay subsoil at Sandy Point in the Naval Reserve. Being Commonwealth Government land, to which there is very restricted access, little disturbance has occurred and a significant stand of indigenous vegetation, both in extent and quality, remains. It is a fortunate circumstance that this resource exists close by to Coolart as certain inferences can be made regarding vegetation and wildlife.

Calder (p.22, 1974) states that 'no disruptive biotic factors seriously upset the natural ecological balance of the Mornington Peninsula prior to 1800, but that long term changes were inevitably occurring. Since then, clearing and felling have been so extensive that no original stands of trees remain, only scattered specimens of up to 200 years old are left and the existing woodlands are secondary or tertiary regrowth communities (Calder, p.23, 1974). The land has also been extensively fired, a situation much worse under European occupation than under that of the aborigines, although they most certainly utilized firing (Calder, p.23, 1974).

2.2.4.2. Existing Indigenous Vegetation

Remnants of the coastal woodland exist on the southern sandy areas of Coolart near Merricks Creek. Dominant species are Banksia integrifolia (Coast Banksia) and Eucalyptus viminalis (Manna Gum) with occasional Casuarina stricta (Drooping She-Oak) and an increasing incursion of Leptospermum Laevigatum (Coast Tea Tree) from the foreshore area. The understorey is of grass and bracken (Pteridium aequilentum) with occasional shrubby areas consisting of both indigenous shrubs such as Bursaria spinosa,
Plate 1. 'The Bridge', 19/10/1907.
The original bridge over Merricks Creek, taken from the beach side.
Note the high quality of the coast woodland, with the large Manna Gum
(Eucalyptus viminalis) and Drooping She-Oak (Casuarina stricta), both
now gone. Photograph reproduced by kind permission of Graham Pizzey.

Plate 2. 'The Bridge', August, 1980.
The bridge has deteriorated with some planks and the handrail having gone.
Fewer Manna Gums and Banksias are evident and the Tea Tree has increased.
DIAGRAM 2. TYPICAL CROSS SECTION THROUGH COAST WOODLAND, FROM COAST TO SCARP. NO SCALE.
and *acacia longifolia* nearer the shoreline. Introduced species such as boneseed (*Chrysanthemoides monilifera*), myrtle leaf milkwort (*Polygala myrtifolia*) and blackberry (*Rubus fruiticosus*) are also present. Closer to Merricks Creek *Leptospermum laevigatum* and *Phragmites communis* predominate, while *Paperbarks* (*Melaleuca ericifolia*) fringe the fresh water reaches of the tributaries to Merricks Creek and line the margins of the lagoon. *Melaleuca ericifolia* grows well on soils which are seasonally waterlogged and may ultimately form thickets with such a dense canopy that only shade-tolerant species can grow beneath it (Calder, S & W, p.28, 1976). It prefers fresh water or only slightly brackish conditions and will not grow in more saline conditions (Bird, 1962). In Grimwade’s time the Paperbarks around the lagoon were much taller than they are now and the lagoon was extensive although the wall had not yet been raised to its present level. It is possible that the subsequent rise in water level caused this older stand to die off and a new stand to regenerate (Pizzey, G. verbal communication, 1980).

As well as Paperbarks, the lagoon is surrounded by Weeping Willows and other deciduous trees including Elms, some Sweet Pittosporum and several Louisiana Swamp Cypresses. This provides an excellent water bird habitat and is also visually most attractive. (See plates 5 & 13). It is also evident from the Grimwade photographs that the coast woodland was much richer and more diverse, and covered a wider area than it does today. There were also large Eucalypts, probably *Eucalyptus viminalis*, on the west side of the house, which have since gone. It is also possible that Moonah (*Melaleuca lanceolata*) was a component of the early vegetation on Coolart. (See plates 1 & 2 and Map 5). (See Diagram 2).

2.2.4.3. Farmland Vegetation

The characteristic farm landscape both on Coolart and on surrounding properties is one of open rolling pastoral country, with large cleared paddocks, golden in summer and rich green in winter. Windbreaks or isolated trees of dark Pines, Cypress and occasionally Sugar Gums break the expanse and place man’s stamp on the land. Glimpses through the trees to the sea provide contrast and variety. On Coolart itself, Cypresses, Golden Cypresses, Monterey Pines and Sugar Gums have been extensively
Plate 3. Rolling open pasture with Shelterbelts of Monterey Pine, Cypress and Sugar Gum.

Plate 4. The Luxton Drive Plantation taken from the Tower of the Coolart homestead. The plantation is a major feature of the local landscape and is visible for miles.
used as windbreaks and provide characteristic landscape elements which must be maintained. Some of these had been planted by the time of the Grimwade photographs (1890s - 1900s) and are now huge trees.

The Luxton Drive plantation is now a wide and dense strip of trees, visible for miles, and consisting of a delightful mixture of Sugar Gums, Monterey Pines, English Elms and Cypresses, with various other minor elements. It is essential that Luxton Drive be managed as part of Coolart Reserve and negotiations with 'Coolart Estates' should be undertaken to achieve this.

Apart from being one of the oldest grazing properties on the Peninsula, Coolart was the first property to introduce subterranean clover, around the turn of the century. 'Sub' clover is now one of the key factors in pasture fertility in Victoria. At present, the pastures of Coolart are leased out for grazing. (See plates 3 & 4 and Map 5).

Shelterbelt planting of natives has been carried out by 'Friends of Coolart', in the lagoon catchment and along the adjacent boundary fence.

2.2.4.4. Garden Environments of Coolart (Refer to Maps 5 & 6)

The garden environments of Coolart may be divided into five different areas as follows:

- The ornamental garden, including the rose garden, to the east of the house.
- The garden to the south and west of the house.
- The drive in the vicinity of the house.
- The kitchen garden
- The orchard.

The ornamental garden: – Prior to the late 1930s when the Luxtons purchased the property, the main garden was very formal in nature and not as large as it is at present. Paths were laid out on a grid system and plantings of trees and flowerbeds were in rows. Photographs show that fruit trees were included in the garden, as were other plants in vogue at the time, such as pampas grass. (See plates 5 & 6).

During the 1939 landscaping, the garden was drastically changed, with removal of all paths and enclosure of a larger area. A new framework of carefully selected trees, both deciduous and evergreen,
Plate 5. 'Bird's Eye View of the Garden', 3/1/1899, taken from the Coolart Tower, and showing part of the formal garden, farm buildings and lagoon. Few of the trees in the foreground remain. Note the extent of the lagoon with tall Melaleuca ericifolia woodland. (Photograph reproduced by kind permission of Graham Pizzey).

Plate 6. 'Coolart House from the Croquet Lawn', 19/10/1907. The original garden was very formal in layout. It did not achieve its present picturesque nature until after 1938, when it was completely landscaped by the curator of the Footscray Gardens. (Photograph reproduced by kind permission of Graham Pizzey).
was established, and garden beds were designed on serpentine lines around a central lawn. A pond was constructed and a formal rose garden included at the southern end of the lawn. All this was enclosed by shelterbelt planting. This garden has been well maintained and has matured graciously, offering a delightful setting during any season, but being particularly lovely in spring and autumn. In the future, with many more people using the garden, small areas of lawn near the steps, and the paths in the rose garden may need to be paved. (See plates 7, 8, 9).

The south west garden, sloping towards the new wetland area in front of the main rooms of the house has apparently never been as rich or varied as the ornamental garden, possibly because of a harsher environment, it being more exposed to the south west and north west winds and possibly to wind-borne salt. At present it contains Elms, Acacias, several Oaks and some shrubs. It is bounded on the southern side by a huge pine and cypress wind break, The Cypresses were originally intended as a hedge but got out of hand and are now very tall. Recently one cypress hedge which grew about 4 metres from the house, and was a great fire hazard, was removed. This area also has a fine old specimen of Eucalyptus callophylla. The south west garden needs re-designing in keeping with the main house.

The Drive - As the drive approaches the house, its character changes from that of a mixed plantation of trees to a more structured environment of Elm trees overhead, with bulbs, shrubs and flowers lining the drive by the Barracks and main house. This provides a very pleasant approach to the house and should be maintained for a V.I.P. entry, although pressures on the lagoon necessitate most traffic entry by an alternative route. When the new drive is finished it would be appropriate to relocate the toilet block near the new parking area. (See plates 10 & 11).

The Vegetable garden: - The vegetable garden has been located in the same area since the Grimwade's day (see plates 5 & 12). Although the beds are smaller now, the original layout is evident in the patterns on the grass, and consisted of long, straight rows running north and south.
Plate 7. The pond in the ornamental garden, with Chamaecyparis in the foreground. Note Sugar Gum shelterbelt.

The garden was redesigned in 1938 by the Curator of the Footscray Gardens.

Plate 8. Autumn colour in the ornamental garden. -Golden Ash Fraxinus excelsior 'aurea'.

Plate 9. Archway over the path to the rosegarden.
MAP 6. THE GARDEN ENVIRONMENTS OF COLDART.
The Orchard: This area was probably developed at about the same time as the ornamental garden was redesigned, as this area was under pasture in the Grimwade photographs. Now the trees are over mature and gaps have appeared in the orderly rows. This area could be restored using old varieties of fruit trees and could provide a very interesting display and a quiet corner to walk through or picnic in.

2.2.4.5. Weeds

At the present, weeds are not a major problem at Coolart, due largely to sound farm management over the years. However, weeds have gained ground in areas adjacent to the foreshore, where boneseed (Chrysanthamoides monilifera) and myrtle leaf milkwort (Polygala myrtifolia) are starting to spread. Blackberry (Rubus fruiticosus) is a problem in a few places; however, efforts are being made to remove it. Some would regard Pinus radiata seedlings as weeds; however, the only place where these appear in any numbers is Luxton Drive where most of them should be culled. Sweet Pittosporum, although an Australian plant, is not indigenous to the Peninsula. It spreads readily and should be culled from the coastal woodland, but left in disturbed areas, particularly if trees are well grown and provide bird habitats as in the lagoon surrounds.

Implications for Masterplan

- Encourage regeneration of coast woodland by removal of weeds and rabbits.
  Replant where necessary using local gene pool stock, where possible.
- Negotiate to manage Luxton Drive as part of Coolart Reserve. This is particularly high priority.
- Maintain grazing land and lease out for farming.
- Retain existing farmscape quality.
- Reintroduce old species into rose garden.
- Maintain existing high quality of the ornamental garden.
- Watch for wear on lawns and provide hard paving areas around steps if necessary.
- Redesign south west garden in keeping with the main house.
- Retain Luxton Drive as the V.I.P. entrance.
Plate 10.
The existing drive approaching the house. The new fence is designed to screen the lagoon so cars do not disturb the birds.

Plate 11.
The track from the main drive to the shearing sheds, on an open day.
Plate 12. The Vegetable Garden. The original layout of beds can be seen in the grass. In the background to the left is the old smokehouse.

Plate 13. The Lagoon.
- Maintain quality of house surrounds.
- Relocate toilet block near new parking area.
- Restore the vegetable garden, possibly using old and unusual varieties.
- Restore the orchard using old fruit tree varieties.
- Check weeds where necessary.
- Cull some pine seedlings from Luxton Drive.

2.2.5. Wildlife

The wildlife of Coolart can be divided into two categories, birds and animals, both of which are well represented with the birds showing the most diversity.

To support a rich and varied wildlife population, the vegetation must be diverse. There must be a good variety of honeyflora available both for birds and other nectar eaters and this generally means a diverse indigenous plant community, with many flowering trees such as Eucalypts and Banksias. Also the presence in the soil of seed and tubers is important and rabbits seriously deplete these.

Various habitats may be more viable when linked by vegetation or, in the case of waterbirds, by water bodies, so that wildlife can move freely from one area of cover to another. This habitat-linking function may be served by windbreaks, roadside plantations and replanted or regenerating indigenous vegetation (Cockburn & Dunstone, p.22, 1975). An opportunity exists at Coolart for linking the lagoon habitat with the coast woodland, using both waterbodies and vegetation. (See Map 7).

2.2.5.1. Birds

The bird life of Coolart is rich and varied and consists of waterbirds, birds of the coast, farmland and garden and predatory birds. Some of these are residents, many actually breeding at Coolart, others are migratory, visiting infrequently and unpredictably, or as seasonal migrants. Of all these birds possibly the most spectacular are the waterbirds, the white ibis being particularly important at Coolart.

Different species live in different habitats and have different requirements for feeding, roosting and nesting. Some of the most important habitats at Coolart are the Merricks Creek area and adjacent coast woodland, the new wetland area, the lagoon (a gazetted sanctuary), and pastures and gardens. These areas are not necessarily clearly
defined and may merge into each other. Birds may move freely from one area to the next, feeding in one location and nesting and roosting in others. For instance, white ibis feed in the pastures and nest at the base of the lagoon Paperbarks, but may perch in the branches of the Paperbarks. Prior to the construction of the new wetland this year (1980) there was little open shallow-water feeding grounds for waterbirds such as duck, grebes, herons and swans. Since the wetland has filled it regularly attracts black duck, grey teal and chestnut teal, hardheads, hoary-headed grebes, white-faced herons, little pied cormorants, masked plovers, black-fronted dotterels and black swans. The new wetland provides a feeding progression, as it dries and the water margin retreats. It provides three feeding zones at different water depths for different birds, with emergent and submerged vegetation.

The wetland is constructed to have a large area of shallow water, and to be a little over a metre deep at most. The particular configuration was chosen after detailed consideration of three alternatives by the Soil Conservation Authority and others. The choice of two dams, the lower one of which is now called the 'New Wetland', offers a surface area of 3.8 Ha, of which approximately 1.4 Ha is shallow water, less than \( \frac{1}{2} \) metre deep. By the end of December with a drop in the water level of 0.25 m., the total surface area would be 2.43 Ha, and by the middle of February, it has been calculated that 1.03 Ha of water would remain, most of it shallow. The 'two dam' alternative was considered to be superior as it provided nearly as much shallow water in early summer and much more during middle and late summer, without the need to construct islands.

The lagoon has existed since about the 1860s when clay was quarried for bricks for the house, but did not reach its present size until Mr. Tom Luxton raised the lagoon walk in 1939. Apparently the Paperbarks were so tall and thick that Mr. Luxton climbed the tankstand so he could envisage the extent of the new lagoon (K. Roberts, verbal communication, 1980). The new wall was scarcely complete before rain began to fall and within five weeks the 5 Ha lagoon was in existence (Committee of Management Brochure, 1979). Since that time it has only dried out once, (1958), and in 1967-68 it was reduced to a deep pool at the lower end. During both these dry spells the opportunity was taken to build small islands for the birds (Pizzey, G., 1980(a)).
The lagoon at Coolart is an important waterbird refuge on the Peninsula and replaces in some small measure the formerly immense areas of swampland which have been drained (Pizzey, G. 1980(a)). The success of the lagoon as a waterbird habitat is due to the presence of islands, the ability of Paperbarks to recolonize and the regulated high water level. This means that ibis nests, which are generally built at the base of Paperbarks and only just above water level, are seldom flooded or left stranded by sudden drying out, as sometimes happens in natural swamps.

White ibis were irregular visitors to Western Port in the 1860s (The 'Old Bushman', in Pizzey, G., 1978). Establishment of improved pastures and farm dams and the drainage of other swamps increased white ibis numbers in Western Port. White ibis colonized Coolart after World War Two and breeding pairs transferred to Coolart in 1961, when the Rhyll Swamp on Phillip Island was low. This year, there were about 200 nests, with an average of 2 - 3 birds per nest. A bird banding program for the ibis chicks has been undertaken in conjunction with the C.S.I.R.O. (Pizzey, 1980(b)). The Minsmere Bird Hide is a recent and most successful addition to the lagoon area (See plate 20). Also breeding on the lagoon are chestnut teal, royal spoonbills and black swans.

In addition to the birds already mentioned, 10 to 12 species of honeyeater can be found at Coolart and 3 or 4 species of lorikeets. Quail require a ground habitat, while pink robins move down from the hills to the coast in winter. Autumn sees a sudden influx of grey fantails and wattle birds are frequent visitors. Red-capped dotterels breed on the beach just outside the reserve and masked plovers nest in the paddocks.

Coolart also has its fair share of predators, the brown goshawk being common, with occasional visits from peregrine and little falcons, swamp harriers and black-shouldered kites (Coolart Committee of Management, Brochure, 1979).

In summary, the birdlife is rich and diverse, with many different habitats available. Most important is the white ibis colony on the lagoon as it is an extremely rare and valuable resource.
Plate 14. White ibis nesting on the lagoon, just in front of the Minsmere bird hide.

Plate 15. The Lagoon.
White ibis nesting at the base of the Paperbark clump, royal spoonbills perching in the branches.
The interaction between all this and the public must be carefully handled, with the public gaining an opportunity to learn from and wonder at the natural world. To this end new bird hides are essential so that people can observe this fascinating variety of wildlife without disturbing it. See Appendix 6 for a bird list. Plates 14, 15.

2.2.5.2. Animals

As with birds, the presence of a diverse animal population depends on habitat diversity, providing shelter and food for the different species present.

Although the animal life is not as diverse as the birdlife at Coolart, it is nevertheless varied, and could improve dramatically as rabbit and fox control progresses. It is unusual, in this day and age, to find an area of foreshore land as isolated as the area around Merricks Creek and interesting animal 'finds' could eventuate. The presence of honeyflora, e.g. Banksias and Eucalypts, and hollow logs (Manna gums make good hollows) increases the chances by providing a certain type of food and shelter.

To date, brushtail possums (Trichosurus vulpecula) and eastern ringtail possums (Pseudocheirus peregrinus) have been sighted. Sugar gliders (Petaurus breviceps) are highly likely and something with a taste for nectar has been licking the nectar dishes clean in the coast woodland (Pizzey, G., verbal communication, 1980). A koala (Phascolarctos cinereus) has been seen sitting in a large Banksia (Pizzey, G., 1980(a)), and there is evidence of the eastern swamp rat (Rattus lutreolus) in the characteristic burrows and runs found in the coast woodland. Bats are common around the lagoon, garden and woodland, and could be any of five species. The most likely would be Goulds wattle bat which occurs at Shoreham and is common on the Peninsula. The spiny anteater (Tachyglossus aculeata) is also present. There is, no doubt, a good number of snakes and lizards, particularly near the creek. The island in Merricks Creek is known to some of the locals as Snake Island.

It is highly likely that other native animals were present before the district was extensively cleared and settled. Kangaroos and wallabies were abundant on the Peninsula and would almost
certainly have occurred, while other smaller mammals would also have been likely. Introduced foxes (Vulpes vulpes), rabbits (Oryctolagus cuniculus) and house mice (Mus musculus) are a problem. A rabbit control program is under way, however, it is difficult to control numbers when they are uncontrolled in the adjoining foreshore areas. The co-operation of the Balnarring Foreshore Committee is needed in this respect.

Implications for Masterplan

- Maintain and enhance habitat diversity. This includes maintenance of vegetation diversity, the presence of a honeyflora succession, and adequate cover and nesting sites.
- The Lagoon is Coolart's most outstanding resource. Access must be limited and people screened to prevent disturbance of the birds.
- Linking the lagoon and the coast woodland with vegetative cover and waterbodies permits free movement of wildlife and provides a more viable habitat.
- Provide new birdhides (particularly one which can accommodate a class or busload).
- Design birdhides, observation points, walk tracks and nature trails for minimum disturbance, and site so some areas remain isolated and undisturbed.
- Study and record the wildlife as a yardstick for the future.

2.3. Historical Analysis

2.3.1. Archaeology

Aboriginals have occupied the area around Melbourne for 40,000 years. However, most of the recorded sites on the Peninsula probably date from relatively recent prehistoric times. (Victorian Archeological Survey, 1979). Byrne (1930) reports that 1856 was the last year in which aboriginals were seen around the southern portion of the Mornington Peninsula. Estimates of the number of aboriginals on the Peninsula vary from 200-700 and there is evidence that they occurred primarily along the coastal regions on sandy areas (Keble, 1928, Calder, p.18. 1974). These people belonged to the Bunurong tribe whose territory extended from the Werribee River to Andersons Inlet. Their culture and language were similar to other tribes of
DIAGRAM 3. ARCHEOLOGICAL 'FINDS' AT COOLART.

SHELLS x2

STONE TOOLS
SPEARHEAD x2

AXE HEAD x \frac{1}{2}

STONE FLAKES x2

SMALL PIECES OF STONE CHIPPED OFF TOOLS DURING THEIR MANUFACTURE. NOTE FRACTURE MARKS.
south central Victoria, and this wider group was known collectively as the Kulin. The Bunurong apparently relied heavily on coastal resources, such as fish, molluscs and plant materials. They did not grow crops and were hunters and gatherers, moving around their territory collecting whatever foods were seasonally available. They lived in bark and bough shelters, spaced 'with order and method' (Brough Smith, 1878, in Calder, p.19, 1974) and 'the fires are so placed that the embers cannot ignite the leaves or branches or bark of the miams. Accidental fires are of rare occurrence...' (Brough Smith 1878, in Calder, p.19, 1974). It is known that aboriginals roamed over the area from Arthurs Seat to Coolart and westward to Main Creek, but not a great deal of archeological material has been found. Keble (p.154, 1928) describes a midden found at Tulum (Balnarring Beach) 'At Tulam, on the southern side of the point, there is a small creek (called Midden Creek on my geological map) that heads back towards the Coolart (Merricks Creek). Here I found abundant evidence of a large kitchen midden, in the form of shells, bones, ashes, cooking stones, flakes, a pounding stone and an axe made of metamorphic rock. Mr. Hagger, of Tulam, is reported to have found a boomerang in the dune sand.... they must have watered above tide level in the Coolart'.

The main factor in the disappearance of the aboriginal from areas around the Peninsula was the collapse of the traditional native lifestyle, with its complex social and ceremonial organisation and its traditional ties with the land. Within five years of the establishment of Melbourne in 1835, settlement had spread to Western Port Bay. Within 30 years (1856) the last native aboriginals had disappeared from the Peninsula. (Victorian Archeological Survey, 1979).

Kitchen middens and stone scatters are the main evidence of aboriginals on Coolart and these have been found in two places, the ridge on which the main house and barracks stands, and beside the track to the beach, near the bridge over Merricks Creek. (H. Sullivan, verbal communication).

The stone or lithic scatter continues along the ridge from the main house inland as far as the lagoon. In it have been found shells,
stone flakes, a spearhead and an axe head (H. Sullivan). Shell grit is also present but could have been used by the early settlers as a gravel substitute for paths and the like.

Near the track to the beach, just before the bridge, there is a deflated midden, consisting of a surface scatter of shells, charcoal and stone flakes. Much vegetation litter covers this area and it is quite likely that further finds will be made, particularly if the soil is disturbed for any reason. (See Map 8 and Diagram 3).

Implications for Masterplan
- Design walking tracks to avoid sites.
- If sites prove of interest, arrange displays to control access and preserve site. Use spur tracks off main track system.
- Document finds and watch for new evidence.

2.3.2. The History of Coolart

The history of Coolart is one of the most fascinating of the district, as it was taken up as a pastoral 'run' early in the Peninsula's history, and has had a series of innovative owners.

In 1840 Alfred and Henry Meyrick (after whom the township of Merricks was named) took up a pastoral 'run' of 16,880 acres under Government lease. This 'run' stretched from the Crib Point/Somers area to near Moats corner, Dromana (Ministry for Conservation, c 1978). They found what appeared to be well watered pastures and a section of marsh land with a river running through it. This river later turned out to be salt. They adopted the name Colourt for their 'run' as this was the name of Sandy Point in the local aboriginal dialect (Rogers, H., p. 71, 1960).

The Meyricks purchased stock in Melbourne and drove them to Colourt, where problems immediately arose, as the fresh water, which was supposed to be plentiful, was in short supply, and wild dogs worried the stock. After much discussion they decided to move to Narre Gullen, a 'run' at the back of Mt. Eliza (Rogers, p. 71, 1960). After settling at the new location, Henry was forced to return to
Melbourne, suffering from typhoid, while Alfred sold Narre Gullen and moved back to Colourt, where a plentiful supply of fresh water had been discovered. Alfred battled to get the holding into running order once more, later assisted by Henry, who had by that time recovered. Early in 1846 the brothers decided to sell the cattle at Colourt, and Henry moved to Gippsland, while Alfred returned to Melbourne (Rogers, p.73, 1960). The property lease changed hands four times, until the lease was cancelled in 1875.

The lessees were as follows:–

October 1846 – To William Payne
January 1853 – To Henry Drew
February 1854 – To Joseph Hann (Hann's Inlet)
August 1862 – To John Summer (Lady Casey's grandfather)

(undated notes from the Ministry for Conservation).

It is interesting to note that a map of 1842 refers to the Merricks Station, Callert, so that different spelling of both names was introduced early on.

The building known as the barracks was the original brick homestead on the property, and was probably built during the 1860s, although it is known that there was a 'mud hut', a wattle and daub hut on the property prior to this. A photograph of this exists in the Russell Grimwade Collection and further research could pinpoint its location. A hut or small cottage also existed to the west of what is now Luxton Drive and Mr. Roberts remembers hitting the remains of the chimney and fireplace with his plough during the 1950s. Both the barracks and the stables were built from hand made bricks, quarried from the lagoon area.

The quarrying, which was on a drainage line, caused the formation of a waterbody which was the forerunner of the existing lagoon, although not so extensive.

The barracks and stables date from about the same time. Although the roofs have been covered by galvanized iron for many years, the original shingle roofs of both buildings still exist and are in good condition. It also appears likely that the stables would have had a different appearance when viewed from the drive; something
similar to the barracks. It is the writer's view that a facade was added on the drive side at about the same time the main house was built, possibly to 'modernize' them. This is reinforced by the presence of red brickwork and rendered quoins and trim similar to that of the main house. This is worth further investigation. (See plates 16 & 17).

It is quite possible that the barracks could prove to be one of the most important historical buildings on the Southern Mornington Peninsula.

After the lease was cancelled in 1875, 2,000 acres of the property was purchased by Mr. John Benn, in whose possession it remained until 1895, when it was bought by Mr. F.S. Grimwade. Frederick Sheppard Grimwade was a man of influence. He was a partner of Felton Grimwade & Duering, later to become Drug Houses of Australia Ltd. He was also a Member of Parliament and a man of quite some social and financial standing. Coolart was his country home from 1895 until 1907, and during this time many important changes were instigated.

The main house was built by the Grimwade family, probably about 1895-6. It was previously thought to date from 1897, but the Russell Grimwade Photographic Collection shows it standing in a well established garden by 1896. The rate book also shows a great increase in the value, possibly due to the new house, from 1894-5 to 1897 (G. Pizzey, verbal communication). Further research will no doubt clarify this point. The house is thought to have been designed by Reed, Smart and Tappin, which was the contemporary name of the present firm of Bates, Smart, McCutcheon, between 1890 and 1906 (R. Dunster of Bates, Smart, McCutcheon, verbal communication). The house was built in local brick with rendered window trim and quoins and a slate mansard type roof. There is an imposing square lookout tower over the main entrance. It has 27 rooms and the exterior walls are 14 inches thick. Most of the materials were brought down from Melbourne by oxen carts; two of the oxen yokes have recently been given to the Hastings Historical Society (Ministry for Conservation, c.1978). Other buildings, some of which may even pre-date the barracks, were built over a period. These include the dairy, meathouse and buttery, the toilets, stables and forge. From the Russell Grimwade Photographic Collection it can be seen that there
Plate 16. The Stables. The hand-made bricks are weathering badly, the simple, steep gabled roof remains and is oddly contrasting with the facade to the drive. Shingles are still intact under the iron roof.

Plate 17. The west side of the Barracks and the house. It is interesting to note that aboriginals and many generations of European settlers have chosen exactly the same site on which to live.
were also various other cottages and outbuildings. The dairy
and a later addition to the barracks were damaged by a storm
in 1963 (K. Roberts, 1980, verbal communication) and were not
repaired. Many of the other buildings exist in quite good condition,
sometimes with their characteristic trappings still lying about.
The old forge was located on the western side of the drive near
the lagoon and can be identified by a heap of bricks and many
small pieces of iron and old fashioned nails etc. lying on the grass.
From reports ('Lauderdale', 1904, R. Grimwade, 1947) country life
at Coolart was extremely pleasant. Visitors were collected from
Bittern Station by Morris with the horse and buggy and taken to
Coolart. Grimwade's partner, Alfred Felton, the benefactor
responsible for the Felton Bequest, was occasionally among these
visitors. After dinner, games of cards and charades were often
played, while an early morning swim was frequently followed by
inspection of the stock and attention to farming matters. Coolart
provided a vigorous country existence in which Grimwade took a
keen interest, and to which he frequently applied innovative ideas.
Other pleasant activities at Coolart involved walks to the beach,
'billy-tea' in the bush, and much high jinks among the younger folk,
with skipping, riding and shooting. Much of this has been
recorded by Russell Grimwade (later Sir Russell Grimwade), who
was a keen photographer. It would seem that much of this photography
was almost 'state of the art' as far as the technology was
concerned (Russell Grimwade Photographic Collection).

At this time Coolart was 2,103 acres of very good agricultural
land and stocked about 100 head of cattle (Coolart ran a Shorthorn
stud), 100 horses including brood mares and the legendary sire
'Sobadii', and 1,400 Shropshire sheep.

The Grimwades sold the property in 1907 to Thomas Armstrong of
Noorong, having greatly developed it during their ownership. Four
more changes of ownership occurred as follows:
Thomas Armstrong to Captain Balmain
To - Stewart Robertson of Coree
To - John Feehan of Bulla
To - Thomas J. Luxton (1937)
The Luxton family have owned and lived at Coolart for longer than anyone else in its history. At this time the property was 804 acres and was not further subdivided until 1977. Tom Luxton was fascinated by the abundant birdlife at Coolart, and for years, daily fed the birds on the lagoon. He would sit and watch them in the evenings, from a seat at the end of the raised footpath which extends into the lagoon on the southern side. After purchasing the property in 1937, Tom Luxton had the gardens extensively redesigned in 1938 by the then Curator of the Footscray Gardens (Moorhead & Bognuda, p.68, 1979) and the results of this can be seen in the gracious and mature garden of today (See Section 2.2.4). In 1939 Tom Luxton raised the wall of the lagoon and shortly after this, heavy rains filled it, increasing the lagoon to 5Ha, and giving it very much its present form. On two subsequent occasions when there were droughts, (1958, 1967-68) Mr. Luxton pushed up additional islands for the birds. Some planting was done around the lagoon, and included several Louisiana Swamp Cypresses.

When the Luxton family sold Coolart to the Government in 1977, the property, gardens and lagoon were in very good condition, largely due to the care of Mr. Roberts (See Section 2.1.2). During World War II the RAAF used the Education Department Camp at Somers and extended this base onto the south east corner of the Coolart property. The large heaps of concrete and several sheds around the property are reminders of this (See Map 9).

Implications for Masterplan:
- Restore all buildings of historical importance with care, consult the National Trust where appropriate.
- Record and protect remaining historical items, and retain 'junk' until it is assessed.
- In particular, mark and protect the forge area.
- Use buildings in a manner compatible with their preservation.
- Protect and enhance the lagoon, as Coolart's most important asset. Manage carefully for wildlife and control access.

2.4. Tourist Pressure Analysis

The Peninsula and the Dandenong Ranges are the most popular attractions for day trippers from the Melbourne metropolitan area. The Peninsula can expect 20,000 to 30,000 day visitors in the holiday season and is also
popular with campers, with 30,000 occupying camp sites in the Shire of Flinders in 1970. In addition, there are about 10,000 holiday homes on the southern Mornington Peninsula and it is estimated that these provide accommodation for 40,000 people during the holiday season (Mc.Gregor, p.9). Thus the permanent population of about 20,000 may swell to over 100,000 at times during the holiday season.

Seddon (p.118, 1975) defines three components of the tourist market; international tourists, Australian tourists and Melbourne metropolitan tourists. To appeal to the international visitor, a place must be unique or a particularly good example of some feature. It is quite likely that in time, Coolart could become a small part of this market, the lagoon providing the unique drawcard.

The Australian tourist is likely to constitute a much larger section of the market as, within the Australian spectrum, Coolart offers a great deal of variety including wildlife and historic interest, on the same site. Its coastal location would add to this attraction.

To the Melbourne metropolitan visitor Coolart offers great diversity and features such as the lagoon, which cannot be seen anywhere else in the area. The variety, historic and wildlife interest and the rural character of the site offer the urban and suburban dweller a welcome change of pace. It is this group that is expected to make up by far the larger portion of the market, as recreation demand in the Western Port region has been found to be mainly generated in the Melbourne urban complex (Cockburn & Dunstone, p.27, 1975). It is extremely difficult to predict the actual numbers to expect, and figures seem particularly hard to find. An outdoor recreation study (Patterson, 1979) was carried out in the Shire of Flinders and indicated that the largest proportion of visitors to Western Port beaches in the Shire were daytrippers and that although the numbers were not as high as for southern Port Phillip beaches, a big influx could still be expected. Cape Schanck Coastal Park had 1,000,000 day visitors in 1977/78, (Weir, p.31, 1979) and the most common activity was picnicking, sightseeing and pleasure driving - all of which are highly compatible with a trip to Coolart. It can be expected then, that numbers of day visitors could increase greatly.
Coolart could be equated with Rippon Lea and Werribee Park, however, it is offering a different type of experience in a different type of location so comparisons do not seem in order. Although a high percentage of visitors would be sensitive to environmental concerns and would not deliberately cause damage, problems of wear and tear, parking and litter must be expected. In addition, Coolart's visitors do not always enter via the drive, but may come and go from the beach area via the bridge or Balnarring Beach Road at any hour. These access points will need to be controlled in the future, perhaps being open in daylight hours only. Paths in the dune deposits will need to be carefully designed to prevent erosion and undue disturbance of the vegetation.

The circulation and dispersal of visitors is important, particularly on lawns (Watts, Section 10, 1978). The garden which has been designed for the use of one family may have to cope with hundreds of visitors in a day. In some cases in England, historic gardens which have 'gone public' have tended to become overly commercial (Watts, p.38, 1978), a trend to be avoided. The aim should be to conserve the garden, while making any minor and suitable changes necessary to preserve the garden from deterioration.

Implications for Masterplan:
- Tourist numbers cannot be accurately predicted but are bound to increase, perhaps dramatically.
- Design to cope with large numbers of cars, and plan pedestrian circulation to disperse visitors and reduce pressure on nodes.
- Design elements to cope with wear and tear, and litter.
- Control access from the beach and Balnarring Beach road.
- Monitor numbers and review regularly in case modifications are necessary.

2.5. Landscape Analysis

2.5.1. Landscape Character

The land around Somers and Balnarring is predominantly rolling pastoral country, with large cleared paddocks and occasional windbreaks or isolated trees. These are usually conifers and their dark foliage provides a pleasing contrast with the golden pastures in summer (See plates 3, 19).
Plate 18.
The new wetland.

Plate 19.
Farm buildings, and Sugar Gums, with golden grass and pines in the background.

Plate 20.
The Minsmere Bird Hide.
At Coolart this landscape is well developed, and interfaces with the strip of coast woodland along Merricks Creek. This provides 'the best of both worlds' in that there are components of Australian bush landscape which evoke a sense of recognition and local identity, while there are also components of the ordered and enclosed farm, landscape reminiscent of 'The Old Country'.

Seddon (p.9, 1974) delineates some general principles regarding landscape quality. Aesthetic pleasure is derived from a perceived balance between order and disorder, a discernible pattern with an element of surprise. Thus the meeting of predominantly natural landscapes with agricultural landscapes provides significant boundaries and contrasts. The presence of water enhances this variety. It can be seen that Coolart has these attributes in abundance. It has the tension provided by the meeting of an untamed coastal strip with farmland, it has a variety of waterbodies, deep and enclosed, sheets of water open to the sky, rivers and sea. The sense of history; that man has dwelt on this piece of land for a long time by Australian standards, also adds to its appeal. On balance,Coolart must be considered to be one of the richest and most varied landscapes to which the Victorian public has access.

2.5.2. Views from outside

The major views of Coolart from outside the site can be gained from Lord Somers Road and Balnarring Beach road. Both these roads are intermittently lined with pines and cypress which provide roadside shade and allow views under their huge canopies. From both these locations the tower of the main house can be seen. From Lord Somers Road the lagoon, with its birdlife can be observed. It has been a policy of the Committee of Management to keep the lagoon clear at the northern end to maintain this view.

It would be possible for the Council to provide roadside bays in shady areas so people can safely stop to admire the view. From Sandy Point road the drive plantation dominates, and the property in general can be seen, with glimpses only of the house. Little can be seen from the beach because of the dune ridges and the thick vegetation. (See Map 10).
2.5.3. Views within the site

There are many excellent views and vistas within the site. These are listed below:

- View along Luxton Drive, from the road towards the house. Here a wonderfully dense tunnel of trees opens out into an Elm avenue and reveals the house complex at the end. (See plates 4,10).

- Glimpses of the ornamental garden can be had from the drive near the house, but it only reveals its full beauty once the observer has stepped down into it. The garden is in a slight depression, with huge shelterbelt plantings surrounding it, giving it a wonderful sense of enclosure and protection from the elements. (See plates 7,8,9).

- Excellent views of the lagoon can be had from the Minsmere bird hide which is carefully screened so that the birds are not disturbed. At certain times of the year, when birds are not nesting, the lagoon can also be viewed from the southern raised footpath. (See plates 13,14,15,20).

- Long views from the house complex, across the surrounding landscape to the west, go as far as the horizon. (See plate 3). In the foreground is the new wetland on which waterbirds can be seen. (See plate 18).

- From the gate leading to the beach track extensive views of the coastline can be seen. Phillip Island can also be seen through the gaps in the trees. Those lucky enough to get a view from the top of the tower can see forever.

- In the past, more of the coast was visible, however the shelter plantings have become so enormous that they have cut out much of it. On a windy day the shelter is possibly more welcome than an improved view.

- At the Coolart Bridge and from many points along Merricks Creek and its tributary, there are pleasant river views.

- Crossing the bridge and climbing the dune, the track opens out onto the beach, with views up and down the coast and across to Phillip Island. (See Map 10).

2.5.4. Exterior Spaces

The exterior spaces are coherent units or entities in the landscape. For instance the ornamental garden is a unit which can be treated as a whole. The exterior space is invariably related to
a particular land use e.g. the paddocks are a unit of exterior space which can be managed as a unit and they are related to the land use of farming. Similarly the orchard, lagoon and coast woodland are examples of exterior spaces. One may be open to another and have no distinct boundary, or it may be enclosed and defined by elements such as shelterbelt planting, as is the garden.

The different exterior spaces are listed below. (See Map 10).

The paddocks
Farm yards and outbuildings area
The new Australian native plantings at the head of the lagoon.
The Lagoon
Luxton drive
The new drive and associated parking area
The house and immediate environs
The ornamental garden
The vegetable garden
The orchard
The new wetlands area
The coast woodland

2.5.5. Existing Conditions
See Map 11.

2.5.5.1. Circulation
Circulation falls into two major categories - vehicular and pedestrian.

Two types of vehicular circulation exist on Coolart. The first is the driveway access to the main house, bringing people into the centre of the site. The second is farm vehicle access. This involves getting tractors, mowers and the like to most parts of the estate for various reasons.

As mentioned previously (Section 2.2.5) the existing drive creates problems with wildlife disturbance when used frequently or by heavy vehicles. Under present conditions this is occurring almost daily. The Committee of Management has been committed to a new public entry to Coolart for some time, and have partly constructed a new drive from Lord
Somers Road, with a large paddock near the house being planned for parking. (See plates 21,22). Farm vehicle access has been adequate to most parts of the property, with the exception of the pan handle area of the coast woodland. Here two stream gullies, frequently containing water too high to ford, cross the area. When this is the case, access can only be obtained from Salmarring Beach Road, that is, the long way round. A track also exists from the main drive to the shearing sheds.

Existing pedestrian circulation on Coolart is restricted to the house and environs, except for the track to the beach. The garden is not highly structured regarding paths, and where they do exist are more like grassy walks. Provision for more pathways will be necessary in the future.

2.5.5.2. Significant features

Almost all the significant features have been mentioned under other headings. A list is included to draw them together.

Significant features:
Luxton Drive
The Lagoon
Southern raised path to the lagoon
Forge remains
Wetlands
Old hayshed
Stables
Barracks
Dairy, meathouse and buttery
Old smokehouse
Main house
Ornamental garden, including the rose garden
Orchard
Coast Woodland
Merricks Creek
Coolart Bridge
2.5.5.3. Utilities and Services

Two major problems arise in the area of utilities and services. The first one is the provision of a new water reticulation system, which is currently being implemented. The second is the provision of a new septic system, which will be costly and will need to involve a detailed analysis of soils and other factors. This must be carried out by some competent authority. The possibility of using sewerage lagoons has been raised and should be carefully examined before being implemented, both as to its effectiveness, odour etc., and to the environmental impact.

Implications for Masterplan
- Maintain and enhance the landscape character of Coolart.
- Design to capitalize on views, both from outside and within the site.
- Retain the character of the existing exterior spaces and develop to enhance this.
- Complete new drive and provide car and bus parking and service access to the house complex.
- Provide vehicular access to panhandle, including river crossings.
- Provide pathways where heavy pedestrian use is expected.
- Use features to best advantage, so the public can learn from, and enjoy Coolart's assets.
- A new septic system is necessary but must be fully checked out before being installed.
PHASE TWO - SUMMARY OF IMPLICATIONS FOR MASTERPLAN

- The primary use of Coolart is for conservation/wildlife education and related recreation, the secondary use is for historic/cultural interests and farming.

- The lagoon must be maintained for the birdlife, as Coolart's most important asset.

- Maintain the rural and landscape character of Coolart, as an excellent example of the Southern Mornington Peninsula landscape.

- Provide new drive and parking area, with service access to house, for increased numbers. Locate toilet block near this.

- Negotiate to manage Luxton Drive as part of Coolart Reserve. Maintain it as V.I.P. entrance. Cull pine seedlings.

- Provide vehicular, including firetruck, access to panhandle. This requires two river crossings to be constructed.

- Provide paths where necessary, design to disperse visitors and reduce pressure on nodes. Provide shelter from wind where necessary.

- Control pedestrian access to property at Balnarring Beach Road and at Coolart Bridge.

- Maintain habitat diversity, vegetation diversity and honeyflora succession.

- Encourage regeneration of woodland, and plant, preferably using local gene pool stock. Remove rabbits and weeds.

- Manage so as to protect the Coolart sand spit.

- Link lagoon and coast woodland with vegetation and waterbirds. Limit access to lagoon.

- Provide new bird hides (one large).

- Design bird hides, tracks etc. for minimum disturbance, site so some areas are undisturbed.

- Lagoon catchment permits further wetland development.

- An Interpretive Centre is required.

- Maintain grazing land - lease out.
- Design to capitalize on views.
- New septic system is required - check further.
- Maintain garden, watch for wear, restore south west garden, rose garden, vegetable garden and orchard.
- Design walk tracks to avoid archaeological sites, watch for new 'finds'.
- Restore appropriate historic buildings, consulting the National Trust where appropriate. Use building in a compatible manner.
- Record and monitor wildlife, vegetation, historic items and visitor numbers in case modifications to plan are necessary.
PHASE THREE

DEVELOPMENT OF LAND UNITS
PHASE THREE - DEVELOPMENT OF LAND UNITS

It is necessary to define areas which can be managed as an entity and to which management strategies and objectives can be applied as a unit. This involves some generalizations but makes management more straightforward and allows an area to be treated as a whole. For example, the coast woodland can be treated as a unit, although there are various different subunits within it (Brown, Itami, King, 1980).

3.1. Land Unit Derivation

As the primary objectives for the site are to use it for conservation, wildlife education purposes and related recreation, and the secondary objectives are to provide historic and cultural interest and farm land, the factors influencing land units are ecologically and culturally based.

Of the ecological factors (see ecological analysis, Section 2.2.) the most important are soils, which reflect the geology, and geomorphology. Soils determine to a large extent what can go on top of them, both in the nature of vegetation, buildings and structures such as dams, paths and roads. Geomorphology is also important as landform also dictates what it is possible to do with design. This was felt to be particularly so in this site, as massive earth shaping projects would be totally out of character.

Climate, vegetation and wildlife were not considered to be key factors in determining land units. Climate is relatively constant across the site, vegetation now has artificial boundaries due to grazing and planting, and wildlife will move into newly provided habitats if they are available, hence the wildlife factor is variable.

Regarding historic and cultural factors: most of the important features occur on a particular site, rather than across a unit, however, the best indicator of historic/cultural factors is exterior spaces (Section 2.5.4.) as these encompass coherent area of historic and cultural interest.

Thus the soils and geomorphology map was overlaid by the exterior spaces map and the resulting combination gives rise to the land unit map. (See Map 12 & Diagram 4). These units can be managed as entities
LAND UNITS
1 HOUSE & ENVIRONS
2 ORNAMENTAL GARDEN
3 VEGETABLE GARDEN
4 ORCHARD
5 NEW DRIVE & PARKING AREA
6 LUXTON DRIVE
7 LAGOON
8 WETLANDS
9 PASTURE
10 SHELTER PLANTING
11 FARMYARD
12 COAST WOODLAND

COOLART RESERVE
centre for environmental studies
land units
university of melbourne

scale 1:8000
october 1980
map 12
Primary objectives for site
Conservation/wildlife observation, education & related recreation

Factors influencing objectives are ecologically based

Secondary objectives
Provide historic/cultural interest & farm land

Factors influencing objectives are historically and culturally based

Relevant Factors
Geomorphology
Soils

Overlay Factors

Land Units
- outline
- describe
and management guidelines and strategies can be applied to them as a whole. Map 12 outlines and lists these units.

3.2. Description of Land Units

<table>
<thead>
<tr>
<th>Unit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 1</td>
<td>House and environs. This includes the main house and barracks, with the associated outbuildings and immediate drive area. It also includes lawn areas to the south and west of the house, and extends to the base of the ridge. (See Section 2.3.2. for description).</td>
</tr>
<tr>
<td>Unit 2</td>
<td>Ornamental Garden. This encompasses both the lawn area, with beds and trees, the rose garden and the area to the east up to the sugar gum and pine windbreak, including the old tennis court. (See Section 2.2.4).</td>
</tr>
<tr>
<td>Unit 3</td>
<td>Vegetable garden. This consists of the area by the old smokehouse, which is adjacent to the ornamental garden. It also includes the citrus fruit tree area. (See 2.2.4).</td>
</tr>
<tr>
<td>Unit 4</td>
<td>Orchard. This occurs at the north east corner of the garden and is separated from it by a fence and trellis gateway. (See 2.2.4).</td>
</tr>
<tr>
<td>Unit 5</td>
<td>New drive and associated parking area. This has been fenced off from the other paddocks and the drive has been partly constructed. (See 2.2.4).</td>
</tr>
<tr>
<td>Unit 6</td>
<td>Luxton Drive. This includes the drive and surrounding area, except in the vicinity of the house, and refers to the dense plantation area of gums, cypress, pine and elm. (See 2.2.4).</td>
</tr>
<tr>
<td>Unit 7</td>
<td>Lagoon. This includes the lagoon proper, with associated islands and margins, whether treed or open.</td>
</tr>
<tr>
<td>Unit 8</td>
<td>The Wetland. This is the sheet of water lying on the flat to the west of the house, and includes the surrounding area, up to the base of the ridge on which the house stands. (See plate 18).</td>
</tr>
<tr>
<td>Unit 9</td>
<td>Pasture. All areas currently grazed. In the future some part of this may be returned to woodland.</td>
</tr>
<tr>
<td>Unit 10</td>
<td>Shelter Planting. This consists of the area to the north of the lagoon which has been planted with Australian natives. As they are still small, the area appears similar to the paddocks, but must be</td>
</tr>
</tbody>
</table>
Unit 11 - Farm yard, outbuildings and related area. This includes the hay sheds, shearing shed, machine shed and stables and the land around them.

Unit 12 - Coast woodland. This area consists of several subunits for which management techniques will need to be varied slightly. These include the scarp to the east, and the billabong area and the immediate creek margins. Otherwise it covers the whole area on the southern edge of Coolart, including the panhandle.

The land unit concept is carried a step further into the design phase, firstly to the broad concept stage, and finally to the masterplan stage, management guidelines are applied to the units.
PHASE FOUR

CONCEPT
The concept phase involves a further crystallization of ideas, and the combination of the program (Phase One) and the problems and opportunities presented by the site (Analysis of factors, Phase Two). Refer to the Summary of Program, Phase One, and the Summary of Implications for Masterplan, at the end of Phase Two.

This process of combining program and opportunities and constraints and of putting design elements on the land, is an iterative one.

Much feedback is involved in the process of design, from the time the site is first explored and a rough idea as to what is possible is obtained, to the detailed and systematic assessment of the problems and their solutions. As much detail as possible, regarding constraints and opportunities has been researched, so that the design solution will be realistic and will work when 'on the ground'.

By the very nature of being a Government reserve, the broad concept for Coolart is laid down, as it has been gazetted 'Coolart Public Purposes (Conservation and Education Purposes) Reserve' (See Appendix 2). This, then, dictates the design direction, so that the development of concepts along other lines would be of secondary importance and not relevant. This, coupled with the fact that the design was developed with frequent reference to the Committee of Management and to the warden of Coolart, meant that inappropriate solutions to problems were discarded early on, with the best alternatives being retained. It is not appropriate to examine the unacceptable solutions here. Thus one concept only was developed, and is discussed below.

4.1. Access to the site and circulation within it

4.1.1. Vehicular access and parking  
See Map 13.

The new public entry from Lord Somers Road should be completed. Entry from the southern end offers the most practical solution, as it does not alienate as much grazing land as other solutions. This will lead to a parking area, for which screening in the form of huge pines, already exists. This area is close enough to the house complex to be practical, but does not impinge on the historic complex. It is also the best opportunity on the site to completely screen the parking from other
activities. The new drive will also provide service access to the farm buildings and house complex. Luxton Drive should be retained for V.I.P. access only.

Farm vehicle access is required to the panhandle area for fire and emergency use, and for property management. This is best sited along the boundary, causing least disturbance to the woodland area and being contiguous with the neighbour's cleared area, as added fire protection.

4.1.2. Pedestrian circulation

Broadly, this has been designed to disperse people before they arrive at the house and garden area. From the carpark, one track heads north towards the shearing shed and lagoon, while another goes south and links up with the nature trail system. The main path heads towards the house from an entry and drop-off point in the carpark; this skirts the ornamental garden on the southern side and does not cross it, and then meets up with the existing drive at the main house. This solution reduces wear and tear on the vulnerable garden area and directs pedestrian traffic to areas which can handle it. Secondary paths to bird hides, observation points, and to the interpretive centre will also be required. The nature trail has been designed on the principle of a main track away from the sensitive areas, with spur tracks leading to observation points and sites of interest.

4.2. Water Bodies

As stated previously, a series of waterbodies greatly enriches the waterbird habitat. Opportunity exists to provide a second wetland, between the new wetland, the house, and also to put a small wall on the upper part of the Coolart arm and retain a shallow sheet of water. The billabong area also needs to be developed as it is an unused resource. An ornamental pond is also planned for the farmyard area. This would be constructed by extending and landscaping the existing farm dam. The Lagoon is to be carefully maintained.
4.3. Vegetation

4.3.1. Woodland regeneration

Natural regeneration of the woodland is occurring. However, it can be encouraged by clearing around the young Banksias and the like and removing the more vigorous Tea Tree seedlings. Removal of stock and rabbit control has aided this regeneration considerably.

4.3.2. Replanting of Native vegetation

Species not regenerating in the coast woodland should be replanted and local gene pool stock used if possible. As with water, habitats should be linked by vegetation, with a shift in emphasis from indigenous vegetation to the south, to general Australian natives in the vicinity of the parking lot, to lagoon margin vegetation to the north. The parking lot should have a good tree canopy of some locally dominant species.

4.3.3. Non-indigenous Vegetation

Replanting of shelterbelts in the paddocks should be commenced, to replace the existing overmature gums and conifers. The orchard, vegetable garden, formal garden and rose garden should be maintained, and the garden to the south west of the house designed to visually link the wetlands and the house. The philosophy of leaving the formal garden very much as it is has been adopted, as although the research material is available to reconstruct the 1890's garden, the present one is more attractive in the writer's opinion, and any change would be expensive, cause a local uproar and destroy something of great beauty. This is consistent with the general 'overlay' approach advocated by Watts (1978) where all historic periods represented on a site are valid and it is not 'frozen in time'.

4.4. Other Major Site Elements

The interpretive centre must be located with easy access from the car park, and preferably away from the house to disperse tourist pressure. The old hayshed recycled would seem to be ideal for this purpose.
New bird hides and observation points have been sited in the woodland area and at the lagoon, one of which can accommodate a busload.

A picnic site is appropriate for the old tennis court area, to the east of the garden, and separated from it by a screen of plants. It is shady and sheltered from the wind here, and is close to the cars. The area is not significant and hence picnicking will not destroy a valuable resource.

Buildings of historic interest, such as the barracks, house and farm buildings should be opened for various appropriate uses. (See Map 13). Paddocks can be leased out for grazing.
PHASE FIVE

MASTERPLAN AND MANAGEMENT GUIDELINES
PHASE FIVE - MASTERPLAN AND MANAGEMENT GUIDELINES

See Map 14.

The masterplan phase of the design process involves further refinement and detailing of the concept. Decisions made in previous sections are built on and design becomes more specific.

The overall theme for Coolart has been discussed in Phase Four and is primarily a conservation and wildlife theme, with secondary emphasis on historical and cultural interests and farming.

The masterplan will be discussed in terms of the land units derived in Phase Three. Management guidelines will be outlined and this then makes these land management units, that is, they may be managed as an entity.

Hence the masterplan and management guidelines will be discussed under the following headings:-

1. House and environs
2. Ornamental garden
3. Vegetable garden
4. Orchard
5. New drive and parking area
6. Luxton Drive
7. Lagoon
8. Wetlands
9. Pasture
10. Shelter planting
11. Farmyard
12. Coast woodland

5.1. House and environs

Design guidelines

The main house is primarily used for administration and occasionally for displays. Several rooms could be restored to provide a glimpse of a past era. The garden to the south west of the house should be developed in keeping with the house, but kept relatively simple with lawn, shrubs and trees and no fussy detail. The lawn sweeps down the slope and, once the fence is removed, will blend with the upper grassy slopes of the wetland area.
The drive near the house is very pleasant and should be left much as it is, apart from relocating the toilet blocks once the new parking area is in use. Herbs could be grown by the back door of the house, however, they should only be in perimeter plantings.

Management Guidelines
- Maintain status quo.
- Set up resource centre in house to store and display material relevant to Coolart.
- Open day afternoon teas should continue in the courtyard, which could have appropriate portable outdoor furniture.

5.2. The Ornamental Garden

Design Guidelines
This should be left very much as it is, with perhaps more emphasis on perennial ground covers and mulching to reduce maintenance. Plantings will need to be replaced gradually as individual specimens become overmature. Many trees and shrubs have already been marked with name labels. This should be taken a step further and a 'garden trail' similar to a nature trail developed. The Royal Botanic Gardens, Melbourne does this, issuing an interpretive pamphlet as a guide. These are recycled (posted in a box at the end of the trail) and the return rate is high.

Hard paved areas will be necessary at the base of the steps and at points where the lawn is particularly subject to wear, such as the rose garden pathways. These can be made of the same brick as the steps and need extend beyond them only a few feet. (See diagram 5).

A maintenance yard, tool area and nursery area are necessary and these are best located in the vegetable garden area, near the machine sheds.

The main path from the new carpark to the house, passes to the south side of the garden and offers side tracks into the garden. On no account must a major pedestrian route go through the main garden. This path passes underneath the huge cypresses and provides glimpses of the main house from various points.
Diagram 5

Hardened stepdown areas in garden.
No scale

Diagram 6

New drive entry

Lord Somers Road

Plantings to define entry

Bay

Fence
Near the end of the house the path comes into full view. This path surface would be gravel.

Management Guidelines
- Mulch garden beds where possible, and use ground covers.
- Replace some annuals with perrenials to cut down labour, but leave them in highly conspicuous areas such as around the pond.
- Restore rose garden by removing occasional bushes. When replanting roses, use old fashioned varieties.
- Visually screen the route across the garden from the carpark with plantings.

5.3. Vegetable Garden
Design Guidelines
If maintenance can be coped with, the straight rows right across the area, of the Grimwade era, should be reinstated.
The old smokehouse should be fixed up and opened to the public. Rarely seen vegetables such as raspberry canes provide interest.

Management Guidelines
- Use old and unusual varieties of fruit and vegetables where possible.
- This area could possibly be managed by some local community group such as the elderly citizens or the horticultural group. Produce could be shared around.

5.4. The Orchard
Design Guidelines
The old trees should be replaced in stages, with old fashioned varieties of fruit trees. The area under the trees should be grassed and would be ideal as an extension of the picnic area. In addition, as this part of the Peninsula is so well known for its orchards, it should be well kept and properly pruned.

Management Guidelines
- Allow free access from picnic area but retain farm fence to the north, as denoting a change in character from the house environment to open paddocks.
- Co-opt local orchardists to prune each year, on an open day, as a demonstration.
5.5. The New Drive and Parking Area

Design Guidelines

The new entry from Lord Somers Road needs to have a wide pull-over bay for recognition and traffic control, so that the motorist can safely enter the drive from the main road. This will also help control speeds on entering the site. The entry should be appropriately planted with natives as a feature. See diagrams 6 and 7. The driveway will be screened from the Somers camp with plantings, however, the view has been largely kept open on the northern side to maintain the characteristic landscape and to view across to the head of the lagoon. Further native plantings are required to completely screen the carpark and link up with the lagoon vegetation. (See Plates 21 & 22).

The carpark will be heavily planted with canopy trees to provide shade and shelter. Manna Gums would be appropriate, being the dominant element of the coast woodland vegetation. The parking area will also require some underplanting in the areas indicated on Map 14, and drainage will need to be dealt with. The surface of the carpark and drive should be gravel, preferably of not too light a colour. Bus parking is also necessary.

Vehicular circulation in the carpark permits people to alight at a drop-off point close to the house. This would be landscaped as a feature and a recognizable pedestrian entry, and could include interpretive information etc. Vehicular circulation is then one way, around to the car park and out. The drive and the service road to the house are both two-way traffic. The service road terminates on the concrete slab which will remain when the chicken sheds are demolished. A new workshop and machine shed will need to be provided beside this area.

Management Guidelines

- Plant the drive with hardy natives and use ground cover where appropriate, to minimize maintenance.
- Drainage from carpark and associated areas can be directed to the lagoon and wetland areas.
- Surface carpark with gravel, mulch trees and underplantings to reduce maintenance.
Plate 21. Site for the new drive - before.

Plate 22. Site for the new drive - after. A welcome glimpse of the sea through the Sugar Gums.
DIAGRAM 7
SCREEN TO SOMERS CAMP

EUCALYPTS & UNDERPLANTINGS

GENTLE BERM TO SCREEN CAMP.

DIAGRAM 8

BIRD HIDE OVER COAST WOODLAND

VIEWS OVER 1 THROUGH TREES TO SEA

BIRD HIDE

COAST WOODLAND
- Use drop-off point at carpark as a site for interpretive information.
- Signpost walk tracks from carpark.

5.6. Luxton Drive

Design Guidelines

The main plantation area should be maintained much as it is, with gradual replacement of overmature trees where necessary.

Luxton Drive would only be used by Coolart on ceremonial occasions or when a particularly important visitor is expected.

Management Guidelines

- Slash grass in drive.
- Cull pine seedlings.

5.7. Lagoon

Design Guidelines

The lagoon, as Coolart's single most important resource, is to remain very much as it is, with paths screened from the water and viewing mainly through bird hides. Maintenance of this breeding habitat is all-important. An additional bird hide, to house a busload of people should be constructed at the western end. This is a relatively high priority as when groups of visitors are split, some of them wander around without direction. Another hide further up the lagoon is also feasible. (See diagram 8).

Management Guidelines

- Retain open nature at the head of the lagoon.
- Limit and screen pedestrian access to the lagoon. Visitors should not be able to use the southern raised walkway during the white ibis breeding season.

5.8. The New Wetlands

Design Guidelines

The second wetland, as recommended by the Soil Conservation Authority and others, should be constructed. This would bring a sheet of water up to the base of the slope on the western
side of the house and allow for a sweep of lawn from the house to the water's edge. If possible a causeway walk can be constructed out into the wetland allowing for 360° viewing of waterbirds. The dam walls would be grassed, as would the area between the two wetlands. These are to remain open to the sky, with very little planting, except for a few clumps of Melaleuca ericifolia and Phragmites communis. Sewerage lagoons may be necessary, but must first be fully checked out.

Management Guidelines
- Use minimal planting around the new wetlands - Paperbarks and Reeds.

5.9. Pasture
Design Guidelines

Visually, the pasture areas should be kept relatively open and the general landscape character retained. However, replanting of shelterbelt plantations is urgent as they are almost all overmature. Some coppices of gums should also be provided. People and stock do not mix and paddocks must be kept free of any tracks.

Management Guidelines
- Fence to keep people and stock separate.
- Provide stock access to paddocks so they can be properly managed.
- Lease paddocks out to local graziers.

5.10. Shelter Planting
Design Guidelines

This refers to the small area to the north of the lagoon. Any seedling trees which die should be replaced and any additional planting necessary should be carried out.

Management Guidelines
- Keep stock out of this area.
- Check plants for progress and replace if necessary.
5.11. Farmyard

Design Guidelines

The new service roadway comes across this area, but has been discussed under Section 5.5. A new works shed will also be necessary in this area.

An ornamental pond should be constructed from the existing farm dam in this area. This should be landscaped to provide a pleasant area where children can play under adult supervision. This area also contains the old stables and hay shed, which should be recycled as an interpretive centre.

Management Guidelines
- Permit access to the ornamental pond.
- Provide safe play areas where children can run about, paddle, look for tadpoles, etc.
- Use stables for displays of old farm equipment etc.
- Repair and recycle hayshed for an interpretive centre.

5.12. Coast Woodland

Design Guidelines

Encourage regeneration of the coast woodland in the whole of the panhandle area. Eucalyptus viminalis will need to be planted, while existing Banksia and other seedlings should be cleared and mulched.

This will eventually provide a habitat link with the lagoon and carpark vegetation.

A fire access track should be sited along the northern boundary of the panhandle area and can link up with fire access across the southern paddock. This track can double as a walk track and nature trail with spur tracks off it to observation points and bird hides. River crossings will need to be constructed at two points. A side path from Somers camp meets up with this walk track. These paths also capitalize on the views available through the area. A small wall could be raised on the Coolart 'arm', damming a long, thin, shallow sheet of wetland, with reeds and shelter. It would also provide a habitat link to the creek.
The billabong can be developed, and pedestrian access provided. This area contains wildlife which cannot be seen at the moment as the Paperbarks are thick.

Management Guidelines
- Slash fire access track edges and keep plantings down in immediate vicinity.
- Clear around regenerating plants and mulch well.
- Link up with Somers Camp and encourage use of the nature trail etc.
- Keep up war on rabbits.
- Keep stock out of woodland.

SUMMARY

The masterplan and management strategies will need to be assessed every so often, and the necessary adjustments to the system made.

The approach that has been used at Coolart could just as well be used in any other similar application, the main consideration being to carefully assess the site and work within its opportunities and limitations. A compromise can be reached between conservation values and public access, and this has been one of the major aims of this study.

The writer feels strongly that in a case such as this, it is inappropriate for a designer to want to leave his or her personal stamp on the land. It is more important to subtly work within the existing framework, to realize its potential and create new opportunities, while enhancing the existing landscape character.
APPENDIX 1.

COOLART RESERVE COMMITTEE OF MANAGEMENT

Chairman:
Mr. S.J. Cowling, Fisheries and Wildlife Division

Deputy Chairman:
Mr. G. Cameron, Royal Australasian Ornithologists' Union

Secretary:
Cr. L. Bennetts, Shire of Hastings

Ms. J. Love, Western Port and Peninsula Protection Council
Mr. M. Gange, Ministry for Conservation
Mr. R. Joy, Environmental Studies Association of Victoria
Mr. J. Cunningham, Department of Crown Lands and Survey
Mr. D. Chambers, Education Department

Warden:         Mr. Graham Pizzey
Caretaker:       Mr. Ken Roberts

With assistance from: Mr. Simon Penfold
REGULATIONS FOR THE CARE, PROTECTION AND MANAGEMENT OF THE "COOLART PUBLIC PURPOSES (CONSERVATION AND EDUCATION PURPOSES) RESERVE."

Whereas by section 218 of the Land Act 1958 the Minister of Lands is empowered to make Regulations as to any land which under the provisions of that Act or of any other Act relating to Crown lands has been reserved for any public purpose whatsoever and which has not been consecrated or dedicated in trust; and whereas such land in the Parish of Bittern was temporarily reserved as a site for Public Purposes (Conservation and Education Purposes) by the then Council dated the 20th March, 1978 (see Government Gazette of the 5th April, 1978); and whereas such land (hereinafter called the "Reserve") has not been converted to or vested in trustees but has been placed under the control of a Committee of Management (hereafter referred to as the "Committee") pursuant to the provisions of section 221 of the Land Act 1958; and whereas it is expedient that Regulations for the care, protection and management of the Reserve and for other purposes connected therewith should be made. Whereupon the Committee of Management of Coolart Reserves, Her Majesty's Minister of Lands and for the State of Victoria, in pursuance of the powers aforesaid, do hereby make the following Regulations for or with respect to the Reserve:

REGULATIONS

1. These Regulations may be cited as the Coolart Public Purposes (Conservation and Education Purposes) Reserve Regulations.

2. In these Regulations, unless inconsistent with the context or subject matter—

"authorised officer" means any person authorised by the Committee;

"building" includes any house, flat, lodging house, tent, shed, hut, shed, bathing box, boathouse, kiosk, toilet block, caravan or any other structure or erection;

"cause" means any cause of these Regulations;

"litter" means any bottle, tin, cask, package, paper, glass, food or any other refuse or rubbish;

"vehicle" includes—

(a) any vehicle that is a motor car within the meaning of the Motor Car Act 1958;

(b) any vehicle that is a recreation vehicle within the meaning of the Recreational Vehicles Act 1958;

(c) any bicycle, cart, trailer, caravan or horse-drawn vehicle; and

(d) any boat.

3. The Committee or any of its authorised officers are empowered to have carried out such works and improvements as are considered necessary for the management of the Reserve and for the control of the public therein.

4. For the purposes of preserving, protecting, controlling and managing the Reserve the Committee or any authorised officer may from time to time—

(i) set aside areas in the Reserve for—

(a) the establishment of vegetation or the reclamation of land;

(b) roads, tracks, tracks for driving, walking or riding;

(c) recreational activities;

(d) amenities or facilities; or

(e) other particular purposes or uses.

(ii) erect or display notices or signs indicating areas so set aside and the purposes or uses for which they are respectively so set aside; and

(iii) determine times at which areas so set aside may be used for the purposes or uses for which they are so set aside.

5. For the purpose of maintaining good order the Committee or its authorised officers may refuse the admission of any person to the Reserve.

6. The Committee shall have the right to charge or authorise any person, club or association to charge a fee for admission to the Reserve.

7. The Committee may—

(a) grant any permit, permission or authority required or provided for by these Regulations and by the Land Act 1958;

(b) provide for any term or condition or fix a fee, toll or charge in connection with any such permit, permission or authority;

(c) empower any authorised officer of the Committee to grant any such permit, permission or authority and to collect any fee, toll or charge provided for by the Committee.

8. No club, association or person shall hold or take any part in any new construction, improvement, performance, show or ceremony in any part of the Reserve without the written authority of the Committee except and then only subject to the provisions of such terms and conditions as the Committee directs to be reasonable and consistent with these Regulations.

9. No person shall—

(a) enter or remain in the Reserve who may offend against decency as regards dress, language, conduct or who may believe in a disorder, nuisance, or disturbance, or any offensive manner, or create or take part in any disturbance;

(b) use any facilities in the Reserve which are set aside for the use of persons of the opposite sex;

(c) enter or remain in the Reserve unless under the control of a Committee of Management or with the express permission of the Committee;

(d) interfere with or destroy any property, tree, plant, life or any fence in or around the Reserve;

(e) walk on any grass or shrunken lands, beach or any part of any specially planted or enclosed area or part of any other purpose in the Reserve;

(f) obstruct or interfere with any person employed in the Reserve;

(g) climb, jump on or get over any gates, fences or other works surrounding the Reserve, or stick bills or advertisements or cut names thereof;

(h) damage, deface, remove or otherwise interfere with any rock or natural feature in the Reserve;

(i) dig, or remove from or take into the Reserve any stone, gravel, grit, sand, soil or loan except for any works authorised by the Committee;

(j) park, remove, deface or otherwise damage or lose in his possession any vehicle, plant, shrub, tree or other vegetation found in the Reserve;

(k) remove, cut, damage, drafse f cells or interfere with any memorial, sign, notice, board, seat, bench, gate, post, fence, bridge, building, furniture or likeness or any other thing constructed or erected in the Reserve;

(l) leave or deposit any broken glass, paper, orange peel, banana skins, refuse or any other rubbish whatsoever in the Reserve except in any receptacle provided for such purpose, or in the case of stones or missiles of any kind therein, or leave anything therein that might injure a person;

(m) remain in the Reserve at any time when lawfully directed to do so by a member of the Police Force or employe of the Committee, a Land of Crown lands or a member of the Police Force to leave the same;

(n) except in an emergency, land any helicopter or any other aircraft on the Reserve or doing any other thing or thing thereof by parachute, helicopter or other means from the air;

(o) except in an emergency, land by parachute in the Reserve;

(p) create, cause or allow to be created in the Reserve any noise or sound which, in the opinion of the Committee or its authorised officers, a Land of Crown lands or a member of the Police Force, is an annoyance to members of the public therein or to residents adjoining the Reserve;

(q) polish any water in the Reserve or use any drinking fountain therein for any purpose other than drinking.

10. No person shall without the consent, in writing, of the Committee or an authorised officer—

(a) offer any article of food, drink or any other commodity whatsoever for sale or bring intoxicating liquor on the Reserve;

(b) display any commercial goods for advertisement or seek information for commercial purposes in the Reserve;

(c) distribute placards, handbills or any other like items in the Reserve;

(d) light any fire in the Reserve;

(e) bring any plant or plant material into the Reserve;
(f) enter any area, road or track in the Reserve which is enclosed or set aside for plantations of trees, shrubs or grasses or for the preservation of native flora or wildlife or for the re-establishment of vegetation or reclamation of eroded areas;

(g) deposit on the Reserve or construct therein any leash, shed, structure or any other equipment;

(h) camp or erect a tent or use a caravan or any other mobile structure, no campervan or vehicle equipped or adapted for sleeping shall be permitted to remain in the Reserve between the hours of sunset and sunrise;

(i) use any water craft within the Reserve;

(j) bathe, wash or wash any lake, pond, stream or other commercial water in the Reserve;

(k) bring or allow any animal of any kind into the Reserve other than a guide dog under the immediate control of a person. Any dog found therein, except as provided herein, shall be liable to be destroyed. Any "dog" as defined by section 3 of the Animal Act 1968 found in breach of the Reserve shall be liable to be impounded;

(l) carry on any trade or business or do anything whatsoever for the purpose of making money;

(m) erect, remove, deface, damage or interfere with any architectural or Aboriginal painting or relics in the Reserve;

(n) interfere with the flow or water into, out of or within the Reserve or remove water therefrom;

(o) shoot, poison, trap, catch or abduct any destroy or interfere with or harm in his possession or under his control any animal or any plant, egg, feather, nest or part thereof nor shall he take in or from the Reserve any such wildling, skin, egg, feather, nest or part thereof;

(p) use or have in his possession any gun or other weapon, poison, trap, sneeze or net in the Reserve.

11. No person shall occupy, use or enter any building in the Reserve—

(a) unless the building is set aside for public use and such person occupies, uses or enters any such building in accordance with the purposes for which it is so set aside;

(b) except in accordance with any permit held by such person under these Regulations.

12. Persons occupying or hiring any stand, building, erection, enclosure or any other facilities on the Reserve may be required to deposit a sum which the Committee may at any time determine by way of guarantee that due care shall be taken of such stand, building, erection, enclosure or other facilities, and such Committee, in its absolute discretion, may make good any damage or loss sustained by such stand, building, erection, enclosure or other facilities or anything therein during such occupancy or hiring and deduct the cost of making good such loss or damage from the sum of money deposited by way of guarantee and all persons so occupying or hiring shall abide by these Regulations and by any lawful order given by the Committee.

13. No person shall—

(a) drive any vehicle in the Reserve except on any roadway or in any area set aside for driving vehicles of a particular class;

(b) sound or use any vehicle horn, bell or warning device unnecessarily while any vehicle is travelling in or through the Reserve or is parked therein;

(c) drive or propel any motor car, motor cycle or any other motor-driven vehicle at a speed in excess of fifteen kilometres per hour whilst in the Reserve;

(d) park any vehicle in the Reserve except at such place or places as are set aside for the purpose, notwithstanding any parking notice or limitation, any vehicle parked in the Reserve and left unattended for a period of more than 48 hours may be towed or taken out of the Reserve at the direction of the Committee or its authorised officers at the sole risk and responsibility of the owner of such vehicle who shall also be liable for all towing or transportation charges.

14. The Committee may promote research, study or investigation of any purpose consistent with the purposes of the Reserve.
COOLART RESERVE

MANAGEMENT STRATEGIES

Stage I

Coolart Committee of Management, September, 1979.

1. As a reserve for public purposes (conservation and education) Coolart should be accessible to as wide a cross-section of the community as possible, contingent upon necessary protective measures being taken and optimum carrying capacities of the reserve not being exceeded.

Coolart Reserve cannot provide 'all things to all people' in the community. The reserve should be managed with primary emphasis on conservation of its values. Through these conservation values the education potential of the reserve will be developed. Accessibility by the public involves uses which do not conflict with the conservation and education uses of Coolart.

2. A Master Plan, incorporating a landscape plan, for the total development of Coolart Reserve should be developed, placed on display and public comment invited before irreversible decisions on important elements are made.

The public including 'Friends of Coolart', should be encouraged to participate in planning at Coolart.

3. Coolart Reserve can be used by community groups and interests, provided that such uses are compatible with the conservation and education programmes.

4. The appointment of a live-in professional warden as soon as possible is an essential prerequisite for the proper implementation of conservation education, research and management programmes.

5. The homestead and associated barracks area should primarily be used for conservation education orientated purposes by as wide an audience as possible.

6. Residential accommodation (other than for the warden) should not be considered at this stage, except that a small amount of temporary accommodation could be provided in either or both the 'barracks' or the 'green hut' to meet specific needs.

7. The lagoon, as Coolart's outstanding resource, must be protected and enhanced. It cannot withstand unrestricted public access, and should be zoned and managed specifically for bird study and observation.
8. A new public access route is needed to prevent undue disturbance to the lagoon. This route should be from Lord Somers Road, with a car park near the school camp, and an entrance pathway to the house through the garden.

9. The garden is to be maintained as an important feature of Coolart. Because of its size and character, it has an integral relationship with the house and the farm.

10. In conjunction with the proposed new public route from Lord Somers Road, outer sections of the garden could be rejuvenated and developed to provide a feature approach to the house.

The farming character of Coolart should be retained. Whilst Coolart will be managed for conservation and education, parts of the reserve will remain as open grazing land.

11. The Merricks Creek frontage should be managed for nature conservation, with use by education groups. Land access to the creek should be restricted, and the area of vegetation fronting the creek extended to the north. The management of Coolart should be co-ordinated with that of the Balnarring Beach Foreshore.

12. Revegetation, as part of the Master Plans, should involve both species native to the region for such areas as the creek frontage, and traditional exotic species in special areas.

13. Coolart should offer general and specialised educational opportunities, mainly for short visits by groups, but also for longer visits by senior students.

14. The development of a day-use field studies centre on the boundary with the Somers School Camp should be encouraged.

15. Research studies should be encouraged as part of the management and education programme.

16. The special relationship between the Education Camp at Somers and Coolart should be maintained. The traditional visits to Coolart as part of the camp programme should continue.

S.J. COWLING
CHAIRMAN
APPENDIX 4

NATIONAL TRUST OF AUSTRALIA (VICTORIA)

CITATION OF LACOON

1979

NAME: COOLART LAGOON

STATUS: RECORDED: "Those parts of the physical environment, both natural and man-made, which contribute to the heritage of Australia and which should be recorded and whose preservation is encouraged."

INVENTORY NO.: L131


DESCRIPTION: The Coolart Lagoon is an area of approximately five hectares within the property of the same name. The property consists of a complex of buildings including the homestead, Barracks and stables, surrounded by a formal garden area. The lagoon itself is an artificially constructed water-hole surrounded mainly by Weeping Willows, Louisiana Swamp Cypresses and Swamp Paperbarks.

LANDSCAPE VALUES OF AREA:

(a) Historical Interest. A small lagoon was originally formed when clay was dug out of the site to make bricks for the numerous out-houses, stables and the Barracks. The Barracks were the original homestead prior to the building of the two-storey homestead in 1897. The lagoons were extensively enlarged by the late Mr. Tom Luxton who bought the property in 1937. Mr. Luxton created islands in the lagoon and planted many exotic trees, including Louisiana Swamp Cypresses, around the lagoon...

(b) Bird Habitat. The care taken in establishing islands in the lagoon, maintenance of generally high water-level and the colonising of the edge of the lagoon by Swamp Paperbarks have resulted in an area that is of considerable value for many species of water birds. Soon after the lagoon was completed, white ibises began to roost in the area, although in those years the species was not abundant around Western Port. In fact, it appears that ibises were only occasional visitors to the Melbourne-Western Port region in the earliest years of settlement. The numbers of white ibis breeding at Coolart Lagoon has increased rapidly since they first started breeding there in the early 60s. Apparently ibises started to visit the Mornington Peninsula/ Western Port area in increasing numbers from around the time of World War II. However, by this time, the vast
original Paperbark swamps which had existed from Mordialloc to Seaford and at Kooweerup had long been drained. At present the number of breeding pairs at "Coolart" has stabilised at about 300-400. The increase in the numbers throughout the Western Port area has also been assisted by man-made improvements to the Rhyll Swamp on Phillip Island.

Many other water bird species are regularly seen in the area. Some species, including Blue-billed ducks, Black Swans, Black Ducks, Chestnut and Grey Teals, Cormorants and Spoon-bills, nest in the area and other species use the area as a feeding ground or roosting area.

(c) Visual. The interesting complex of buildings and surrounding formal gardens, and the adjoining lagoon area present a most attractive sight to the visitor. The open landscape of the "Coolart" property provides a contrasting relief between the coastal villages of Somers and Balnarring Beach. The homestead and the tree-lined drive leading to it are outstanding features in this landscape.

MANAGEMENT: The property is now managed in such a way that the Lagoon and environs will be protected and maintained as an important area of water-bird habitat. Careful management will ensure that visitors to the property do not have an adverse impact on the Lagoon area.

OTHER TRUST CLASSIFICATIONS: The Trust has also Classified the complex of buildings on the "Coolart" property.

REFERENCES: National Trust of Australia (Victoria) - Citation for "Coolart", Building Committee of the National Trust 1980.


Pizzey, G. - One Man's Birdland. The Herald 28/6/80.

"Coolart" Committee of Management - Welcome to "Coolart" pamphlet.
APPENDIX 5

NATIONAL TRUST OF AUSTRALIA (VICTORIA) CITATION OF 'COOLART' AND ASSOCIATED FEATURES

(1) F.N. 4683 - Coolart, Somers

It was agreed to Classify at level 'C' and Mr. Ashley's citation was adopted.

"Coolart, or Coolurt (meaning sandy area in local aboriginal dialect) was first taken up in 1840 by Alfred and Henry Meyrick after whom the nearby creek and township of Merricks are named. After changing hands several times the property was bought by Mr. F.S. Grimwade in 1895 and the two-storey residence was designed by Reed, Henderson & Tappin and built in 1897. The numerous brick outhouses include the original homestead probably built in the 1860s, the dairy and butcher's shop, a toilet and stable building with a harness and blacksmith's shop. When clay was dug out to make bricks for the various buildings, a small lagoon was formed by natural catchment and in 1937 the property was bought by Mr. T.J. Luxton, who enlarged the lagoon, built embankments, planted trees and formed islands to provide breeding facilities for the very extensive bird life in the area. The lagoon, which now covers an area of about 5 ha (12 acres) has been Recorded by the Landscape Committee of the National Trust. In order to prevent a proposed subdivision in 1977 the property, including the lagoon and about 88 ha (216 acres), was bought by the Victorian Government and is now used for conservation and education purposes.

The substantial two-storey homestead was built in local brick with rendered window trim, quoins etc. and a slate mansard type roof. There is a square lookout tower over the main entrance, the verandah columns have a simple timber trim and the floor to the verandah and the main entrance hall still has the original attractively patterned mosaic tiles. The basic plan and the external elevations of the main building have had few alterations and are mainly still as originally designed. The various brick outhouses are included in the Classification."
<table>
<thead>
<tr>
<th>Code</th>
<th>Representation</th>
<th>Scientific Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>FR</td>
<td>Resident</td>
<td>Podiceps poliocephalus</td>
<td>WR</td>
</tr>
<tr>
<td>BF</td>
<td>Breeding resident</td>
<td>Podiceps ruficollis</td>
<td>WR</td>
</tr>
<tr>
<td>W</td>
<td>Winter resident</td>
<td>Anhinga melanogaster</td>
<td>IV</td>
</tr>
<tr>
<td>MM</td>
<td>Winter migrant</td>
<td>Phalacrocorax varius</td>
<td>IV</td>
</tr>
<tr>
<td>M</td>
<td>Migrant</td>
<td>Phalacrocorax melanoleucus</td>
<td>BR</td>
</tr>
<tr>
<td>C</td>
<td>Breeding</td>
<td>Phalacrocorax carbo</td>
<td>R</td>
</tr>
<tr>
<td>L</td>
<td>Winter migrant</td>
<td>Phalacrocorax sulcirostris</td>
<td>R</td>
</tr>
<tr>
<td>Wn</td>
<td>Resident</td>
<td>Ardea pacifica</td>
<td>IV</td>
</tr>
<tr>
<td>Wn</td>
<td>Resident</td>
<td>Ardea novaehollandiae</td>
<td>R</td>
</tr>
<tr>
<td>C</td>
<td>Cattle Egret</td>
<td>Ardeola ibis</td>
<td>WR</td>
</tr>
<tr>
<td>L</td>
<td>Large Egret</td>
<td>Egretta alba</td>
<td>FV</td>
</tr>
<tr>
<td>N</td>
<td>Nankeen Night-heron</td>
<td>Nycticorax caledonicus</td>
<td>IV</td>
</tr>
<tr>
<td>A</td>
<td>Australian Bittern</td>
<td>Botaurus poliocephalus</td>
<td>R</td>
</tr>
<tr>
<td>W</td>
<td>White Ibis</td>
<td>Threskiornis molucca</td>
<td>BR</td>
</tr>
<tr>
<td>S</td>
<td>Straw-necked Ibis</td>
<td>Threskiornis spinicollis</td>
<td>R</td>
</tr>
<tr>
<td>R</td>
<td>Royal Spoonbill</td>
<td>Platalea regia</td>
<td>R</td>
</tr>
<tr>
<td>YB</td>
<td>Yellow-billed Spoonbill</td>
<td>Platalea flavipes</td>
<td>IV</td>
</tr>
<tr>
<td>BS</td>
<td>Black Swan</td>
<td>Cygnus atratus</td>
<td>BR</td>
</tr>
<tr>
<td>CB</td>
<td>Chestnut-breasted Shelduck</td>
<td>Tadorna tadornoides</td>
<td>IV</td>
</tr>
<tr>
<td>BD</td>
<td>Black Duck</td>
<td>Anas superciliosa</td>
<td>BR</td>
</tr>
<tr>
<td>N</td>
<td>Mallard (introduced)</td>
<td>Anas platyrhynchos</td>
<td>IV</td>
</tr>
<tr>
<td>G</td>
<td>Grey Teal</td>
<td>Anas gibbonis</td>
<td>R</td>
</tr>
<tr>
<td>C</td>
<td>Chestnut Teal</td>
<td>Anas castanea</td>
<td>BR</td>
</tr>
<tr>
<td>S</td>
<td>Southern Shoveller</td>
<td>Anas rhynchotis</td>
<td>FV</td>
</tr>
<tr>
<td>F</td>
<td>Pink-eared Duck</td>
<td>Malacorhynchus membranaceus</td>
<td>IV</td>
</tr>
<tr>
<td>W</td>
<td>White-eyed Duck</td>
<td>Aythya australis</td>
<td>R</td>
</tr>
<tr>
<td>A</td>
<td>Australian Wood Duck</td>
<td>Chenonetta jubata</td>
<td>FV</td>
</tr>
<tr>
<td>BB</td>
<td>Blue-billed Duck</td>
<td>Oxynia australis</td>
<td>(BR)?</td>
</tr>
<tr>
<td>B</td>
<td>Australian Black-shouldered Kite</td>
<td>Elanus nictatus</td>
<td>R</td>
</tr>
<tr>
<td>AG</td>
<td>Australian Goshawk</td>
<td>Accipiter fasciatus</td>
<td>BR</td>
</tr>
<tr>
<td>SW</td>
<td>Swamp Harrier</td>
<td>Circus aeruginosus</td>
<td>FV</td>
</tr>
<tr>
<td>L</td>
<td>Little Falcon</td>
<td>Falco longipennis</td>
<td>IV</td>
</tr>
<tr>
<td>B</td>
<td>Brown Falcon</td>
<td>Falco berigora</td>
<td>FV</td>
</tr>
<tr>
<td>N</td>
<td>Nankeen Kestrel</td>
<td>Falco cenchroides</td>
<td>FV</td>
</tr>
<tr>
<td>D</td>
<td>Dusky Moorhen</td>
<td>Gallinula tenebrosa</td>
<td>BR</td>
</tr>
<tr>
<td>S</td>
<td>Spoonbill</td>
<td>Platalea regia</td>
<td>IV</td>
</tr>
<tr>
<td>C</td>
<td>Coot</td>
<td>Fulica atra</td>
<td>R</td>
</tr>
<tr>
<td>M</td>
<td>Masked Plover</td>
<td>Vanellus miles</td>
<td>BR</td>
</tr>
<tr>
<td>B</td>
<td>Black-fronted Dotterel</td>
<td>Charadrius melanops</td>
<td>BR</td>
</tr>
<tr>
<td>F</td>
<td>Pied Stilt</td>
<td>Himantopus himantopus</td>
<td>IV</td>
</tr>
<tr>
<td>S</td>
<td>Red-necked Stint</td>
<td>Calidris ruficollis</td>
<td>IV</td>
</tr>
<tr>
<td>L</td>
<td>Silver Gull</td>
<td>Larus novaehollandiae</td>
<td>FV</td>
</tr>
<tr>
<td>P</td>
<td>Pacific Gull</td>
<td>Larus pacificus</td>
<td>IV</td>
</tr>
<tr>
<td>D</td>
<td>Domestic Pigeon (introduced)</td>
<td>Columba livia</td>
<td>FV</td>
</tr>
<tr>
<td>B</td>
<td>Spotted Turtle-dove (&quot; )</td>
<td>Streptopelia chinensis</td>
<td>BR</td>
</tr>
<tr>
<td>C</td>
<td>Common Bronzewing</td>
<td>Phaps chalcoptera</td>
<td>IV</td>
</tr>
<tr>
<td>G</td>
<td>Galah</td>
<td>Psittacus roseicollis</td>
<td>IV</td>
</tr>
<tr>
<td>S</td>
<td>Sulphur-crested Cockatoo</td>
<td>Cacatua galerita</td>
<td>IV</td>
</tr>
<tr>
<td>R</td>
<td>Rainbow Lorikeet</td>
<td>Trichoglossus haematodus</td>
<td>IV</td>
</tr>
<tr>
<td>M</td>
<td>Mask Lorikeet</td>
<td>Glossopsittaca concinna</td>
<td>IV</td>
</tr>
<tr>
<td>W</td>
<td>Swift Parrot</td>
<td>Lathamus discolor</td>
<td>WM</td>
</tr>
<tr>
<td>C</td>
<td>Crimson Rosella</td>
<td>Platycercus elegans</td>
<td>IV</td>
</tr>
<tr>
<td>E</td>
<td>Eastern Rosella</td>
<td>Platycercus eximius</td>
<td>BR</td>
</tr>
<tr>
<td>P</td>
<td>Pale-faced Cuckoo</td>
<td>Cuculus pallidus</td>
<td>SM</td>
</tr>
<tr>
<td>F</td>
<td>Fan-tailed Cuckoo</td>
<td>Cuculus pyrrhophanus</td>
<td>BR</td>
</tr>
<tr>
<td>H</td>
<td>Horrisfield's Bronze-cuckoo</td>
<td>Chrysococcyx basalis</td>
<td>SM</td>
</tr>
<tr>
<td>S</td>
<td>Smoking Bronze-cuckoo</td>
<td>Chrysococcyx lucidus</td>
<td>SM</td>
</tr>
<tr>
<td>S</td>
<td>Spine-tailed Swift</td>
<td>Hirundapus caudacutus</td>
<td>SM</td>
</tr>
<tr>
<td>L</td>
<td>Laughing Kookaburra</td>
<td>Dacelo gigas</td>
<td>BR</td>
</tr>
<tr>
<td>C</td>
<td>Common Kea (introduced)</td>
<td>Alauca arvensis</td>
<td>BR</td>
</tr>
<tr>
<td>H</td>
<td>Hunsdon's Parrot</td>
<td>Megapodius hunsdoni</td>
<td>BR</td>
</tr>
</tbody>
</table>

**Inland Birds seen at Coolart during January - October, 1980**
<table>
<thead>
<tr>
<th>Species</th>
<th>Scientific Name</th>
<th>Author</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree Martin</td>
<td>Cecropis nigricans</td>
<td>SM</td>
<td></td>
</tr>
<tr>
<td>Fairy Martin</td>
<td>Cecropis ariel</td>
<td>SM</td>
<td></td>
</tr>
<tr>
<td>Richard's Pipit</td>
<td>Anthus novaehollandiae</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Black-faced Cuckoo-shrike</td>
<td>Coracina novaehollandiae</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Blackbird (introduced)</td>
<td>Turdus merula</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Song Thrush (&quot;&quot;&quot;)</td>
<td>Turdus philomelius</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Pink Robin</td>
<td>Petroica rodinogaster</td>
<td>WM</td>
<td></td>
</tr>
<tr>
<td>Flame Robin</td>
<td>Petroica phylaieta</td>
<td>WM</td>
<td></td>
</tr>
<tr>
<td>Eastern Yellow Robin</td>
<td>Eopsaltria australis</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Crested Shrike-tit</td>
<td>Falcoiculus frontatus</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Golden Whistler</td>
<td>Pachycephala pectoralis</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Rufous Whistler</td>
<td>Pachycephala rufiventris</td>
<td>SM (B)</td>
<td></td>
</tr>
<tr>
<td>Grey Shrike-thrush</td>
<td>Coturnicula harmonica</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Grey Fantail</td>
<td>Rhipidura fuliginosa</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Willie Wagtail</td>
<td>Rhipidura leucophrys</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Grey-crowned Babbler</td>
<td>Pomatostomus temporalis</td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>Golden-headed Cisticola</td>
<td>Cisticola exilis</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Superb Blue Wren</td>
<td>Malurus cyaneus</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>White-browed Scrubwren</td>
<td>Sericornis frontalis</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Fieldwren</td>
<td>Calamanthus fuliginosus</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Brown Thornbill</td>
<td>Acanthiza pusilla</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Yellow-rumped Thornbill</td>
<td>Acanthiza erythronica</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Striated Thornbill</td>
<td>Acanthiza lineata</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Varied Sittella</td>
<td>Dendroica chrysoparia</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Red Wattiebird</td>
<td>Anthochroma carunculata</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Little Wattlebird</td>
<td>Anthochaera chrysoparia</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Noisy Miner</td>
<td>Manorina melancephala</td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>Yellow-faced Honeyeater</td>
<td>Lichenostomus chrysops</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>White-eared Honeyeater</td>
<td>Lichenostomus torquatus</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>White-plumed Honeyeater</td>
<td>Lichenostomus penicillatus</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Brown-headed Honeyeater</td>
<td>Melithreptus previrostris</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>White-naped Honeyeater</td>
<td>Melithreptus lunatus</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>New Holland Honeyeater</td>
<td>Phylophus novaehollandiae</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Eastern Spinebill</td>
<td>Acanthophylax tenirostris</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>White-fronted Chat</td>
<td>Euphonia albifrons</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Mistletoebird</td>
<td>Dicaeum hirundinaceum</td>
<td>FV</td>
<td></td>
</tr>
<tr>
<td>Spotted Pardalote</td>
<td>Pardalotus punctatus</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Striated Pardalote</td>
<td>Pardalotus striatus</td>
<td>FV</td>
<td></td>
</tr>
<tr>
<td>Grey-breasted White-eye</td>
<td>Zootherops lateralis</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>European Goldfinch (introduced)</td>
<td>Carinella carduelis</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>European Greenfinch (&quot;&quot;&quot;)</td>
<td>Carinella chloris</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>House Sparrow (&quot;&quot;&quot;)</td>
<td>Passer domesticus</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Red-browed Firetail</td>
<td>Emberiza temporalis</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Common Starling (introduced)</td>
<td>Sturnus vulgaris</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Common Myna (&quot;&quot;&quot;)</td>
<td>Acridotheres tristis</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Dusky Woodswallow</td>
<td>Artonia cyanopterus</td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>Magpie Lark</td>
<td>Galina cyanopterus</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Grey Currawong</td>
<td>Strepera versicolor</td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>Grey Butcherbird</td>
<td>Cracticus torquatus</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Australian Magpie</td>
<td>Gymnorhina tibicen</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Australian Raven</td>
<td>Corvus coronoides</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Little Raven</td>
<td>Corvus stellaris</td>
<td>BR</td>
<td></td>
</tr>
</tbody>
</table>
REFERENCES

BALNARRING REUNION

BIRD, E.C.F.

BIRD, E.C.F.

BIRD, E.C.F.

BROWN, T., HAMI, R. & KING, R.

BYRNE, G.
Early Days on the Mornington Peninsula, June, 1930.

CALDER, S. & W.
East Cunninghamhome & Lake Tyers Beach, Report, Centre of Environmental Studies, University of Melbourne, 1976.

CALDER, W.

CALDER, W.
Peninsula Perspectives, Centre for Environmental Studies, University of Melbourne, 1975.

COCKBURN, R.F. & DUNSTONE, C.R.
Western Port Region Studies for Conservation Planning, ANZAAS, 1975.

COOLART COMMITTEE OF MANAGEMENT, BROCHURE

COOLART RESERVE COMMITTEE OF MANAGEMENT
1st Annual Report to 30th June, Melbourne, 1979(a).

CULLEN, P.
Managing Foreshore Reserves, Canberra College of Advanced Education, Draft manuscript, Canberra, c.1979.

GRIMMWADE, R.

GRIMMWADE, W.R.
Russell Grimwade Photographic Collection, Photographs of 1890's-1900's, housed in Baillieu Library Research Collection, University of Melbourne.
REFERENCES (CONTINUED)

HOUSE OF REPRESENTATIVES STANDING COMMITTEE ON ENVIRONMENT & CONSERVATION

HOWE, D.F., COSTELLO, R.T. & RUSSELL, L.D.


JENKIN, J.J.


KEBLE, R.A.


KEBLE, R.A.


LADIGES, P.Y.


"LAUDERDALE"

Victoria's Representative Men at Home, No. 36, The Hon. F.S. Grimwade, Punch, April 21st, 1904.

McGREGOR, G.

Land Use Planning - A Case Study on the Southern Mornington Peninsula, Undated, Soil Conservation Authority, Melbourne.

MARSDEN (ed)


MARTIN, R., McGREGOR, A., MATHEWS, J.


MELWAY


MERCER, D.


MINISTRY FOR CONSERVATION


MINISTRY FOR CONSERVATION

Western Portrait, Ministry for Conservation Victoria, 1975.

MINISTRY FOR CONSERVATION

'Coolart Estate' - Undated notes on the history of Coolart, Ministry for Conservation, Melbourne.
REFERENCES (CONTINUED)


MOORHEAD, LESLIE & BOGNUDA, JOAN Between the Bays, Wilkie, Melbourne, 1979.


SEDDON, G. Phillip Island: Capability, Conflict and Compromise, Centre of Environmental Studies, University of Melbourne, 1975.

Seddon, G. A Landscape Assessment of the Southern Mornington Peninsula, Victoria. A Report to the Western Port Regional Planning Authority - Centre of Environmental Studies, University of Melbourne, 1974.


THOM B.G., & CHAPPELL, J. Holocene sea levels relative to Australia, Search, 6, 1975.
### REFERENCES (CONTINUED)

<table>
<thead>
<tr>
<th>Institution/Authority</th>
<th>Source</th>
</tr>
</thead>
</table>