The Eco Ethics of Tourism Development

Prepared for the
Western Australian Tourism Commission
and Environmental Protection Authority

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FOREWORD

Both the environment and tourism are vitally important to Western Australia, now and in the future.

Sensible and careful management of all aspects of the environment, and preservation of its beauty and grandeur as well as its flora and fauna, are on-going responsibilities of us all.

Some of the greatest attractions of tourism come directly from enjoyment of the natural environment – the beaches and rivers, the mountain ranges, the grand forests and the multitude of wildflowers for which Western Australia is deservedly famous. Tourism developments that rely on these environmental features represent an important and growing source of employment and economic return to the community.

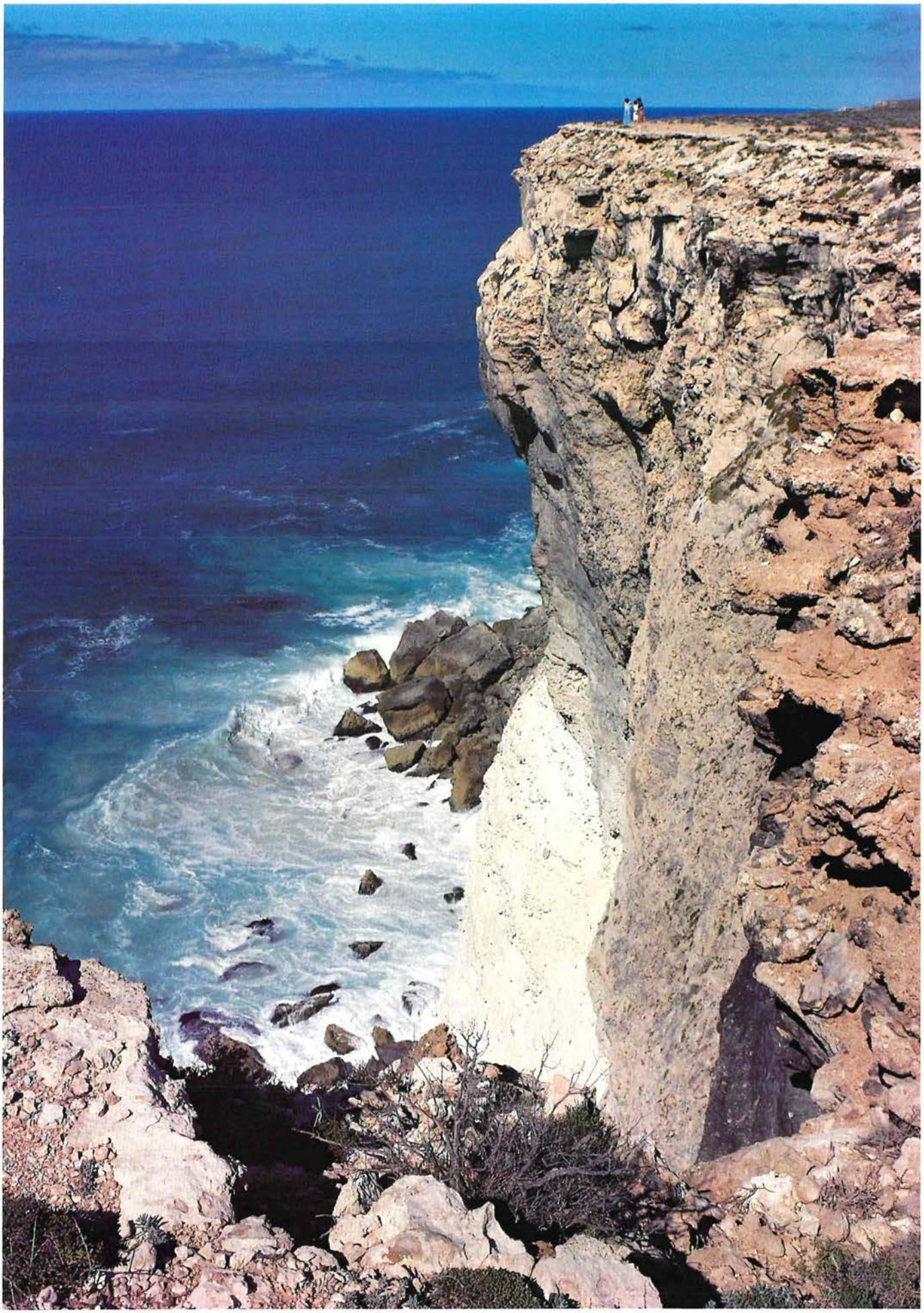
It makes great sense therefore that the two agencies responsible for tourism and environmental protection have joined together and commissioned the production of principles of conduct for tourism developers in the environment.

In Western Australia, where there are several Government agencies concerned with environmental management, there are well developed specific regulatory requirements for protection of the environment around any development. However, so closely allied are tourism and the environment that it is appropriate to encourage developers to understand how and why they should work in harmony with the environment.

The Eco Ethics of Tourism Development, prepared by Brian J. O'Brien and Associates, represent an exciting marriage between tourism and environment that can only benefit both. They are the first such expression of WHY tourism developments should be environmentally responsible, and we commend them to the tourism industry Australia-wide for their adoption.

Julian F. Grill
Minister for Tourism

Robert J. Pearce
Minister for Environment



BRIAN J. O'BRIEN

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Majestic limestone cliffs of the Nullarbor Plain, and tiny tourists.

National Park ranger in a Kalbarri Gorge.

INTRODUCTION

Concern for the environment has grown so markedly over the past two decades that now it is an issue which is considered routinely in most developments.

It is in this climate of community awareness of the environment and the possible threats to it, that the Eco Ethics of Tourism (a code of environmental ethics) must be developed.

Concern for conservation and the environment is a mix of ethics and self preservation.

It arises from a sense of both what is right, and what is necessary.

Tourism would be self-destructive if it damaged the environment which it sells as an attraction. Yet, until recently, there has been little coordinated analysis of the desirable interactions of tourism and the environment.

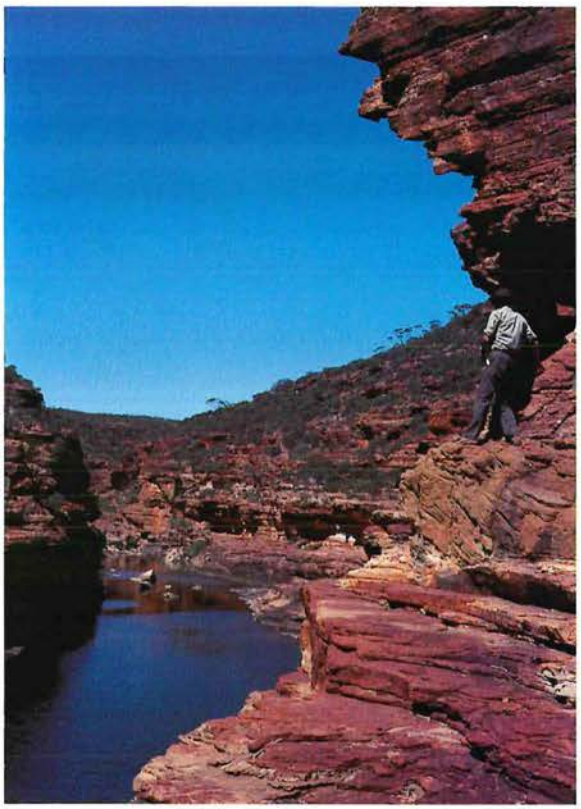
Now it is increasingly accepted that tourism developments should be planned and operated with a delicate and responsible sensitivity to:

the environment generally, and

the environmental attractions that created the need for a tourism development in the first place, and on whose continued attractiveness the development depends for its survival.

The environment is not a Magic Pudding for tourism – automatically restoring itself, ready for the next bite.

The sense of environmental responsibility should go beyond a mere attitude of self-preservation – of simply avoiding destruction of the tourism attraction itself. To satisfyingly reflect, and be a part of, community concern for the environment, the Tourism industry needs to adopt a proactive **Code of Ethics for Tourism** that ensures an active, positive environmental responsibility that is far more than a sense of self-interest.



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Environmental guidelines are needed to assist developers who can be uncertain about both the procedures and technical details needed to meet the wide variety of requirements of numerous agencies concerned with the very broad topic of environment. This uncertainty can discourage developers and cause them to abandon a project or incur considerable and costly delays.

Such guidelines are also needed as a benchmark for conservation-minded members of the community, who sometimes oppose tourist developments because of their worries about inadequate environmental safeguards or apparent disregard for the environment.

BACKGROUND

In 1987 the Western Australian Tourism Commission, in consultation with the Environmental Protection Authority, commissioned the preparation, by Brian J. O'Brien & Associates, of a set of Draft Environmental Guidelines for Tourism Developments as a first step in meeting this need and related problems. After wide distribution, many written submissions on the Draft were received and an extensive analysis of these submissions was carried out.

This present document deals only with philosophical and ethical issues relating to the positive interaction of Tourism and the Environment. It consolidates the views presented in the Draft document with community views and expectations and it presents a durable set of ethics for environmental responsibilities in tourism development. Any procedural, or administrative details, are treated in a separate document entitled An Administrative Guide to Environmental Requirements for Tourism Developments in Western Australia.

The Eco Ethics of Tourism Development are based on the belief that tourism which depends on retailing an attractive environment should, and can, interact in a positive, creative way with the environment and thus actively assist in responsible environmental enjoyment and management. Tourism, probably more readily than many other forms of development, can accept environmental responsibility because such responsibility is to its distinct advantage.

The single-line catch-phrase summary of the World Conservation Strategy epitomises the lasting dilemma of responsible environmentalists, planners and developers alike –

> **Living Resource Conservation for Sustainable Development.**

In tourism, perhaps more than in most industrial developments, there is an opportunity to blend conservation and development in a continuing, lasting and sustainable marriage.

However, there is a paradox faced by developers – that of managing the scale or magnitude of a tourism development so that its continuing growth and success do not cause such intense pressure and overuse on the local environment that it becomes "loved to death".

This intrinsic paradox of [tourism] success possibly bringing [environmental and thence tourism] failure can be brought to resolution by adopting an environmental ethic that emphasises ensuring that tourism and environment work in harmony permanently.

Because the environment has a very long memory, tourism developers have to accept the ethical imperative, expressed in the World Conservation Strategy,

> *Conservation, like development, is for people; while development aims to achieve human goals largely through use of the biosphere, conservation aims to achieve them by ensuring that such use can continue. [There is] an ethical imperative, expressed in the belief that "we have not inherited the earth from our parents, we have borrowed it from our children".*

ECO ETHICS – THE CHECKLIST FOR ENVIRONMENTALLY RESPONSIBLE TOURISM DEVELOPMENT

Kangaroos and golfers at Denmark Golf Club.

ETHICS

ALL ENVIRONMENTS

1. A tourism development (whatever its scale) dependant on the natural environment should enable visitors to enjoy it without degrading it, and should increase their appreciation and understanding so that they can develop an instant but long-lasting sense of awareness, oneness and involvement with the environment.

2. Every tourism development that relies on natural environmental features should be designed so as to emphasise, as far as practicable, the highest degree of positive, creative interaction with those natural features and the highest degree of respect for natural forces.

3. In planning, development and operation of a tourism project, rapport and empathy with the site should be developed, and its ambience maintained and enhanced harmoniously.

4. Tourism developers should view the environment not as an undesirable constraint but as a positive challenge to their professional ability to work ingeniously and constructively in harmony with the millennia of work that preceded them.

5. The size and scale of a tourism development should be planned carefully right from the outset with the environment as a critical limiting component, so as to ensure that even in its final form it does not exceed the carrying capacity of the local environment.

6. In its final form, a tourism development shall not reduce the environmental attractiveness of the vicinity, and during construction any adverse environmental effects should be minimal and short term.

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7. Developers should take account of local community attitudes and feelings, including the way that a local unaltered environment contributes to a community's sense of place. Developers should take such actions as necessary (briefings, meetings, displays – including examples of comparable developments if available) to avoid polarisation, which can cause unfruitful confrontation between the developer and non-supportive elements of the local community.

8. The development should not lessen enjoyment of the local environment by the local community and, where practicable, should enhance it.

9. It is essential to view the environmental implications and consequences of large developments in a regional sense, and of small developments in the light of their possible cumulative effects.

10. The tourism developer has a joint responsibility with the Government's environmental managers to accept the potential synergism of tourism and environment, and without diminishing safeguards, to examine proactively the characteristics of each site in order to enhance the environment with a sympathetic tourism development.

11. Those involved in tourism at all levels and on all scales, should accompany their enterpreneurial activities with promotion of environmental awareness and accurate understanding, knowing that by doing so they can lessen their management costs while enhancing their visitors' enjoyment.

12. The production of accurate informative brochures on environmental matters in specific areas should be encouraged.

13. Tourists, particularly in remote areas, should be encouraged to "tread lightly on our land", while "taking nothing but photographs and leaving nothing but footprints".

14. Tourism developers and promoters should foster in their management and employees a sense of environmental awareness, enjoyment and accurate understanding, through staff development programmes.

15. A tourism development should bear an on-going responsibility for environmental protection, including assessments and management. While taking responsible advantage of the resilience of much of the natural environment, developers should nurture it, maintain it and avoid depreciation, because it, unlike most of the plant and equipment, is often irreplaceable.

16. A tourism development should recognise that there was a valid spectrum of land-use values and allocations before its involvement. Any extension of recreational opportunities should not distort the range of fundamental land-use values, particularly towards the primitive and wilderness end of the spectrum.

17. In all aspects of a tourism development a systematic attempt must be made to follow relevant broad conservation policies. For example conservation of water and energy should be encouraged as should retention of native vegetation, prevention of soil degradation and preservation of native fauna.

18. In all aspects of a tourism development, a systematic attempt should be made to minimise pollution in any form, particularly in rural and remote areas where the scale of the development may make its operations a model for the local community.

BEACHES AND OCEAN FRONTAGE

19. Tourism developments along the coast should be planned to conform with nodal patterns of development and access, so as to localise and efficiently manage environmental consequences, while at the same time minimising diffusion of capital expenditure.

20. The location, scale and form of coastal developments should be in harmony with their uniquely sensitive environment. Car parks, roads and ancillary services need to be part of a coherent, long-range plan to a higher degree of necessity and early forward planning than may be the case in areas less environmentally fragile.

21. A marina or similar development must be in dynamic harmony and equilibrium with the powerful forces that affect both sea and shore.

22. The right of public access to beaches and ocean frontage should be maintained, provided it is done in an equitable and environmentally responsible manner.

23. There should preferably be no man-made structures such as roads between a beach-based tourist development and the beach, for the twin reasons of having the tourism development in harmony with the coastal ambience as desired, and to avoid roads intruding into the dune system on either side of the development.

The soft, muted colours of the Hamersley Range on a rainy day can be much harsher under a summer sun.

Karri trees of the South West.

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24. Beachfront tourism developments separated from the sea by vegetation, should be planned to include limited access paths, which pedestrians are influenced to use by gentle constraints over other access routes, in order to minimise and manage any impacts on the vegetation.

25. As a general policy, a development based in a sand-dune area should be set back sufficiently far so as not to intrude into either the visual coherence of the frontal dunes or their environmental stability. Subject to specific site discussions, the set-back might be in the order of 100 metres from the seawards first line of stable vegetation.

REMOTE ENVIRONMENTS

26. In remote environments, the overwhelming guideline is to minimise traces of one's visit, so that the next visitor should be able to look at the scene and imagine being the first to view it.

27. Most remote tourism ventures concerned with native flora and fauna are best if they provide for small parties and intense personal participation, so as to maximise participation but minimise perturbation.

28. Tourism developments, especially in remote areas, should provide locally-knowledgeable environmental experts and guides. Steps should be taken at appropriate levels to train or otherwise obtain the services of such experts.

FORESTS AND NATIONAL PARKS

29. In forests and other susceptible areas where bushfires may occur, the tourism developer should play a proactive educational role to prevent bushfires, both for self protection and for environmental protection.

30. Tourism developments should encourage revegetation with native species, and take all proper actions to guard against the uncontrolled intrusion of weeds and exotic species, as well as preventing the spread of pests and diseases.

31. Any responsible tourism development permitted within a National Park should recognise its special privilege, and should specially enhance community enjoyment of the Park in ways otherwise unattainable. It should extend the solace offered by the Park's natural beauty and conservation features, without detracting from those features. (See Maxim 1).

PASTORAL LEASES

32. On pastoral leases, there can be a mix of tourism and pastoral activity with different types of land uses and environmental loadings, but the basic need to prevent overuse or overloading the carrying capacity remains unaltered.

WATERWAYS AND WETLANDS

33. River and estuarine systems depend for much of their appeal on environmental qualities of purity and flowing form. Any tourism uses should be entirely sympathetic to those features, and especially aware of the biological and physical sensitivity of such areas under environmental stress, which is most likely to be encountered in the South West in hot weather when stress by tourism use is greatest.

34. The rights of downstream river users – and the natural environment is one of those users – ethically include all environmental qualities and elements.

35. Wetlands are an important environmental resource which are becoming increasingly scarce in the face of land developments which may involve drainage and land fill. Tourism developers should recognise that they are uniquely placed because they can develop new wetlands and improve old or sick wetlands in a proactive way, while understanding the important and delicately balanced biological and physical complex which is involved.

36. Developers wishing to exploit the possible tourist potential use of reservoirs and water catchment areas have a special responsibility to ensure that the purity and quality of the water is not thereby degraded.

37. Canal developments should be regarded as a way to create new aquatic environments and bring them to more of the community without harming (and preferably by enchancing) the existing natural aquatic environment. It should be accepted that such developments have an interrelationship with contiguous and exchanging waters that brings some added responsibility with it.

HERITAGE – OR THE BUILT ENVIRONMENT

38. Cultural heritage features such as signficant buildings should be respected and early decisions made concerning their preservation as a record of past activities, and possibly incorporating them, or their essential features, into part of the fabric of tourism developments. Particular emphasis should be given to educational and interpretive signs.

ABORIGINAL CULTURE

It should be noted that this document does not address the issue of the Aboriginal culture and Eco Ethics. The complexity and sensitivity with which this issue should be treated are such that they must be discussed in a level of detail beyond the scope of this publication.

MAXIMS

1. Any tourism development relating to a **National Park** shall undertake the following, subject to a long-term contract, whose conditions can only be varied by agreement say, by both Houses of Parliament:

   (i) It shall be located within the borders of the Park only if the remoteness and scale of the Park require local accommodation;

   (ii) Its activities and extensions must be compatible with the scale and nature of the Park;

   (iii) It must not detract from enjoyment of the Park by the general community;

   (iv) It must contribute, in cash or in kind, to the orderly operation and maintenance of the Park;

   (v) It must be compatible in scale, architecture and general "mood" with the whole ethos of the Park;

   (vi) There must be some bond and other contractural agreement to ensure that it does not degrade in time so as to detract from the Park;

   (vii) To the extent practicable, the developer and the Government should jointly plan auxiliary services, roads, toilets, etc;

   (viii) The developer should actively assist in obtaining and spreading expert knowledge about the environmental delights of the Park.

2. As with the Swan River, which is promoted as a clean and picturesque river and estuarine system, other **river systems** should have their ambience described and developed as follows:

   (i) a tourism development should not detract from and, if practicable, should enhance the cleanliness and beauty of the river and estuarine system;

   (ii) a tourism development near a river or estuarine environment should have special qualities of compatibility with the aquatic environment, drawing from and harmonising with its features of quick changes and yet tranquillity, of flow and spaciousness, and of rhythm and light and hidden depths;

   (iii) there should be sufficient "controls" to ensure that the natural and inherent qualities of the river and estuarine environment are not lost or destroyed through over-exploitation of the resource;

   (iv) a tourism development which occupies a foreshore should actively contribute to the enhancement and public enjoyment of the river and estuarine environment.

3. Tourism developments provide a special opportunity to improve and preserve **wetlands systems**, which are a diminishing resource because of the impact of other developments, but which form a vital component of major environmental systems. Tourism developments related to wetlands should be developed as follows:

   (i) existing wetlands should be made more visually attractive only after a full environmental understanding of the status quo;

   (ii) new wetlands should be created with full understanding and attention to design and planning that will result in miniature, yet complete and environmentally harmonious, new eco-systems of value;

Tranquillity of the Nornalup Inlet at sunset.

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(iii) the on-going maintenance of wetlands, particularly of water levels and and water quality, shall be such as to sustain balanced and healthy eco-systems;

(iv) Interfaces between tourism and the wetland eco-systems, (such as feeding waterbirds, or providing observation points and hides) shall be planned and constructed with sensitivity and provision for a variety of bird life including both rare and shy species.

4. Early in the planning of a tourism development, an elementary **environmental management plan** should be developed. Without excessive attention to catalogues of flora and fauna, this plan should include environmental assessments of the site and in the first place should be for the principal purpose of identifying local areas of high environmental sensitivity (to be avoided where possible) and low environmental sensitivity where the architect/planner can direct more intense development and use.

   In further stages, environmental management should be routinely and professionally included as part of any ongoing corporate plan.

Most tourist developers and conservationists alike would accept the Eco Ethics listed above. Many of them seem to be just simple, common sense. It is useful to have them all put together in one place for the first time. The question now is, of course, how to put them into practice in the real world.

CONSERVATION STRATEGIES, ECO ETHICS AND THE REAL WORLD

The so-called "developed" nations of the world are steadily trying to resolve environmental problems in various ways. The tendency in the 1960's and 1970's was to resort to legislative measures. By the time of the 1980's a World Conservation Strategy had been agreed by many countries, including some who would otherwise have been almost pleased to welcome pollution as an indicator of their longed-for economic development.

International agreement on a Strategy was reached because it was recognised that although looking after the environment responsibly can be expensive, not looking after the environment can be more expensive. It is also "wrong".

In 1987 Western Australia adopted a State Conservation Strategy. Its contents are administered by a wide range of Government Departments and Agencies. The State Conservation Strategy applies to the State as a whole and not just to the Tourism industry.

Such a Strategy is necessary to ensure that the use, or exploitation, of a local environment by a developer is a responsible one. It is obviously in the best interests of any community for this to happen, and the various Government agencies are in place to try to ensure responsible use in either large or small developments.

Just as a police force is more effective if it operates in a community with a set of principles or ethics, so too the environmental police force can be far more effective and work with, rather than against, the tourism community, if the latter has adopted a set of Eco Ethics especially tailored to its needs.

Quite simply, by selecting the Eco Ethics of Tourism (both general and particular) that apply to a proposed tourism development, and combining them with the relevant Government strategies and procedures, a developer can quickly determine whether it is possible for appropriate environmental tactics to be defined to:

settle any environmental problems and

sensitively utilise the environmental potential of the proposed tourism development site.

This is illustrated in Figure 1 where it is shown that initial appraisal of the tourism potential of a possible development site should include:

Marketing and Finance
Environment
Design, Engineering and Services.

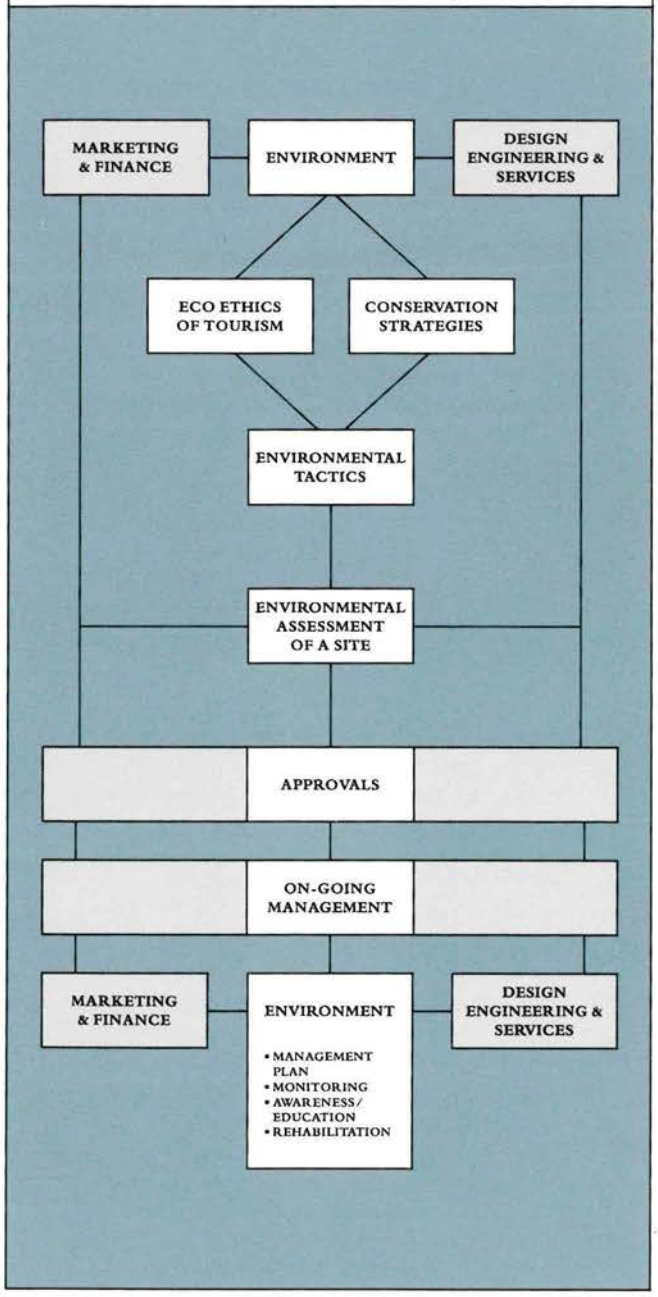
Only the second of these, Environment, is discussed here.

Many different environmental specialist techniques will have to be developed and employed for individual sites, depending on their particular requirements. But there is one overall practical tactic common to every site – its Environmental Assessment.

The Environmental Assessment of a proposed site should be a routine part of a tourism development feasibility study. The "environmental homework" can be quite simple in the first place, and be directed towards specifying areas of environmental sensitivity and value – environmental opportunities as well as environmental constraints.

It is assumed here that the choice of a possible site for a tourism development is driven primarily by market forces. The alternative, that a developer can be persuaded by a Government agency to be interested in a development site, is a real one, but it is assumed that this would only occur after preliminary environmental clearance had been given, at least in principle.

Figure 1
Eco Ethics and Tourism Development



ENVIRONMENTAL ASSESSMENT OF A TOURISM SITE - ENVIRONMENTAL OPPORTUNITIES AND CONSTRAINTS

This section deals primarily with the environmental assessment of a site, once it is chosen. It takes into account that there are some land areas (for example a Wilderness Reserve and possibly a Nature Reserve) in which development is simply not allowed and that there is a range of sites with different degrees of development potential (according to factors such as environment, marketing and services).

The existing environment sets both opportunities and constraints.

A preliminary environmental survey and then a preliminary environmental assessment should be carried out by adequately skilled personnel to indicate both the kind and the level of these opportunities and constraints.

The ethical imperative for the tourism developer is to treat the environmental assessment of a site as being one of those factors in site selection to which attention and funding must be given at an early stage.

It is in the environmental assessment of a particular site that Eco Ethics have to be translated into real-world practicalities.

The actual procedural steps towards environmental approvals by Government agencies are discussed in An Administrative Guide to Environmental Requirements for Tourism Developments in Western Australia. However, there are several environmental constraints that have to be assessed for all tourism developments that are not readily covered by administrative procedures. Some of these are discussed here.

The sand plains near Shark Bay have very few trees, so that birds build nests on the telephone poles.

ATTITUDES OF LOCAL RESIDENTS

One of the problems encountered in tourism developments particularly in the more remote yet beautiful areas, is the sense of possessiveness on the part of full-time and part-time local residents, and repeater family tourists. All these regard the area as "theirs" and can be resentful of temporary intruders such as tourists. Although economic arguments can be made that a tourism development will bring increased employment opportunities and improved services in country towns, these often carry little weight for residents whose prime concern is the quality of life offered by the area in its present state.

Hopefully adoption of these Eco Ethics will help to have the tourism development and the local communities combine more efficiently and harmoniously. More often than not, the disagreements are fundamentally about environmental issues, and a tourism developer who can demonstrate awareness of Eco Ethics should be listened to.

In some cases the selfishness of the "locals", keen to enjoy their privileged environment, may still cause conflict. This is an understandable fact of life. At least in such cases the demonstration of ecoethical behaviour by a potential developer may establish a dialogue instead of the common angry confrontation after polarised positions have been taken.

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The aspect of the ethics of dwellers in such prime locations wanting to keep natural beauties within a selfish grasp is noted but not resolved here. However, it is appropriate to comment that the right of public access to beaches and ocean frontage should be maintained provided it is done in an environmentally responsible manner and provided that no development hinders public access in any way, even subtly by intrusion of its services.

PEOPLE AND THE ENVIRONMENT

In these Eco Ethics a very human centred (anthropocentric), self centred view has been taken of what constitutes the environment. It is obviously important to consider issues such as protection of rare or endangered species of flora or fauna. These have not been addressed in detail, simply because the appropriate specialist government agency will look into such issues for specific sites. A major technical problem is how one can prepare preliminary environmental assessments which stop short of compiling "species lists" of flora and fauna. Yet such lists could be necessary to establish the presence or otherwise of rare species. There is no easy answer to this problem except for the gradual community acquisition of more comprehensive catalogues of reliable data and more understanding of ecological predictive skills.

The tourism developer commissioning an environmental assessment of a proposed site does well to note that there is already a disturbing increase in a tendency to avoid on-site surveys in some environmental assessments, and substitute "predictions" based on some known characteristics of the site. For example, a fauna survey with all its time-consuming problems of observations and even seasonal dependence (in the case of waterbirds, for instance) may not be made. Instead, a word-processor data base "prediction" of local fauna is generated based on likely or known flora assemblies. In turn, likely flora assemblies may have been predicted on known soil types and forms, isohyets of rainfall and other features, perhaps aided by aerial photographs. There may be risks in such predictions.

Broome coast.

Cars at Three Bears, Yallingup.

The logistical problems of time, distance, staff time and costs that may give rise to such desk-top environmental assessments are appreciated. It is the professional responsibility of environmental consultants and managers alike to steer the fine line between over-reliance on predictions from data banks and over-zealously adding to them with lengthy, but perhaps not new, lists of species.

Environmental assessments of potential tourism sites that are based on The Eco Ethics of Tourism Development will quickly show if and how tourism can be introduced to an area in ways that will not endanger the local flora and fauna.

ENVIRONMENTAL APPRECIATION AND DEPRECIATION

Environmental "depreciation" is the depreciation that must and can be prevented through appropriate planning.

Figure 1 illustrates that environmental assessments are not merely a precursor to a development, to be neglected after the development is approved. Instead, an on-going environmental responsibility is required for routine maintenance, with a management programme prepared as a part of the environmental assessment itself.

Unlike what is required in any buildings, equipment or other "plant" of the development, no allowance should be made financially for environmental "depreciation", because it should not be tolerated in the short-term beyond the quick recuperative powers and abilities of the site. It cannot be allowed in the long-term.

The natural resilience of the environment is a plus for the developer, but it should not be simply accepted as a free gift from Nature. It should be nurtured through the development of a management programme for each site.

An overall management programme for a tourist site that includes provision for thorough environmental management is likely to be the most cost-effective one.

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ENVIRONMENTAL PROTECTION AUTHORITY

Guidelines for the development of such management plans for selected special site characteristics follow, but there is one essential feature that must be common to all management programmes:

The carrying capacity of various environments of a site should not be exceeded under peak tourism usage, even for short periods, unless they can then be given the time and means to recover.

The reason, as will be seen, is that various components of the environment may be fragile, and liable to damage from which they cannot recover.

Native flowers in a beach of pure limestone, cocquina shells at Shark Bay.

FRAGILE ENVIRONMENTS AND THE NEED FOR CARE

When assessing the environment of a possible tourism site, it is not only ethically proper to pay attention to its fragility, it also often makes simple engineering and economic sense.

Consider beaches along the coast. The beachfront is probably the most popular environment of all for Australia, the island continent whose urban population is concentrated on the coast. Coastal developments are the most intensely popular for local and international tourism, and the location of the majority of tourism development investments.

Yet the sandy coasts are physically often the most delicate and fragile environment on which to locate a development. The reasons are quite simple and mechanical.

Grains of coastal sand are continually rubbing against their fellow grains, under the pounding drive of waves and swell. Each becomes rounded under such continued grinding friction, carried on for thousands of years. Because of their roundness the grains of sand have no inherent stability en masse, tending to roll over each other and "fall" rather than staying in a heap, so that the edges of sand dunes, by themselves, are intrinsically unstable and tend to collapse if disturbed, for example by the weight above a footstep.

The crystalline hardness and purity of the outside of grains of sand result also in them not being sticky – they don't cling to each other.

For these reasons a pile of such grains of sand will collapse, not as dramatically and completely as would an attempted stack of marbles, but with a similar tendency.

As a result, the only natural way to achieve stability of sand dunes comes from binding the grains of sand into fixed positions by means of the roots and canopy cover of vegetation.

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If the vegetation mat is broken, for example by fire or vehicle tyres or human feet, then the grains of sand are once more free to move. The result may be permanently unstable, unless revegetation is actively and quickly encouraged, or unless the grains are temporarily locked into place by an oil or other sprayed cover until vegetation can be re-established.

The re-establishment of vegetation has to take place under harsh environmental conditions, in a salt-laden atmosphere and commonly with gusty winds. With the roots trying to establish their place in shifting sands, with little or no nutrients, revegetation is far more difficult, time-consuming and expensive than it would be in a non-coastal environment.

Therefore, there is a great deal of value given by planners to the importance of retaining any vegetation on coastal dunes. Of top priority is the first line of dunes, the frontal dunes which may face onto a beach, because in turn they serve as a lasting barrier against repeated onslaughts by storms and waves.

Coastal beaches are in a long-term state of dynamic equilibrium, "losing" sands to deeper waters under winter-time storms, and "gaining" sands under calmer, on-shore accumulation during summer.

(The seasonal changes referred to here are those applying to the South West of Western Australia, which is under a Mediterranean climate of hot, dry summers and wet, stormy winters.)

The first line of stable dunes is the barrier that halts further winter losses from the beaches, and provides a summer border upon whose footings the gentle summer swells can pile up the recovered sands.

Under these circumstances, special care must be taken that onshore developments do not damage the frontal dunes and destroy the delicate, fragile, "status quo" environment. Excessive pedestrian use can quickly wear tracks that become permanent under the conditions described above. Buildings and fences can cause eddying of winds and place extra strains on vegetation's grasp.

There are many cases where buildings have been placed too close to the beachfront and, in time, their foundations have been eroded in a winter storm and damaged beyond repair, or else had to be temporarily buffered by very costly, artificial beach "renourishment", or by erection of groynes and other expensive engineering works.

If such sites are available, there are obvious technical advantages in locating tourism developments in a coastal area on stable, rock-based foundations rather than on sandy coastal dunes. Even so, the principles of ensuring stability of adjacent sandy areas remain valid.

All of these arguments are based on simple, logical preservation of coastal dunes. They are made even more persuasive by the beauty and ecological values of coastal vegetation itself and the life it supports.

Along the foreshore itself, the powerful and ever present forces of ocean waves and currents produce an extremely dynamic environment. Tidal and storm forces may vary greatly, and there may be strong currents routinely carrying waters, sand and remnant seaweed up or down along the coast.

Interruption and diversion of such movement by structures such as a marina or a groyne may cause significant accumulation of sand on the downdrift, sheltered side of such a structure, and possibly erosion on the exposed or updrift side. The masses of material involved and the dynamically-varying forces are so great that they can create massive and very expensive management problems unless structures are planned and located so as to have minimal environmental impact in the first place.

A marina or similar development, based at the very forefront of dynamic and powerful environmental interactions between sea and shore, must be in dynamic harmony and equilibrium with both elements. In few other instances of tourism developments is there such a potential for major long-term costly environmental correction being required unless a site is chosen where such harmony is possible and where the effect and magnitudes of storm and tidal surges are known.

The financial imperative that environmental correction is more expensive than environmental protection is seldom more dramatically valid than for an incorrectly-located groyne.

In river and estuarine systems, the dynamics of soil and sand transport may be similarly important, particularly during floods. However, more subtle environmental effects may contaminate the environmental health and self-cleansing of such systems. Excess nutrients from fertilisers or septic systems may so enrich the waters locally that there may be progressive growth of algae and weeds, which can lead to a variety of malodorous effects.

The death of fish and other marine life, clotting, clammy weed growth, rotting weed and foul odours can all accompany such undue loads on a river or estuarine system. For example, in the South West of Western Australia, such effects become most pronounced in summer months when stream flows are low and temperatures are high, both of which exacerbate weed growth and decay. It is questionably unfortunate that such effects occur precisely over the times when holiday use is most intense.

Wilson Inlet paperbark tree in a harsh estuarine environment.

BRIAN J. O'BRIEN

The tourism developer therefore, has twin responsibilities: that of ensuring the development does not unduly add to such local pollution effects, and an extra responsibility because the flowing waters and aquatic system link together any local problems with those both upstream and downstream.

Wetland systems or low-lying areas where swamps or shallow lakes may develop are sometimes particularly attractive to tourism developers. The immediate tendency is to "improve" them, by deepening, recontouring, draining or even filling them.

There were massive reclamation works of draining and landfill of wetland areas of the Swan Coastal Plain until about the 1960's-1970's. Consequently there was a considerable reduction in wetland habitats for waterbirds, some of which need to feed and loaf in the area as part of their considerable international migrations, while others need to breed and live in the area, or escape towards the coast when harsh summers dry up inland water. A variety of waterbirds needs a variety of water depths and sometimes the appearance of a wetland may give a misleading impression about its environmental value. For example shallow mudflats, that so easily dry out in hot summers and look ugly, are very rich feeding grounds for wading birds, including some who travel thousands of kilometres to escape the winter rigours of their northern hemisphere homeland and rely on the food in the mudflats to fatten up for the long journey back.

Compared to the physical dynamics of coastal shores, wetland dynamical changes may appear to be relatively peaceful and benign. However the actual biological systems in a wetland can be very delicately poised between healthy life and simple death, particularly if stressed by a combination of natural and human factors.

The simplest changes of all, in the level of the water, can kill trees and vegetation or promote invasion by alien species. Furthermore, while a rise in water level can drown waterbird nests, a fall can result in drying out into little and foul water, encouraging the growth of a poisonous toxin causing botulism which kills waterbirds and fish. The quality of water likewise is vital in preservation of a viable web of life in the wetland and its surrounds.

Perhaps the simplest way to convey the environmental importance of waters in wetlands is to state that, while a human view of a tranquil wetland may be soothing, calming and refreshing, in fact the waters are a continual and delicately-poised, very fierce battleground for biological survival.

The health of a wetland is often changing, season by season and year by year. If a wetland is very sick, and perhaps dying, not only will its appearance be unsavoury, it may smell, and breed nuisances such as midges. Once an attractive environment, it can easily become a nuisance and an unpleasant scene, if the prior balances of nature are disturbed too greatly.

On a positive side, the talents of tourism developers can be used to improve dying wetland systems, provided that the values both of the old and the (planned) new systems are fully understood and assessed. Environmental assessments of sites that may involve or impact on wetlands have to be carried out with a keen awareness that they are a diminishing and relatively little-understood resource.

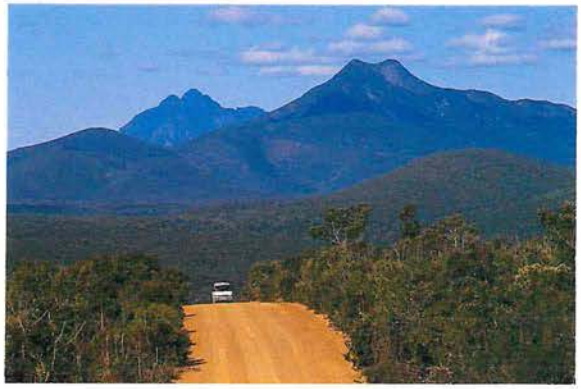
Stirling Range National Park.

Once more, the adage applies, that environmental protection is favoured over environmental correction, although the dynamic capacity of recovery of a wetland which was historically degraded should not be ignored. Environmental management and tender, loving care through a tourism development may truly lead to a mutually-advantaged environment. Biological values as well as simple aesthetic values of an "improved" wetland must be carefully appraised. If the biological systems are in harmony and balance, with excess nutrients being naturally filtered by vegetation, for example, then wetland maintenance costs can be reduced. Waterbirds and vegetation in harmony with an expanse of water are far more attractive than a sterile dam or pond. They are also cheaper to maintain if their environment is in a harmonious balance, and sustainable.

Artificial wetlands such as canals need to be designed and constructed with such lessons in mind, as well as with the realisation that they are basically an artificial new addition to a larger ecological entity. Their healthy state can be maintained only if the surrounding land and waters to which they are connected can remain environmentally healthy, particularly under the additional stresses they bring.

Inland developments, free of the ever active and ever changing dynamics of coastal and wetland areas, may appear to have a less fragile environment. The vastness of Western Australia, and indeed of Australia, generally leads to the location of tourism developments near oases of beauty. The ethical requirement lies in the need to preserve that natural, pristine beauty and the fragility that is often most important.

Many of the major scenic attractions in Western Australia are now located in National Parks, reserved as Crown land. This is the result of attempts to follow the conservation strategy of preservation for the future, while making such beautiful places available for present use and enjoyment. There is similar recognition of the need to preserve important marine environments in Marine Parks.



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Forested areas, such as those in the South West, present unique and majestic environments of great scenic beauty. They are idyllic places to wander and camp. Unfortunately, they can be the scene of devastating bushfires, caused naturally by lightning strikes or deliberately or accidentally by humans. Tourism developments and tourists in such areas carry a great ethical responsibility to ensure against such conflagrations, and to adopt responsible preventative measures.

Additional environmental damage can be caused by imprudent clearing of trees and vegetation which are so important as natural preventatives or guards against soil erosion and increases in the salinity of water catchments. As well, they are valuable in themselves aesthetically and for the web of ecological life in which they form essential strands.

Particularly in the case of jarrah forests, there may be a spread of the fungus "dieback" which has caused such extensive damage, and can be spread from infected areas in mud from tyres of all-terrain vehicles, for example. **Quarantine areas should be respected.**

Examples of Monsignor Hawes' outback architecture, Church of Our Lady of Mt Carmel and the Holy Apostles St Peter and St Paul, Mullewa.

Obviously, the introduction of alien species of vegetation is another matter of concern. Herbicides or pesticides used against weeds or pests can cause unintended damage to other elements of the neighbouring environment. Domestic pets and those that become wild and breed can be one of the greatest threats to the small native fauna after human settlement in an area.

Environments as different as **deserts and mangroves** all have their own unique and special roles in the environment, and what may appear visually unattractive to humans may, in fact, be of immense environmental value. Mangroves, for example, are an extremely important breeding ground for many fish. Paradoxically, a tourism development built by removing mangroves and designed to cater for sports fishing may thus be self-harmful by ultimately causing a reduction in the fish population and restocking.

The **cultural heritage** is an important part of the environment that needs to be considered in any tourism development. Cultural features of the post-European settlement such as buildings and other structures, and the relics of past activities such as mining, may be sufficiently important to justify their careful assessment before a development intrudes or seeks to change or remove them.

Their importance may be in their artform or architecture, or it may be in their expression of activities and achievements – successful or otherwise – of previous generations. It may lie in the attempts of previous generations to coexist with an environment that was often harsh and unfamiliar, and in their uses of local materials when they had only memories and knowledge of foreign civilisations from which they could easily borrow.

This cultural heritage, a vital part of the National Estate, provides a connection with our cultural past, present and future which fulfills a real human need for continuity as well as providing a nexus with nature. Taking the viewpoint of tourism alone, the preservation of historic buildings and of whole regions and neighbourhoods is of undoubted value.

What may appear to be simply old ruins may, in fact, be of enormous tourism interest once they are properly interpreted (and, perhaps, restored) so as to reveal their history and their contribution to today's society.

Aboriginal culture and its conservation and protection is an extremely complex and sensitive issue. Its importance cannot be underestimated but it cannot be treated adequately here.

BRIAN J. O'BRIEN

CARRYING CAPACITY AND NODAL DEVELOPMENTS

LOVING THE ENVIRONMENT TO DEATH

Tourists love to go to beautiful spots, but if too many go in an uncontrolled way, their heavy-footed pressure can destroy the very attractions that enticed them there in the first place. The environmental damage may be very costly and slow to repair, or even irreparable.

One of the hardest parts of managing the environment is trying to stop tourists "loving the environment to death".

With more leisure time and increased mobility, tourists are putting increasing pressure on environmental beauty spots at ever-increasing rates.

Pelicans crowd for fishermen's scraps, at Wilson Inlet.

CARRYING CAPACITY

It is common sense to recognise that any segment of land has a limited "carrying capacity". If this figure is exceeded for more than a reasonable proportion of time (or if the area is subjected to other severe stresses) the land may suffer environmental damage that may be irreparable or at least take a long time to recover. The same applies to aquatic environments.

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Pastoralists and graziers are very familiar with the concept of carrying capacity in terms of avoiding overstocking their land. The point can be reached where pastoral land is stripped of its vegetation cover, and becomes very susceptible to loss of valuable, nutritious and seedbearing topsoil by wind or water erosion. The topsoil, no longer held in place by vegetation, may simply be washed or blown away.

With tourism, much the same principles must apply. In sensitive beach and sand dune areas, the effects of disregarding soil conservation principles are already easily seen at thousands of locations along the Western Australian coast where human or vehicular tracks have destroyed vegetation leaving a fragile, often mobile sandy track to a popular swimming, surfing or fishing location.

Consequently, the environmentally ethical action must be that a tourism development should not attempt to cater for, nor attract, more tourists than the immediate environment can "carry".

This raises a paradoxical problem for a tourism developer. On the one hand it might appear there should quickly be an upper limit to the number of customers even whilst on the other attracting as many customers as possible is important for the success of business. Of course, experienced tourist developers realise that overcrowding may cause loss of enjoyment by the tourists and may therefore, in the long run, prove self-defeating.

The solution to this dilemma is quite simple. From the very beginning and throughout the lifetime of the development the design should be sensitive to all aspects of the carrying capacity of the site and in harmony with the total environment in all its forms. It should be planned to protect the fragility of the local environment (eg. by concentrating heavy use or heavy kinds of use on those places where the natural environment is either rugged or can be made more rugged) and to provide enjoyment to a viable number of tourists without overcrowding.

It is only in this way that a thoughtful developer can maintain the attractiveness of the site, so it is obviously in the best financial interests of the development to do so. Use must be sustainable.

As with well-managed pastoral areas, one can afford occasional heavy stocking (say at peak holiday periods), provided that the environment has a chance to recover afterwards, and that it is not pressured to a position of irreversible damage.

The tourism developer can increase the carrying capacity of the environment of a particular development, in many cases, by sensible and sensitive planning. Putting in limited but well-planned access points to a beach is a simple illustration. Planning for environmentally suitable types of transport is another.

Open-air concerts at Leeuwin Estate amidst karri trees have received acclaim world-wide.

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It is clear then that a sensible tourism developer will give very early consideration to the preparation of an environmental management plan for every potential tourism development site. Without excessive attention to catalogues of flora and fauna, this plan should be for the principal purpose of identifying local areas of high environmental sensitivity (to be avoided where possible) and of low environmental sensitivity where the architect/planner can direct more intense development and use.

A simple example would be that of a proposed coastal development. An early survey to determine susceptible sand dune areas, and areas exposed to wind blow would be essential before any detailed plans could be prepared.

The size and scale of a tourism development need to be planned carefully with the environment as a critical limiting component right from the outset, so as to ensure that even in its final form it does not exceed the carrying capacity of the local environment, and thus self-destruct.

NODAL DEVELOPMENT

Associated with this concept of carrying capacity is the related notion of "nodal development". By this is meant that clusters of development (which may include tourism facilities, roads, townsites, caravan parks, or the like) should be separated by portions of undisturbed environment.

The alternative, that of continuous strip development, running more or less ribbon-like along the coast, is regarded as unsatisfactory for both practical and environmental reasons.

From a practical viewpoint, it is much more efficient and economic to provide service facilities (water, kiosks, toilets, power, life-saving, road access, parking areas etc.), to nodes than it is to continuous strip development. There is a critical mass of people needed before such services become viable.

The environmental argument for nodal development can be two-edged. The argument in favour is that it can leave much of the environment (between nodes) in a "natural" state, and thus, by implication, enjoyable and renewable and cheap to maintain.

The environmental argument against nodal development is, of course, a consequence of the earlier discussion about carrying capacity. With nodal development there is a hazard of possibly exceeding the local carrying capacity while leaving much of the remainder in its natural form. The analogy would be that of a farmer who overgrazed one paddock while the next paddock had rich grasslands.

On balance, in Western Australia, even in the metropolitan area, the nodal approach to development must be favoured. Natural and undisturbed areas must be left in perpetuity. The resultant increased "people pressure" on individual nodes should not be beyond our inventiveness to manage, even if the immediate costs are higher. The long term cost of untrammelled ribbon-like development all along the metropolitan coast would be immeasurably higher, albeit impossible to measure in dollars. In the rest of the State, the same arguments will prevail, particularly that of ensuring viability of service costs.

THE WILDERNESS CONCEPT AND THE SPECTRUM OF LAND USE

Some conservation groups, particularly "Wilderness Societies", prefer tourism development to be excluded from remote areas and most areas that are in more or less their natural condition.

One possible long-term solution to this potential conflict is the adoption by tourism developers of this code of Eco Ethics.

The constructive consequence should be a gradual increase in more members of the community understanding and appreciating the environment. It is from such growing world-wide understanding that rational environmental management will come, instead of from punitive measures (although punitive measures can be useful accessories).

The wilderness groups do have a very valid point. Wilderness areas should be preserved, for many reasons.

The community already accepts that there are areas which should not be "developed" because development could damage or disturb a scientifically-valuable area. There may be rare flora and/or fauna, for example, which could be endangered by such development. So Nature Reserves are set aside and respected for this reason – a scientific one.

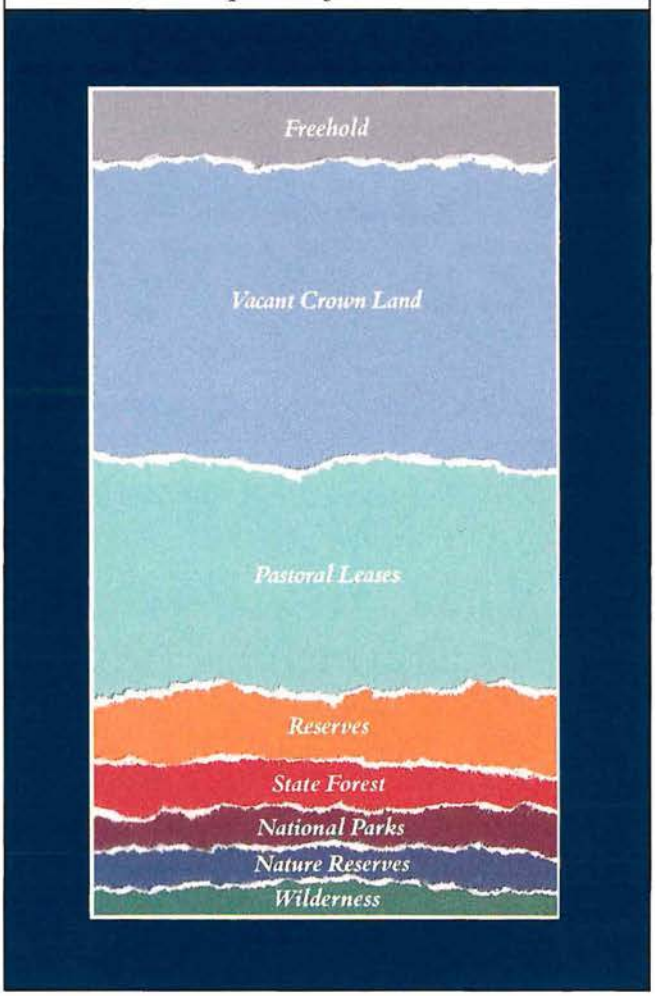
There are also areas of special value that should be set aside, in perpetuity, for their intrinsic beauty or other such environmental feature. These are commonly called National Parks.

The community, through its Government agencies, may well judge that some parts of the spectrum of land use shown in Figure 2 should be denied to tourism and tourism development, no matter how responsibly and environmentally ethically the development has been planned.

The intrinsic value of a wilderness area, its ultimate ethical worth, is that it lies at one end of this spectrum, and must be left alone for future generations.

There is much more reason to reserve lands and other areas for wilderness and other conservation purposes than just simply leaving the area untouched so that future generations can see it in a natural state. Many such areas are essential to preserve the widest possible range of genetic diversity for the future. This is one of three major aims of the World Conservation Strategy, and the practical, economic and other justifications are discussed in that Strategy.

Figure 2
Spectrum of Land Use



Rottnest Island near Perth.

URBAN TOURISTS AND THE ENVIRONMENT

The majority of tourists in Western Australia live in cities and urban developments. The overwhelming majority – approximately 90% – of tourists in Western Australia live in Western Australia.

The implication for tourism and the environment is not always recognised. For most tourists, it would be something of a shock to their system to do without everyday amenities and to "rough" it. The desire for hot water, a clean, dry bed and good food and a clean toilet is very common.

Their interaction with "The Environment" may be, and hopefully is, a meaningful one, but it may be a fairly fleeting one. The major impact on the environment of their tourism comes from the combination of their high numbers and the provision of their urban comforts.

The majority of tourists are thus urban dwellers who want only a comfortable, fleeting (but deep) involvement with the local environment. The rest, who include for example, canoeists, back-packers, photographers and specialist enthusiasts, hopefully should already have a highly developed sense of environmental responsibility.

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Tourists' enjoyment of the environment generally is increased if it remains as "natural" as possible. More and more, their enjoyment will be increased further if they can engage in participatory tourism, where they learn more about the local environment and its place in the scheme of things.

It is incumbent on an effective tourism developer to increase the environmental information and understanding of the area.

It is likely also in a developer's best financial interests to do so. Care and maintenance expenses should be reduced as tourist understanding and appreciation are increased.

The environmentally-literate tourism developer should cater for each particular market with proactive and informative signs, where necessary. Information brochures and pamphlets should allocate a reasonable proportion of space to accurate and reliable information about the environment.

The net effect should be an increase in the body of environmentally-literate tourists. If they can reliably look forward to returning to a non-degraded environment then presumably they will become return customers, or at least be enthusiastic ambassadors of good-will.

"The Environment" should not be a remote abstract concept that one reads about, it must be essentially a part of everyone.

However, a word of caution is necessary. Tourism and environmental information that "talks down" to the general community is not only uninformative it is offensive and patronising. Underestimation of the interest and intelligence of our community is dangerous, and in itself unintelligent.

SPECTRUM OF RECREATIONAL/ TOURISM OPPORTUNITIES

Over recent years there have been many analyses of the environmental implications of recreation that are relevant to tourism.

In particular, there has been the usual desire to categorise recreational opportunities in the hope that management and environmental solutions may be clarified.

For example, the range of recreational opportunities might be divided into six discrete classes:

primitive
semi-primitive non-motorised
semi-primitive motorised
roaded natural
rural
urban.

Obviously such categories could be applied to tourism developments as well.

The notion is that one should be able to categorise the acceptable level of environmental impact within each class. For example, noise: clearly the level and kind of noise that is acceptable in an urban recreational environment is not acceptable in a primitive one. A suitable methodology is then to set up an environmental framework of acceptable noise levels for each class of recreation. Tourism developers could do likewise, bearing in mind the immense ranges of noise environments that can exist in the real world.

Similarly the issue of overcrowding can be categorised, and obviously the levels of frequency of human contacts that are tolerable vary with the class of the environment. Factors such as seasonal and weekend loadings, and length of stay can give some useful quantitative tools to assessing and predicting "overcrowding".

When such human-centred techniques are combined with a biological or environmental assessment, the results can have quantitative value for tourism developers in assessing the total carrying capacity of a site.

ENVIRONMENTAL HOUSEKEEPING

In this discussion of Eco Ethics of Tourism Developments, there has obviously been a concentration on eco ethics that are particularly relevant to tourism and tourism developments.

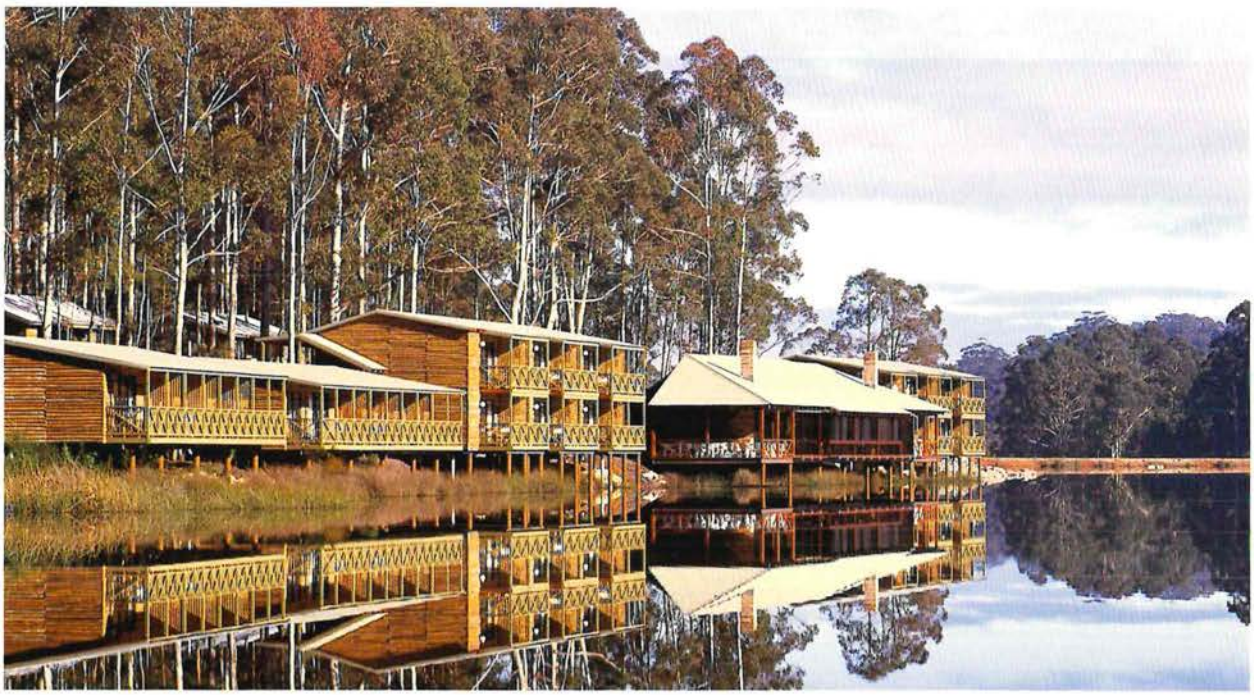
Accordingly, there has been no attempt to set out the wide range of approaches to "good" environmental housekeeping that are more or less universally applicable. Such concepts as minimising waste, maximising use of re-usable items, minimising air, water and land pollution are all taken to be accepted.

Obviously a tourism development, particularly in country areas, can be a community leader in many areas of environmental responsibility in these broad, housekeeping fields. The concentration of new capital may enable a tourism development to experiment in some aspects of conservation that would clearly be non-viable for smaller, fragmented country dwellings. It could then serve a broad, educative role, and incidentally enhance its standing in the local community.

In summary, while most of the Eco Ethics stated are creatively positive, it would seem adequate as far as environmental housekeeping is concerned to simply follow the precept of minimising pollution of all kinds.

ECO ETHICS AND ECONOMIC IMPLICATIONS

Tourist resort of Karri Valley harmonises with the forest and lake.



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Both words "ecology" and "economics" derive in part from the prefix "eco" from the Greek word "oikos", meaning "house".

Eco Ethics are the reasons why good housekeeping – in this case of planet Earth – should be practised, and how this can be put into practice for tourism developments.

Economics is literally the stewardship of a house, or more generally concerned with the production, distribution and consumption of goods and services.

Obviously, the two words – ecology and economics – go together etymologically, and time and time again they also go together in practice.

Sound Eco Ethics generally turn out to be sound economics.

There are many examples of this. The maintenance costs of a tourism development will be less if tourists are environmentally literate and avoid littering and careless use of the local environment. Higher efficiency and productivity will occur in a tourism workforce if the management and staff have a proud sense of environmental place. In the field, sound management – as in the case of coastal dunes – reduces the costs of repair and maintenance, as well as being otherwise environmentally responsible.

This harmony between the ecology and economics of a tourism development holds true over the long-term, and any tourism development with significant environmental impact must be a long-term one. The costs of environmental repairs after an unethical short-term operator has departed

must not be a burden on the community, any more than irresponsible damage to the local environment should be a long-term burden on the surrounding environment, through propagation of weeds, or beach sand erosion or other undesirable effects such as loss of native species of flora or fauna.

The actual costs of Eco Ethics (the upfront costs) will vary greatly from site to site and from one development to another. Budget estimates of a few percent of all capital costs for what might be called "the environment overhead" are reasonably typical, and therefore are significant and must be carefully planned and allocated.

A useful point to note in any such development is that if properly planned, the environmental work often becomes part of the marketing package, as the environmental constraints – such as trees, lakes, birdlife – become blended into a development and gradually become part of its environmental attractions. Early documentation of environmental factors can thus become part of a sales brochure. Once again, sound Eco Ethics can be effective business economics.

There are several other broad relations between Eco Ethics and the raw economics of tourism developments.

On a parochial basis, tourism development that manifestly is designed to abide by a code of Eco Ethics should rightly expect some help with the processing of environmental appraisals and clearances required for statutory and other approvals. Time may be saved.

On a very broad basis, "concern for conservation and environment is a mix of ethics and self-preservation. It arises from a sense both of what is right, and what is necessary".

The "self-preservation" aspect is not just global for a tourism development. It is locally vital. Proper and ethical environmental practices must lead to spin-off benefits in staff morale and efficiency, community goodwill and the development of a good reputation generally. Operationally, environmentally protective and environmentally friendly developments can have lower maintenance and corrective costs.

In summary, an overwhelming reason why tourism developers should act responsibly towards the environment is because it is in their best interests to do so.

It is in their best interests, both financially and morally.

They should make more money, and they can justifiably feel morally superior while they do so.

Those responsible for tourism development and those responsible for conservation and environmental management know that tourism and the environment must co-exist. If the environment that enticed tourists is damaged by them – either through numbers or the intensity or manner with which they interact physically with the environment – everyone loses.

The environment can be protected to some extent by legislation and regulation, but these are purely reactive measures. The ideal tourism development is one with a positive or proactive interaction with the environment. These Eco Ethics provide a simple, commonsense basis with which to achieve such sustainable interactions.

A development based on Eco Ethics has to tread a delicate path if it is to avoid just falling into a warm and comfortable glow of inner contentment. This pitfall can be avoided by continually testing the Eco Ethics against the harsh realities of the physical and economic real world. The best practical way to do this is for the tourism developer to treat an environmental management plan with as much attention to accuracy and detail as is given to a marketing plan.

A management plan for a tourism development site that is based on an environmental assessment of the site will ensure that the loftier phrases of conservation strategies, as well as Eco Ethics, are put into effect in the real world.

The great strength of Eco Ethics for Tourism is that tourism and the environment are closely interdependent in a positive and mutually reinforcing way. Eco Ethics may be designed primarily to protect the environment, but they also protect the attractions and assets of tourism, and can assist in positively promoting responsible tourism development. Eco Ethics are economic.

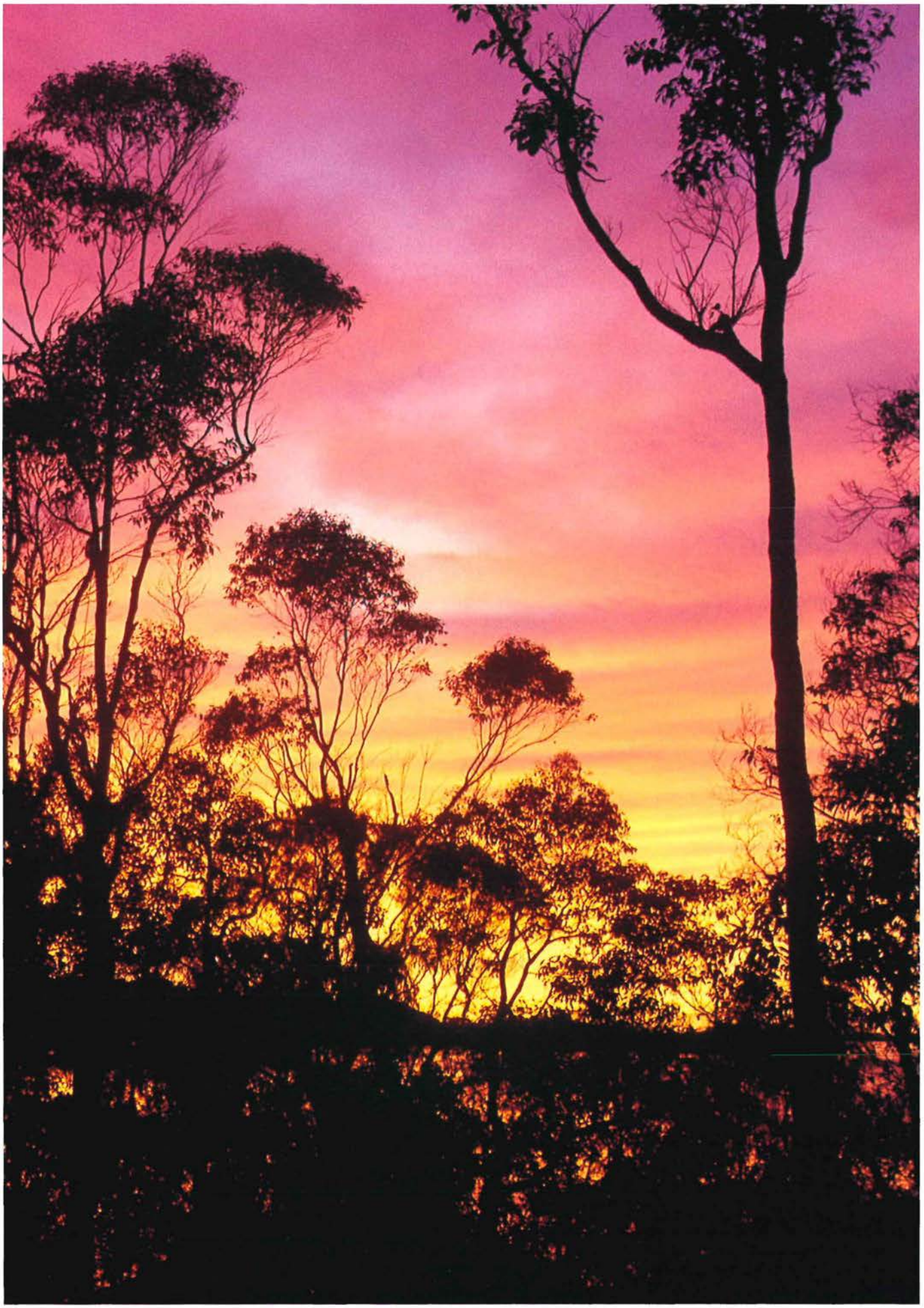
The Eco Ethics of Tourism Development present a positive challenge to developers and their architects/designers to not only look after environmental protection, but to work creatively and positively with the environment. This will lead to greater community understanding and enjoyment of the environment.

From such community understanding there should come responsible community management, so that the attractive features of the environment are accepted as being wanted and indeed necessary.

From such community enjoyment of the environment can come the community desire to enjoy the environment more, at environmentally-responsible tourism developments, so that tourism increases.

When that stage prevails, the circle is complete. Tourism and the environment can become harmonious and self-sustaining.

Sunrise over Wilson Inlet, Denmark, WA.



BRIAN J. O'BRIEN

ETHIC:

The discipline dealing with what is good and bad and with moral duty and obligation; a set of moral principles or values; a theory or system of moral values; the principles of conduct governing an individual or a group. (Websters)

MAXIM:

A general truth, fundamental principle, or rule of conduct. (Websters)

CONSERVATION:

The management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations. Thus conservation is positive, embracing preservation, maintenance, sustainable utilization, restoration, and enhancement of the natural environment. Living resource conservation is specifically concerned with plants, animals and microorganisms, and with those non-living elements of the environment on which they depend. Living resources have two important properties, the combination of which distinguishes them from non-living resources: they are renewable if conserved; and they are destructible if not. (Word Conservation Strategy)

DEVELOPMENT:

The modification of the biosphere and the application of human, financial, living and non-living resources to satisfy human needs and improve the quality of human life. For development to be sustainable it must take account of social and ecological factors, as well as economic ones; of the living and non-living resource base; and of the long term as well as the short term advantages and disadvantages of alternative actions.
(World Conservation Strategy)

ENVIRONMENT:

Living things, their physical, biological and social surroundings,* and interactions between all of these.

ECO ETHICS: (also ecoethics)

Moral principles or values dealing with behaviour that has, or could have, environmental impact, implications or significance; the principles of environmental conduct governing an individual or a group in any interaction with the biosphere.
(O'Brien & O'Brien)

*Where the "social surroundings" of man are his aesthetic, cultural, economic and social surroundings to the extent that those surroundings directly affect or are affected by his physical or biological surroundings. (Adapted from Section 3 of the WA Environmental Protection Act 1986)

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"We have not inherited the Earth from our parents,
we have borrowed it from our children."

World Conservation Strategy