

THE SMALL NATURAL RESERVE

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Read to the Mosman Parklands and Ashton Park Association by Mr. Allen A. Strom, Adviser in Conservation, New South Wales Department of Education, 19th June, 1968.

PRESERVATION OF NATURALNESS

THE preservation of naturalness in the pattern of man's usage of the Earth has long been recognised as of some significance. It is difficult, however, to estimate the value of the significance in either past time or the present, for we all tend to have individual methods of measuring the value, and undoubtedly, there is the ever-present conflict of personal interests and desires, as well as the efforts which some amongst us make to secure pecuniary gain from the presence of naturalness, particularly when it comes to selling homesites with what is known as "a bushland setting".

There is certainly much confusion about defining a meaning for "Naturalness", or for stating the uses of naturalness. For example, in the much praised initiation of national parks at Yellowstone in the United States in 1872, there was talk of retaining the naturalness of that magnificent area "for a playground for all time for all the nation"; and this concept of having your cake and eating it at the same time has continued to live with us for a hundred years. There are many slots in our management of national parks in this State where confusion reigns supreme: in Royal and Ku-ring-gai, where increasing pressures of usage encourage further destruction of naturalness to accommodate more and more people in less and less naturalness; and in Kosciusko, where provisions for snow sports (and water conservation measures) made fantastic inroads since World War II.

The point is, I think, not that picnic sites in Ku-ring-gai and Royal National Parks, or snowsports in Kosciusko National Park are necessarily wrong, but rather that we must be far more honest with ourselves about the embargo which we will place upon our behaviour in order to achieve the true preservation of naturalness. Some of our alleged aims are downright misleading because we know they cannot be achieved, and we will not spend the time to clarify our thinking and use only well-defined terms.

The Fauna Protection Act of 1948 and the National Parks and Wildlife Act of 1967 have given some substance to terms like national park, state park, historic

site and nature reserve, and although it is still very necessary to put this house of higher classification of natural reserves into good running order, the position of these reserves is infinitely better than the multitude of small natural reserves which are literally spread throughout the State like a rash.

The lack of suitable legislation for the establishment, definition and management of what are known as "parks" has long been recognised by workers in the field of recreation, nature conservation and to some extent in administration of lands. I am aware that moves in the '40's and '50's for national park legislation were somewhat confused in the beginning because some people in the popular park movement, and in administration, wanted a Parks Bill which gave a better deal for all parks, from playing fields to wilderness areas and reserves for scientific reference. And we would be foolish to believe that recent achievements demonstrate a widespread understanding of the need to stratify reserves according to the purpose which each must serve; or if we did not recognise that it is very difficult, perhaps impossible, to use an area for two separate purposes which are in conflict.

Until quite recently, all playing fields, cemeteries, racecourses, showgrounds, natural reserves and the so-called "national parks" were lumped together for administration in a rather not-important fragment of the Department of Lands, known as the Parks and Miscellaneous Branch. It is certainly most encouraging that this situation has now somewhat changed and whilst national parks and State parks have gone over to the new National Parks and Wildlife Service, there is also a Parks Service Bureau which includes within its functions attention to natural areas.

I suppose the real difficulty facing good management for natural areas administered by the Reserves Branch of the Department of Lands is their very significant proliferation and the great variation in usage which is permitted either by active management or by default, in that there is no management at all. Because of the very complex circumstances and the lack of machinery to direct usage, it is not difficult to understand why ad-

ministration has refrained from defining reserve purposes, particularly when in practice, "public recreation" takes precedence over a number of other "public purposes" for which an area, or the one and the same area, may be reserved under the Crown Lands Consolidation Act.

Now that national parks have been given a legitimate status as it were, the nature conservationist might have a little more time to devote to a very great number of other natural areas which continue to be administered, with or without trustees, through the Reserves Branch of the Department of Lands. It would certainly be a splendid move to seek better management for those natural reserves which are not presently under the surveillance of the National Parks and Wildlife Service, and already it is evident that a new classification of National Recreation Area is necessary in order to relieve the recreational pressures being exerted upon national parks and nature reserves. Furthermore, a close look might be taken at all the remaining miscellany of reserves—for public recreation, the preservation of flora and fauna, the preservation of trees, the preservation of aboriginal relics and all the rest — in order to allocate a more clearly defined designation with appropriate management to suit the designation. I know of several areas designated as reserves for the preservation of flora and fauna where alien activities such as grazing and timber-getting have taken or do take place. There are other reserves where the designated public purpose is a double-barrelled affair such as public recreation and preservation of fauna and flora; and, in other cases, a reserve for public recreation exists over an area that is admirably suited for the preservation of naturalness.

Obviously, a first step is to define the kinds of reserves which may be gazetted, since "public recreation" can cover many activities including football fields and race-courses. There is no attempt to clarify the position at present. Neither is there any true security for gazetted reserves, and in actual fact, most are merely "holding" or temporary reserves.

Under the provisions of the Local Government Act, areas reserved for public recreation and not placed under trustees devolve upon the local Shire or Municipal Councils for management. In some cases, Shire or Municipal Councils are appointed trustees of natural reserves. Two outstanding examples come to mind:

1. **Fraser Park**, near Catherine Hill Bay, which is under the trusteeship of the Wyong Shire Council. The Council and the Department of Main Roads have won gravel from the Park, and several parts of the Park have been assaulted by mining activities of various kinds. The Park has an area of some 2,000 acres, is an excellent site for a natural reserve and merits, in my opinion, classification as a State Park.
2. **Minnamurra Falls Reserve**, near Jamberoo, a very tiny area under the trusteeship of the Kiama Municipal Council. The Council is obviously impressed by the tourist potential of the Reserve and encourages visitors for recreational purposes. The Reserve is, in fact, a place of extreme scientific and educational value and its sacrifice to tourism is, in my opinion,

a prostitution of the resources. It is far too small for its own good and should certainly be reclassified as a Nature Reserve and held for scientific and educational reference.

I make the point then, without further time to expand upon it, that the nature conservation organisations might now turn their attention to better legislation and management for the small natural reserve.

WHAT ARE THE PURPOSES OF THE SMALL NATURAL RESERVE?

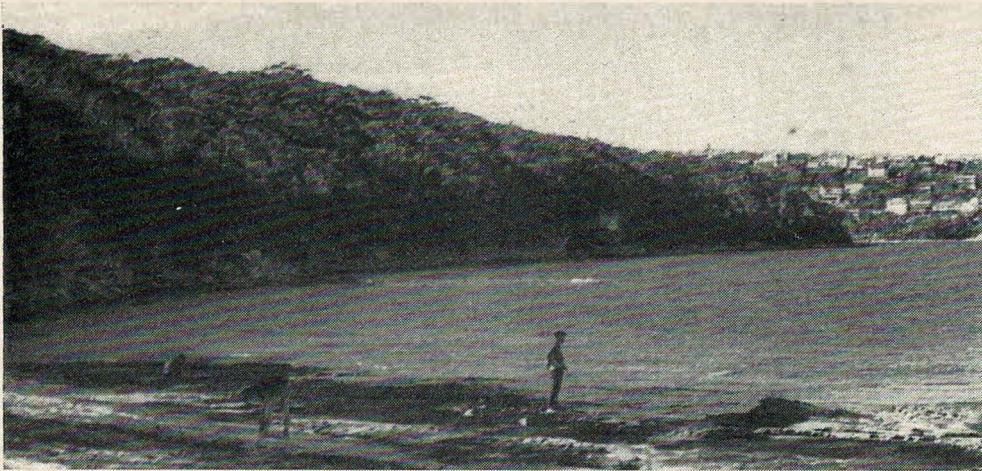
It does become difficult, I suppose, to know what one means by a natural reserve. Perhaps I should clear the decks by saying that I am not referring to "Nature Reserve" which is defined under the Fauna Protection Act as amended by the National Parks and Wildlife Act, although I must say that there are many "natural reserves" which I would gladly see dedicated under the Fauna Act as Nature Reserves.

Firstly, a "natural reserve" must enclose and retain, significantly unaltered, communities of plants and animals, and, secondly, be capable of continuing to do this for an indefinite period of time, preferably in perpetuity. With due regard to these principles, reserves which attempt to preserve geological, anthropological and other qualities of interest would be considered for inclusion. Generally, such reserves would be set up under the provisions of the Crown Lands Consolidation Act, but there are areas (such as part of the surrounds of the Dee Why Lagoon) which are held by Councils in fee simple, and are existent as "natural reserves", simply because no other usage has intervened.

With these remarks in mind, perhaps the following purposes for small natural reserves are worth considering:

1. Small natural reserves provide **diversity to local colour** by breaking up the pattern of land usage. This only becomes fully apparent as the land usage pattern becomes saturated. Hence we are now beginning to observe the value of the reserved areas around Sydney Harbour and to regret the earlier lack of foresight in not preserving more or in not holding a complete strip of naturalness around most of the shorelines of the Harbour. The problem is, of course, that in the initial stages of development very few citizens appreciate the need for reservations because the land abounds in naturalness anyway and the outcry against destruction of naturalness appears completely unnecessary. This goes on today in all the undeveloped lands and there is understandable reason to doubt the sanity of the conservationist who talks of the "last of the lands" whilst one may view the apparent vastness of naturalness still existing. The fact is that if land is not reserved its potential for nature conservation may be, **pro tem.**, neglected; and alienated lands are obviously a lost cause with present concepts of land usage in this State.

It is also in these early stages that most destruction of naturalness takes place, as apparent abundance develops an attitude of carelessness and the possibilities of enlightened management are not con-



This attractive beach and the surrounding bushland at Bradley's Head in Ashton Park (near Mosman) provides welcome relief from shops, houses and city, on the Harbour foreshores; a pleasant retreat for the harassed city-dweller.

sidered, let alone put into operation. So the Royal National Park suffered most from the unenlightened mismanagement of half a century ago and the ridiculous land use arrangement that allowed for the alienation of lands at Bundeena, Heathcote and at places around Port Hacking.

It would seem doubtful that we will ever beat the sprawl of urban development so long as we encourage single houses on single blocks of land (be the blocks large or small)—or in rural areas, where there is complete removal of natural cover for crop lands and pastures—producing a single-minded purpose in living. If the land use for intensive human purpose is concentrated, and the residue of remaining natural lands reserved, preferably in units of significant size, the diversity of nature might be retained, and the life pattern for humans suitably enhanced.

2. A small natural reserve may **preserve a site which is significant in human and/or natural history**. For example, it would have been to the lasting benefit of our nation if a larger area of natural reserve had been set aside between Malabar and La Perouse because of the remarkable abundance of floral species in the heathlands at that place; or the whole of the Kurnell Peninsula had remained largely unaltered to commemorate not only the historic landing of Captain Cook, but also the historic investigations of Joseph Banks; or better management and a larger area had been given to Lake Parramatta Reserve to preserve the obviously rich floral overlap pattern of the area, and the historic studies in the Parramatta district of Cayley, Cunningham and Woolls.

I have given only three examples which have come quickly to mind and I can think of many more sites which have real significance. In some cases reserves have been established; in others, we did not have the foresight. For many reasons, it was not, and indeed is not, possible to set aside large areas, but given an under-

standing of management needs, the smaller reserves could have survived and may still survive. Survival in some is now impossible—or that is how I see it—due to gross ignorance in management. A very good example is the reserve at Wingham known as Wingham Brush.

3. Small natural reserves may be **places available for relaxation and the inspiration** which arises from contact with naturalness possessing real biological, historical or related worth. I felt inclined to include in this group “places for recreation” but recoiled at the last minute because I know how dangerous it can be to let “recreation” loose.

Using any natural reserve, be it large or small, for relaxation and inspiration, obviously requires some training in how to do it and what not to do. A first requisite seems to be an understanding of the intrinsic relationship between the life-forms of the environment and naturalness itself. This may seem to be axiomatic, but, in fact, it is a lack of understanding of this relationship which apparently permits hordes of campers and fishermen to infest our beauty spots during holiday times, with tins, rubbish, trampled shrubs and massacred trees. They either do not see the destruction because their interest is in the sea or on the beach, or else they are using the resource like an inexhaustible supply—when site number one is destroyed there is always site number two available!

Let's return to this word “recreation” again. It is not such a bad word in itself if it really means “recreation”. The trouble is, we humans have given it a connotation far beyond reasonable tolerance. One is frequently asked: “What is your recreation?” and if it doesn't include getting all excited about a dollar each way on some horseflesh, or imbibing intoxicating liquors, or fighting one-armed bandits, or watching twenty-six gladiators kick an inflated piece of pigskin about, one is obviously “very odd”, to say

the least. Personally, I would like to find a new word but, realising the impossibility of such an enterprise, I would say that **passive, low-density recreation** is acceptable in a natural reserve and leave it at that. What is meant by "passive, low-density recreation" might constitute the contents of another paper.

4. Small, natural reserves may be **scientific and educational reference areas** of variable value. This follows, **ipso facto**, from the fact that small, natural reserves should possess some human or natural history significance. To demonstrate the point, I will confine myself to a few significant examples.

Dee Why Lagoon and Long Reef offer situations of special interest. In their optimum condition of natural cover, the surrounds of Dee Why Lagoon and the Lagoon itself presented a textbook example of frontal and hind dune, lagoon and swampland environment, and the habitat for waterbirds, swamp birds and other animals of various kinds. Teaching lacks reality without frequent reference at first hand to exact situations. The recent changes in the Secondary School Science Curricula, sound and meaningful as they are, will continue to lack reality unless the story which Dee Why Lagoon could tell is replicated elsewhere. At Long Reef, the demands of education have virtually brought a rape of its outstanding qualities; only because we did not agree in time to manage and carefully use, on a sustained yield basis, the resources which it held for education and research.

Who values saline swamps and mangrove areas? Try searching the estuaries around Sydney to find an area demonstrating land capture in a saline swamp—then, if you are fortunate in your investigations, consider how long the site will continue to exist as an educational reference area; and whilst you are on the job, look for a site which demonstrates sand dune succession.

Each small, natural reserve should be carefully assessed for its value as a scientific and educational reference area; in addition, there is an urgent need to assess the requirements of the future, so that further reservations may be made to supplement, to provide where facility is absent, or to replace those areas which have been pauperised by mismanagement and/or misuse.

WHAT PROBLEMS BESET THE SMALL NATURAL RESERVE IN THE JOB OF SERVING NATURE CONSERVATION?

Management, of course, is of first-rate importance and I would like to reserve my remarks in that quarter until a little later.

The size of a small nature reserve may be such as to make its demise only a matter of time. However, one should not be led into the error of specifying an optimum acreage since many other factors affecting survival are inter-related with size, including location and the attitude that a gully or a steep slope can be reserved and preserved without consideration being given to pre-

serving the surrounding tops. Frequently, it is not so much the size of a reserve which puts it on the road to destruction, as the idiocy of the boundaries where straight lines cut across simple environments, or encourage rubbish dumping, discharge of household effluents, local youngsters with axes and matches, and nearby homelovers with bags of grass clippings, garden weeds and other unpleasantries from their prize-winning gardens. Many excellent areas are situated on streams at the receiving end for all kinds of pollutants, including exotic plants. Obviously, steps should be taken to correct past errors and suitable studies quickly devised, to save what is left and guard against future errors. It seems to me that our community cannot afford the expensive business of reserving very valuable land if at the same time we do not make sure the reserves are viable; the first step is sensible boundaries, the second is virile management.

Any natural area in a developing or developed district is quickly subjected to high usage pressures. The attitude is taken that the reserve is for public benefit; it cannot be used without roads and other developments. Usage



View of the Harbour towards Rose Bay through trees at Bradley's Head, which is administered by the Mosman Parklands and Ashton Park Association; an invaluable oasis on the Harbour foreshores.

is, of course, intended, but the fact remains that too many individuals may be wanting to make use of the area and probably all at the one time or in such quick succession that the reserve cannot hope to rehabilitate itself. The equation is obviously out of balance: continue the usage pressure and the resource will quickly become pauperised. What then is the value in having a reserve—a "natural" reserve that is pauperised? The alternatives are to produce a "parkland", a playing field or permit use for urbanisation, and the pressure is doubled on all other natural areas in the district. The problem is obviously a management one. Can the pressure be reduced in total? Can it be channelled so that the total effect is minimised or even made inconsequential? If the usage pressure is not reduced and directed in such a fashion as to guarantee viability of the environment, then I suggest the site is not worth the trouble as a natural area and one might divert attention to saving some other site where viability has a greater guarantee.

Uses which conflict with the retention of naturalness are all too common. Most frequent are various forms of recreation which necessitate severe amendment or perhaps entire replacement of the natural ecosystems. The permissible number, size or extent of roads, tracks, parking areas, kiosks, residences, toilets, playing fields, trails for horse-riding, picnic and camping sites, and all the other miscellany of side issues to recreation that a natural reserve may concede, does depend of course upon the size and various features of topography and location. But, in general, the small, natural reserve cannot afford to have many of them if it is to survive; at least, it needs planning by persons who know the effects of amending procedures upon entire natural environments, bearing in mind the optimum quality of the environment as at present existing, and what is desired for the future.

Frequently it is not the "recreational user" who is the chief element in effecting change from the natural ecosystems. There are a multitude of **damaging procedures** ranging from electricity power lines, road builders, Water Board mains, to rubbish dumpers and those who thief soil, leaf-litter and rock. More insidious still, is the way in which silt, detergents, sullage and septic tank effluents pollute the creek waters, and Privet, Bidens, Lantana and all the other heroic exotics, not forgetting the feral cats and dogs, push out the natural wildlife. Some of these problems are endemic: determined by the ill-chosen location of the reserve site or its boundaries. Others are based on the immoral conclusion that if the land is Crown, or reserved, it is cheaper to build the road or run the power line through the reserve than to go elsewhere. To defeat misuses, management requires a much deeper sense of purpose, whilst John Citizen, generally speaking, needs to be brain-washed. In all the circumstances, the small, natural reserve will continue to suffer until nature conservationists make it clear that they expect for these reserves first class administration, which should involve research into how to overcome the damaging influences that are all too common and well-known to all of us.

As the small natural reserve becomes surrounded by alien environments, **the isolation of the naturalness**

makes survival more and more difficult in itself, quite apart from the influence of other destructive forces already discussed. The curtailment of the interchange of genetic materials must certainly be of considerable significance, and obviously a great deal more needs to be known about how to encourage survival of the small isolated natural reserve. Although it may be too late in some districts, it may well be **essential to have a proliferation of the small, natural reserve** not only for the genetic reason suggested above, but also because more areas mean less usage pressure and a more reasonable proposition in management, in so far as the availability of staff for supervision is concerned.

And finally, a few words about management.

From the very outset, the essence of the contract is **determination of purpose**. In other words, let us come to terms with terms before we commence any planning. To concede that a reserve can provide "public recreation" as well as "preserve flora and fauna for study" without stating the limitation which will be placed upon "public recreation" is, to my mind, completely dishonest. Still more so is the situation dishonest, if the reservation is for "public recreation" and an intent to preserve naturalness is stated. When the purpose has been sorted out then security for naturalness must be guaranteed to avoid a change of heart by the management authority at some later time. This means, of course, a thoroughly well established and organized administration at departmental level, to see that the local management discharges its responsibilities with full regard for the values possessed by the reserve.

Presumably if the purpose of a reserve is determined and finalised, then **usage planning** is possible. In view of the premium value which the future will attach to all reserves of nature, I see no reason why planning for our small natural reserves should not be done with the same detail and publicity as we expect of plans of management for national parks, State parks and natural reserves. Local management should be able to provide guidance in the preparation of such plans but I would expect that the central administration would be the approving authority to hand down the instructions for future management of a reserve. Arising from the usage plan, staffing and the day to day routine would begin to fall into place.

It is evident, I think, that a great deal of stocktaking is needed in order to put the management of the small natural reserve onto a sound footing. Amongst the essentials would be:

- a listing of all reserves with their locations, sizes and existing local management;
- a statement on the condition of each reserve, a list of the contained resources and the quality of these;
- a preliminary consideration of the determined purpose for each reserve;
- an estimate of the requirements of each district for the small natural reserve, with preliminary indication of resources available.

CONCLUSION

Is there a case for the small natural reserve providing for the preservation of environment as a separate measure from national parks, State parks and nature reserves?

Many such natural reserves already exist and it would not be feasible at this time at any rate to pass over their administration to the National Parks and Wildlife Service. The Service is engrossed in its own problems. Nevertheless, many of the natural reserves could, and no doubt will, ultimately be included in the administrative set-up of the National Parks and Wildlife Service.

Meanwhile, the small natural reserves contain a varying quality range of natural values which may be expected to continue to supply facilities for low density passive recreation, and scientific and educational reference. As suppliers of such facilities, the reserves are of significant value; but, in too many places, the qualities are seen to be deteriorating through over-use, misuse, and the invasion of debilitating forces of many kinds. The major overall cause of deterioration appears to be

an absence of defined purpose for the small natural reserve, and consequent management which is somewhat undirected and frequently quite lacks understanding of the intrinsic values of the raw resources of nature.

There has been a recent upgrading of reserve significance in the Department of Lands which should receive due recognition and encouragement by conservationists. It seems apparent that the Department proposes to considerably improve its public image in this field. Consequently, nature conservationists might seize upon the circumstances to secure a deeper regard for the conservation of the natural resources in reserves coming under the Reserves Branch, Department of Lands. I have endeavoured to detail the ways in which the small natural reserve can contribute to increased human dignity and to suggest the techniques which administration should be encouraged to adopt in order to upgrade its own efforts; whilst at the same time, recognising the widening usefulness of the small natural reserve, provided it is, indeed, managed to retain naturalness.