Preface

Was the Environment a Stage or an Actor?

When I was a small girl in Brisbane, Australia, we had on a sideboard at home a metal ashtray with a little silver airplane supported aloft. It was made of one big bullet and two little ones. I knew bullets were dangerous because my father had told me so, and anyway, I had seen cowboys in the Hollywood movies felled with great dispatch by bullets just like these in six-shooters. Yet my family seemed unperturbed at its being in the house. This ashtray with its bullet airplane forever flying above transient hills of cigarette ash furthered puzzled me because my Uncle Eric had brought it home “from the war in the islands.” A mysterious event in a mysterious place. Among family photographs, I also pondered a picture of another uncle standing beside a tall, gaunt man, both smiling at the camera. “That is Uncle Noel in uniform and that is his friend Syd who survived Changi as a prisoner of war of the Japs.” Just who were these “Japs”?

Of such small percepts of World War II the building of a concept comes, though new experiences constantly modify the structure. Years on, I visited yet another uncle in Lae, New Guinea, and saw remnants of whole hospitals that, so I was told, the Americans had simply abandoned. I wondered why such waste in a country so in need of medical equipment. More years had gone by when I sat in a high school common room, a big tin-roofed shed with leaf and canvas walls, at Alotau, Milne Bay, in Papua doing lesson preparation for the next day. The headmaster and schoolboys were leveling ground to pour concrete for a basketball court. Two boys walked in, presented me with two soil-encrusted hand grenades they had dug up, and asked what we should do with them. I cannot recall my response other than to get them and me out of there fast! And a year later, Okada-san, a gentle Japanese, appeared to seek vainly for the bones of his father killed in battle with the Australians at Milne Bay.

What I saw in the Territory of Papua and New Guinea, and later in the Solomon Islands and Tonga, made me wonder what impact this sudden foreigners’ war had on the environment and its native inhabitants and how thousands of
military personnel reacted to them. Here, I try to provide an answer. My field, or should I say my ocean, of history has been for many years focused on the Pacific, and, given the huge corpus of operational histories of World War II in that vast area and the strategic battles the Allies won there, I hardly need to explain why I have chosen it as a time and place of significance. Were I to exclude military history, I could analyze the impact of the war in terms of social, economic, and political factors on the inhabitants; these are not incidental considerations, as will be seen. To go to the heart of the relationship between human beings and their surroundings, we need to consider these older conceptual categories in light of the significance of the environment, even when it was, for a time at least, more of an imagined and later a remembered landscape, and the central role it played in the lives of the other actors in this great war. To achieve that, I approach the war in the southern Pacific islands through the lens of environmental history. This research attempts, then, to take into account the social, economic, and political dimensions of environmental issues.

J. R. McNeill reminds us that in regards to twentieth-century wars, and certainly World War II, the ecological shadow of preparing and supplying the waging of industrialized war fell heaviest on the protagonists’ homelands.1 I know of no reliable calculation of, say, the amount of carbon dioxide and other greenhouse gases cast into the atmosphere in producing war matériel and waging war, but it certainly added substantially to the total of the Industrial Revolution in the nineteenth century. In terms of specific locales, I also have no doubt that the cost to the environment and resources of the United States and Japan, for example, was greater than those of the Pacific islands.2 This study, however, is not an exercise in comparisons or relativities, but an assertion that the islands are important in themselves, with their own environmental rights and responsibilities, not just as means to the ends of other peoples and their states, including global superpowers.

In Natural Enemy, Natural Ally, the first collection of essays to address the interactions between war and environment in 2004, Richard Tucker and Edmund Russell argue that this aspect of environmental history has been largely ignored because that subdiscipline has its roots in the history of conservation, which has “focused attention on civilian rather than military affairs.”3 This may be true for the American school, which, in its moral concern for the future of the environment originating in the work of G. Perkins Marsh, John Muir, and Henry David Thoreau, was galvanized into being with the appearance of Rachel Carson’s Silent Spring in 1962 and the rising concern for life on the planet. But as John Mackenzie argues, not only is the concern for the environment much older, but also a variety of European historians have concentrated on colonial activities in several regions, revealing how imperial ideologies and technologies interacted with environ-
ment and introduced major changes, planned and unplanned. Imperialism is no
stranger to war in imposing its way. Even so, few of its historians have concentrated
on the specific relationship between war and environment, probably because most
such “little wars” involving limited technologies did not leave massive direct dam-
age on landscape.

I argue that war is a significant force in environmental change in two major
respects: First, it causes a range of changes in the landscape—which, for most is-
landers, includes the sea—and its several interrelated ecologies, including human
populations, which I see as elements of the environment. Secondly and more sub-
tly, war contributes to altering human perception of the environment by the ideas
it generates in its human participants, both military and civilian, along with the
demonstrated effect of their actions. Military historians know that the environ-
ment where war is waged is pivotal to operations, and so strategists and tacticians
consider such things as weather, tides, and terrain in planning campaigns. Despite
this, few military historians portray the environment as an active agent in conflict
or address the environmental consequences of war.

I also analyze the nature of the damage war caused and how it was dealt with
in the islands. Because of the perceptible and lingering damage to humans and
their environment caused by more recent wars such as the Vietnam and Gulf wars,
scientists, lawyers, and the military are considering the scale of damage as well as
how to measure it and, more important, if and how it can be rectified. The more
perplexing issue of who is responsible for rectification also is central. This process
was underdeveloped during World War II and, though the Allies came up with
a variety of ways of compensating for damages, actual losses incurred on battle-
grounds were excluded. They considered this collateral damage and inevitable in
war. A few colonial governments felt it prudent to pay ex gratia payments to their
subjects because, unlike foreign armies, these administrations remained in the
islands. But, as indicated, these were mainly monetary compensations rather than
rectification. The only other making good was to remove, or more commonly hide
from view, the detritus of war’s dangerous material. Some of that has a nasty ten-
dency to come eventually to the surface, and none of the protagonists is keen to
accept responsibility more than sixty years later.

Environmental history, despite its concern with the environment as an actor,
still keeps focused on human beings. Without them there would be no history.
Like the compass needle, the environmental historian flits across, hovers over,
and sometimes fixes on particular arcs in the great circle of life, but always her
north is people and their stories. I am interested in the cattle tick, not as the
entomologist is, in its life cycle, its host, and habitat, but on how these insects
have influenced the way humans behaved in their environment in wartime New
Caledonia. In the area of material culture, I am interested in the souvenir and the
The war memorial not simply as objects, productions, structures, and artistic representations by the human species, but also and centrally because they both trigger and signify stories about people in place. People, places, and perceptions are at the core of this study.

The war in the southern Pacific islands revealed and reinforced fundamental patterns in the use of, interactions with, and attitudes to the environment as well as catalyzing change. As part of a larger process, it was more than that, however. An intrusive act, it was an expression and extension of imperialism, both offensive and defensive, as well as imperialism’s failed diplomacy and hubris. The process of warring was the distillation, the concentrated essence of all exogenous influences that had impinged on this environment since Europeans first espied the Great Ocean “upon a peak in Darien” and sailed its vastness to discover for themselves what the native peoples had found thousands of years before. Though there had been earlier European harbingers, the period of more continuous intrusions of exotic strangers among the native inhabitants began in the late eighteenth century in the wake of Captain James Cook, who put so many islands on the West’s maps and revealed the resource potential of several.

Wartime observers often commented, we shall see, on the region’s wilderness, of islands or large areas of them as imagined absences, revealing few signs of a humanized or cultural landscape. They saw not with indigenous eyes or those of the prehistorian or, in less deep time, of the forest botanist, for the native inhabitants had made some enormous changes to their environment. Those the first Europeans met had been no ecological “noble savages” any more than they were uniquely savages, noble or otherwise. In the earliest days of their colonization of their oceanic world about forty thousand years ago, incoming peoples in western Melanesia as well as ancestral Polynesians from about three thousand to twelve hundred years ago, had used its natural resources sometimes unwisely, endangering or even eliminating some species, especially birds. They introduced exotic species of food plants and animals and with them certain unwanted cargo, such as the Polynesian rat (*Rattus exulans*). Over thousands of years, these settlers cleared and burned vast areas of primary forest and created grasslands or secondary forests. By gardening on hillsides, they induced landslips and silting of valleys, lakes, and lagoons, but they also often created productive landscapes for themselves. Hard lessons of scarcity, famine, and death taught them to husband resources and conserve for the future, though some did better than others, since near-fatal reduction of fauna along with forest and soil depletion occurred in some islands, most commonly those with a limited range of habitats and resources in cooler latitudes, or those extremely distant from other islands.

Once the second wave, the Europeans and some Japanese, arrived in the Pacific, they made even more rapid environmental changes, first as resource raiders
of the seas and land, exploiting the regions’ whales and seals, as well as tortoise-shell, pearl shell, bêche-de-mer, sandalwood, coconut oil, and feathers. From the 1850s through the 1890s, beyond Australia and New Zealand, Europeans crossed the beaches to settle, transporting their landscapes of plantation agriculture, farming, and pastoral industries, with their associated animals and plants as well as continental diseases, the last triggering a massive drop in microbially naïve native populations until about 1920. Perhaps the most fundamental and lasting change, however, was ideological: the beginnings of commodification of resources—land, labor, and produce of land and sea. Most of these goods variously circulated in indigenous societies prior to this, but within social relations that bound related groups together in a network of patronage, competition, reciprocity, affection, and shared values. Paradoxically, whether a high chief leading seven thousand in Hawai‘i or a “big-man” with a hundred followers in the New Hebrides, those who distributed most among supporters and kin were deemed the wealthiest and the most honored. In spite of this, gradually the native people both willingly and unwillingly became involved in this resource commodification process, when, for example, Hawaiian high chiefs and New Hebridean big-men became middle men in organizing labor to collect sandalwood, for a large slice of the goods or cash the white man offered.

With these contexts of deep history and exotic intrusions in mind, I examine the multifaceted interactions of the environment with the military and their activities during World War II in the southern Pacific islands where the main operations against Japan were launched. I have used a problem-centered approach, focusing more thematically on how the military dealt with the environmental realities when they arose throughout the war and how such processes affected or reacted with the environment. There is a natural progression of challenges particular to various phases of the war and their demands on the environment, along with its effects on people, their perceptions, and their behavior. I have addressed these issues serially, though their sequence inevitably overlaps because of the mobile nature of the front. Thus the discussion is not a straight chronological narrative and there is little reiteration of operational details except where appropriate, such as the events of the American landing at Tarawa.

Human beings are a species and certainly a natural resource. They are part of the biota that interacts with other living organisms and with the abiotic or nonliving environment. With the addition of energy originating ultimately from the sun, these form an ecosystem, its scale depending on perspective, whether local, regional, or even global. Studies of ecology focus on physical, chemical, and biological interactions. But there is another intangible element when humans make up part of an ecological system. Certainly, they have certain biological characteristics and behaviors, even if cloaked in culture that is formed and performed in human
societies. Even so, unlike most other living things in such ecological systems, all viable humans can envisage the future and recall memories of the past that are not solely necessary for their biological survival. They attach meanings to places and to objects associated with occurrences in such places, a process irreducible to a direct chemical or biological ecological interchange, unless we analyze the neural and synaptic processes within the brain. In some cases, instinct is surely part of such mental processes, as in many other organisms. But human beings also have complex belief systems, capacities of imagination and creative thought, and emotions such as sympathy, hubris, hate, and love. Agreeing with Donald Worster, I see this area of ideology, human perceptions, and feelings as a valid level for analysis in any environmental history. This ecology of the heart is, for humans caught up in war, both their strength and their weakness.

Such human characteristics are something nation-states and military commanders have to understand in order to shape and command behavior in the battlefield, where men unnaturally and often continually expose themselves to possible death and commit what in peacetime would be mass murder. Thus, part I of the book opens with what the men going to war expected their new environment to be in terms of its insular geography and climate and its human population, and how they and their commanders coped with the reality. Even these commanders were unprepared for much in the new environment, including tropical diseases. The link between these exotic humans and the smallest of endemic organisms, bacteria and viruses that cause disease, is analyzed along with how these, as well as unfamiliarity with operational conditions in tropical swamps and forest, affected both physical and mental health and thus performance. In the battle with endemic disease, military manipulation of the ecology became a primary weapon, since several infections, mainly mosquito-borne, had no completely preventive drug or fully curative medicine.

When large numbers of human beings interact with an unfamiliar environment far from their homeland on islands they have little formal political control over, several factors that are not specifically environmental become braided with their behavior in natural systems. As a species, human beings are political animals, so questions of power, authority, and control on several interfaces—between the occupying military and colonial administrations, between the colonial administrations and metropolitan governments, and between, on the one hand, administrations and the indigenous people and, on the other, the military and the people—constantly arose in attempts to marshal local resources for the war effort, both in the islands and for Europe and the United States. Here too, long-term economic and political motives for the postwar world constituted a hidden agenda that sometimes sat uneasily beside the most urgent common strategic goal of winning the war. These political threads are woven into the warp and woof of
the interactions between the environment and humans throughout the book, but most markedly in parts II and III.

Armies from distant places certainly utilized local resources such as vegetables, fruit, and timber. The Americans recognized the vital role of such supplies in the war effort worldwide when they set up a wartime authority known as the Board of Economic Warfare (BEW). Coordinating the systematic use of local resources involved significant interaction by the military with local administrations and people and raised questions of ownership. While historians have discussed military exchanges for fresh food and native labor because of their influence on native social attitudes, there are silences regarding other local resources, such as timber and fish. Nevertheless, local resources alone could not sustain temperate climate armies for any extended period, a reality the Japanese soon confronted. As I discuss in part II, to fight and win by application of maximum force, armies needed to have constant supplies of matériel from their distant homelands. Such massive incoming resources, seemingly limitless in the case of the Americans, made a deep impression on the indigenous people, particularly in more isolated western Melanesia. They also witnessed the novel uses to which the Allies put local resources such as coral and timber. Their environment had afforded them life-giving resources, but before the war, if they knew anything of the rest of the world, it was usually just a minute glimpse of modernity, like Plato’s shadows flickering on the cave’s wall. Consequently, they were curious and attracted to the new, to the humanity that the incoming troops represented and to the convenient, to their food, dress, devices, and routines. Unless the military or the colonial administrations could keep up the supply of goods that the islanders valued, their active assistance in the war effort, particularly as carriers to the Allied troops, would have been less forthcoming, as it became with the Japanese when they had nothing to offer in exchange except brute force. For their part, islanders, with their intimate knowledge of their own environment, gave valuable information and support to the armies of both sides. Of course, the meaning they took from these varied interactions and the way the military utilized resources was not necessarily what the exotic occupiers or even the colonial administrators might have expected.

In part III, I address the exit of armed forces and the material legacy they left on the environment, as well as less tangible influences among the islanders, such as food preferences. In attempting to dispose of the matériel they had brought with them, the military faced similar geographic and climatic constraints to when they had arrived, but a different order of urgency. As armies demobilized, maintaining surplus equipment became almost impossible. The enforced speed of disposal meant a loss to their owners, but some gain to those few administrations, missions, and commercial operators, as well as local people on the spot. Much was simply abandoned, including dumps of munitions—a process that seemed
wasteful to returning Europeans and even to their metropolitan public, but to the islanders it was, at least in western Melanesia where dumping was greatest, a baffling process.

Since the early years of the conflict, the military and some administrations had sorted out payments in cash and war surplus for environmental damage, including destroyed crops and trees the islanders valued, inflicted outside the operational zone. Despite this, some islanders and European settlers did better from this than others, with the equity of outcome falling victim not only to economics of the metropolitan governments, but also ultimately to power politics on a regional and global scale. The war brought more than foreign matériel to the islands. Living organisms came with human carriers or their heavy equipment, finding congenial niches in the wake of mobile armies and often making their presence felt in the environment years after war ended. There was no compensation for this delayed war damage any more than there is likely to be for what is now appearing as sunken ships break up and corroding containers of biological warfare compounds are discovered. On the wider canvas, the changes the war brought in world geopolitics saw a re-evaluation by colonial powers of their role in the Pacific. Although policies were far more developmental of people and resources than before the war, they were framed, as ever, within the colonial vision of their own strategic interests.

In part IV, the focus returns to humans’ perceptions of environment and the meanings they attached to it because of the events they experienced there. For young men, the novel, if trying, environment they encountered was something they attempted to convey to loved ones by sending souvenirs home as symbols of how they dealt with the alien and as messengers of future hopes. Through shared experiences with comrades in particular battle sites, the environment wrote its text on their hearts. They in turn wanted to mark their histories on place, to inscribe meaning on what before had been to them just another nondescript corner of a foreign land. Nowhere is this more telling and more poignant than in the fighting men’s desire to memorialize their dead, an emotion bereaved families and friends at home shared, with local and domestic sites becoming special and indeed sacred places within the respective environments.

The conclusion considers the main themes in the context of subsequent developments as well as the persistent vision of the southern Pacific islands’ environment as means to the strategic ends and even the fantasies of greater nations in the neighborhood. Yet for all this regional focus, the islands were and are “a part of the main,” because, as well as the war’s direct impact, they and their peoples have to deal with the legacy of its prodigal panoply of manufactured, fossil-fueled technology that has contributed to global warming.