

Claims on the Land

We Are Here. Politics of Aboriginal Land Tenure. EDWIN N. WILMSEN, Ed. University of California Press, Berkeley, 1989. xii, 210 pp. \$32.50.

For over 99 percent of their history human beings have followed an economic mode commonly known as the foraging or hunter-gatherer way of life. Yet those who maintained this lifestyle into the colonial era found themselves rapidly isolated in remote parts of Africa, the Americas, Asia, and Australia, while those who practiced horticulture, pastoralism, agriculture, or industrialism gained dominance.

In many countries the aborigines were long rendered almost invisible by the ideologies of the newer groups. But aboriginal peoples have in many places refused to disappear. *We Are Here*, as its title implies, is partly premised on the continuing importance—not just survival—of such peoples in the political, social, and cultural fabrics of their countries. A collection of essays by anthropologists, it is concerned with the role of land tenure and its anthropological and legal interpretations in the political experience of recent hunter-gatherers of Australia, Canada, and southern Africa.

Foraging peoples classically have relatively simple technologies, small numbers, and small-scale, highly negotiable social organization. Taken together, these features have made them highly vulnerable to conquest by others. Those of their descendants who still identify with their aboriginal way of life now find themselves encapsulated within modern nation-states, and mostly on the margins of political and economic power. They belong to what has become known as the Fourth World.

The foraging peoples have often been singled out by others as the ultimate “primitives.” Their major crime seems to have been to repeatedly find themselves in the way—in the way of “development” and “progress,” and in the way of powerful vested interests. They are usually to be found in a structurally colonial kind of relationship to powerful others within the nation to which they now belong. Until relatively recently, and still today in many countries, their profound and intimate associations with land have been ignored or treated with contempt, especially by those for whom land is principally a commodity, a medium of accumulation more than one of mutuality with others and with the sacred.

Foragers’ unusually fluid and shifting residential arrangements have conveniently been interpreted by others as demonstrating an absence of land associations that might be defined as systems of customary tenure, such as might be easily recognized by nation-state law. For some decades anthropologists of hunter-gatherers also wrote not about their land tenure systems but about their “territoriality” and “population ecology,” terms generally associated with zoological studies focused on behavior rather than with the socially and culturally embedded practices of human beings.

This book, particularly in the contributions by Fred Myers and Edwin Wilmsen, seeks to amend that misguided viewpoint and provides excellent case studies that will support continuing initiatives for the legal recognition of aboriginal land interests in Australia, North America, southern Africa, and elsewhere. In Botswana and Namibia, as papers by Wilmsen and Robert Gordon demonstrate, the land tenure systems of San peoples are being disregarded to the point where the situation of the San is truly desperate.

Australia and Canada, with more liberal-democratic traditions, have been in the forefront of reforms in this regard, although both continue to countenance callous disregard for aboriginal interests, particularly in situations of remote area “development.” The two countries do display some significant differences. Michael Asch, in his essay on the rapidly changing legal and political situation of native Canadians, notes that a characteristic of Canadian recognition of aboriginal land rights has been a strong economic focus. Hunting, fishing, and trapping rights are those most frequently mentioned. This is in strong contrast to Australia, where religious relationships to land and customary rights to control sheer physical access to land have been the focus of both Aboriginal demands and legislative responses. Canada has recently moved further toward recognition of native proprietary rights in land, but this shift is being restrained by fears that such rights might be converted into political rights. In other words, there are fears that demands for sovereignty, or the right to take part as a separate group in the formal process of national and regional government, might be built on the basis of increased recognition of aboriginal land ownership.

Moves toward achieving this kind of sov-

ereignty have already begun and are a topic of significant public debate in Australia (although that particular debate is not really represented in the present volume). Mistakenly, some have taken the view that sovereignty aspirations by Fourth World peoples are akin to secessionist movements aimed at achieving independent statehood. But the Canadian and Australian aboriginal sovereignty movements seek to accommodate their aims within their existing national confederations. The question whether internal decolonization can really be achieved without rupturing the ground-design of the nation state as we know it must be faced. However, Asch’s model for the Canadian situation proposes that aboriginal sovereignty be conceived as a relation of “mutuality with separateness” within a system of “consociation.” The oppressive assimilationism of monolithic models of citizenship and the inequalities inherent in apartheid-like systems where a degree of regional self-government is accompanied by the exclusion of some segments from participation in national government are thus both avoided. These are proposals worthy of serious debate.

Harvey Feit’s essay “James Bay Cree self-governance and land management” provides welcome relief from those all too commonly sweeping analyses of relations between aboriginal peoples and the wider societies in which they find themselves. Feit deftly sketches the complex legal, political, and social processes arising from the pursuit of the objectives of autonomy and land management by a Canadian people. The focus of this lengthy struggle has been the development of the James Bay Hydroelectric Project, which began in 1971–72. A key issue in this case, as in so many like it, has been the protection of renewable resources—wildlife, particularly—from irreversible development. From the Cree’s point of view this would ideally require that they remain in effective control of the land and its use. They have also sought to enhance their self-governance and to assert themselves in the future of decision-making in their homelands. In the end, after protracted confrontations and negotiations, an agreement was signed. The Cree did not regard the outcome as just, but merely as having secured them more of what they wanted than if no agreement of any kind had been entered into. Cree formal involvement in decision-making and administration in their own communities increased, but “coordination” with other structures is in general a sham—non-Cree make the decisions. The fundamental clash of interests remains. Cree have endured further losses, while non-Cree have enjoyed gains.

The reformist arguments, on this issue of global concern, are not simply based on the redressing of injustices and the empowerment of the marginalized. They rest in part also on what for many urban dwellers is still just an idea rather than a position to which they have given any deep assent: the defensibility and indeed the high value of aboriginal thought and social practice. Most have yet to be convinced of these.

If the power of the pen ever needed to be demonstrated, however, the cases presented in this book would provide useful evidence. Papers by L. R. Hiatt and Kenneth Maddock show very clearly the highly functional relationship between the strength of the cultural evidence brought to light through the work of anthropologists, even that of scholars whose work essentially lay outside the judicial arena, and legal land gains by Australian Aborigines. At the end of the book Maddock asks his fellow anthropologists, "Should we be more coolly objective, or should we take up advocacy instead?"

At the very start of the book an implicit answer to this is given in the paper by Myers entitled "Burning the truck and holding the country." As anthropology it is impeccably and coolly couched within a wide comparative framework, and thus is about as "objective" as it could be. But at the same time its very content provides one of the most eloquent and most convincing arguments for Australian Aboriginal land rights one could find.

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Dying Stars

White Dwarfs. G. WEGNER, Ed. Springer-Verlag, New York, 1989. xiv, 524 pp., illus. \$58.30. Lecture Notes in Physics, vol. 328. From a colloquium, Hanover, NH, Aug. 1988.

White dwarfs mark the final stage in the lives of relatively low-mass stars, including, eventually, our own sun and most or all other stars with masses less than about six times that of the sun. These dying stars have used up their nuclear and gravitational energy sources and contracted to densities a million times those of familiar substances. They radiate the residual heat of their constituent atomic nuclei in a miserly fashion that keeps them dimly shining for 5 to 10 billion years. A few dozen astronomers, world-wide, devote most of their research to white dwarfs, and another couple of hundred are interested enough to come to an occasional meeting like the International Astronomical Union Colloquium whose

proceedings are contained in the present volume.

Half a dozen or so questions would occur to a white dwarf lover who had been deprived for a couple of years of journals, conferences, and preprints. Good, clear, up-to-date answers (epoch August 1988) to essentially all of those questions are to be found somewhere in this book. Unfortunately, they are not easy to find. The volume has no index; the papers are printed, apparently, in the order they were presented and are not fully grouped by topic; and the abstracts of the longer review papers have been omitted to save space.

To save your having to hunt, here are a few of the critical questions and the answers presented at IAU Colloquium 114. The oldest white dwarfs set a limit to the age of the Milky Way galaxy, an important parameter in calculations of galactic and cosmological evolution. The oldest will also be the faintest, and thus difficult to look for. Despite the difficulty, it can now be said with some confidence that the number of white dwarfs per unit brightness interval drops sharply below 10^{-4} solar luminosities (papers by C. C. Dahn *et al.*, M. T. Ruiz *et al.*, and F. D'Antona). This may indeed mean that the galactic disk is not much more than 7 billion years old (the sun is 4.5 Gyr). But it may alternatively reflect physics missing from the cooling calculations whose effect is to prolong stellar life near $10^{-4} L_{\odot}$ and then hasten the subsequent fading.

Another topic of recent acrimonious debate is the number of pairs of close binary white dwarfs with total mass exceeding a critical limit near 1.4 solar masses and periods short enough for the stars to merge in a few billion years. Such pairs are the current "best buy" for progenitors of the kind of supernova that occurs among old stars. Unfortunately, the short-period systems all seem to have low masses, and the massive systems all seem to have excessively long periods for the purpose. A new round of careful searches for white dwarfs with variable radial velocity has uncovered a handful of new candidates. D. Foss reported three, A. Bragaglia *et al.* two, and R. A. Saffer and J. Liebert one more (which unfortunately is already known to have too small a mass for the stars to explode when they merge). On the theoretical front, new models of merging white dwarfs were presented by three groups. M. Kato *et al.* are rather pessimistic about the requisite sort of explosions occurring, even if the white dwarfs are massive enough; W. Benz *et al.* are quite optimistic; and R. Mochkovitch and M. Livio decline to state.

Binary white dwarfs are also investigated for their own sake. Current questions con-

cern whether the binary ones differ systematically from the single ones in either mass or magnetic field properties. The observed binary white dwarf masses are, indeed, higher than average for single stars, but M. Politano *et al.* conclude that this is an effect of observational selection and that the real distributions are the same. The fields, on the other hand, are genuinely different. Only 2 to 3% of single white dwarfs have measurable magnetic fields (ranging from 2 to 500 megagauss). Among the binaries, according to G. D. Schmidt and J. P. Lasota *et al.*, strong fields are much commoner (found for more than 20% of the stars) and confined to a narrower range of 10 to 50 MG. Curiously, no white dwarf fields between 10^5 and 10^6 gauss are known, though they would be conspicuous in detailed spectral analyses.

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Plant Biochemistry

Second Messengers in Plant Growth and Development. WENDY F. BOSS and D. JAMES MORRÉ, Eds. Liss, New York, 1989. xii, 348 pp., illus. \$96. Plant Biology, vol. 6.

This collection of reviews bravely and accurately encapsulates the current confusion regarding signal transduction in plants. Some chapters are less satisfactory than others, but the weaknesses have more to do with the material than with the treatment. Acetylcholine, for example, has been on the brink of recognition as active in plants for years, and still no one is sure whether it plays a role. The highlights in this regard are two exciting-to-read central chapters, one on a plant analogue of platelet-activating factor, the other on the plant versions of fatty acid-derived messengers. These compounds are clearly proving important, and it is noteworthy that though the latter share mode of production with the animal equivalent, the resemblance doesn't extend much further. Pride of place must go to the chapters of balanced evaluation in which evidence for each of the currently popular models of signal transduction is sifted and marshaled. It is a pleasure to report that the trustworthiness of some of the data is perceptively scrutinized and, even, occasionally found wanting.

One matter on which virtually all contributors agree: we do not understand signal transduction in plants. Various reasons are offered.