

emy, with their little acknowledged history of slavery. Kent is insightful in his description of how colonial endeavors brought wealth to the Scandinavian countries like Sweden and Denmark.

The soul of the north traces how the authority of the church, monarchy, and aristocracy were gradually replaced in Scandinavia by the interest in society as a whole, with religious and racial tolerance becoming the accepted norm. Through the course of this book, the reader experiences the move from tyranny towards the individual in democratic nations, fostered by growing public education and literacy, a result of challenging times of poverty. This, according to Kent, created the foundation for what is known today as the Scandinavian welfare system. This leads him to some insightful conclusions in considering the historical roots of Scandinavian culture, in which a growing secularized society has focussed on medical and technical development as part of a collective identity above individual rights and desires, placing greater emphasis on conformity.

To summarize, *The soul of the north* is an innovative and scholarly exploration of Nordic culture, building a multi-layered picture of particular social groups, which belies prior assumptions about Scandinavia and will hopefully provoke interest in a previously neglected subject. The reader is provided with a vista in which it is possible to establish a number of links between Scandinavia and Europe, Africa, Asia, and the Caribbean, although, ultimately, the reader is left with a deep understanding of the uniqueness of Nordic social and cultural history and the necessity to preserve its identity. (Siu Challons-Lipton, Graduate Art History Program, University of South Carolina, Columbia, SC 29208, USA.)

LIFE IN THE COLD. Gerhard Heldmaier and Martin Klingenspor (Editors). 2000. Berlin, Heidelberg, New York: Springer-Verlag. x + 546 p, illustrated, hard cover. ISBN 3-540-67410-1. £86.00; US\$129.00.

It is a remarkable achievement that the proceedings of a conference occurring in August should be available for purchase in book form by November in the same year. This feat is even more astonishing when the reader is informed that the book contains 55 chapters from researchers in 16 different countries.

Life in the cold comprises the proceedings of the eleventh international symposium dedicated to the understanding of animal life in the cold, which was held at Jungholz, Austria, between 13 and 18 August 2000. This series of conferences began in 1959, and meetings have been held at irregular intervals since then. Although the conferences originally focused on torpor and hibernation, this has changed in recent years to include scientific advances made in the areas of the neurobiology of thermoregulation and the biochemistry and physiology of heat production.

The titles of the chapters and sections underline the wide-ranging nature of the expertise covered. The first section relates to the evolution and ecophysiology of

torpor, and includes papers on heterothermy and hibernation in mammals, marsupials, birds, and reptiles. These are mostly temperate species, although there is one contribution on the remarkable Arctic ground squirrel by Brian M. Barnes and C. Loren Buck. It is noted that during torpor, the metabolic rate of these animals rises proportionately with decreases in ambient temperature below 0°C, while body-core temperatures remain constant. At ambient temperatures greater than 0°C, metabolic rate remains minimal and relatively constant, while body-core temperature increases, implying temperature-independent inhibition of metabolism. It is concluded that if brain temperature increases as ambient temperature decreases below 0°C, then this may ultimately influence torpor duration in this species.

The second section is entitled 'Physiological mechanisms of torpor,' and comprises chapters relating to the biochemistry of hibernation and torpor, particularly pertaining to small rodents. Again, the ground squirrels represent the polar species, with an analysis on control of cardiac and ventilation frequencies, a nine-year entrainment study of circannual rhythms, and follicular development and hibernation.

The third ('Biochemical and molecular mechanisms of torpor') and fourth ('Energy balance and cold adaptation') sections are more general in form, with no specific references to polar species. Here it can be seen that there is a current revival of the discussion about the ecological significance of torpid states, mostly because technical developments in remote sensing have allowed more in-depth *in vivo* studies. These studies have indicated that torpor is more frequently used in animals and birds in thermally moderate environments than previously thought — that torpor is not necessarily restricted to being just an adaptation to the cold or a response to food shortages. Torpor thus appears to be a widespread strategy employed to reduce energy dissipation or to build up energy reserves. Thus the traditional view of torpor as being specifically an adaptation of endothermic mammals and birds needs some reviewing, and its use in monotremes and reptiles may imply that it is a shared primitive character state (symplesiomorphy), rather than derived character state (apomorphy) unique to one group of animals.

No book can be produced in such a short period without some cost to its quality. In the case of *Life in the cold*, this is revealed in occasional eccentricities in grammar that would have been caught by proof-readers and editors with a less gruelling schedule. Unfortunately, the index also suffers from rushing, and seems to be based on key-words supplied by each author. This is a pity, because a comprehensive book like this deserves a good index.

On a positive note, this book is an excellent representation of the state of current research into hibernation and torpor. It is not a book for the casual reader, but for biologists and students with at least some background in the subject. At £86, it is an expensive addition to any library, and, since the discipline is

experiencing such rapid developments, it is not something that will remain current for long — probably only until the proceedings of the next international hibernation symposium are published, in fact. (E. Cruwys, Scott Polar Research Institute, Lensfield Road, Cambridge CB2 1ER.)

THE ANTARCTIC DICTIONARY: A COMPLETE GUIDE TO ANTARCTIC ENGLISH. Bernadette Hince. 2000. Melbourne: CSIRO Publishing and Museum of Victoria. 394 p, hard cover. ISBN 0-9577471-1-X. Aus\$39.95.

We all know what a dictionary is — a volume we examine when we want to find the meaning and origin of a word. Since Dr Johnson's first dictionary of English, the study of dictionaries themselves has allowed an insight into the evolution of words, spelling, and meaning. And how these change!

Evolving meanings usually reflect the gentle change (not so gentle these days) of communities that themselves evolve. In the past, people tended to move over a limited area and occupation was continuous through generations. Individuals or families may have occupied one house or lived in one town for several decades — the normal security of 'home.'

Antarctic communities are very different. It is the one continent with no indigenous population or even long-term occupants. It has no language of its own. Antarctic communities are all of temporary residents, usually of fewer than 20 people over winter, and the people who live there do not choose their own companions, who are chosen by someone else for their technical expertise. Most are there for 12 months or less and most have a single term there. Thus there is not the continuity that typifies 'home.' The role of a dominant personality is very important in influencing the language of a small group. And different small groups, even all nominally speaking the same language, may develop in very different ways.

The total population of Antarcticans (excluding tourists and ship crew) who have English as their mother tongue is probably about 600 in winter and 2000 in summer. Thus, *in toto*, the chance for very rapid change and simultaneous differentiation is very strong. Add to this the different English-speaking traditions — the UK, New Zealand, Australia, the United States, and a sprinkling of other nationalities — and there is scope for the Tower of Babel, nominally all speaking the same language. It is difficult to imagine comparable small communities anywhere else, although perhaps mining camps or those on oil exploration rigs are closest. These are different because their members keep returning and a companionship develops. Furthermore, the length of occupation is not continuous but interrupted by return to 'normal' society.

Bernadette Hince has made a valiant effort to assemble a dictionary of Antarctic English. Some of it will be out of date by now and new potential entries will have arisen already. The dictionary will stand as a source of information on words and meanings in the year 2000, but even more as

a document drawing out the characteristics of rapidly changing, small, isolated communities. The dictionary is a testament to a different lifestyle and its communication needs.

While clearly a labour of love, representing an immense amount of dedicated work, the volume is not simply an idiosyncratic collection but is a genuine piece of scholarship by one who is an appropriately qualified editorial specialist who has worked in the Antarctic. Much thought has gone into choice of entry, and the entry then follows 'dictionary best practice.' This is well explained in the introduction which, surprisingly to me, does not dwell on the influences on the evolution of the language but launches quickly into the dictionary itself. The volume is somewhat different from the usual dictionary in that it refers as much to expressions or phrases as to individual words.

Some language is that of 'ordinary' people — the equivalent of those we can meet in the pub at home — cooks, carpenters, plumbers, diesel mechanics, etc. This is the rapidly changing ephemeral language, and Hince has been careful not to dwell too heavily on it. She has been careful to filter out those expressions that are one-off, and has concentrated on those that have lasted through the years.

Most entries are derived from biology, ice features, clothing, or home. Experiences in the southern and northern hemispheres are different, and thus new expressions have evolved to describe new experiences or features. Many of the words or expressions are new to me, and some (for example, 'period of averted interest') may be useful in my own writing. A high proportion of the entries is from the sub-Antarctic, especially the Falkland Islands, reflecting long British involvement there.

Some words, especially those from science, do have a long currency because the specialists or their supervisors may be long-term employees of a national Antarctic institution, or because there is a large external community with long-term continuity, for example, biologists who are part of a global community.

The volume draws out the specific use of some words (decay), transferred meanings (doggo), and how recent is the origin of some widely used and accepted words or phrases (calf or calve, for icebergs). Their wide use and acceptance probably reflects their high value. The reader can readily make a reasonable guess at the meaning of many of the entries, but there are several unique words (degomble, dingle, manked). What do you think dogloo means? The word 'impossible' also is not in this dictionary.

It was interesting, as an Australian from a nation with a long reputation for generating slang, to find that others are just as good (bad?) as we are.

The volume is well produced by CSIRO and the Museum of Victoria, both institutions with a long history of quality publication. Editorially, it is very good and I noted only one spelling error. The price is modest in Australian dollars, which means that it is even more modest in other currencies.