

And it's not very old, either. On most of the timber there were the unmistakable marks of chainsaws, with clean cuts through the massive trunks, showing how they had been felled and dismembered. Why were they felled if they were just going to be thrown away?

Today people come to this beach to collect firewood, and also to scavenge high-quality pieces for craft work. I was told that such scavengers pay \$25 a year for a licence to take wood from the beach—hardly the sort of sustainable use one would expect for such a valuable resource as this.

I wonder how much more of this wasted old-growth timber in the Arthur catchment never got into the river? How many more trees have been felled and left to burn or rot on the hillsides, while the prime timber is taken away to feed the mills? The trees on Arthur Beach are the result of a 'driftnet mentality': catch everything, then throw away what you don't want for immediate profit.

Our forest industries are demanding they have guaranteed access to many of the remaining old-growth forests on crown land. Proponents of this concept of 'resource security' should visit the outfall of the Arthur River to see for themselves how the

Tasmanian forest industries are using what they already have, before they are given access to any more. I cannot understand how any industry can throw so much away, and still insist that it needs more.

In southern Australia, many of the rivers that drain forested catchments end in coastal lagoons and lakes, so that forestry waste floating downstream doesn't actually reach the sea. It would be interesting to look at the bottom of, say, Macquarie Harbour in Tasmania or Lake Macquarie in New South Wales. Do these sediments contain a lot of water-logged timber; a hidden signature of the past use of our forests?

I live in Canberra—a beautiful planned city. When overseas visitors want to see the city, I take them round the tourist sights. But for those people who really want to understand Canberra, I make sure we go to the tip. If you look at what is being thrown away by a city or an industry, you gain an insight into how it works as a physical and biological system. In this way, Arthur Beach in north-western Tasmania is like the Mugga Tip in Canberra.

—Nigel Wace  
Australian National University, ACT

### More on Mounds

Despite Geoff Bailey's claim to the contrary (Letters, ANH Summer 1993–94), the Weipa shell mounds are no longer a subject of controversy. Had he read my Master of Science thesis entitled *Origins of the Weipa shell mounds* (ANU 1992) he would have found that there is a significant body of field evidence to support the claim that the mounds are natural—not cultural—in origin. This evidence consists of detailed maps and stratigraphic sections backed by a comprehensive series of radiocarbon dates. For the first time ever it has been possible to interpret the mounds in a sensible geomorphological context.

The results of field work I conducted in 1991 clearly demonstrate that the shell mounds began as wave-built chenier ridges or related shoreline deposits. The

anthropologist W.E.H. Stanner was of a similar opinion in 1958. The fact that many of these deposits appear as tall, steep-sided, conical mounds can only be explained in terms of reworking by the Orange-footed Scrubfowl (*Megapodius reinwardt*). This process is observable and also explains the many similar mounds composed of sand and gravel. Although Bailey interprets mounds of different composition in terms of fundamentally different processes, it is not the dictate of Occam's razor to have two theories for the one phenomenon.

Bailey also believes that composition can distinguish middens from cheniers. However, like middens, cheniers may also be composed of large whole shells and geomorphologists attribute this phenomenon to sorting by wave action. The location of the Weipa shell mounds on sand ridges or silt substrates is also characteristic of shell chenier deposits. The presence of other faunal remains, ash lenses and the occasional artefact can also be explained by natural processes. Bailey would do better to consider that the criteria archaeologists traditionally use to distinguish middens from natural shell deposits are flawed.

The radiocarbon evidence is as powerful as that drawn from geomorphology. Dating of the shells in the Kwamter mound was undertaken not to distinguish scrubfowl mounds from middens, but to test Bailey's very specific hypothesis of how the shell mound formed. He claimed that the shells accumulated from the activities of generations of human occupants and envisaged a period of at least 1,000 years for this to happen. This hypothesis is false because most of the shells I had dated from the Kwamter mound are all of the same age.

It is reasonable to assume that human shell-gatherers have made some contribution to the shell deposits at Weipa. It is unreasonable, however, to claim that human predation caused the death of almost every cockle

in the landscape. Shell mortality on the scale evident at Weipa is normally attributed to natural processes and, if archaeologists wish to believe otherwise they must have good reasons.

—Timothy Mawson

### Zebra Stripes and Swatting Tails

I am writing in regard to the QQC article about Zebra and tsetse flies (ANH Spring 1993), which suggested that the Zebra's stripes might help prevent it being bitten by the fly, since it has been shown that the flies avoid horizontally striped forms. This seems an unlikely explanation of the situation to me. Surely the phenomenon to be explained is why tsetse flies avoid horizontally striped, rather than vertically striped, Zebras have them, and surely this is simply because it helps them avoid being swatted by the Zebra's tail. The rump of the animal is the most obvious horizontally striped area and, if a fly is unable to select some part of the animal other than the rump, perhaps it would have a better chance of both catching its meal and surviving to have another.

—Timothy Mawson  
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### To Kiss or to Sniff

The insert box "Give a sniff" accompanying Michael Stoddart's article "Picking up the human scent" (ANH Winter 1993) intrigued me greatly. I reported examples of humans sniffing as a substitute for kissing dated back to 1831, the implication being that such behaviour died out some time ago and only practised by obscure societies untouched by the modern world.

In fact Lin Roth's 1831 description of the greeting habits of the Khyong people is an accurate description of greetings practised in modern Thailand.

There couples still practise the traditional 'sniff' to modern 'kiss', and almost every time a woman picks up a baby or toddler it is accompanied by a long, deep sniff and often preceded by the expression "please give me



Then throw away what you don't want.