MICHAEL LONG/NHMPL

Figure 1 **Prehistoric victim. A reconstruction of *Procoptodon*, a giant short-faced kangaroo from the Late Pleistocene of Australia, which stood about 3 m high.**

steppe–tundra and other mixed vegetational environments in the northern continents, to be replaced by zoned forest, has been implicated in extinctions of mammoth, woolly rhino and other species there[5]. Here, the patterns of survival may fit climate/vegetational models at least as well as those invoking overkill.

The Pleistocene extinctions did not touch all regions of the world. In southern Asia, and especially Africa, the megafauna survived largely intact through the Pleistocene to the present. Africa was excluded from Johnson's study, but why did it suffer so few extinctions? Overkill theorists claim that, because humans originated there, African mammals coevolved with people and were thus less 'naive' to human predation. Climate theorists, on the other hand, propose that the array of African vegetation types was modified relatively little by Pleistocene climate change, allowing the survival of even the largest mammals (elephants, rhinos, and so on). Johnson's approach, centred on taxonomic groups, points to a different line of enquiry. Could it be that African mammals, several groups of which are believed to be related and which are collectively known as the Afrotheria[6], tend to have faster life-history relative to body size than mammals of other continents?

We can draw parallels with the current extinction crisis from Johnson's findings. Alroy points out that the modelled rates of Late Pleistocene extinction were too slow to be perceived by the humans of the time. Today's extinctions have accelerated to an observable pace. Moreover, slow life-history is a strong predictor of current extinction risk in living mammals[7]. Perhaps in another 50,000 years — or even sooner — we will be left only with those that live life in the fast lane. ■

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100 YEARS AGO

So much has been written of late on totemism that I feel some diffidence in burdening still further the literature of the subject. But I may plead a slight claim on your attention, as I happen to be an unworthy member of the Crocodile kin of the Western tribe of Torres Straits, and I have been recognised as such in another island than the one where I changed names with Maino, the chief of Tutu, and thereby became a member of his kin. … What is most needed at the present time is fresh investigation in the field. Those who are familiar with the literature of the subject are only too well aware of the imperfection of the available records. There are several reasons which account for this. Some of the customs and beliefs associated with totemism have a sacred significance, and the average savage is too reverent to speak lightly of what touches him so deeply. Natives cannot explain their mysteries any more than the adherents of more civilised religions can explain theirs. Further, they particularly dislike the unsympathetic attitude of most inquirers, and nothing shuts up a native more effectually than the fear of ridicule.
From *Nature* 2 October 1902.

50 YEARS AGO

The attitude of the general science graduate to experiments involving subjective judgments is curious and illogical, even if understandable. He is taught throughout his study period to believe that those things which he measures during the course of his 'practical work' are facts, inviolable and true. ... Above all, he believes in the dogma of Kelvin, that we must measure to be able to understand. He rarely succeeds in grasping the principles of uncertainty in physical measurement, and many years may pass before he realizes that all measurement demands a judgment on the compromise between accuracy and expediency. As a result, he dismisses all experiments which involve direct subjective judgements as being 'vague and inaccurate'. This dogmatic attitude is not confined to the young graduate. It finds its way into higher levels, where great efforts are made to develop physical analogues to supplant the human observer in a perceptual situation. Consequently, it happens that the experimenter who uses human subjects as indicators finds it necessary to go to unusual lengths to explain his means as well as his ends.
From *Nature* 4 October 1952.