

## Julian Tenison Woods, Richard Owen and Ancient Australia

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**ABSTRACT.** Father J. E. Tenison Woods played a small part in the history of vertebrate palaeontology in Australia. In 1866 he recognised that fossil remains discovered near Penola, South Australia, belonged to a large extinct bird related to the emu. The material was described and named by Richard Owen with scant acknowledgement of Woods. Woods played an important role in popularising scientists' discoveries and interpretations of vertebrate fossils.

In a letter from London on 23 February Sir Richard Owen, the renowned British anatomist and naturalist, addressed 'The Hon. Henry Parkes, etc., Colonial Secretary, New South Wales' on the desirability of the government funding a 'careful and systematic exploration of the Limestone Caves of Wellington Valley, discovered by the colonial surveyor [Thomas Mitchell] in or about 1832'. Such an exploration, Owen argued, would be of great benefit for the 'Museum of Sydney'; it could yield evidence pertaining to the antiquity and origin of the aboriginal races of Australia; it would earn the appreciation of the European scientific community and would thus redound to the honour of 'the present constitutional Government'. Furthermore, Owen offered to 'devote time to the determination and description of such specimens or duplicates' from the caves, either sent to him for examination, or sent for deposition in the British Museum.

The late Sir Thomas L. Mitchell had estimated that the proposed exploration would, under the guidance of a qualified naturalist, cost about two to three hundred pounds in cash, a comparatively small amount for the expected result. A month later Parkes replied to Owen, thanking him for his interest in Australian science and promising that a sum of money would be placed on the estimates (Australasian, 1867). From this action eventuated the important excavations carried out by Gerard Krefft (Australian Museum) and Alexander Thomson (University of Sydney) (Branagan, this volume). Owen, of course, was to benefit considerably as a result of this expedition.

Julian Tenison Woods, priest and naturalist, domiciled in Australia and almost contemporary with Mitchell and Owen, highly approved of Mitchell's proposed exploration. Unlike the

explorers Flinders, King and others who included in their published works 'worthless' appendices on geology, Mitchell had, Woods wrote 'collected fossils and..... their significance, and what better he sent them to the best authorities'. This course of action enabled Professor Owen to show that the extinct 'giants' of the past, though different from today's living species represented a similar series of kangaroos, wombats and opossums, native bears and marsupial tigers (Woods, 1882).

Years earlier, in 1857, Woods had proposed a similar 'colonial' course of action as that taken by Mitchell. In a letter to the editor of the South Australian Register on the subject of fossil bones recently found in the cliffs of the Murray River he suggested that 'some zealous individual' who had access to the material and who had the 'cause of science at heart' might see 'that drawings or photographs of the bones [be] forwarded either to Professor Owen or to the Illustrated London News for elucidation. From remote Penola where he worked as a Catholic priest, he also offered some comments on the possible geological age of these Murray River deposits and suggested that the remains might be those of an ichthyosaurus (South Australian Register, 1857b).

Woods also made his own contribution of material to the overseas experts, sending invertebrate fossils (polyzoa, foraminifera and corals) to prominent British naturalists during the late 1850s and mid 1860s (Player, 1990, p.26).

However, in one significant instance in his early endeavours in science he trusted his own judgement. On 25 April 1866 he recovered two tibias and two tarso-metatarsal bones from a well being sunk at the edge of a swamp fourteen miles



(22 kms) north-north-west of Penola. On examination he declared them allied to the emu, 'from the size of the bones it was evidently a larger, heavier, and more clumsy bird', and he provisionally named it *Dromarius Australia* (Woods 1866, p.7 footnote). Another bone was found in 1869 at Peak Downs 'near the track from Clermont to Broadsound, at the head of Theresa Creek'. Rev. W.B. Clarke and Gerard Krefft examined this bone in Sydney and concluded that it was a species of *Dinornis* or moa. A few years later, after viewing this specimen Owen agreed with Woods's diagnosis that the bird was of the emu type, and named it *Dromornis Australia* (Woods, 1889a).

As Rich (1979, p.1) points out Woods did not figure the specimen; neither did he provide a diagnosis or description sufficiently detailed to validate his name. Consequently it must be considered a 'nomen nudum'. Woods, however, did not quite see the matter in that light. In his work *On the Natural History of New South Wales* (1882, p.27-28) he merely noted that his name preceded Owen's, but in the series 'Ancient Australia' he goes much further. In the first article he simply repeated the story of his prior discovery (Woods, 1889b) but in a second article he stated that the 'singular correspondence of this name [*Dromornis Australis*] with mine [*Dromaius*{sic} *Australis*] leads to the suggestion that Owen knew of the previous discovery, but most probably he did not' (Woods 1888a).

Woods on at least one other occasion employed this same tactic of stating and then denying in order to bring a matter before his readers as a possibility (Player, 1990, p.100). Priority of discovery was an important concern of Woods throughout his career as a naturalist, and in this case of the flightless bird he seems determined to make the point that he made the discovery first, even if officially the credit was given to Owen. Woods' friend Ralph Tate, Professor of Natural Science at the University of Adelaide noted that Woods had been the first to recognise the affinity between the fossil bird and the living emu, commenting 'it redounds to his skill as a comparative anatomist that the opinion he expressed has been corroborated by the greatest living anatomist'.

The ten-part series on 'Ancient Australia' contributed to the *Brisbane Courier* and eventually discontinued, still incomplete, by Woods (*Brisbane Courier*, 1889) was written under the disability of failing health. As early as January 1888 he admitted to having been invalided for almost a

year and as having almost lost the use of his hands and feet. (Woods, 1888b) As time went on he was reduced more and more to dictating his articles.

Finally in March 1889 work of any kind became an impossibility and 'even dictating very necessary correspondence' was almost beyond him (Woods, 1889b) In spite of the difficulties these articles on 'Ancient Australia' are vintage Woods. One of his concerns had always been to make science interesting and intelligible to the educated 'lay' person. As in his early work on *Geological Observations in South Australia* so here he argued for what he called the poetry and the romance of the story of science. Originally, he claimed, the discovery of the remains of extinct animals in Australia excited much attention, even popularity, but that interest soon died. Eminent osteologists buried the fascinating finds in dreary technical descriptions and thus stripped the story 'to the very skeleton of all but the driest of facts, much as if Milton's "Paradise Lost" were redistributed in dictionary form'(Woods, 1888c). Woods stressed this same point in the 'Geology of Arnheims (sic) Land NA' (1889c) when he laments that the discoveries of the geologist are now 'enshrined in Blue books and he speaks a language, intelligible only to the accomplished expert.'

Has Woods in 'Ancient Australia' been able to avoid these pitfalls? I think the evidence supports a largely affirmative answer. Throughout the series which focusses on the fossil deposits of Queensland he has woven a systematic story which unfolds logically and which on the whole sustains interest. The example of Cuvier and his work on the fossils of the Paris Basin introduced the reader to the ways palaeontologists unlock the evidence of ancient life held in the rocks (Woods, 1888c) and is followed by a short description of Australian Geology (Woods, 1888d).

As he dealt successively with fish, reptiles, birds, monotremes and marsupials he managed to avoid parochialism and set the unfolding story in a context broadened by his own experience both in Australia and in the Malay Peninsula and other Eastern countries he visited in 1883-1886. His wide reading added its enrichment too (Woods, 1888e). Such an approach was a consistent strength in his more discursive writings. He knew the literature and exploited it and his wide experience effectively (McDonnell, 1989, pp. 124-125)

Whatever the breadth of his treatment in general, in his explanation of the sudden extinction of the ancient fauna in Queensland, however Woods



exhibited tunnel vision. In opposition to A.C. Gregory he proposed volcanic eruptions as the cause and supported his case from evidence of the 1883 Krakatoa devastation and the aftermath of the 1886 Taal eruption in the Philippines. His personal experience of these events added much colour to his position (Woods, 1888d). Quite obviously Woods was influenced by his leaning toward a catastrophic rather than an uniformitarian world view. He picked his 'eruptions' selectively to support his position.

In the very first article of the series Woods, in the context of defending earlier scientists who 'did their duty by their deposit of truth as they saw it' announced that de Vis had found teeth of a peccary in the Queensland drifts. This statement 'was received with great hesitation' by Woods' scientific friends (Woods, 1888c). As he only mentions this find again in passing one must assume that he intended to treat it in a later article which, because of his health, did not eventuate.

His writings in this series add little that is new in the vertebrate palaeontology of his day. Though based on the findings of others, as he clearly stated, he had examined many of the fossils in the museums at Sydney and Brisbane and had discussed them with their learned curators (Woods, 1888a). He consistently quotes the experts in the field, including 'de Vis of the Brisbane Museum' and especially Professor Owen. What he did in these articles was to produce for the layman an up-to-date statement of where research was at the time.

Throughout the years of his active interest in science Woods wrote close to 200 articles - some short, others very long - on invertebrate palaeontology, on stratigraphy, on molluscs, polyzoa, botany, coal deposits and other subjects. With the exception of a few general chapters in Geological Observations in South Australia he wrote almost nothing on vertebrate palaeontology until the 'Ancient Australia' series. He certainly had skill and ability in this area and one can only regret that his contribution was so slight.

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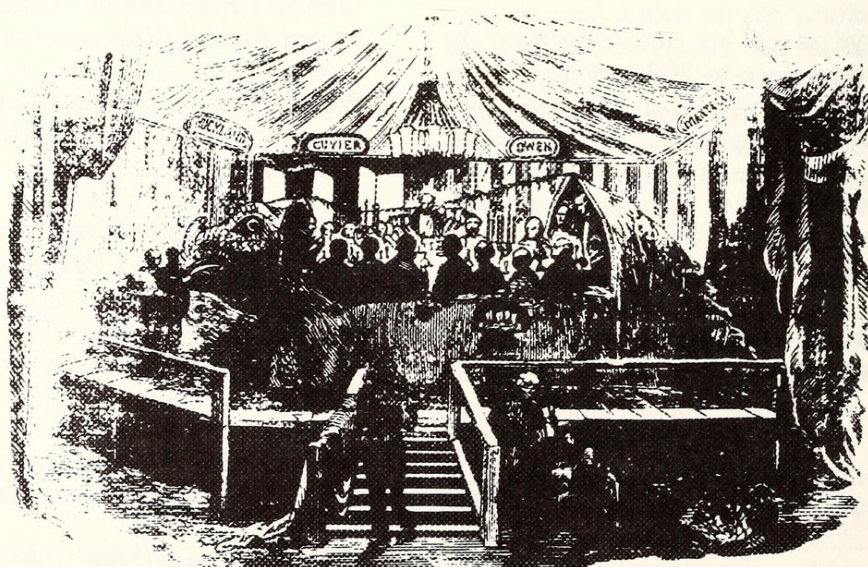
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## IF THEY LIVED TO-DAY!



Enduring interest in the Australian megafauna. A vivid impression of the giant marsupials whose fossil remains were unearthed at Brigalow, Darling Downs. The artist appears to have had some difficulty conceiving the fauna. (*Sunday Mail*, Brisbane, 28 July, 1929).



"Dinner in the *Iguanadon* model, at the Crystal Palace, Sydenham."



Player, Ann. 1992. "Julian Tenison Woods, Richard Owen and ancient Australia." *Journal and proceedings of the Royal Society of New South Wales* 125(3-4), 107–110. <https://doi.org/10.5962/p.361307>.

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