NO ORDINARY MAN: TENSION WOODS AND THE NARACOORTE CAVES

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Father Julian Edmund Tenison Woods arrived at Penola on the 19th March, 1857 as a newly ordained priest and commenced his ministry to the South East region. He was a man of intense intellectual power, with a remarkable sense of inquiry, combined with an absolute and enduring spiritual commitment to the Church. Over the next ten years, he provided an immense service to his parish and its people, established a teaching order of continuing distinction to this day, authored many scientific writings, including his remarkable book on the geology and geography of the South East region, and returned to Adelaide as Director-General of Catholic Education. He was a passionate man, and at times this led him into conflict with the established Church, or other establishments.

The Mosquito Plains (now Naracoorte) Caves soon came to his notice and excited his sense of inquiry. Although he had no formal education in geology, he was soon developed a genuine understanding of these caves, bringing a remarkable mix of resources to bear upon the questions that they posed. During his early ventures into theology, he benefited from the teaching and friendship of St Julian Eymard, and they often walked together through the French countryside discussing what they saw. This both developed his great sense of observation and inevitably fostered his interest in and basic understanding of geology. Then while at Penola, he became friends with Samuel Pratt Winter of the nearby Murndal station in Victoria. Winter shared his sense of inquiry, and purchased books for him, including Lyell's great 'Principles of Geology'. He had clearly also read, probably in Winter's library, the work of Thomas Mitchell and others on the Pleistocene fossils from Wellington in New South Wales.

His 'Geological Observations in South Australia, principally in the district south-east of Adelaide' was widely acclaimed for its interest and quality. Reading it today, one can only be impressed by his struggle to reconcile his own very acute observations with the wisdom of the great George Lyell. Of course, Lyell was writing from European experience and in total ignorance of the very distinctive nature of the South Australian Karst. Fortunately, Woods was not silenced by deference to the authority of Lyell and others, and presented his own views, including his assessment of the Naracoorte fossils. Fortunately, when William Reddan arrived at Naracoorte to manage the caves, he recognised the importance of Woods' work, and arranged for further continuing inquiry by Stirling and Zeitz of the South Australian Museum. In turn, this (relatively unsuccessful) activity fuelled the initial and continuing exploration of the caves by the speleologists of the 1950s, including myself, and others who followed, eventually discovering the Victoria Fossil cave.

Early Years

Julian Edmund Woods was born on November 15th, 1832 at Southwark in London. Little is known of his father, James Woods, who was of Irish origin, and although qualified as a barrister, turned to journalism as a senior reporter and sub-editor of the London Times. He appears to have been nominally a Roman Catholic, but with a marginal commitment to the church. His mother, Henrietta Maria Saint-Eloy Tenison, came from a distinguished family, many of whom were clergy within the Anglican Church and one Thomas Tenison was Archbishop of Canterbury. They were married in St George's (Roman Catholic) Church, Southwark and then lived nearby in West Square with a delightful view across the park. Their relationship to the church remains obscure, although Julian claimed at one stage that his mother had converted.

Julian was baptised in the Catholic faith and although he did not use the name Tenison until his mid-twenties, he was actually christened Julian Edmond Tenison. He also claimed to have grown up as a protestant and later converted to Catholicism. His early life story is full of such ambiguities and contradictions, raising a number of problems to his many biographers (O'Neill 1929: 1-9; Press 1994: 6-15). This first section will focus primarily upon Julian's spiritual development, as that provided his foundation as a human being, out of which his science germinated.

He found schools to be a difficult environment and gained much of his education from his father. This involved encouragement of his wide reading, including the classics in Greek and Latin, discussions about history and public affairs, learning to play the piano and to draw, and studying natural history. Thus, his father gave him a sense of broad and open inquiry, of self-education. But underlying this, a great love of reading and writing.

Then in 1848, Father Frederick Oakely came as a new priest to the Southwark Church. Julian was then at a point of uncertainty, or even confusion, about his own directions, embracing the Anglican beliefs but with some Catholicism. Oakely led him into fully adopting the Catholic faith – a confirmation from which he never wavered. He came to see Oakely as the first of his central spiritual mentors, writing many years later in a still unpublished manuscript (Press 1994: 26)

He was a singularly gifted man, a most attractive writer and eloquent preacher. His loving and lovable nature gave him a large circle of warmly attached friends, while his great powers of conversation, many accomplishments and wonderful musical talents made his society most delightful. His disposition was lively and even playful, enjoying a joke and hearty laugh as much as most men . . .

It is interesting to recognise these very qualities in descriptions of Julian himself as a priest in South Australia (e.g., in Hepburn 1979: 107-109)

In his work with Fr. Oakely, he moved with several other young men into a communal house that operated according to the rule of the St Francis. However, a Passionist mission, led by Fr. Ignatius, also a former Anglican, had greatly impressed Julian and he joined with their community as a student. However, he was subject to frequent illnesses, and this interfered with the austerity and discipline required of a novice. In due course, his recurrent illness led the Passionist order to grant

dispensation from his vows and to advise he seek some milder rule. He was devastated by this decision, but counselling from Fr. Faber, a famous theologian and friend of Oakley.

On Faber's advice, he moved to France and the Marist novitiate. Again, in spite of the ideal climate and the opportunity for walking through the countryside, his bouts of illness persisted and he was advised to give up the rigors of study. However, his disappointment was relieved by the offer of an appointment to teach English in the Marist College at La Seyne-sur-Mer. He was able to able to continue his walks through the Auvergne, this time in the company of Fr. Mulsant who had an excellent knowledge of the natural history of the region.

But, perhaps more importantly, he benefited immensely from the spiritual advice and teaching of the college director, now St. Peter Julian Eymard. He saw Eymard as probably the greatest of his spiritual mentors, and wrote (again from the unpublished memoirs cited in Press (1994: 46-47)

He was certainly a saint, with the sweetest patience in all his dealings with the members of the college. . . he was a man also of the deepest spiritual knowledge, with a recollection and a spirit of piety which shone in all his actions. He was a tall thin man, with the face and expression of an angel. Though rather shy and reserved, his conversation was charming and instructive . . . He helped me so much to be more resigned to the will of God and less uneasy about the future. Thus he helped me more than even Father Faber or any of my spiritual directors always excepting Father Oakeley. Father Eymard was in my mind as great a saint as Father Faber, but differing completely from him. He was shy and retiring with a deep hidden devotion, a spiritual life with the spirit of the Blessed Eucharist, for the honour and adoration of which he founded his order. (Memoirs, p. 179)

But in due course, while on an extended walk with a group of his students, one of them collapsed and died. The shock caused great distress to Julian, and left him without the spirit to continue. He returned to his family in London.

To Australia

Here, Julian was introduced to Bishop Willson of Tasmania who invited him to migrate as an assistant chaplain to the prison settlement, with a view to his later ordination. His time in Tasmania was disappointing, and he did not develop a good working relationship with the Bishop. He travelled to Adelaide and visited his brother James, later appointed as director of the South Australian Roads Board. Here he spent some time regaining his health, and working as a journalist with the *Adelaide Times*, but still endeavouring to find a place where he could continue his theological training and progress to ordination.

In due course, he met Bishop Murphy, and on his advice, enrolled at St. Aloysius, the Jesuit College at Sevenhills. Here he recognised the principal, Fr. Tappeiner SJ, as a still further mentor in his developmental progress, and also developed a close friendship with Fr. Hinteroeker SJ. He not only continued and deepened his theological education, but also undertook courses in mineralogy and geology. After

this final study of some six months duration, he finally attained his long-held ambition and was ordained as a priest at St Patrick's Church in Adelaide.

By this time, he had a remarkable diversity of spiritual development through his learning with Fr Oakely and the Franciscan rule, the Passionists, the Marists and the Jesuits. His commitment to his faith was deep and absolute. At the same time, there was his continuing and broad self-education in both spiritual and scientific matters, his love of classical literature and of reading and writing. His father had also left him with his open-minded thirst for and open-ness to continuing inquiry and new knowledge.

Shortly afterwards, he was sent to a parish of some 35,000 square kilometres, based at Penola, but extending to Portland in Victoria, and along the coast to Mt. Gambier and Robe thence north to Bordertown. He rode his horse ceaselessly throughout the region, visiting virtually every family, and steadily building the spiritual influence of his own church. At the same time, he constantly recorded his scientific observations of the region.

It was here that he almost immediately commenced his scientific writing, but even those who criticised him generally recognised that he never departed from or fell short in his spiritual duties. He was constant in his own spiritual observances, leadership of his widely scattered parishioners and his efforts to develop the necessary church buildings. He always claimed that the priesthood was always his first consideration and science followed as he was able to find time. But the accusation of neglect of his spiritual responsibilities often arose, particularly from those who objected to his individualistic thinking.

He soon made many friends within the limestone coast region and two of these played a particularly important role in his on-going inquiry. Adam Lindsay Gordon had a great love of riding and shared many of Julian's journeys across the parish. But he was also a great poet and classical scholar, so the two friends would share in their joy of the classics while riding. It appears that this friendship led in turn to a further friendship with Samuel Pratt Winter of Murndal.

Winter arrived in Victoria with the Hentys in 1837 and squatted on what became Murndal station. Although a somewhat isolated aristocrat in his personal behaviour, it is particularly interesting that the first building erected on the site was a small hut that would serve as a schoolroom for his shepherds and for the aboriginal people of the region. He often travelled with a small retinue of staff, generally of aboriginal origin. In about 1841 this was replaced with a permanent stone building. The rest of the homestead was built over and around this. The old stone building was later lined with timber and is the present day library (Kiddle, 1961. many references)

Although Winter was an atheist, he enjoyed the company of, and the conversations with, Tenison Woods. He not only made his own library that included Lyell's *Principles of Geology* available to Julian, but actually purchased books specifically for his use when visiting London.

Probably, Woods first scientific publication on Australian geology was produced in 1857 and dealt with metamorphic rocks in the Clare district north of Adelaide. An

extensive article soon followed this on the Mosquito Plains (Naracoorte) Caves. It appeared in the *South Australian Register* of 29th March 1858. Most of this article was actually included in his later book (see below) and the 1858 article has generally been overlooked, even though it contains historically important material.

His most important work in the Naracoorte area was *Geological Observations in South Australia: Principally in the District South-East of Adelaide* (1862). This book ranged widely over the geology of South Australia but, in particular, included chapters on the limestones of the South East, three chapters on the volcanoes and three on the caves. The first of these was based very largely on the work of Lyell but the second two dealt with Julian's own observations in the South East region. [It is important to recognise that one or more pages of the original manuscript were apparently lost. There is a significant discontinuity in the text in both the 1858 newspaper article and Geological Observations (page 331). This discontinuity has on several occasions lead speleologists to search for an assumed further series of cave passages.]

Woods claimed in letters to his friends that he had found it impossible to locate a photographer who might provide him with illustrations for publication purposes. He said: "One might as well expect to find a newspaper on the streets of Peking as an itinerant photographer in the South East". However, he obviously succeeded and although it has so far been impossible to identify the photographer, or even to discover the source of the originals, which were copied by historian Les Hill, there were in fact three photographs taken and the illustrations by William Archer that appear in Geological Observations were based upon two of these.

In reading Geological Observations, one can readily detect an intellectual struggle between acceptance of Lyell's ideas as those of the then most significant author on geological principles, and his own observations. Lyell's work was very largely based upon caves in the hard rock limestones of Europe that are totally different in geological history, geomorphology and general character from those of Naracoorte. However, Woods was able to recognise their relationship from his observations to Lyell's description of the Katavothra of the Mediterranean islands of Greece.

His major mistake in interpreting his observations was in relation to the polje at Swede's Flat near Bordertown which he explained as a former coral atoll, while at the same time recognising the character of its hydrology.

Fortunately, Woods individualism would not allow him to suppress his own views. He clearly identified the dune ridges as being of aeolian origin, while some of his contemporaries argued for a marine deposition origin. He then recognised the extent to which the fossil deposits in the cave were a result of many episodes of seasonal flooding. He also rejected strongly Buckland's theory of the biblical deluge as the origin of fossils, even though he had at one time accepted it. Similarly, he rejected the prevailing theory that caves were excavated by underground rivers and pointed to their phreatic origins (although not using that term). He also, again without specifically enunciating it, indicated some awareness of syngenetic development (pp. 347-348). This was more than a hundred years prior to its proper scientific recognition.

In recognising the mammalian fossils buried under the flowstone in the so-called second chamber of Blanche Cave, he reported that they were all of relatively recent origin and not comparable to the discoveries of Mitchell at Wellington Caves. He did recognise that one bone discovered elsewhere in the region was, perhaps, more comparable with the Wellington material.

The Miocene limestones of the region, with its wealth of marine fossils almost certainly provided the starting point for his long-term studies on the geo-history of the Australian Tertiary. During the course of these studies, he described and named several hundred species of molluscs and some other marine fossils. He also moved into reviewing the botany of the region with the support and encouragement of Baron Ferdinand Von Mueller. From this he was able to utilise the patterns of vegetation distribution to map the underlying soils and related them to his work on regional geology.

By the time he left Penola and went on his following career, he was recognised as one of Australia's most widely expert natural historians. His work demonstrated a quality of geological understanding far ahead of his contemporaries. This is congruent with Player's (1989a, 1989b) findings in reviewing and assessing the whole of his scientific research. The incredible breadth and diversity of his research is clearly indicated by the bibliography in Press (1994: 261-274)

I have left aside his remarkable capacity in developing educational policies for the Catholic Church and establishing two orders of women teachers – the Sisters of St Joseph and the Perpetual Adoration Sisters. His protégé, now St Mary McKillop, was of course the co-founder and leader of the Sisters of St Joseph. Sister Margaret Press RSJ in her biography of Woods said he was ". . . at once, priest, missioner, founder, educationalist, journalist and scientist." Others would add his musicianship, mysticism and remarkable exploration of South East Asian countries.

His continuing career in science never abated, but regrettably he found it increasingly difficult to locate himself within the organised Church. His individualism all too often challenged the place of Bishops and as Press (1989) said, "Bishops . . . preferred to forget a priest who could not be slotted into any familiar category." So, he spent many years, often engaged in conflict, and being passed from diocese to diocese as a wandering missioner.

Those who followed

Geological Observations was very positively reviewed and widely respected. Sections were reprinted in Europe particularly in the various editions of Hartwig's Subterranean World. His book was perhaps not so highly regarded in Australia, but some significant individuals managed to ensure that it had a long-term impact. Many scientists quoted it in the course of their own research.

Probably, the most significant line of influence commenced when William Reddan was appointed Caretaker of the Cave Range Forest Reserve in 1886. He made extensive use of Julian's book in developing his own understandings, while searching for, discovering, and exploring a number of new caves. He gave special attention and

proved to have a great creative capacity in the quality of cave management that he established.

He recognised from the beginning that there was a significant opportunity to find older fossils in the caves of the region and was always looking for these while exploring caves of the area. While developing the newly discovered Victoria Cave for tourism purposes, he found some fragments of obviously older fossils buried under the flowstone floor. He immediately invited the South Australian Museum to investigate these and both Stirling and Zietz visited Naracoorte to do so. They reexamined the fossils in the Blanche Cave on which Woods had reported, then discovered and excavated fragmented material from Specimen Cave. They did not investigate further Victoria Cave to any extent, as this would have interfered with tourism development.

Recreational caving developed in South Australia during the early 1950s. Mrs Agnes Needham (Reddan's daughter) told us a great deal about the history of her father's work but, in particular, introduced us to *Geological Observations*. It provided a wonderful basis for our own investigations and we succeeded in locating all the many caves described by Woods. Our understandings of what we found were initially based upon Woods thinking and we were able to predict further locations simply on the basis of our growing understanding of the geological structure.

Our continuing exploration led Rod Wells and Grant Gartrell to discovery of the Victoria Cave Fossil deposits. When a small group of us were engaged to draft the first Management Plan for the Naracoorte Caves, we recommended that the site be nominated for World Heritage Inscription. In due course this was done, and of course accepted.

In conclusion, I personally suggest that re-reading of Woods work may still inspire some new directions of enquiry. We have not yet fully extended upon his vision.

Acknowledgements

Firstly, I must acknowledge Agnes Needham's immense contribution to my interest in Naracoorte and in Wood's work in particular. Then there is the prolific literature by written by Woods himself and by his various biographers. Discussions with Sisters Margaret Press and Anne Player have been absolutely invaluable in adding to my understanding. Rev Roderick O'Brien has given me a much deeper understanding of the meaning of spirituality and determination in Wood's life.

Fr Ken Boland of St Francis Church, Melbourne kindly provided access to the photographs of St. Julian Eymard and to photographing the Bass statue of the Saint. Two early photographs of Woods at the caves came from Mount Gambier historian, the late Les Hill.

My many caving fiends, including Rod Wells and Grant Gartrell, have often joined in discussions and this in turn consolidated my interest in Woods. Cave historian, Trevor Shaw, has continually pressed me to document Australian cave history and has indeed helped in developing a framework for research in this field.

Finally, I am delighted that Liz Reed convinced me to review my understandings of Woods and present them to you.

References

Hepburn, Sr Isabel 1979. No Ordinary Man: Life and Letters of Julian E. Tenison Woods. Sisters of St. Joseph, Wanganui, NZ.

Lyell, Charles (1830–33) *Principles of Geology*. 3 vols, London: John Murray, London

O'Neill, Rev George 1929. *Life of the Reverend Julian Edmund Tenison Woods*. Pellegrini & Co., Sydney.

Press, Sr. Margaret 1979. *Julian Tenison Woods*, Catholic Theological Faculty, University of Sydney.

Press, Sr. Margaret 1981. Ten Years in the Bush (1857-1866) in Brown, Neil (ed.) *Reflections on Faith and Culture*. Catholic Institute, Sydney, pp. 139-150.

Press, Sr. Margaret 1989. The Formation of Young Julian. *Australasian Catholic Record*, 66(3): 303-308

Press, Sr. Margaret 1994. *Julian Tenison Woods: "Father Founder"*. Collins Dove, Melbourne.

Player, Anne 1989a. Julian Tenison Woods: Priest and Scientist. *Australasian Catholic Record*, 66(3): 279-294.

Player, Anne. 1989b Julian Tenison Woods, Scientist 1832-1889. *Journal and Proceedings of the Royal Society of New South Wales*, 122 (3-4): 109-118.

Woods, Julian E. 1858. South Australian Geology No. 3: The Caves at Mosquito Plains. *The South Australian Register*, March 29th 1858.

Woods, Julian E. 1859. On some Tertiary Rocks in the Colony of South Australia. *Proceedings of the Geological Society* (London) 16: 253-260.

Woods, Julian Edmund. 1862. *Geological Observations in South Australia: Principally in the District South-East of Adelaide*. Longman, Green, Longman, Roberts and Green, London.

Woods, J.E.T. 1866. Report on the Geology and Mineralogy of the South-east District of the Colony of South Australia, or that country lying between the River Murray, the 141st meridian of longitude and the sea. Government Printer, Adelaide.

Tenison-Woods, J.E. The Wonders of Nature in Australia I. *Sydney Mail*, 12th April 1879: 569. (Caves)

Tenison-Woods, J.E. The Wonders of Nature in Australia II. *Sydney Mail*, 26th April 1879: 652 (Naracoorte Caves and Tertiary fossils)

Tenison-Woods, J.E. The Wonders of Nature in Australia III. *Sydney Mail*, 10th May1879: 732. (Fossils of extinct mammals and birds in Australia)

Woods, Julian E.T. 1887-1889. Memoirs. Unpublished manuscript quoted by Press.

Those who seek further information on Woods might also consult the valuable collections of essays in the *Australasian Catholic Record*, 66(3), the *Journal and Proceedings of the Royal Society of New South Wales*, 122 (3-4) and the unpublished posters and essays from the Woods Seminar, Naracoorte, South Australia, 6th. August 1989.