

## The Australian travels of Jiří Viktor Daneš: Geographer, speleologist and world traveller

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### Preface

This issue of *Helictite* includes an account of the major expedition to Australia in 1909-10 of Dr Jiří Daneš (Figure 1), Associate Professor at Charles University in Prague, which was then part of the Austrian-Hungarian Empire (later Republic of Czechoslovakia, now Czech Republic or Czechia). Jiří Daneš (pronounced “Yee-zhi Dah-nesh”) was what we would now call a geomorphologist. He was accompanied by Dr Karel Domin, also an Associate Professor at Charles University in Prague, who was a botanist.



Figure 1. Jiří Viktor Daneš.

The key documents discussed here are a 76-page professional paper “Karststudien in Australien” written in German and published in Prague in 1916, a large 2-volume book *Dvojím Rájem* (*Through a Double Paradise*) in Czech (Figure 2), and some shorter articles by Daneš on Australian karst, lime-



Figure 2. The two-volume set of *Dvojím Rájem*, “Through a Double Paradise” held in the Mitchell Library, State Library of New South Wales. Photo Bruce Welch.

stone and other physiography, in English, German and Czech.

*Dvojím Rájem* “Through a Double Paradise”, is more comprehensive and less technical than “Karststudien”, though a better description of the remote parts of Australia the two Czechs visited just nine years after the nation was established. A coffee-table travelogue, it was jointly written by Dr J. V. Daneš and Dr K. Domin (1911) and was a profusely illustrated (mostly with photographs taken by Daneš), highly professionally produced, large two-volume set of over 1,100 pages aimed at an educated public. It contains some speleological descriptions, along with accounts of the places and people encountered *en route*.

Karststudien in Australien (Daneš 1916) has, to our knowledge, not previously been fully translated into English from the original German, a task now carried out by geologist John Pickett for publication here.

A photocopy of the paper “Karststudien in Australien” was in the possession of Professor J.N. Jennings (1916-1984) in Canberra. It probably formed the basis of both his paper on Daneš at Chillagoe (Jennings 1966) and his detailed paper on Daneš’s

work (Jennings 1980). Much later an original reprint, annotated by Daneš, was located by the authors in the State Library of NSW (Figure 3). Over the years several Australian speleologists attempted to translate small sections of the paper, with varying success. Copies passed among Andy Spate, Dave Gillieson, John and Jeanette Dunkley, Colin Tyrrell, Ken Grimes and possibly others – all using a poor copy of the original, which was difficult to scan – but the real problem was accurate translation of the 25,000 words. Using Google translate, Colin Tyrrell produced the first working version in English, and the late Ken Grimes, who had conducted geological field work in North-West Queensland (Grimes 1974, 1988), considered publication was warranted. However in 2016 fluent German speaker and geologist Dr John Pickett offered to convert the original into modern English.

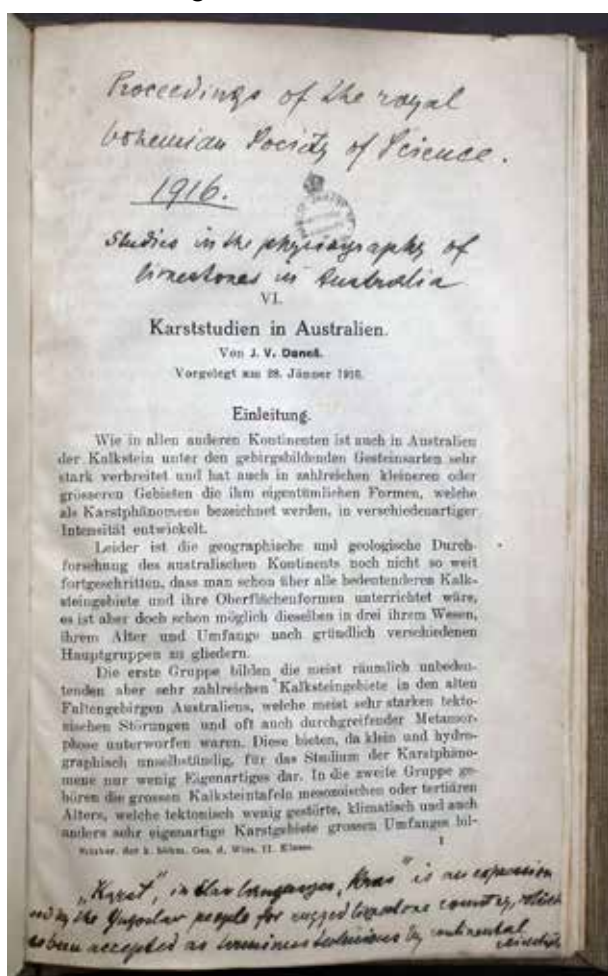


Figure 3. First page from "Karststudien in Australien" showing Daneš handwritten notes. Photo Bruce Welch.

It is interesting that Daneš suggested the translation "Studies in the physiography of limestones in Australia" for the paper's title, presumably aware that 'karst' would not have been understood by most Australians at the time – Ed.

Serendipitously, in early 2017 we stumbled across "Through a Double Paradise", in the Mitchell Library of the State Library of NSW. The Mitch-

ell Library bookplate states that it was donated on 4 January 1921 by Daneš, then Consul-General for Czechoslovakia. It is believed that the inscription is in the hand of the Mitchell Librarian, Hugh Wright, great-grandfather of Bruce Welch (Figure 4). Jeanette Dunkley began working on a Google translation of parts of this from Czech, and Karel Petršek continued the project.

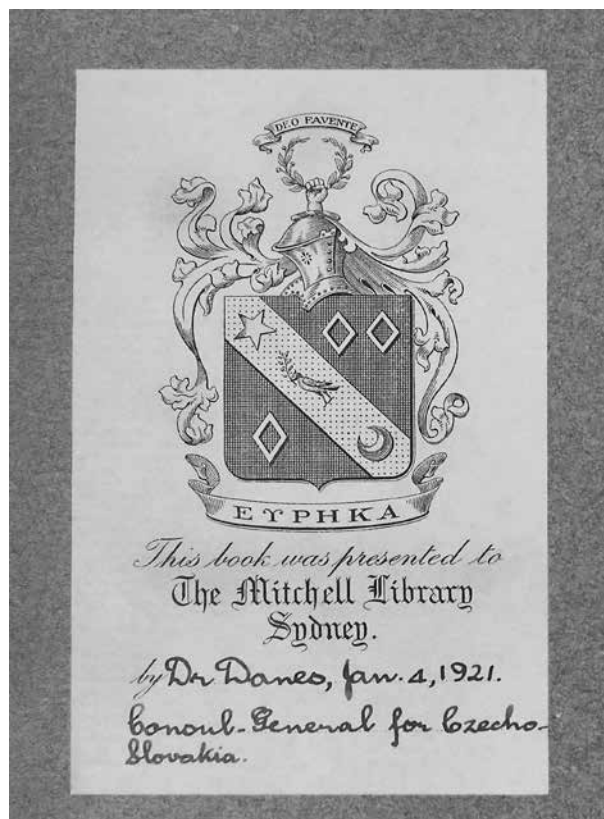


Figure 4. Mitchell Library bookplate showing donation details in the handwriting of the Mitchell Librarian, Hugh Wright. Photo Bruce Welch.

Because many of Daneš's other works are in Czech and/or unpublished, or not readily accessible to readers, we have expanded his background a little to emphasise how karst became his life's focus, in a life full of remarkable journeys. In Australia he visited caves and karst in every state (except South Australia) and territory (including the nascent Canberra) and produced probably the earliest map of limestone physiography for all of Australia (Figure 5).

As this paper was being researched, a biographical work, *Geograf a cestovatel Jiří Daneš* by Jiří Martínek, was published (2017). While it covers little of Daneš's work in Australia, it has been used as an important reference for this article. Yet another item, describing his anthropological collections, now housed in the Náprstek Museum, Prague, was published in the same year (Jungová 2017).

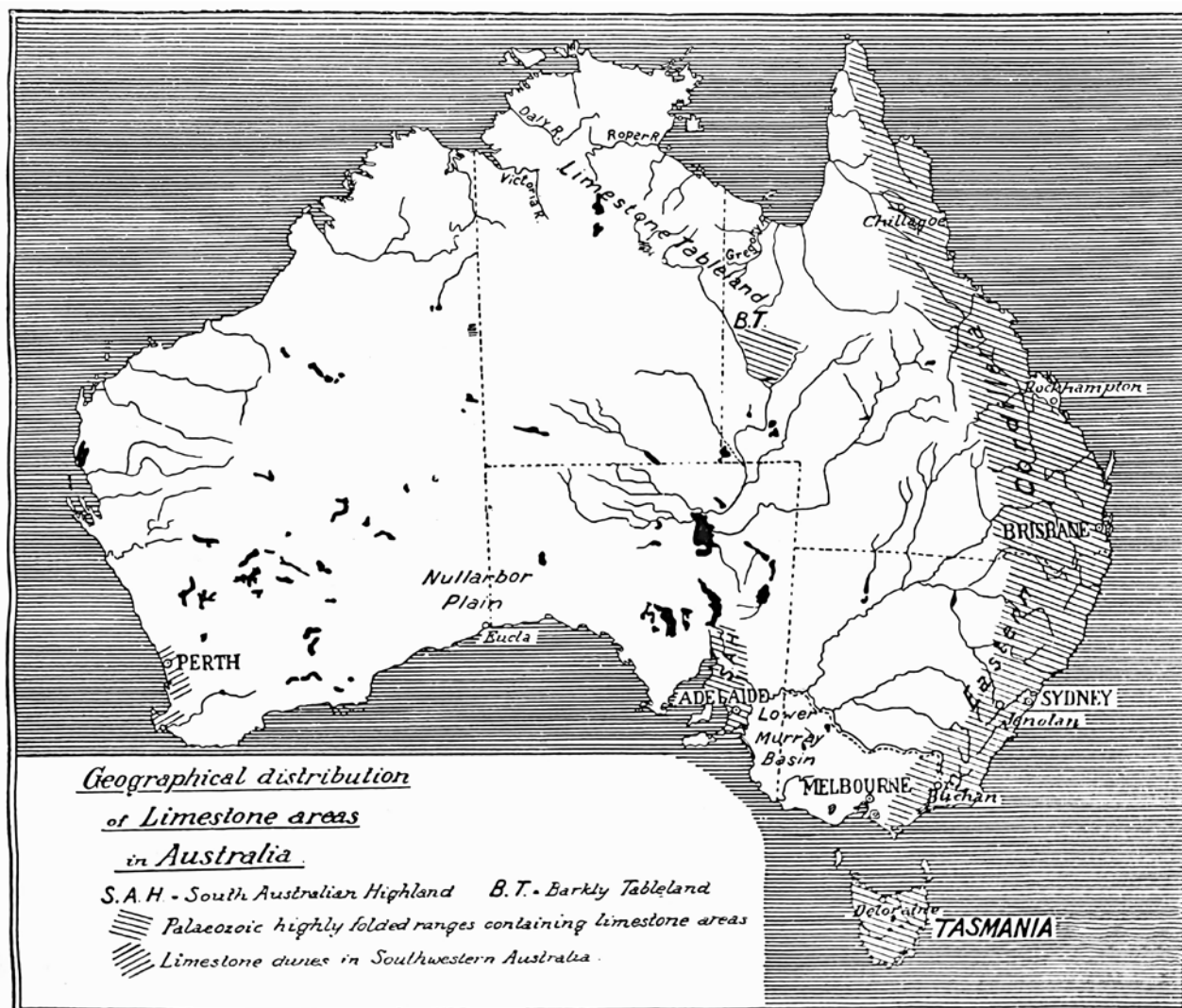


Figure 5. Map drawn by Daneš showing Australian limestone areas, included in his 1924 publication (Daneš 1924a).

## Introduction

On 10 April 1928, on a suburban Californian road at Culver City on his way to visit film studios in Hollywood, a motor car collision resulted in the death of Professor Jiří Daneš. This cut short the life of one of the world's foremost karst geomorphologists. The level of respect he commanded in the scientific community is evidenced by his obituary published in *Nature*.

Based in Prague, he was the first karst scientist to both visit and write extensively about karst physiography in Australia (Daneš 1910a, 1910b, 1911a, 1911b, 1914b, 1924a), ranking with our two most distinguished early writers about caves and karst, Thomas Mitchell and Julian Edmund Tenison-Woods, neither of whom was a karst scientist. It was another generation before J.N. Jennings arrived in Australia, later describing Daneš's work at Chillingoe in *Helictite* (Jennings 1966) and his broader travels (Jennings 1980); but little has been written since about Daneš's extraordinary journeys in Australia.

## Daneš the man

Jiří Viktor Daneš was an accomplished polymath: curious, persevering and pertinacious, resolute with almost obsessive determination, and an extraordinarily hardy traveller who had a distinguished academic and consular career. Born to a wealthy family in Unhošt, Nový Dvůr (Neuhof in German) (23 August 1880), about 30 km west of Prague in what was then part of the Austro-Hungarian Empire, he studied geography, geology and history in the Faculty of Philosophy at the Charles University in Prague (whose curriculum included a surprising amount of Australian geography), graduating in 1898.

Obtaining a doctorate in 1902, he joined the distinguished Serbian Professor Jovan Cvijić, and together they carried out karst and other geomorphological work in the central Balkans. After post-doctoral studies at the University of Berlin in 1903-04, he returned to karst studies in Herzegovina, soon afterwards presenting a second doctoral thesis in 1905 at Charles University which appointed

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him Associate Professor, apparently describing his position as ‘private lecturer in geography’. In 1904 he attended the 8th International Geological Congress in Washington, afterwards accompanying renowned geomorphologist W.M. Davis and learning his working methods on Congress excursions in the northeast and southwest of the USA and in Mexico. Daneš separately travelled from New York to Boston, Seattle, San Francisco, Los Angeles, Denver and St Louis. Returning to Mexico for the 10th International Geological Congress in 1906, he determined to divert for a month-long study of the distinctive cone karst of Jamaica (Daneš 1914a) and Cuba.

Clearly this training informed his plan to visit Java and Australia.

## Planning for Australia

Dated 19 November 1908, a handwritten letter from Prague signed by Karel Domin and Jiří Daneš was addressed to “His Excellency, The Governor-General and Commander-in-Chief of the Commonwealth of Australia, Lord Northcote”. The letter proposed “several scientific expeditions and excursions for studying purposes into the interior of Australia. Should, during our time in Australia, an expedition into the interior be arranged by the authorities, may the High Government be pleased to grant us permission to join the same.” Accompanying this was a strong recommendation from the President of the Bohemian (i.e. Charles) University of Prague, requesting authorities to promote as far as possible the attainment of these aims.

The following Governor-General (the 2nd Earl of Dudley) laid the letter before Prime Minister Alfred Deakin and the Secretary of State for the Colonies in London. Bureaucratic delays then occurred as the request was referred to the British Ambassador in Vienna and translations obtained of the proponents’ credentials. A summary of Daneš’s credentials recorded:

“He also studied with a special interest the rock soil [karst] phenomenon, and with this object he made another expedition of research through Jamaica and California in 1907 and also the French rock soil [karst] districts”. He planned to undertake “the investigation of the geomorphological conditions of the rock soil [karst] regions in Java and the southern part of Australia (Eucla division), the morphology of the steppes and waste lands as compared with the damp, tropical parts of Northern Queensland...”. A formal letter advised that the “Government of Austria strongly recommends and hopes facilities will be granted.” By mid-1909 the

Prime Minister’s office had conveyed these aims and hopes to all state governments, asking them to render assistance in any way possible.

## Australian journey 1909-10

In July 1909 Daneš joined Karel Domin, an associate professor in systematic botany at Charles University for their sabbatical. Travelling by train from Berlin and Prague to Trieste, they sailed on the Lloyd Triestino *Austria* to Suez, Aden, Bombay (where they visited the renowned man-made Ellora Caves (Figure 6), then via Penang and Singapore to Batavia (Jakarta). They climbed Mt Gede and Mt Bromo, and visited Semeru volcano (then erupting), while additionally Daneš researched the extensive 2,000 sq km karst of Gunung Sewu on the south coast (Daneš 1915).



Figure 6. Dr Daneš, under the cactus, near the cave temple at Ellora near Bombay, India (Photo Domin).

Continuing by a smaller ship via Port Kennedy (Thursday Island) and stopping briefly at Townsville, they arrived in Brisbane on 16 December 1909. There they visited Stradbroke Island, Mount Tambourine (Figure 7) and scientific institutions such as the Geological Survey, The Royal Society and the Royal Geographical Society of Queensland, as well as researching and arranging expeditions to North Queensland.

Armed with local information, references and contacts, along with a free rail pass from the Queensland government, they entrained to Gladstone, transferred to a coastal steamer to Cairns, and visited and later authored papers on the physiography of the Bellenden-Ker Mountains, the Russell and Barron Rivers and Lake Eacham. They also witnessed Aboriginal corroborees, an important side interest of Daneš. He obtained ethnographic items and later wrote a book detailing these experiences (Daneš 1924b). During much of this stage Domin



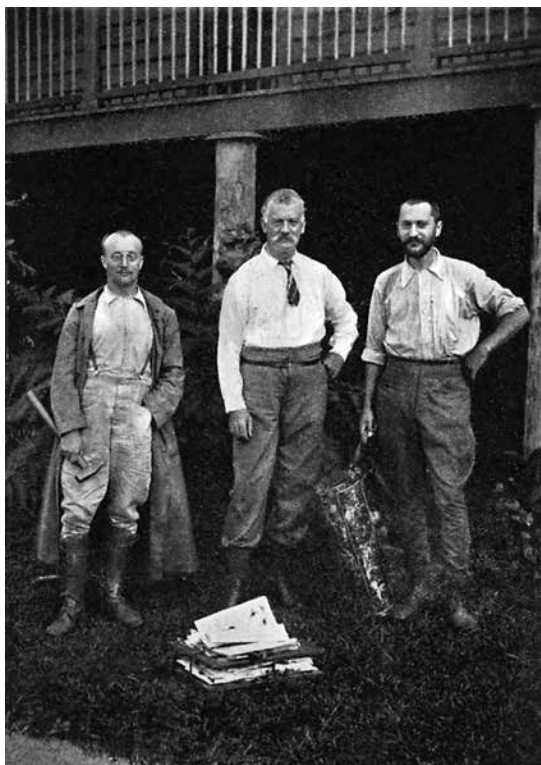


Figure 7. Excursion group at Tambourine Mountain, left to right: Daneš, Inspector J. Shirley, Domin.

was equally active in botanical investigations, later writing an important paper on plant associations in Queensland (Domin 1910).

Daneš probably met his first Australian karst in February 1910, just west of Almaden as they crossed the ranges by rail to Chillagoe (Figures 8-11). He and Domin spent a short time there as guests of Lord McDermott who assigned an assistant for local excursions there and to Mungana (Figures 12, 13). McDermott prevailed on the Queensland State Secretary to provide the Czechs with a free rail pass (Martínek 2017 p. 81).

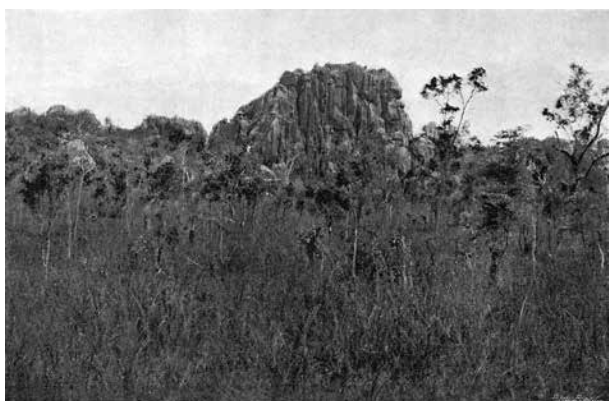


Figure 8. Castle Rock, Chillagoe. Photo Domin.

At the time Townsville was not connected by rail to either Cairns or Brisbane, and most long distance travel was by coastal steamer. Thus, they returned to Cairns, took ship to Townsville, and made inland rail excursions to Charters Towers (from where they

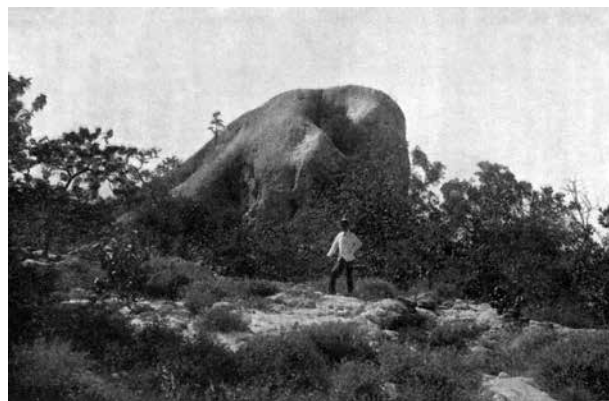


Figure 9. Lions Head, Chillagoe.



Figure 10. Karst at Chillagoe. Photo Domin.

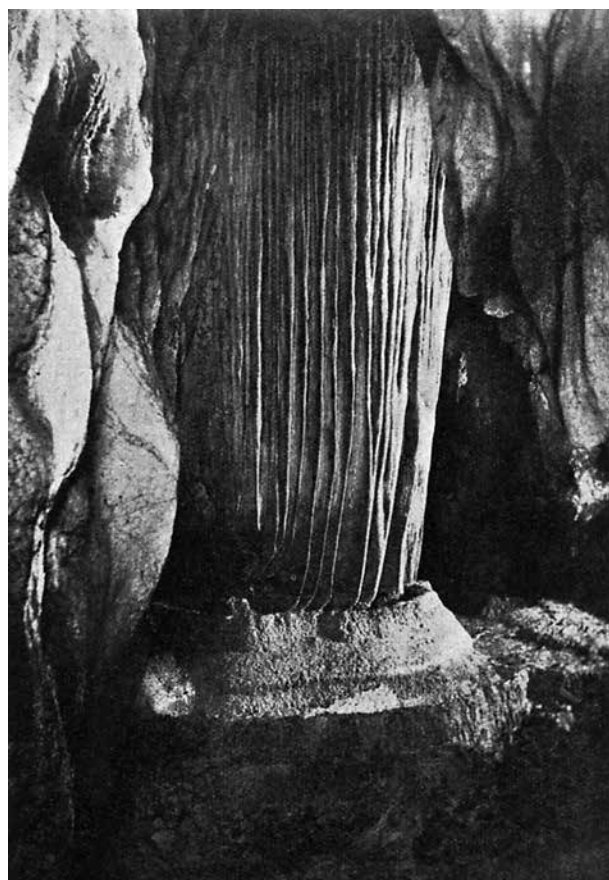


Figure 11. Cave decoration, Chillagoe. Photo Domin.



Figure 12. Karst at Mungana.

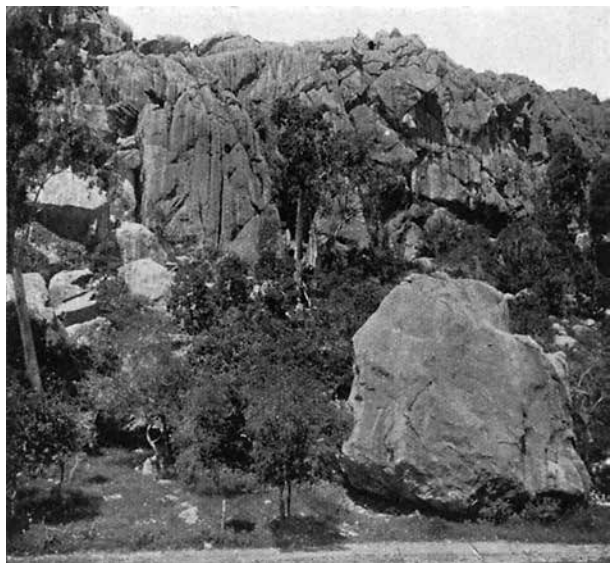


Figure 13. Fallen rocks, Mungana. Photo Domin.

photographed the Burdekin River), Hughenden and Cloncurry. In retrospect it's not clear why the pair travelled all the way to Cloncurry on that first occasion without enquiring about onward transport to the Barkly Tableland. Martinek (2017) suggests they wanted "to continue to the little-known West Queensland; but in these plans they were (deterred) from continuing". Daneš had researched the subject in Brisbane and was certainly more determined on reaching the Barkly, partly to compare it with other karsts, partly to examine evidence of its immense subartesian and very deep basin of groundwater, adverted to in government correspondence and about which he later waxed rather enthusiastically to a number of journalists. Rebuffed, they turned south, travelling by horseback or (more likely) coach direct to Winton, or possibly by train via Hughenden. A Cobb & Co. stagecoach conveyed them on to Longreach (Figure 14), from which rail service to Brisbane was available. Diverting briefly en route at Rockhampton, they visited Olsens Caves (Figures 15, 16) to compare its tropical karst, contrasting it with that seen in Java, Jamaica and around Chillagoe.



Figure 14. Large coach between Winton and Longreach.



Figure 15. Entrance to Olsens Cave.

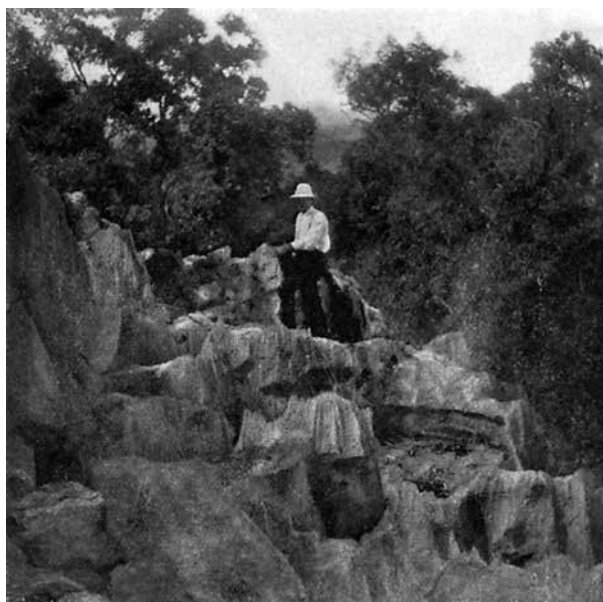


Figure 16. Karst over the Olsens Caves. Domin seated on the rocks.

At Brisbane Karel Domin parted company with Daneš, travelling on to Melbourne and in time built a distinguished academic career. Domin became Professor of Botany and Rector at Charles University and a Deputy of the National Assembly. From various sources Domin published a number of

important works on Australian taxonomy and phytogeography, over 4,000 specimens now being lodged in the Botany Department of the National Museum in Prague, and he is regarded as the person primarily responsible for establishing the Tatra National Park in the mountains of southern Poland.

Now travelling alone but undeterred, Daneš returned to the north later in 1910, went by rail to Rockhampton and Barcaldine, then north to Aramac, the last stretch being by stagecoach as the Aramac branch line was not commenced until 1911. Of Aramac he wrote:

“On the coach on which we arrived I had found details of a trader and horse and cattle catcher who had many horses for sale. With the assistance of the police constable, I visited him and picked up two horses and saddles. I did not buy the horses for a parade, and I knew very well that I would not be able to sell them for a decent penny. I bought both of them and a harness for 20 pound sterling, finding out on a report that they had no mistakes that would *a priori* cast doubt on the journey” (Daneš 1910a).

From Aramac he journeyed 340 miles on horseback in three weeks. The plan was to continue north-east to a series of salt lakes (Lakes Mueller, Barcoorah, Dunn, Galilee and Buchanan) located on the continental divide; his interest being primarily physiographic and hydrographic as questions arose about whether some had originally drained to the east (Daneš 1910a).

As an indication of the trouble Daneš took to investigate caves he visited some so-called salt caves near Cauckinburra Swamps in a rather desolate area only to discover that these were merely overhangs formed by erosion of a bank where the overcapping of a hard conglomerate resulted in overhangs.

From Pentland he travelled west by rail via Hughenden to Cloncurry again. From there he at last set out for the Barkly Tableland, journeying the next 300 km by stagecoach, crossing the divide between the Leichhardt River and the internal drainage of the Georgina River, probably north of the site of what is now Mt Isa (Figure 17).

“It was a long and fairly monotonous trip from the terminus of the Great Northern Railway of Queensland in Cloncurry through the dry and wild montane country of the northern ‘Australian anti-cordillera’ to the tableland at Camooweal (Figure 18). From there, after several excursions to the local cave and sinkhole groups, north to the Gregory River and then through the Carpentaria lowlands via Burketown and Normanton, and through the broad southern part of Cape York to Cairns! The excellent coach connections, which even these far-



Figure 17. The coach rises over a quartz hill between the Leichhardt and Georgina Rivers north of Mt Isa.



Figure 18. Approaching Camooweal on the coach road from Cloncurry.

flung regions of Queensland enjoy, made it possible to cover this great stretch of semi-desert of varying kind, within six weeks, including detours, relatively comfortably and quickly.”

This, the main goal of his trip, occupies more than half of his key paper, exceeding 15,000 words and deals with some geology as well as karst geomorphology. Curiously, his biographer (Martínek 2017, p. 82) in an otherwise comprehensive 292-page account of Daneš’s life and travels, says little more about the Barkly expedition than that “From Brisbane, in mid-April 1910, he travelled to Rockhampton (in which he visited another karst area), Barcaldine and Aramac, a few hundred kilometres on horseback to Lake Buchanan and Lake Galilee, to the area known as Cloncurry, to the upper Flinders River and to the Barkly Tableland karst region with many caves and chasms at the Queensland and Northern Territory [border] to study the karst relief there.”

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He arrived in the mining town of Burketown, meeting Queensland geologist Lionel C. Ball (1877-1955), who was performing geological mapping on the border of Queensland and the Northern Territory. Because he assisted with this mapping one of the valleys of this area was named “Daneš Valley” in his honour. Martínek (2017) says elsewhere (p. 286) that “unfortunately, today’s maps no longer bear this name”.

Nowranie, Barwidgee, Hassels, Jopps, Bustard Creek, Wooroona Creek (Figure 19) and other interesting karst and caves near Camooweal demanded his attention.

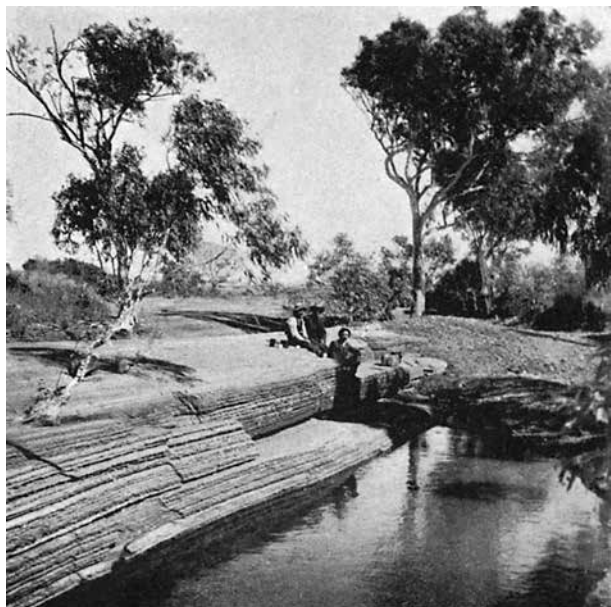


Figure 19. Waterhole in the Wooroona Creek, East from Camooweal. The late Ken Grimes took a photo at this exact spot; he called it Split Rock Waterhole and is a few kilometres north of the Barkly Highway.

Travelling across into what was then the Northern Territory of South Australia, he was able to borrow a horse and guides from the obliging manager of Rocklands Station. Mr Glissan had lived in the area for 30 years and accompanied him for three days, and was very familiar with the topography and hydrography (Figures 20, 21).

“... We planned a trip and descent into Nowranie Cave, about 19 km southeast of Camooweal (Figures 22-24). We were seven beside two blacks, ... and three horsemen ... also a postmaster and police sergeant ... we tried our luck on ducks and kangaroos. A black arrived late at night in camp with two shot kangaroos. I bought the two tails from him ... It was a very delicious roast, the soup then almost did not differ from the good beef ...

“We camped at Nowranie Creek, about a quarter of an hour from the cave. [Rocklands station] supplied various preserved delicacies of a well-known selection. Intense cold was also a good way to get



Figure 20. A.H. Glissan's Group of Sink-holes and Caves, Barkly Tableland (caption from Royal Society of Queensland paper by Daneš), otherwise captioned Karst cave near Rocklands, Camooweal.



Figure 21. On the edge of the karst in the Glissan group of caves. Probably Barwidgee Cave (4C1) according to a photograph supplied by Ken Grimes.



Figure 22. Camp at cave south of Camooweal (Nowranie Cave).



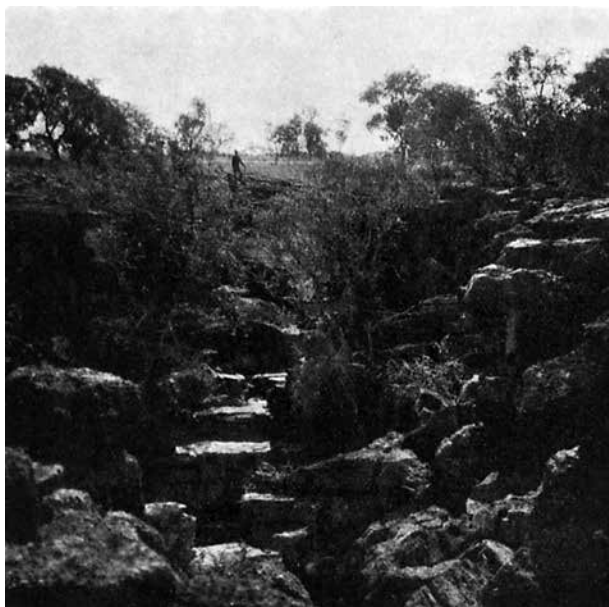


Figure 23. Karst abyss south of Camooweal (Nowranie Cave).

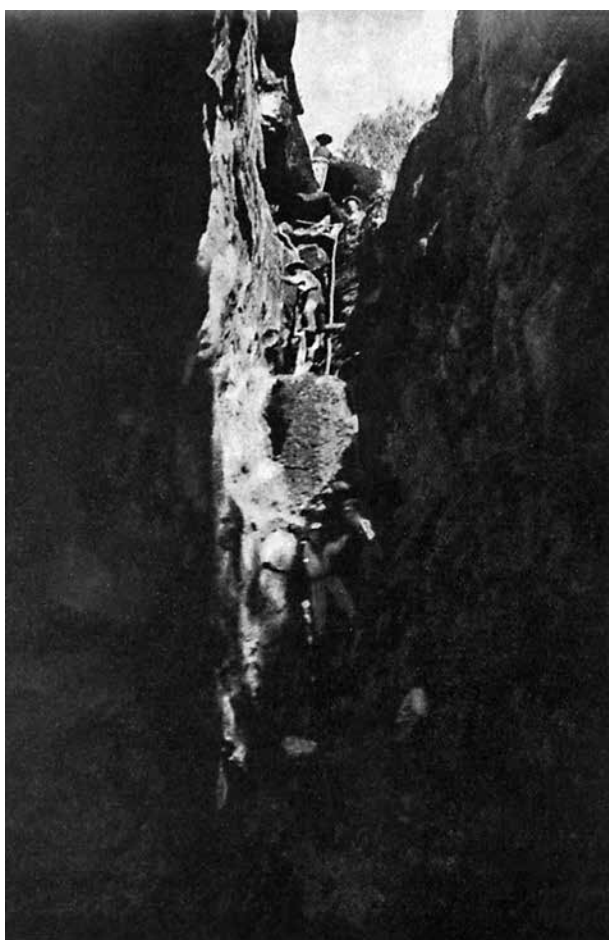


Figure 24. Descent to the abyss near Camooweal (Nowranie Cave).

more frequent drinking with bottles of wine, whiskey and brandy ... we slept well and did not feel the winter although this night was a minimum of almost zero in Camooweal ... After a hearty breakfast we went to the caves ... I've always had a certain horror of climbing down a rope, and it's too hard

for me to get rid of the goose pimples, but it was not a waste... I started, too, very smoothly using the instructions of the Rocklands blacksmith, who had an invaluable practice in the depths of a similar nature from the Croydon mine [a description of the cave follows].

"The next day, Monday, I spent in the eastern surroundings of Camooweal viewing several groups of karst formations. Quartz pebbles are often quite nice ... inhabitants decorate their houses with sea-shells or decorative groups of crystals. Cut pieces are rare as grinding is very expensive in Australia, and most opals, sapphires and other gems are sold to German agents."

Cobb & Co. had stagecoach services available between Cloncurry, Camooweal, Riversleigh, Lawn Hill, Burketown and Normanton which were undoubtedly used (Figure 25), a total distance travelled of about 1,000 km. Burketown was then the port of entry for supplies to settlements in remote NW Queensland.



Figure 25. [American-style buggy] at rock outcrop near Riversleigh. Right beside the old road from Riversleigh to Lawn Hill, a former Cobb & Co. Stagecoach route.

Daneš reached Riversleigh and Lawn Hill stations and certainly visited some karst near the former. At Normanton he toyed with the idea of the steamer connection via Cape York to Cairns every 3 days, but the railway apparently prevailed as a train was timed to leave the next day. Conveniently opened only a year earlier, this isolated stretch between Normanton and Croydon still operates and has never been connected to other Queensland Rail networks. From Croydon a coach connected via Georgetown to Charleston (since renamed Forsyth), from which a slow train still rattles off to Cairns, taking even longer now than it did then. Pausing only for more studies of the valley of the Barron River, he returned to Brisbane, gave a number of lectures, went on to Sydney, visited Jenolan Caves (Figure 26), and planned to return home.

In Sydney he consulted personally with Oliver



Figure 26. The shape of the “Mystery” in the Jenolan Caves.

Trickett about Yarrangobilly and presumably Wombeyan and Wellington. However Jenolan was the only one of these he was able to visit, in August 1910, and then only briefly, describing it as one of the most important in the world, and for this he appears to have secured support from the NSW Government. In the same month he left for home via Melbourne, Adelaide and Perth. There he found time to investigate karst at Yallingup (Figure 27) in early September 1910 (probably with support from the WA Government) and in the gold-bearing area of Coolgardie, Kalgoorlie and Leonora.



Figure 27. Caves House, Yallingup.

He laments that because his time in Queensland “... lasted too long, I was obliged to abandon the original plan of visiting the Eucla area, and could no longer visit even the smallest of the great limestone plateaux, the so-called Mosquito Plains (i.e. Naracoorte)”. Other correspondence shows that his original intention was to visit the Nullarbor from the remote telegraph station at Eucla, using one of its occasional supply ships.

### First Consul-General to Australia

With his considerable historical and geographical skills, in 1920 Daneš was appointed the first Consul-General to the Commonwealth of Australia of the newly born Republic of Czechoslovakia. Accompanied by his wife Božena they travelled from Trieste to Port Said and Massawa (now in Eritrea, then in Abyssinia i.e. Ethiopia), they explored oases around Aden, then transferred to the P&O *Orvieto* from Colombo to Fremantle, arriving on 9 August 1920, where he was interviewed by *The West Australian*. Not one to miss an opportunity to at least sample Australia’s largest karst, they crossed the Nullarbor on the just completed Transcontinental Railway, although his notes on that subject are based entirely on earlier literature. The journey was interrupted long enough to make brief diversions to Buchan either then or shortly afterwards, and to caves near Deloraine and elsewhere in Tasmania, and eventually they reached Sydney on 26 August 1920.

Most of his writings from the next two and a half years are about plebeian matters such as trade opportunities, with mostly short excursions around Sydney, where he lectured widely about his country to business and political groups, the Royal Australian Historical Society and at the Australian Museum. We know he travelled to and addressed the Australasian Association for the Advancement of Science in Melbourne (Daneš 1921a, 1921b), visited Buchan Caves probably in 1921, also Kosciuszko, Tasmania and Papua, later visiting Tasmania again, but again he lamented a lack of opportunity to visit more caves there or in South Australia. The joys of travel didn’t finish there, however, leaving time to travel to New Guinea, the Bismarck Islands, North Queensland and later Yass and the site of Canberra.

Not having remaining time or the means for a longer trip to Central Australia, Božena and Jiří sailed at the end of 1922 via New Zealand, Fiji, Tonga, Western Samoa, Hawaii, Japan, Korea, Manchuria and China. From China he took ship to Vancouver and thus across Canada to Europe, reaching Prague in July 1923.

## Jiří Viktor Daneš: further biographical notes

Daneš married in 1914 and in March 1917 was called to active military service as an officer in Sarajevo. As the 3-year old war progressed the Austrian-Hungarian government was running short of fertiliser for gunpowder. A good source was guano in the caves of Bosnia which Daneš and Cvijić had explored earlier. It was Daneš's remit to survey the caves and report on these deposits. There is some suggestion in biographical notes that, arriving back in Sarajevo on 29 October 1918, he was confronted by the first reports of secession from the Empire of the south Slavic people, and within a day the city was in flames. The State of Czechoslovakia was proclaimed in Prague the following day. He helped form a voluntary Czech Legion to restore order and protect Czech citizens, and the city eventually was handed over to the Serbian army.

With the war behind him, in 1919 he was appointed full Professor at Charles University.

From 1923 to 1925 he taught geography at the Faculty of Philosophy at Comenius University (Bratislava, Slovakia) where he established the Department of Geography, and in 1925-26 became Dean of Science in Prague. In 1924 he summarised his findings about limestone physiography in Australia into three main groups:

1. the highly folded Cambrian, Silurian and Devonian limestones of eastern Australia; the extensive, less disturbed Barkly Tableland,
2. the tertiary limestones of the Nullarbor Plain and the Murray Basin Plains of South Australia and Victoria; and
3. the limestone sand dunes in southwest Australia

The map accompanying this short work (Daneš 1924) (Figure 5) is possibly the earliest in Australia to delineate limestone areas of the entire country (though the map curiously does not show limestone on the Nullarbor Plain even though he had crossed it in 1920).

In December 1927 he began another speaking tour to the USA, lecturing at about 30 universities and again studying karst.

His untimely death in Los Angeles in 1928 cut short a remarkable life which might well have lasted until Joe Jennings arrived in Australia in 1953, shortly thereafter to revive karst studies in this country.

The *Australian Dictionary of Biography* recognizes Daneš in two paragraphs about karst (Brinke 1988), recording that his works on tropical karst in Australia, Indonesia, Jamaica and elsewhere con-

tinue to be quoted up to the present. Unfortunately the Australian Dictionary uses an incorrect middle name for Daneš. Some equally valuable works on anthropogeography contain much valuable thought and observations. Cigler (1981, accessed 25 November 2014) appears to suggest that Daneš was damned with faint praise, concluding that "In Australia his penetrating writings on both physical and human geography have largely been ignored by scholars."

In Sydney in 1920 Sir Edgeworth David was instrumental in having his ex-student and physical geographer Thomas Griffith Taylor appointed as founding head of the Department of Geography at the University of Sydney. Daneš (1910b) had taken issue with many of Taylor's investigations of the rivers of northeast Queensland (Taylor 1911a, 1911b); curiously, they do not seem to have met or enjoyed any professional relations in the 1920s.

Daneš's published output was extraordinarily prolific, especially by the standards of the day, yet many reports have never been published and are lodged in the State Archives of the Czech Republic.

Martínek (2017) and Hanták (2013) both make clear that Daneš had planned an extensive comparative monograph on the karst areas of the world. His estate and donations went to the Czech Academy of Sciences and Arts, the Daneš Endowment, supplying funds mainly to young researchers in geography and natural sciences. The Czech Association of Geomorphologists still awards the Jiří V. Daneš Prize for the best dissertation in Physical Geography/Geomorphology.

Hanták mentions that all Daneš's travels were financed from his own funds without requesting any assistance from the state. He concluded that Jiří's sacrifice was thwarted by his desire for recognition and he never achieved fulfilment of all his goals. Hanták suggested that recognition of his role still remains possible via the comprehensive archives of the Academy of Science in Prague where his work could be explored, along with the archives of Karel Domin (a theme taken up by Martínek a few years later).

Martínek (2017 p. 290) questions whether Daneš "created any school of thought: after researching his works and the works of younger colleagues and pupils, it seems we must unfortunately answer this question in the negative. Daneš clearly influenced a number of important scientists ... but not so much for many of them to build on his work and ideas. Daneš had a large number of pupils, but it was not sufficient to build up an integrated school of thought."

Martínek goes on to mention "... his reports on the situation in Australia, which Daneš worked on with scientific diligence. Besides interesting opinions on Australian society of the time, we also hear of his promotional ideas for the new state, for which he also took advantage of the opportunity to lecture at various scientific and other meetings". He clearly eschewed an easy life, was his own boss, had the means to achieve what interested him, and set out to do it.

We have seen above Daneš's endeavours to seek high-level Australian government support for his 1910-1911 expedition, but only this year has it emerged that in 1923 he also met the Prime Minister of New Zealand, albeit in his consular capacity.

Daneš was extraordinarily prolific in the range of both his professional and popular writings. Martínek catalogues 214 publications in Czech, English, French, German and Russian, about 35 relating to Australia. The breakdown of these are: 19 books and monographs (5 on Australia); 51 (9) professional articles; 21 (3) texts in popular magazines; 94 (10) of minor news; and 29 (8) newspaper accounts. Many are lodged unpublished in the State Archives of the Czech Republic including the 35 Australian items. These Australian items are not just on karst but discuss Canberra, Lord Howe Island, kerosene, capture of the Flinders & Barron Rivers, Lightning Ridge, the northernmost camp of Burke & Wills, and Aboriginal customs. Certainly he did not visit all these areas as his reports also cover the Ruwenzori Mountains in Africa for example.

Thus we know from the above and from his later return to academia from consular pursuits, that he intended part of his life's work to encompass a world monographic review of karst. He left an extensive yet unfinished work, a significant part dealing with Australia and lodged unpublished with the State Archives of the Czech Republic, concentrating on physical geography, geomorphology and consular reports. His major legacy in the Australian context is "Karst Studies in Australia", published in German in 1916 and only recently completely translated. As a physiographer (these days called a geomorphologist) Daneš was our first professional karst scientist, albeit a visitor, and his writings rank with those of Sir Thomas Mitchell and Julian Edmund Tenison-Woods.

Our conclusion is that Daneš was a wonderfully observant old-school geographer, a great traveller and a prolific writer. But karst was his great pleasure to which he kept returning. It helped inform his life's goals and was a great obsession.

All photographs accompanying this paper are by Daneš unless otherwise specified. Most have been sourced from the book written jointly by Daneš and Domin, *Dvojím Rájem* (1911).

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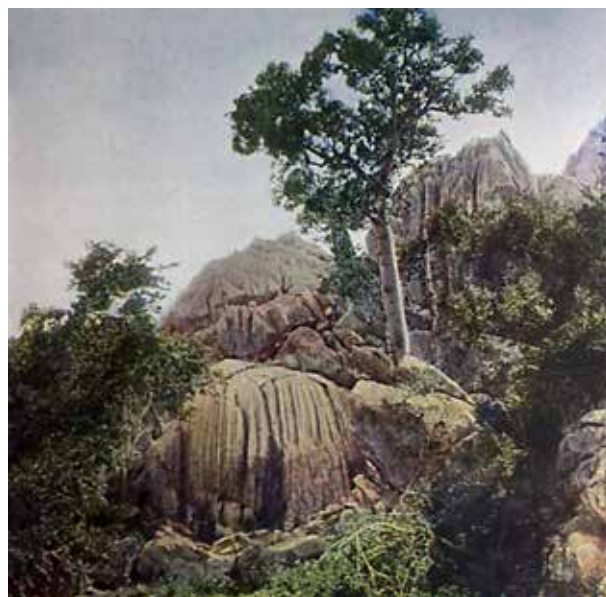
*\*Sadly, only the titles of these papers appear to have been published and Daneš's name is incorrectly shown as "Dr T.V. Danues".*

## Further Reading

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## COVER

For those who do not download the entire Vol. 44 and therefore do not see the cover, we append here a reduced copy of the cover illustration:



Front cover: Karst at Chillagoe. Colour plate facing page 124 of volume II in the first edition (1911) of *Dvojím Rájem*, "Through a Double Paradise" by Dr J. V. Daneš and Dr K. Domin, associate professors at Charles University in Prague.