

Hugh Simms McCully and the Pits in Temuka Domain

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Two large, pre-European pits existed in Temuka Domain until they were destroyed in 1931. A relict landscape feature suggests one pit was about 50 by 25 metres. The second pit was smaller. Their presence in the domain was documented by John Hardcastle (1927: 7), an anonymous newspaper correspondent (1928), David Teviotdale (1931; 1932: 92) and Hugh McCully (1943a: 6). Hardcastle (1847–1927) and Teviotdale (1870–1958), accompanied by McCully (1878–1967), visited the pits in 1927 and 1931 respectively. The destruction of the pits was described in numerous articles in the *Temuka Leader* in 1931 and in this article the authors summarise that process. In 1926, Hugh McCully concluded the pits were associated with kūmara cultivation in the domain. His two granddaughters present a personal account of his observations about the pits and describe how he formed that view. What cultural activity actually produced the pits remains unconfirmed. Given the recent discovery of storage pits at Pūrākaunui, Hugh McCully's interpretation of the Temuka pits may yet be feasible.

Keywords: Hugh McCully, kūmara cultivation, pits, Temuka

Location of the Pits

Temuka township (44°25'S) is 18 km north of Timaru and 145 km south of Christchurch on State Highway 1. The township is adjacent to the confluence of the Temuka and Ōpihi rivers (Fig. 1) and is about 7 km from the east coast of South Canterbury. The 75 hectare Temuka Domain, which lies on the north bank of the

Temuka River, is owned by the Timaru District Council and is situated between the abandoned Te Wai-a-te-Rūati Pā on Orakipaoa Creek and Arowhenua Marae. 'Temuka' is a contraction of Te Umu Kaha (the strong oven) and references the numerous ovens found in the district (Davis and Dollimore 1966).

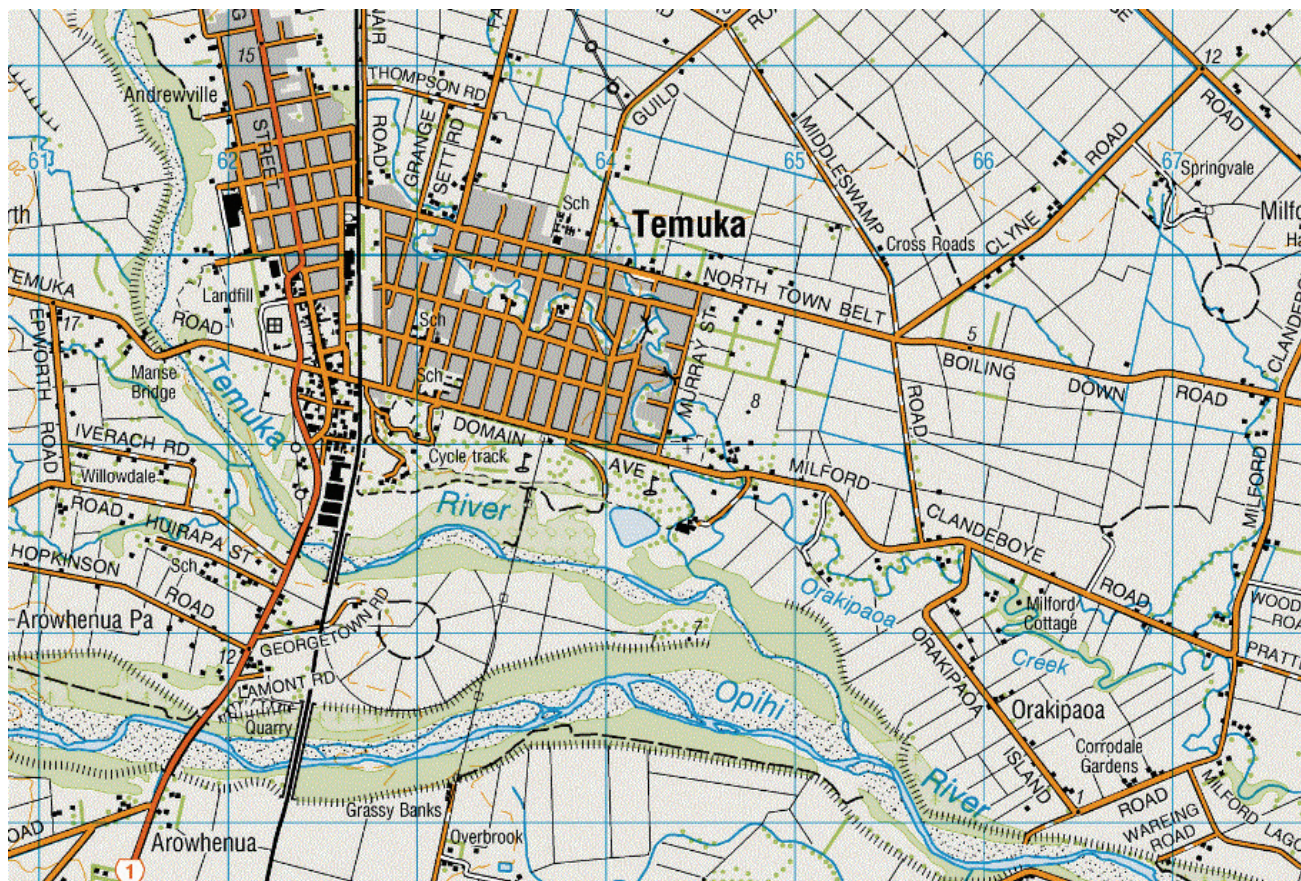


Figure 1. Location of Temuka Domain near the confluence of the Temuka and Ōpihi rivers. (This work is based on/includes Toitū Te Whenua Land Information New Zealand data which are licensed by Toitū Te Whenua Land Information New Zealand for use under the Creative Commons Attribution 4.0 International Licence)

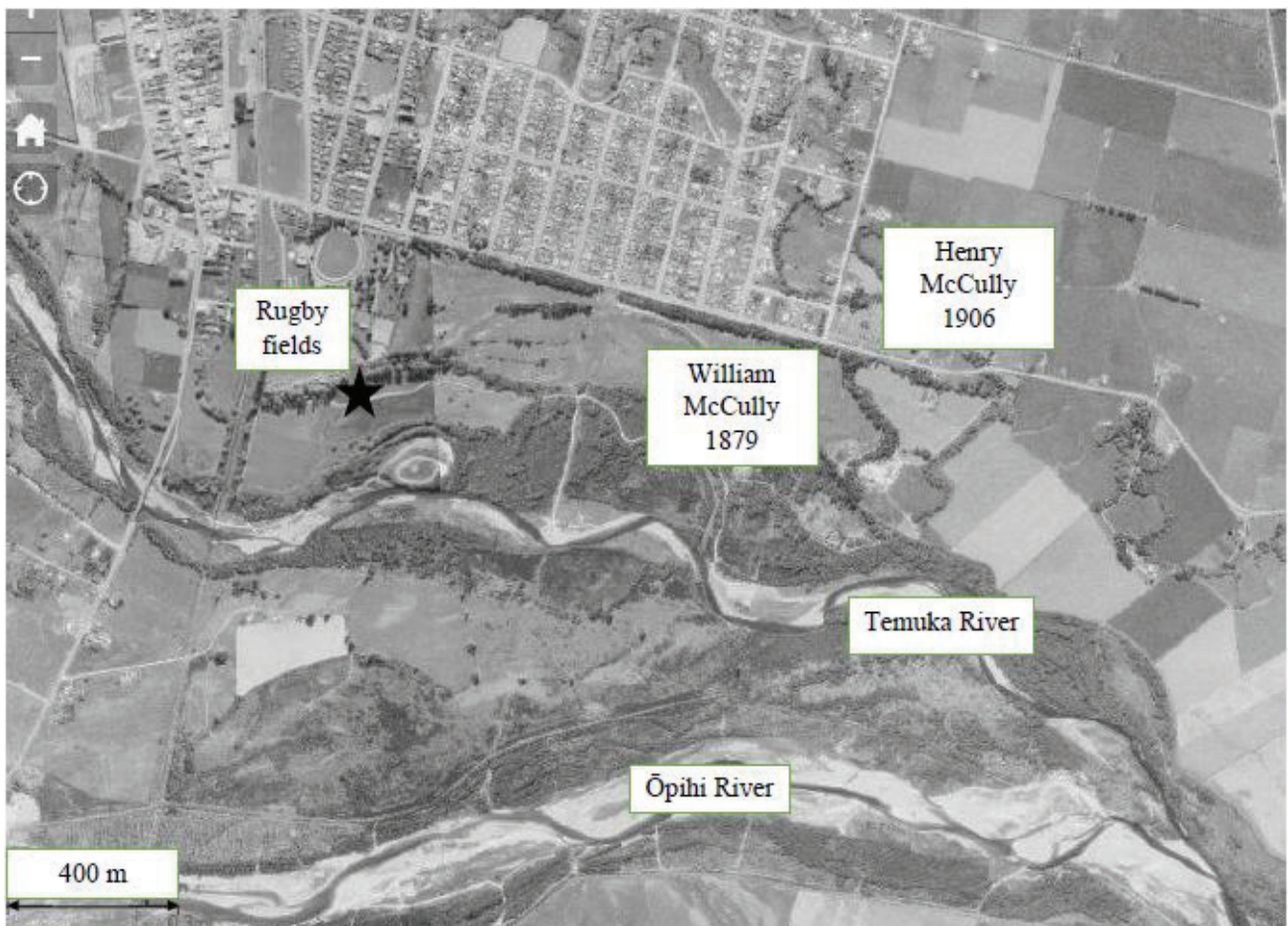


Figure 2. Aerial view of Temuka Domain and Temuka River, South Canterbury, 1975–1979. The star within the tree line on the southern boundary of the rugby fields marks the location of the pits. (Permission from Land Information New Zealand to reproduce photograph, and insert labels, 7 September 2020, <https://apps.canterburymaps.govt.nz/CanterburyHistoricAerialImagery/>)

Repurposing the Domain Site, 1870–1931

Between 1870 and 1931, the domain site was comprehensively remodelled by the Temuka County Council and the Domain Board. In the early 1870s, Canterbury Provincial Council made annual grants of £100 to £300 for tree planting (*Timaru Herald*, 30 December 1872: 3; 13 February 1874: 1) to beautify the western half of the then treeless domain and a curator started residing on-site in a £250 cottage from 1874 (*Timaru Herald*, 1 April 1874: 3). In 1879, William McCully, Hugh's much older brother, leased the eastern half of Temuka Domain (Fig. 2) for £330 per annum (*South Canterbury Times*, 12 December 1879: 2) and reaped 90 acres (36 hectares) of wheat and oats (*Temuka Leader*, 11 January 1881: 2).

European settlers first started to live in Temuka in 1853. The township was gazetted as Wallingford in 1858 and surveyed in 1863. The pits in Temuka Domain were not made by European settlers, the Temuka Road Board, or the Temuka Domain Board. According to Taylor (1952: 169), Ti Muka Pā and Upoko Pipi Pā once stood in Temuka Domain. The pits pre-dated Pākehā settlement of the area and could have been made during early Waitaha occupation, or later Ngāti Māmoē or Ngāi Tahu times. They are close to a water course that is now dry.

In 1888, Hugh McCully (1878–1967) arrived in New Zealand. He lived in Springfield Road about 3 km from the domain, played in the pits and started collecting pounamu (greenstone) and artefacts in the domain, aged 9½. In 1958, McCully told the *New Zealand Free Lance* (21 February 1958: 17):

It began before I reached the country, really. It began when I was a boy. My brother had been to New Zealand and he brought home some greenstone he had turned up on Temuka Domain. I was about nine and at an impressionable age, and it happened we were coming out to New Zealand and I resolved to myself I would collect more greenstone for myself.

Hugh McCully explored Temuka Domain from 1888 onwards.

In 1875, the Temuka Rugby Club was founded (<https://www.temukarugby.co.nz/>) and by 1883 it was holding weekly rugby practice sessions in the domain (*Temuka Leader*, 28 June 1883: 2). What Hugh McCully believed was once a kūmara garden became football field No. 2 (Fig. 3). Somewhat unexpectedly, the then very visible



Figure 3. Football field No. 2. A full-size and a three-quarter size rugby field shared this area with the motor camp from 1931 onwards. (Photographed by Rosanna McCully McEvedy with permission of the manager of the holiday camp. This photograph may be reproduced providing the photographer, authors and *Records of the Canterbury Museum* are acknowledged)

pits on the southern edge of the rugby fields survived for another 50 years until 1931.

The Formation of Hugh McCully's View on the Pits

Hugh McCully was a South Canterbury farmer and amateur archaeologist who invented 11 agricultural machines. He amassed several archaeological collections which are now distributed among five New Zealand museums. His chief archaeological interests were rock art, the mechanics of stone tool manufacture (McCully 1941, 1943b, 1943c, 1947, 1948) and excavating moa-hunter sites from Greenhills (Southland) to Cape Campbell (Marlborough). He spoke te reo Māori. In spring 1926, McCully discovered the 150 acre (60.7 hectare) moa-hunter camp at the mouth of the Waitaki River (Buick 1937: 143; McCully 1951: 2), and in the same year he formed a view that the pits in Temuka Domain were associated with kumara cultivation. He was not alone in this view (Fig. 4).

McCully had read Rigg and Bruce's (1923) article on the gravelled soils of the Waimea Plain, Tasman Bay. Their photograph (following p. 88) of a large hillocky gravel pit about 1 m deep caused him to look with renewed interest at the pits in Temuka Domain. McCully also read *Maori Agriculture*, and Best's (1925: 276) translation of Hone Tare Tikao's (1850–1927) words reinforced his interpretation of the pits:

Regarding the kumara and the pora; these were prized food plants grown by my ancestors in olden times in their cultivations at Kaiapoi, Waikakahi, Taumutu and Wai-a-te-ruati.

To the Editor of the "Timaru Herald."
 Sir.—"Vox Populi's" letter in last Tuesday's issue, re the native portion of the Temuka Domain, shows what can be in the way of bringing a little bit of the "bush" to our very doors. Like him, I think the native sections of our Parks worthy of every inch on which they grow. The Temuka Domain is an interesting place in more ways than one. There, in the olden times, just behind the native shrubbery, the Maori grew the kumara, and the pits from which they procured the shingle necessary to the cultivation of this tropical plant are still to be seen. Their settlement was on what is now the golf links, whilst almost alongside the Soldiers' Memorial a sanguinary fight took place, and near the grandstand the vanquished paid the extreme penalty of defeat. These little bits of native history are worth recording and to those who know this the native section in the Temuka Domain is an interesting locality, unique in its setting.—I am, etc.,

No. 11.

Timaru, February 15.

Figure 4. Letter to the editor, *Timaru Herald* (16 February 1928: 3). In 1928, the Soldiers' Memorial was located just inside the South African War memorial gates, opposite Whitcombe Street, and not in its present location. (Reproduced with permission of stuff.co.nz, 6 April 2021)

The authors obtained a copy of Tikao's (1918) letter to Elsdon Best which says:

Mo te Kumara me te Pora. He tino Kai enei e toua ana e ahu Tipuna ki a ratau ngakinga [sic] i nga ra o mua, i Kaiapoi, i Wai Kakahi, i Taumutu, i Te Waiteruati [sic].

McCully checked the soil in the football fields and found fine gravel had been added to football field No. 2. McCully (1943a: 6) was quite clear that “only fine shingle was used and the large stones ... were discarded” in a nearby third pit “in good condition ... across the track near a low terrace”. He asked some elderly Temuka Māori, contemporaries of Tikao, if kumara had been cultivated in the domain and his “inquiry from aged natives elicited that they had heard, when young, kumara [sic] had been grown there” (Hardcastle 1927: 7).

Early in 1927, he took John Hardcastle to examine the soil in the football fields and look at the adjacent pits because Hardcastle (1889, 1890a, 1890b, 1908) was a loess expert and Temuka Domain soil is loess (Schmidt et al. 2005: figs 1 and 5). It was John Hardcastle (1890b) who reported that loess deposits record climate swings into and out of glaciation, a world-first observation according to McSaveney and Nathan (2006). Hardcastle (1908) was also the first to describe shallow, closed, water-filled depressions in loess and these have been named Hardcastle hollows by geologists in his honour (Fagg and Smalley 2018). McCully respected Hardcastle's knowledge of the properties and characteristics of loess. After inspecting the pits and the soil in the football field,

Hardcastle (1927: 7) wrote the “*gravel pits and gravelled soils* in Temuka Park showed that kumara [sic] had been cultivated there” [emphasis added]. While Hardcastle could have been influenced by McCully, who assigned a horticultural purpose to the pits, he would have formed an independent, expert opinion on whether or not gravel had been added to the loess in the football field.

In February 1928, an anonymous correspondent to the local newspaper, simply referred to as “No. 11”, provided information on the pits in Temuka Domain (Fig. 4). The “native shrubbery” mentioned in the letter was established in 1910 by Thomas Gunnion (*Timaru Herald*, 13 December 1912: 6), a former Mayor and member of the Domain Board for many years. William Taylor and Johannes Andersen (author of the *Jubilee History of South Canterbury*), Hugh McCully, Mrs Hayhurst (then owner of the *Temuka Leader*) and Thomas Gunnion all possessed the level of knowledge demonstrated in the letter. Correspondent No. 11 remains unidentified.

Destruction of the Pits and Teviotdale's Just-in-time Visit to Them

To take advantage of the emerging camping trend at the time, a committee was set up to establish a motor camp in the domain (*Temuka Leader*, 27 September 1930: 2) and this decision triggered a chain of events which led to the destruction of the two pits. First, from September 1930 the rugby fields became a dual-purpose facility, then they were repurposed between May and September 1931. David Teviotdale was fortunate that McCully took him to see the pits on 19 March 1931, immediately prior to introducing him to the Waitaki moa-hunter camp

March 19th Mr McCully took me to Temuka and showed me where the Maoris used to grow Kumara and some large gravel pits where they took the gravel to cover the beds. Then to the old Pa where the entrenchments are very distinct and well preserved. A farmer there gave me Mr McCully a very fine Maori greenstone from thence we went to Greenstone Island which was also stockaded at one time. I found a hammer stone & Mr McCully a flint knife and a basalt scraper. We had lunch at Temuka & returned to Timaru and Mr McCully

Figure 5. Part of Teviotdale's diary entry for 19 March 1931. (Reproduced with permission of Hocken Collections Uare Taoka o Hākena, University of Otago)

on 20 March 1931. Teviotdale was a former farmer and amateur archaeologist who had been appointed to an archaeological position at Otago Museum by H D Skinner in 1929 (Skinner 1958: 321). Teviotdale's duties included "clerical work on the registration of anthropological material, and collecting work either alone or as member of an excavational party" (Skinner 1958: 321).

Teviotdale's 1931 diary entry (Fig. 5) displays no firm personal commitment to the notion that kūmara were cultivated in Temuka Domain – he merely repeats McCully's views – but his comments in 'The material culture of the moa-hunters in Murihiku' indicate he did, post-visit, form a conclusion that kūmara were once grown in Temuka Domain. He went further and attributed the pits not to Archaic Period Māori (moa-hunters/Waitaha) but to Classic Period Māori (Ngāti Māmoe and Ngāi Tahu) (Teviotdale 1932: 92):

[Kūmara] was grown, but with difficulty, at Temuka, as the pits from which gravel for the fields was drawn are still to be seen there. These pits, which are probably of a much later date than the moa-hunters, are now being filled in in making improvements to the Temuka Domain.

By May 1931, the smaller, less hillocky pit had been "filled in and levelled off" (*Temuka Leader*, 9 May 1931: 3). Potentially, some buried surface features could remain. The *Temuka Leader* (9 May 1931: 3) also recorded the larger hillocky pit was being:

...converted from a rather unsightly and irregular hollow to an attractively laid out rockery and shrubbery. The bottom of the depression has been levelled and formed into a bed with a path completely encircling it, and around the top shrubs and pussy willows have been planted ... Later it is intended to place three garden seats in the bottom of the depression, out of the sloping sides of which the places for the seats will be dug. Steps [Fig. 6] will lead down to the bottom garden and the seats ... The garden will be planted with several big trees.

In August 1931, a shelter belt was planted on the southern boundary of the motor camp (*Temuka Leader*, 27 August 1931: 2) and this treeline (see Fig. 2) physically and visually separated the "unsightly" pits from motor camp patrons. Levelling of the larger pit and gardening activities reduced its depth, but its sloping sides were retained to provide wind protection for the garden seats. This bigger pit also accommodated domain-sized flower beds, an encircling shingle path and several trees. The



Figure 6. Relict outline of the larger pit exposed in an aerial view of Temuka Domain 1975–1979. The faint scale line, bottom left, is 20 metres. (Reproduced with permission of LINZ, 7 September 2020. <https://apps.canterburymaps.govt.nz/CanterburyHistoricAerialImagery/>).

rockery was not constructed (*Temuka Leader*, 6 August 1931: 3). By March 1932, beds of colourful annuals, designed to attract campers, had been established (*Temuka Leader*, 17 March 1932: 2). In 1933, the *Timaru Herald* (3 February 1933: 12) recorded:

The sunken garden has this year afforded proof of its popularity. The sunken garden is a mass of gay blooms and the alpine plants on the upper banks are all showing rapid growth.

The transformation of the larger pit into a landscaped, European sunken garden was complete.

However, the sunken garden area was removed in the late 1970s and the relict outline of the former pit was revealed (Fig. 6). The small circular hollow in the middle of Figure 6 marks where “rough hewn concrete steps” (*Timaru Herald*, 15 October 1931: 12) led down into the sunken garden/pit. The pit was approximately 50 by 25 metres (1,250 m²), or about a quarter acre (1,101.74 m²) according to the *Timaru Herald* (31 October 1931: 12), and was bigger than the largest 40 by 15 metre kūmara gravel pit at Woodend, near Kaiapoi (Walton 1985). However, it was far smaller than the pits described by Elsdon Best (1925: 122-123) in the Waimea-Brightwater area, Tasman Bay, one of which measured 200 yards by 70 yards by 6 feet deep (182 metres by 64 metres by 1.82 metres) and covered 3 acres (1.21 hectares), and another which extended over 8 to 10 acres (3.2 to 4 hectares) and was 10 feet (3.04 metres) deep. The size of the smaller pit in Temuka Domain is unknown.

The Site Today

The authors first walked the area on 30 July 2020 and again with the manager of the motor camp on 22 September 2020. On 21 January 2022, they visited the three football fields in the domain accompanied by a long-standing member of the Rugby Club who identified football field No. 2, showed them where the Soldiers’ Memorial was located in 1928, and pointed out a spot (about 300 metres from the pits) where local folklore says a pā (kaika) once stood.

A curved embankment approximately 60 cm high (Fig. 7) forms the southern boundary of the motor camp and is the remnant of the sloping side of the larger pit. A small, now-dry water course (Fig. 8) is on the eastern side of football field No. 2 and could have been a convenient source of water if kūmara, or any other horticultural crop, had been grown on the football fields.

In 1943, Hugh McCully confidently expected to see gravelled soil revealed in football field No. 2 after ploughing. “The No. 2 football field is to be ploughed this year, and in places the added shingle should be observable,” he wrote (1943a: 6). McCully’s claim was very public and open to wide scrutiny and verification. Whether the gravelled soil is still in situ in 2022 is unknown because the topsoil may have been stripped anytime between 1943 and today. The matter requires archaeological confirmation.



Figure 7. An embankment, approximately 60 cm high, was the sloping side of the larger pit. The car is parked on the levelled floor of the larger pit. (Photographed with permission of the manager of the holiday camp. Photograph by Rosanna McCully McEvedy. This photograph may be reproduced providing the photographer, authors and *Records of the Canterbury Museum* are acknowledged)



Figure 8. Small, now-dry, water course on the eastern side of the motor camp, close to the pits. (Photographed with permission of the manager of the holiday camp. Photograph by Rosanna McCully McEvedy. This photograph may be reproduced providing the photographer, authors and *Records of the Canterbury Museum* are acknowledged)

Summary

Tikao (1918), and some elderly Temuka Māori who were interviewed by McCully in 1926, thought kūmara had been cultivated in the Temuka area, but whether the two large pits in Temuka Domain pre-dating European settlement of the area were associated with kūmara cultivation is unconfirmed. The age of the pits' formation is not known. Hugh McCully thought they were pits from which fine gravel was taken to lighten the soils or mulch kūmara plants in football field No. 2. Beside football field No. 2 is a now-dry water course which could once have supplied water for horticultural purposes. Several of McCully's contemporaries (Hardcastle 1927: 7; the anonymous newspaper correspondent No. 11; Teviotdale 1932: 192; Duff 1963: 33) agreed with his interpretation of the horticultural purpose of the pits. With eye-witnesses dead, later archaeologists disputed the existence of kūmara pits or gardens at Temuka, dismissing claims about kūmara cultivation at Temuka as "unconvincing in the absence of pits or any made kumara soils" (Simmons 1969: 14) and concluding "this furthest extent of kumara [sic] cultivation must be regarded as dubious" (Law 1969: 226). Sixty-eight years later, Trotter and McCulloch (1999: 130-32) described the pits at Temuka as "mythical" and insisted there was no kūmara cultivation south of Taumutu, on the southern shore of Te Waihora (Lake Ellesmere). However, the recent discovery of kūmara storage pits at Pūrākaunui (45°75'S) in Otago dated to 1450 (Barber and Higham 2021) shows that the crop was at least being stored further south and may yet give some support for revisiting ideas of the southern limits of pre-European

horticulture. If so, Hugh McCully's interpretation of the pits may be useful for understanding southern Māori history. In the meantime, the pits and football fields are an archaeological site not yet investigated.

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