

Leichhardt's Telescopes and Clock Investigated

Rod Julian¹

This article is the result of an investigation into two telescopes and a travelling clock, thought to have belonged to Ludwig Leichhardt, explorer and scientist.

In April 1848, Leichhardt was at his Third Expedition's camp at Allan Macpherson's *Mount Abundance* Station, Queensland. The stop was necessary to kill the first bullock. Fresh meat was cut into long, thin strips, hung off low branches, and allowed to dry in the bright sunshine. With the moisture removed, the beef 'jerky' would keep, without spoiling, for some time. With breakfast over, the campsite turned into a hive of activity. All the men were busy: saddling up their horses, packing away their kits, loading up the pack mules, and tightening straps. Most important of all, the beef jerky was packed away, the main source of food for the next couple of weeks. A couple of men arrived after rounding up some bullocks that had strayed. Leichhardt left some letters for posting. In one, to the *Sydney Morning Herald*, he explained his progress to date, knowing this would be his last contact with the known world – for a long time.¹

From this day they would need to be vigilant. The group was undertaking the most ambitious and dangerous expedition ever attempted in Australia. Travelling from the Darling Downs in southern Queensland, they intended to head north-west, circle around the desert, and then head south-west, to the distant Swan River settlement, in Western Australia.² With a huge distance of approximately 8000 km to cover, Leichhardt allowed for a travelling time of two years. If there were problems, the distance and travelling time could be even longer.

This was a sizeable expedition. There were seven men, possibly eight, mounted on horses; a herd of 50 bullocks, and a long line of 20 pack mules.³ Provisions carried on the mules consisted of 360 kg of flour, 54 kg of tea, and 45 kg of salt. Weapons were carried for defence and also to bring down game, so the mules also carried 112 kg of shot and 20 kg of powder.⁴ This was meant to be a scientific expedition, and samples of plants, minerals, and even animals and birds would be collected. Carefully packed away in specially made packs were telescopes, an accurate watch, a microscope, a sextant, and other instruments.⁵ From the letters he wrote before he left, however, Leichhardt had mixed feelings.⁶

Eventually, the preparations were complete. They rode off, the men likely feeling excited, but also anxious, perhaps one or two looking over their shoulder. Macpherson is likely to have watched the large contingent ride off into the bush, and then, with the distance increasing, the outline of the expedition blurred, and melted into the landscape. The men, the animals, the grass and the trees, all became one.

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Not one member of the group was ever seen again. It was as if the entire party – the men, the animals, and all the equipment – simply disappeared off the face of the earth. What happened to Leichhardt? How far did he travel? The unknown fate of Leichhardt's Third Expedition has fascinated and frustrated historians for years. It is like a story without an ending.

Leichhardt the man

It is known that Leichhardt's enthusiasm for exploration and discovery was infectious. Men often volunteered to join his expeditions. One, Henry Turnbull, an employee of the Australian Agricultural Company for over nine years, deserted his post at four in the morning to catch up with Leichhardt and join him on his Second Expedition.⁷

After his amazingly successful First Expedition, from the Darling Downs to Port Essington (close to the present city of Darwin) Leichhardt received much acclaim, and was feted as a hero.⁸ With a small band of volunteers, and the cost covered by donations, he had discovered as much fertile land as many government-sponsored expeditions had. But his Second Expedition, an aborted expedition across the continent to the Swan River, turned into an embarrassing failure.⁹ Questions were asked; some disgruntled members of that group openly criticised him. Leichhardt wrote to his friend Frederick Isaac on the Darling Downs:

The poor malcontents were admirably ill in Brisbane and made the people believe that they still suffered the fever of the Mackenzie. ... They were most violent against me, so that several gentlemen blamed them for their backbiting.¹⁰

With this Third Expedition which was a new attempt to reach the Swan River, Leichhardt knew he could restore his reputation, and carry out his favoured plan to completion. He wrote to David Archer, 'You know well that I consider Exploration of this Continent my great task. ... I consider... persevering in this line of life my duty.'¹¹ Leichhardt, it seems, was determined to succeed.

The one accepted relic

Much has changed since 1848 when Macpherson's Station was the most remote settlement imaginable, on the extreme edge of European settlement. Today, the property overlooks Roma, a town of approximately 7000.¹²

Despite numerous searches, the mystery of what happened to Leichhardt and his men remains. Since 1852, when Hovenden Hely tried to follow Leichhardt's tracks, there have been repeated attempts to gather evidence of his route, discover artefacts, and discover his fate.¹³ A search occurred as recently as 1996.¹⁴

It is generally accepted that only one genuine relic from Leichhardt's Third and final Expedition has been found: a brass nameplate held at the National Museum of Australia that reads 'Ludwig Leichhardt 1848'. According to the Museum:

It was discovered attached to a partly burnt firearm in a bottle tree (Boab), near Sturt Creek, between the Tanami and Great Sandy Deserts, just inside Western Australia from the Northern Territory border. Like a

number of trees that have been identified elsewhere, and accepted as being marked by Leichhardt on his fatal expedition across the continent in 1848, the Boab tree was inscribed with an "L".¹⁵

The Museum carried out thorough testing on the nameplate, including metallic testing that proved the metal alloy was manufactured in the early 1800s. Both the historical record and the scientific investigation support the conclusion that the Leichhardt nameplate and its place of discovery are genuine. There is also the statement: 'The Leichhardt nameplate is the first authenticated relic of the 1848 journey and it resolves substantial aspects of the mystery.'

The telescopes and a travelling clock, claimed to be from Leichhardt's Third Expedition

This is where I must start my story, because there are two telescopes and a travelling clock, inscribed with either Leichhardt's name or his initials, sitting on a shelf in the Mitchell Library, Sydney. One telescope has been there since 1960, the clock and other telescope since 1971. I found it puzzling that they appear to be genuine, yet they are not appreciated for their critical importance to Australian history. Every time I read an article on Leichhardt, I expected a reference or a mention of the telescopes. It has never happened. As recently as April 2010, an article appeared in the *Australian Geographic* magazine, titled 'Where in the desert is Ludwig Leichhardt?'¹⁶ In the article were comments and viewpoints by respected historians, but again there was no mention, or apparent awareness, of the telescopes and clock.

In his recent book *Into the Unknown*, John Bailey writes:

Perhaps the most intriguing mystery of the final Leichhardt expedition is that only one piece of its equipment has ever been found. After all, his pack animals carried bags bulging with items likely to endure for decades, such as mugs, cutlery, pots, buckles, axes, bells, stirrups, horseshoes, guns, ammunition, swords and flasks, as well as instruments such as a boxed thermometer, telescope, compass and travelling clock – all made of long lasting glass, brass, or copper.¹⁷

This was reinforced in a report, *The Fate of Leichhardt* by Darrell Lewis:

As well as the livestock he set out with, Leichhardt's party would have had a large amount of equipment, including many metal objects — pots and pans, cutlery... coins, chronometers, a telescope... and more. This is an awful lot of gear to go missing, and to stay missing for more than 150 years. I believe that if Leichhardt's party perished anywhere that later became pastoral land, then with a century or more of stockmen, fencers, well-sinkers, police patrols, prospectors, 'doggers', station aborigines on walkabout, and other people criss-crossing the country, something would have turned up by now.¹⁸

I believe Lewis is absolutely correct, and I believe some items are safely stored in Sydney. There must be a valid reason these items are largely unknown. The tantalising fact is that, according to the information attached to them, they were given to a drover by some very old Aboriginal people near Alice Springs.

The telescopes and travelling clock

In 1989, I happened to be visiting the Mitchell Library. My father-in-law, Jack Byrnes, had donated to the Library the silver breastplate presented to Jackey-Jackey, the brave Aboriginal guide who assisted the Kennedy expedition to Cape York.¹⁹ My wife wanted to see it because

she could remember playing with it in the family house when she was a child. We had to look through some index cards to find the correct reference number for the breastplate. We found the correct card entry. While standing at the counter waiting for the breastplate to come out, I absently flicked through the large card index. After 'K' for Kennedy were more cards; then I checked the 'L' references. Almost immediately I found a reference to Leichhardt: The card read:

ZR296. Telescope marked 'L 1847'²⁰

Label affixed by the donor (James Bligh Hastings of Bathurst, presented 1960) states:

it was given to him in 1907 by Jack Ryan, that Jack Ryan was at Alice Springs in and before the Overland Telegraph Line, he could not read or write, he was employed on a station near Urandangie, west Queensland, in the early 1900's, and that some very old aborigines gave him these marked things, that Ryan died at the Rankin in 1929. Donor told the Mitchell Librarian that the telescope had been given to Ryan by old aborigines at Alice Springs, and that there were parchment documents and letters which were destroyed but which led people to think the telescope could have been Leichhardt's. The telescope has a maker's mark: 'Fred Cox Newgate St London'.

Surprisingly, there was another telescope:

R543. Telescope, thought to have belonged to Leichhardt²¹

1842. Brass telescope. Diameter 3cm, length when closed 21.8cm. On the barrel is faintly scratched: 'L.L....hardt 1842'

The telescope belonged to James Bligh Hastings, who presented the Library with another telescope, also thought to have been Leichhardt's.

Presented December 1971.

And then another item:

ZR544. Travelling clock, thought to have belonged to Leichhardt, 1842²²

Clock in a brown leather case. Clock diameter 6cm, case 10cm x 9.5cm. The back of the clock is engraved: 'L.L. 1842', on the inside front cover is an ink inscription:

'Ludwig Leichhardt 1842'

The clock and telescope were owned by James Bligh Hastings.

Presented December, 1971.

Who was Jack Ryan? And what became of the donor, James Hastings, who kept these artefacts for 53 years? What chain of events led to these items being donated to the Mitchell Library?

James 'Jim' Hastings, Station Manager

From the notes, all three items were in the possession of James Hastings for quite some time. In January 1990, I visited James Hastings' family who lived in a nineteenth century, two-storey house with lace ironwork verandas, high on a hill overlooking Bathurst. They were very polite, very helpful, and were familiar with the telescopes. Unfortunately, no new information was forthcoming. However, they freely discussed his life. James 'Jim' Hastings worked on cattle stations most of his life, mostly as the station manager, throughout Queensland and the Northern Territory. I was told that, after his death, his family checked his belongings carefully, but there was definitely nothing more of an historical nature. Disappointed, I couldn't stop there. I wrote

letters to several regional newspapers in western Queensland, as a simple 'Letters to the Editor', asking readers if they knew of James Hastings. This yielded contacts who helped and volunteered more information.

Terry Eakin of Mount Isa advised that James Hastings had a bank account with the Queensland National Bank in 1928, and was listed as the Station Manager of *Ballaghmore Downs*.²³ Irene Gall wrote that she knew James Hastings personally when he was Station Manager at *Tenham Station*, near Windorah, western Queensland, in the 1930s.²⁴ Further research revealed he was born in 1883, served in the AIF 5th Division in World War I, and returned from the war as a Lieutenant.²⁵ After working on cattle stations for 50 years, he retired to Bathurst, where he died in 1965.²⁶

Jack Ryan, drover

Jack Ryan is central to the story, because of the reference in the index cards: 'the telescope had been given to Ryan by old aborigines at Alice Springs.'

The fact that Jack Ryan could not read or write made it difficult. Initially, the search for information on Jack Ryan appeared completely hopeless. In one index alone the number of Ryans numbered into the hundreds. Every index had multiples of Ryans, and the most common Christian names were 'John' or 'Jack', with 'Jack' often a nickname for 'John'. Where to find the correct 'John' or 'Jack' Ryan? Checks for a death certificate proved frustrating, with so many Ryans on record. One clue from the index card was the only real hope: 'Ryan died at the Rankin in 1929.'

'The Ranken' (spelling sometimes 'Rankin') is usually a dry watercourse, but fills after rain and flows into the Georgina River near the Queensland and Northern Territory border. In general terms, it sometimes referred to a location and a general store on *Soudan Station*. John Maloney at *Beamsbrook Station* explains further:

I've been told that my mother's brother was buried at 'The Ranken' next to a person called 'Jack Ryan', John said. 'I looked several years ago, but there was no trace left. There was, at one time, a store, a police station, and even a racetrack at The Ranken. The Ranken Store was well known in the past. The last policeman to work there was a Hughie Deviney.'²⁷

A history of the North Australian Pastoral Company includes details of 'The Ranken' store which was established in 1904 by George Watson on *Soudan Station*, an 'outstation' of the huge *Alexandria Station*.²⁸ The general location of Jack Ryan's death was confirmed on his death certificate:²⁹

Name: John James Ryan

Date of death: 17th December, 1928

Occupation: Drover

Age: About 65

Usual Residence: Soudan Station, Central Australia

Place of death: 18 miles from Soudan Station, on the road to Camooweal.

Informant: Mounted Constable, Rankin River

What a sad death it must have been, in the middle of the summer heat, on a dusty road, with no family nearby. Records show the temperatures during December of 1928 hotter than average, with a mean maximum temperature of 39.6 degrees Celsius.³⁰

Jack Ryan's will³¹ showed that he 'was believed to be a resident of Central Australia for forty [sic] years'; namely from around 1888 to 1928. The will listed his belongings, including:

Three riding saddles
Two camp ovens
One 12 gauge shotgun
Four axes
One tent
One tucker box
Three tins of axle grease
Nineteen horses, of mixed sexes.

The early part of Jack Ryan's life is still largely unknown and requires further research. However, a birth certificate was found, for a John James Ryan, born in the Upper Wakefield district of South Australia in 1873.³² It is likely to be the correct one, having the three correct names in sequence, and South Australia having a strong historical connection to Central Australia.

A brief biography of Jack Ryan, the drover can be collated:

1873 – John James 'Jack' Ryan born in the Upper Wakefield district of South Australia.

1888 – Jack Ryan, aged 15, travels to central Australia to work on cattle stations. He never finishes his education, and so cannot read or write. Between 1888 and 1907 (likely early 1900s) Jack Ryan camps in the general area of Alice Springs. Here some very old Aboriginal people give him two telescopes, a clock, and possibly other documents, suspected of having belonged to Ludwig Leichhardt. Jack Ryan appears to sense the importance of the objects, and looks after them.

1907 – Jack Ryan hands the telescopes and travelling clock to his boss, Station Manager Jim Hastings. He continues his life on cattle stations.

1928 – In the heat of December 1928, with the temperature reaching 39 degrees on most days, Jack Ryan collapses and dies, 18 miles from *Soudan* Station, on the road to Camooweal.

The parchment documents

One tantalising piece of information attached to the telescopes is extremely interesting. The notes, according to the information supplied by the donor, Jim Hastings, and taken down by the Mitchell librarian in 1960, read:

Donor told the Mitchell Librarian that the telescope had been given to Ryan by old aborigines at Alice Springs, and that there were parchment documents and letters which were destroyed but which led people to think the telescope could have been Leichhardt's.

It might be a brave assumption, but there is a possibility that the ‘parchment’ was created out of necessity when the men ran out of writing paper. The process of making ‘parchment’ is quite a tedious undertaking, with the meticulous cleaning of an animal skin on one side, and complete removal of hair or fleece on the other.³³ It would appear to indicate the men were stranded at a waterhole, and were intent on writing a record on whatever material they could find.

The tragedy of Ludwig Leichhardt

With what we know now, it is very unlikely – near impossible – that Leichhardt and his men could cross the Great Sandy Desert and the Gibson Desert, and reach the Swan River. The acute shortage of water meant scouts would need to travel ahead to find waterholes or ‘soaks’, slowing progress to a crawl. In some areas it would have been essential to carry water in storage containers. But this was not known in 1848. Although Charles Sturt had discovered desert country in central Australia in 1845, there was only conjecture and theories about the true extent of the desert. At the time, Rev. WB Clarke put forward a convincing theory that Australia’s geography was in effect a mirror image, in that the coastal ranges and forests in the east were mirrored in the west.³⁴ Thus it would be possible to travel north-west from the Darling Downs, skirt the desert country, and head south-west to meet the undiscovered rivers and mountain ranges. Leichhardt had discovered a series of rivers west of the Great Dividing Range in Queensland during his First Expedition. The idea that another mountain range and another series of rivers lay in the west waiting to be discovered, would have been simply irresistible to someone like Leichhardt. Leichhardt and Clarke were good friends, and Leichhardt was interested in Clarke’s theories.³⁵ The only way to test the theory was to go there. Tragically, the theory did not hold.

It is still possible that further effects from Leichhardt’s Third Expedition may be discovered. Although it is said that Leichhardt carried a pair of pistols, these have not been found.³⁶ There is also the sextant, and small personal effects such as belt buckles and stirrups. The extreme difficulty in discovering any more artefacts must be emphasised. For example, the Leichhardt firearm nameplate was discovered in the region of Sturt Creek, Western Australia. This is also in the general region of the Wolfe Creek Crater National Park where a meteor hit the earth some 300 000 years ago. It has left a near perfect crater some 850 metres across – almost a kilometre – with a floor 60 m below the top of the ridge. It is said to be the second largest meteorite crater in the world where meteorite fragments have been found. The Wolfe Creek meteorite crater was accidentally discovered in 1947, during an aircraft survey.³⁷ The land mass of central Australia and Western Australia is so large and so remote, it is likely there are still places that Europeans have not seen. Its sheer size is daunting.

It is hoped that more people will become aware that the telescopes and clock in the Mitchell Library are priceless artefacts that deserve an extensive scientific examination by experts. The scant information supplied with the first telescope when donated to the Mitchell Library in 1960 has proven to be accurate, extremely valuable, and in general validated.

The telescope ‘ZR296’ is especially significant. Being engraved ‘ℒ1847’, this date places it before Leichhardt’s final Expedition. Assuming the items are tested and declared authentic, it may lead to new conjecture on Leichhardt’s route. The plate on the firearm is evidence he could

have reached the vicinity of the Western Australia and Northern Territory border. The telescopes and clock may be crucial evidence he also reached somewhere in the vicinity of Alice Springs.

The handing down of the artefacts – the telescopes, clock, and documents – over a period of at least 150 years is interesting. Starting with an unknown group of old Aboriginal people, they were passed on to Jack Ryan the drover, then to Jim Hastings the station manager, some then to Jim Hastings’ family, and eventually all (except the documents) were passed to the Mitchell Library. At every stage, someone was forced to think: ‘What do I do with these?’ A decision had to be made. At every stage, starting with the group of Aboriginal people, the artefacts were looked on with respect. At every stage, they could have been tossed away. It would have been so easy.

With the passing of the years, possibly more clues will come to light, and we may discover what became of Ludwig Leichhardt, the explorer and scientist, and the men who travelled with him. There is one fact we may be certain of: – with Leichhardt, there will always be more questions than answers.

Another telescope?

The National Library of Australia, Canberra, has in its collection a brass telescope that may have belonged to Leichhardt.³⁸ The tantalising aspect is that the file notes state: ‘This telescope *possibly* belonged to Ludwig Leichhardt’.

Library staff checked historical records, and supplied a copy of the Accession Sheet, which has the following comments:

Inscription on tube: Fleming, London, Day or Night.

One sticky label reads: ‘...in of...’ (All that remains.)

Later label reads: 162, 1 June 1936, Commonwealth National Library.

Provenance: Unknown.

Remarks: ‘A photograph of this object is in compactors under ‘Leichhardt, Ludwig’. I don’t know where this information is from, or if it is correct. GR, 14/11/88.

On asking for more information, the librarian advised:

I’m sorry to say this particular item came into the Library’s collection many years ago, well before proper detailed records were kept about when and how this sort of material was acquired [39](#)

How fortunate the librarian at the Mitchell Library, all those years ago, took the time to carefully record what Jim Hastings had to say when he made the first donation of the historic telescope.

Endnotes

This project started out of personal curiosity and has taken more than 20 years to complete. I am grateful to people who assisted with this research, especially those on cattle stations, who went out of their way to spend time to pass on information, by phone or by mail. Nothing could have been achieved without their participation. I specifically thank:

Mr and Mrs Roberson, of Bathurst, NSW

Walter G Hacon, of *Ballaghmore Downs*, Queensland

John Maloney, of *Beamsbrook* Station, Queensland

Ross Peatling, of *Alexandria* Station, NT

Irene Gall, of Annerley, Queensland
Terry Eakin, of Mount Isa, Queensland
June Tomlinson, of Darwin, NT

¹ *The Letters of F.W. Ludwig Leichhardt*, Edited by M. Aourousseau, Volume III, The Hakluyt Society, Cambridge University Press, London, 1968, pp. 1009 – 1013.

² Aourousseau, *The Letters of F. W. Ludwig Leichhardt*, Volume III, pp. 853-4.

³ Leichhardt wrote to the Rev. WB Clarke on the 26th of February: ‘My party consists of seven persons, myself included; two of them are Mr Classen and Mr Hentig, two are working people (Donald Stewart and Kelly) and two black fellows (Jemmy and Billy) both from Stroud, the former having been with me on my last trip.’, Aourousseau, *The Letters of F. W. Ludwig Leichhardt*, Volume III, p. 1002. However, on 14 March Leichhardt wrote to ED Thompson, the Colonial Secretary, ‘Thomas Hands, whose Ticket of Leave passport I subjoin, has been recommended to me as a proper person for my Expedition. I have to trouble you, as on a former occasion, to request His Excellency the Governor, to grant me the permission of taking this man Thomas Hands with me on my Expedition to Swan River,’ Aourousseau, *The Letters of F. W. Ludwig Leichhardt*, Volume III, p. 1006. Although permission was granted, this was not actioned until the expedition was well out of range of the settled districts. It is unknown whether, without waiting for the formal permission to arrive, Leichhardt took Hands with him.

⁴ Aourousseau, *The Letters of F. W. Ludwig Leichhardt*, Volume III, p. 1002.

⁵ Aourousseau, *The Letters of F. W. Ludwig Leichhardt*, Volume III, p. 890.

⁶ On 10 March 1848 Leichhardt had written to David Archer: ‘I have been suffering greatly of palpitations of the heart, which are a residue of my illness during the last Expedition. When I started on my Expedition to Port Essington, I felt sound as a bell in mind and body.... It is not quite so now....’, Aourousseau, *The Letters of F. W. Ludwig Leichhardt*, Volume III, p. 1004.

⁷ Henry Turnbull, *Leichhardt's Second Journey: A First Hand Account*, Sydney, Halstead Press, 1983, pp. 18-19.

⁸ ‘Mr. Leichhardt. Yesterday morning, Dr Nicholson, and Mr. A’Beckett, the President and Vice President of the School of Arts, accompanied by the Secretary and some other members of the institution, waited on Mr. Leichhardt, at Mr. Lynd’s chambers, to present him with a diploma of membership of the School of Arts, in token of the high admiration in which the members of that institution esteem his exertions in exploring the district between Moreton Bay and Port Essington.’, *The Sydney Morning Herald*, 14 April, 1846.

⁹ ‘We had just finished the last yard when our leader, who had been ailing for some time, was suddenly stricken down with fever....The next day four more were attacked and in another day the whole party were prostrated with the same frightful disease... we remained here four long dreary weeks...’, Turnbull, *Leichhardt's Second Journey: A First Hand Account*, pp. 37-8.

¹⁰ Aourousseau, *The Letters of F. W. Ludwig Leichhardt*, Volume III, p. 943.

¹¹ Aourousseau, *The Letters of F. W. Ludwig Leichhardt*, Volume III, p. 1005.

¹² Qpzm Local Stats Australia, 2011 Census, www.qpzm.com.au.

¹³ Alec H Chisholm, *Strange New World, the Adventures of John Gilbert and Ludwig Leichhardt*, Sydney, Angus and Robertson, 1955, p. 249.

¹⁴ Bruce Simpson, *In Leichhardt's Footsteps*, Sydney, ABC Books, 2001.

¹⁵ D Hallam, ‘The Leichhardt nameplate – a report on authenticity testing’, National Museum of Australia, Canberra, 2006, published at: http://www.nma.gov.au/collections/the_Leichhardt_nameplate/index.html.

¹⁶ Ken Eastwood, ‘Where in the desert is Ludwig Leichhardt?’, *Australian Geographic*, Journal of the Australian Geographic Society, Issue 98, April-June 2010, pp. 107-112.

¹⁷ John Bailey, *Into the Unknown, The tormented life and expeditions of Ludwig Leichhardt*, Sydney, Pan McMillan Australia, 2011, p. 334.

¹⁸ Darrell Lewis, *The Fate of Leichhardt*, CSIRO Publishing, Canberra, 2006, www.publish.csiro.au/journals/hras *Historical Records of Australian Science*, 17, pp. 1-30.

¹⁹ It is a fascinating fact that, as Leichhardt was leading his men away from Mt Abundance, Queensland, Edmund Kennedy was starting his expedition to Cape York. Both men died on their trips, Kennedy later that year, in December of 1848.

²⁰ State Library of New South Wales (incorporating the Mitchell Library) Sydney, Title: Telescope marked ‘L1847’, Date of work: 1847, Type of material: Objects, Call number: R296, Access conditions: Access only by appointment with Pictures staff. Note: The website of the State Library of NSW is quite complex, and finding the

reference on the website can be quite difficult. Staff assistance may be required. Website: www.sl.nsw.gov.au, Phone: 02 9273 1414, Email: library@sl.nsw.gov.au.

²¹ State Library of New South Wales, Sydney, Title: Telescope, thought to have belonged to Leichhardt, 1842, Date of work: 1842, Type of material: Objects, Call number: R543, Access conditions: Access only by appointment with Pictures staff.

²² State Library of New South Wales, Sydney, Travelling Clock, thought to have belonged to Ludwig Leichhardt, Date of work: 1842, Type of material: Objects, Call number: R544, Access conditions: Access only by appointment with Pictures staff. 2010 was the centenary of the Mitchell Library, and 100 favourite objects were put on public exhibition from March to June 2012, one of them being the travelling clock.

²³ Queensland National Bank Journals, 1884 –1930, Entry: ‘James Bligh Hastings, Station manager, Ballaghmore Downs, date 06- 27-28’. Supplied by Terry Eakin, President of the Mt Isa Family History Society, Mt Isa, Queensland. Confirmation, personal communication, letter from Mr. Walter Hacon, of *Ballaghmore* Downs via Cloncurry, Queensland.

²⁴ Personal communication, letter from Irene Gall of Annerley, Queensland, who lived at Windorah, Queensland, and knew ‘Jim’ Hastings personally.

²⁵ Australian War Memorial, ACT, Australian Military Records archives – James Bligh Hastings, 5th Australian Division, 14th Infantry Brigade, 53rd Battalion.

²⁶ Personal communication, letter from Irene Gall, and information found on the headstone of James Hastings in Bathurst district cemetery.

²⁷ Personal communication, John Maloney, of *Beamsbrook* Station, Queensland.

²⁸ ‘The Ranken’ as a term often referred to the Ranken store, a popular stop for stockmen. The Ranken River ran through *Soudan* Station, and interestingly the spelling sometimes varied. For example, the ‘Ranken River was named after John Logan Campbell Ranken, an early settler of the area. However, there is an image of the Ranken store taken in 1968, and the sign in front of the store reads: ‘Rankine River General Store’. ‘Rankin’, another spelling variation, was also used. However, ‘Ranken’ is the correct version. Refer to Margaret Kowald and W Ross Johnston, *You Can’t Make It Rain: The Story of the North Australian Pastoral Company 1877—1991*, Brisbane, Boolarong Publications, 1992. Ranken Store illustration, p. 74.

²⁹ Certified copy of Death Certificate from Deputy Registrar, Darwin, NT, date of death 17 December, 1928.

³⁰ Climate statistics for Australian locations, Bureau of Meteorology. www.bom.gov.au. Personal communication, June Tomlinson, secretary, Genealogical Society of the Northern Territory Inc., 8 pages, 4 February, 1992.

³¹ Personal communication, June Tomlinson, Honorary Secretary, Genealogical Society of the Northern Territory Inc., Winnellie, Northern Territory Inc, 8 pages, 4 February 1992

³² Births Deaths and Marriages Office, Adelaide, SA. Certified copy of Birth Certificate, John James Ryan, 20 June, 1873.

³³ Merriam-Webster Dictionary, www.merriam-webster.com.

³⁴ EM Webster, *Whirlwinds in the Plain, Ludwig Leichhardt, Friends, Foes and History*, Melbourne, Melbourne University Press, 1980, p. 33.

³⁵ Arousseau, *The Letters of FW Ludwig Leichhardt*, Volume III, p. 1003.

³⁶ *The Maitland Mercury and Hunter River General Advertiser*, 25 January 1881, p. 6.

³⁷ Alex Bevan and Ken McNamara, Australia's Meteorite Craters, Perth, 2010, Western Australian Museum Publications, Department of Environment and Conservation, Western Australia, www.dec.wa.gov.au.

³⁸ National Library of Australia, Canberra, reference: Bib ID 2136296, <http://nla.gov.au/nla.pic-an7880635>, accessed December 2010

³⁹ Personal communication, National Library of Australia, Canberra, 12 January 2011.