**John Beebe Architect, owner of East Bendigo Observatory, and his later life in Queensland 1916 – 1936.**

**Peter E. Anderson (14 June 2022 update)**

 *Taylor Range Observatory, The Gap, QLD 4061, Australia (peteranderson53@bigpond.com)*

John Beebe was an established architect and amateur astronomer when he relocated to Brisbane in 1916. This paper examines his background and the contributions he made in the two decades he lived in Queensland. Initially employed by the Queensland Government he drew plans for the proposed State Observatory, and was later tasked to conduct site testing for the possible relocation of the southern station of the Harvard College Observatory, and also for the 1922 total solar eclipse. He also drew the plans and supervised construction of the short lived St Leo’s College Observatory. Returning to private architectural practice in 1924 he later became friends with Sir Manuel Hornibrook and his design of the substantial portals of the Hornibrook Highway remain a lasting legacy. Closely associated with the fledgling Astronomical Society of Queensland from its inception in 1927 he was twice President and Vice President before his death, aged 70, in 1936. Had events unfolded differently, he may well have had the opportunity to pursue a professional astronomy career in this State.

**Key words**

Queensland Astronomy, John Beebe, Architect, Bendigo, Brisbane, Queensland State Observatory, site testing, Harvard Southern Station, 1922 total solar eclipse, M R Hornibrook, Astronomical Society of Queensland.

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**Origins of the name ‘Beebe’**

The name ‘Beebe’ and its variants are interesting. It comes from the Old English ‘beo’ meaning ‘bee’ and ‘byr’ or settlement. Combining the two, it is a place where bees are kept. The Beebe family in Bendigo came from Cottesmore in the county of Rutland, England, in the 19th century, but the family name is very old. The name or a variant, dates back to the 14th or even late 13th century. However, the Norman Knights, Richard and Guillaume de Boebe, were in the retinue of William the Conqueror, from whom some in England, the USA, and elsewhere, claim descent.

**John Beebe –Earlier Life**

John Beebe was born in Sandhurst, Victoria in1866. Although the town was always known locally as ‘Bendigo’, this was not its official name, and it was not until 1891, following a local plebiscite, that it reverted to Bendigo. John began as a stonemason with his father, William, who carried on his business in Bendigo. William Beebe’s obituary in the *Bendigo Advertiser* of 28th Sep 1891 at page 2, informs of the death of his father, aged 64, on 26th September. He had just completed his substantial stone home ‘Rocky Vale Villa’. Examining the *Directory of Queensland Architects* listing below, it is likely That John Beebe and his brother continued to use the firm name for a period. The stonemasons business was sold in 1896.

**John’s Brother William and his son Wilfred John Beebe**

John’s brother was called William after his father. William jun was in partnership with his father and turned exclusively to architecture only after his father’s death in 1891. He became a well known citizen, and was mayor on two occasions, dying at age 63, in 1920.

Wilfred John Beebe (Wilf), William’s son, was apprenticed to his father in 1914 as a draftsman. He saw meritorious service in the AIF in World War I, suffering a number of injuries. He served in Egypt, Gallipoli and the Western front and rose from the rank of Corporal at joining, to Sergeant.

After returning to Australia Wilfred moved to Brisbane apparently to convalesce from the effects of the war. From 1916 John had been employed by the Queensland Public Works Department as a temporary draftsman, and then from 1919 as a draftsman before entering private practice in 1924. Being closely related and trained in the same field, it is likely that the two men came into contact.

Wilf married Mathilde Justina Egert in Brisbane on 7th April 1924 and according to electoral records in 1925 lived in the Oxley electorate, then covering the South Brisbane area. Of the six children from the marriage, the first three were born in Queensland and the remainder in Camberwell Victoria where he is recorded in 1931. His decision to return to Victoria may have come as a result of the onset of the great depression. Wilfred came back to Queensland on a short holiday to visit a friend and died aged 51 in Brisbane on 25th August 1937. He is buried in Nundah cemetery. After his death his wife and family then returned to Brisbane and lived at Enoggera.

**John’s Architectural Career in Bendigo**

John graduated as an architect at the Bendigo School of Mines in 1900 and put up his ‘shingle’. (*Bendigo Advertiser* 14 April 1900 page 4) In 1901, he entered into partnership with Henry Vahland, who died suddenly in 1902. Following this, Henry’s father, William Vahland who already retired from a long and distinguished career, came out of retirement, it was said to safeguard his son’s family’s income. He became Beebe’s partner until 1909. Then Beebe continued as the sole proprietor of the architectural practice which was quite successful, for example in 1910 being appointed architect for the Anglican Diocese. One stone church dates from this period, and several commercial buildings, at a time when mining was in decline.

Below is a listing of some significant works:

1911 Flour mill Charleston Rd for Tomlins and Simmie (still standing)

1911 Brick residence and bakery Lyttleton Terrace

1911 Anglican Church Serpentine (50kms from Bendigo)

1912 Premises for Whitelock & Carter, Pall Mall

1913 Brick shop for JW Faul Hargreaves St (following a fire in Faul’s Emporium)

1914 St Paul’s church Axedale

1914 Infectious diseases hospital Bendigo

 In *‘A Directory of Queensland Architects to 1940’ by Watson Donald and McKay* at page 30 Reference to his professional status includes:

Architect, Bendigo 1900-1916 and then the Vahland partnerships that operated between1901 and 1909), and

*Bendigo 1909 (to 1916)*

*ARVIA 1916* (Associate of the Royal Victorian Institute of Architects.)

(According to *The Historic Bendigo Observatories of J. Nelson Jones and John Beebe* -*Martin and Orchiston (1987*) and other sources, he also worked as a mathematics teacher in the School of Mines in Bendigo.)

**Architects Articled to John Beebe**

During the course of his career in Bendigo John Beebe had three architects articled to him. Two were quite successful, his son in law, Sam Steel, a Public Works Department architect in Melbourne and Eric Percival Trewern (1895-1959).

On 22nd July 1916, the Bendigo Independent had reported that Eric P Trewern RVIA who served articles with John Beebe, was now working for the Government in Queensland. Trewern left government employment in 1920 and in the interwar period became a very successful architect in Brisbane. His relocation also to Brisbane occurred around the same time his former employer John Beebe visited - during the winter of 1916. (see later).

**John’s personal life and family relationships**

His father, William Beebe Senior was described as a hard man who expected his children to work hard, which could explain why his sons received their education later in life. The family was considered not to be particularly close. His father had taken 25 years to build his own home in his spare time – giving acknowledgement only to his wife who managed the orchard while he was doing so (and not to other family members). His father did not support the organised church and specified in his will “I desire to be interred in ground set apart in the cemetery for those of no particular religious denomination...” His carved epitaph reads: ‘For many years a staunch advocate of secularism’.

In marrying an Anglican in a church, John may have displeased his father, because there was no specific provision for him in his father’s will. John was living in Melbourne when he married Hulda Minnie Campbell Jenkinson in1887. Four children were born to the couple between 1888 and 1897 – Gladys 1888, Alan James 1890, Glen Levick 1893, and Ella in 1897.

John’s brother William was possibly the most successful architect in Bendigo of the period, and John was always in William’s shadow. William had the ability and the drive to apply to his career, whereas John was contemplative and self-effacing and marched to the beat of a slower drum, but he was an excellent stonemason and competent in what he did: getting good grades at the School of Mines in the 1890’s. Like William, he had also turned to architecture.

**Astronomy in Bendigo**

John’s interest may have been sparked by James Nelson Jones who had an observatory located at his business, the Adelaide Brewery, and who wrote on the subject occasionally. Nelson disposed of the business in 1878 and it is believed that John Beebe later purchased some of the instrumentation from the observatory.

John’s solid brick East Bendigo observatory on his property ‘La Rocca’ at 55 Condon Street was completed in 1900 and also served as a de-facto public observatory and effectively as an ‘official observatory’ between 1908 and 1914 when he took over the weather observations for Bendigo, principally those of rainfall and temperature. In 1914 the recording equipment for these were relocated to the yard of the Supreme Court building.

A current aerial photograph of the house and observatory site shows a substantially treed block some 50 X 200 metres in dimensions with a house and indications of an observatory building amongst the foliage. The solid brick observatory, though derelict, is still standing after well over a century. In mid 2022 the property was purchased for a child care centre and plans are in hand for the preservation, and perhaps even the ultimate restoration of the observatory building.

There are no major instruments recorded as having been owned by Beebe, the largest being a refractor of 4.5” (11.4cm) aperture. John had an interest in several areas of astronomy and one effort serves as a good example, namely Comet Gale which he observed in 1912, calculated its orbital elements (no mean feat in those days), and then published a paper in the Journal of the British Astronomical Association. He also designed a postcard graphically showing the comet’s orbit and its elements. He may have contributed solar observations to the British Astronomical Association, but there is little evidence of any regular program of observational research.

One reference *(National Trust of Australia (Victoria), Bendigo and Region Branch, June 2019 Newsletter, pages 4 to 6)*, states that he ceased using his observatory in 1914 before his move to Brisbane in 1916. This would be consistent with the relocation of the weather recording apparatus. It is conjectured that his astronomical instruments were then sold and the building was abandoned.

**Fellowship of the Royal Astronomical Society**

On March 9th, 1917, now residing in Brisbane, John Beebe of “La Rocca,” East Bendigo, Victoria, Australia, was duly elected a fellow of the Society. This enabled him to use the letters F.R.A.S. as appropriate. The initial steps for nomination had clearly been set in motion before his move to Brisbane.

**John Beebe’s move to Brisbane, Queensland in the winter of 1916 for ‘health reasons’**

The *Bendigonian*, 18 Jan 1917, p 24, in the personal column, carried the news of John Beebe’s departure for Brisbane. This article is quoted in full:

*Mr. John Beebe, one of Bendigo’s valuable citizens, is being lost to this city, temporarily at any rate, and probably permanently as he has accepted a position as an architect in the Public Works Department, Brisbane. Mr. Beebe who is very well-known in Bendigo as a leading architect, went to Queensland during last winter for health reasons, and a couple of months back he was offered and accepted the position he is now filling.*

*Whether he will remain permanently in the northern State is a matter for future developments to decide. Mrs. Beebe, who has been in poor health for some months, has been advised by her doctor not to go to Queensland until the summer heat is over, and she is therefore living quietly at Bendigo with her daughter for the present. Their son, Mr. Alan* (sic) *Beebe, who volunteered in October for active service, and has been in camp since, will be leaving for the front during this month.* [Allan James Beebe survived WWI but died aged 32, in 1923.]

*Mr. John Beebe has for years taken a deep interest in astronomy, and gradually equipped a complete and efficient observatory and library at his residence on the Strathfieldsaye road. Since being in Queensland he has contributed astronomical articles to leading Queensland newspapers, one especially, dealing with the recent eclipse, being very favourably commented upon.* (A partial solar eclipse covering 64% of the diameter of the sun was visible from Brisbane on 30th July 1916, but ironically this same annular eclipse had covered 93.6% in Bendigo and therefore would have been much more notable.)

*Mr. Beebe was born in Bendigo – he is a brother of Mayor Beebe – and practically the whole of his half century of life has been spent in this city.’*

From the above article, it appears that for health reasons, John was instructed to seek a warmer climate, but his wife was told specifically to avoid it. This was a very cruel twist of fate. There was only one daughter left at home, probably the youngest at age 19, the rest of the children having grown up and left. After John’s move his wife did join him for a short while but became distressed by the Brisbane heat and soon returned to live in Bendigo. At some stage the property La Rocca was sold.

Possibly the proposed Queensland State Observatory project described below may have been a factor in his employment. After moving to Queensland, as detailed below, he subsequently spent the best part of a decade working for the Queensland Public Works Department before re-entering private practice in 1924.

The move to Brisbane may also have been encouraged by local growth and future prospects. Brisbane was booming, its population increasing from 120,650 in 1901, to 143,510 in 1911, and 168,390 in 1916 and continuing apace thereafter. (Qld Govt. Statistics). Apart from opportunities in Government employment, there clearly was much more scope for work as an architect in Brisbane. Queensland was described as ‘the coming State of Australia.’ (Punch 25 January 1917.6)

The remainder of John Beebe’s life was to be spent in the Brisbane area.

However John’s move may have been predicated by Eric P Trewern who was articled to him. The following information is selectively drawn from a paper *‘Suburban Eclecticism’ by John W East* in 2018 that details the life and works of Eric Percival Trewern. (Pages 6,7,8, and 31were referenced.) The whole of the Trewern family went to Brisbane in 1914 for a stay of three weeks, apparently combining a holiday with a reconnaissance expedition. By 1916 when he was notified of his successful pass in the entrance exam of the Royal Victorian Institute of Architects, Trewern, then aged only 21, was already in Brisbane and being employed as a temporary draftsman with the Department of Agriculture. He soon moved to a similar position with the Department of Public Works working alongside his former employer John Beebe. At the end of 1919 both he and Beebe were finally appointed to permanent positions, but in February 1920 he abruptly resigned to enter private practice. He soon brought his extended family to Brisbane. In November 1932 he married Doris Bowser in a quiet and simple wedding.

According to East, John Beebe’s Bendigo practice was ‘none too successful’ and Bendigo was in decline but Queensland was forging ahead and as a result Beebe was keen to sell up and move. The question is whether Beebe’ s enthusiasm inspired Trewern to investigate Brisbane, or was it the latter’s findings in 1914 and subsequent move that predicated Beebe’s visit over the winter of 1916 (by which time Trewern had already relocated). Perhaps Beebe’s visit was also connected with the plans for the State Observatory. (see later).

This adds another reason for Beebe’s move to Brisbane. He would hardly be expected to tell a Bendigo newspaper that the reason for his relocation was that opportunities were better in Brisbane. It was more diplomatic to give health as a reason and this may have had some basis. The relationship between Beebe and Trewern nearly thirty years his junior during this period is unknown but given Trewern’s clear ability as later admirably demonstrated, perhaps he could be described as his protégé.

**John Beebe’s employment in Queensland**

John Beebe is shown in *‘A Directory of Queensland Architects to 1940’ by Watson Donald and McKay* at page 30 shows the following:

*1916 BCTC (Brisbane Central Technical College) Instructor in Structural Mechanics 1916-9 Employed by Qld Government:*

*Qld Works/Arch Temporary Draftsman 1916-9*

*Architectural Draftsman 1919-21*

*Qld Lands/Sur*(vey) *Seconded on special duties 1921-2*

*Qld Works/Arch Architectural Draftsman 1922-3*

**The Proposed Queensland State Observatory**

There is an intriguing statement in ‘Explorers of the Southern Sky’ published by Cambridge University Press. It despairs of the dearth of professional astronomy in Queensland and states at page 88 ‘*In 1916 and again in 1918, plans for a handsome brick observatory in Italian Renaissance style were drawn up, but they were never implemented’* identifying architect John Beebe as the author of these plans for such a State observatory.

The paper ‘The History of Astronomy in Queensland’ by Haynes, Haynes, and Kitson (1993, pages 243 to 245), sets out further detail. Captain O’Reilly’s observatory, which had had been purchased by the Queensland Government and relocated to a site in Wickham Terrace at the corner of Edward Street in 1881, had by 1911 become dilapidated and its work badly affected by traffic vibrations and smoke. A new site was necessary and it is stated that the old site was required by the Federal Government for meteorological purposes.

 In 1915 Spowers (Queensland Surveyor-General) received permission to build a new observatory on land owned by the Water and Sewerage Board at Bartley’s Hill, Ascot. (This site close to the city has a fine view of the city and particularly its wharves, and so was very suitable for the time ball service.) “*An Architect...John Beebe was commissioned and his plans for a handsome brick observatory of the Italian Renaissance style, with a tower for a time ball, were sent to* the Government Astronomers of Victoria and New South Wales *for advice and criticism”* Unfortunately the plans were never implemented. After some further adjustment to the site position on Bartley’s Hill due to Water Board requirements, Beebe determined the true meridian and site foundations costing £750 were laid. Then the following year (1920) the estimates received for the cost of the observatory totalled £1,150, far in excess of that available so the project was abandoned.

The need to move from the old site was now critical with the new Trades Hall building blocking the view of the meridian mark. Accordingly at minimal cost the instruments from the old observatory were installed in a specially constructed room atop the new Government Insurance Building, corner George and Elizabeth Streets... the addition being referred to by the Department of Works as an “unsuitable excrescence” but it was only one-tenth the cost of the planned observatory. It was to remain at this site until the time signal service was shut down on 31st December 1975.

**St. Leo’s College Observatory, Wickham Terrace**

It is strange how stories intertwine, in this case with the paper titled ‘The Brisbane Astronomical Society (1896 to 1917), its 6” Refractor, and key members Dudley Eglinton and James Park Thomson.’ *(Please refer the separate paper dealing with the Brisbane Astronomical Society, its 6” Grubb Refractor, and Eglinton and Thomson. (Peter E Anderson and Wayne Orchiston) – Vol 128 Proceedings of The Royal Society of Queensland pp.143 -166.)*

In 1917 the 6” Grubb refractor belonging to the now defunct Brisbane Astronomical Society was auctioned. At the auction Dudley Eglinton attempted to purchase it but was outbid by agents for Archbishop Duhig who intended to install it in a College Observatory. By 1919, after a few delays it was installed at St. Leo’s College on Wickham Terrace, Brisbane, in an observatory building aligned North - South, East – West. The photograph from 1919 reveals a slightly rectangular building with a dome and beside it a transit aperture arrangement, but under the same roofline and building footprint. Adjustments were made and an 8 foot square room on the east side seems to have been added by 1924. In ‘The Memory’ by Fr Michael Head detailing the history of St Leos, at page 140 it states ’*The* (1919) *work was done under the direction of Mr J. Beebe, a man greatly interested in astronomy, who gave a number of night lectures on the subject to college students.’*

But there could be more to it than this. John Beebe may already have become known, not only for his East Bendigo Observatory background, but for his architectural work on the proposed State Observatory. So it was John Beebe, who designed the St. Leo’s building and oversaw the project. The telescope fell into disrepair in the late 1920’s, eyepieces were stolen, and the telescope disappeared. The transit instrument, a ‘Wray’, ultimately found its way into the Queensland Museum of Lands Mapping and Surveying. (W.Kitson, former Senior Curator, by personal communication.)

**Site testing for a future Queensland Observatory (Harvard Southern Station)**

But Beebe was soon to be involved in another larger project. By this time he had probably built up a reputation in Queensland astronomy. Quoting from the Haynes, Haynes, and Kitson paper again*: In 1919 the Royal Society of Queensland had received a communication from Professor William Pickering of Harvard Observatory suggesting that Harvard University, alarmed at the potential danger of earthquakes to its Grubb equatorial telescope then positioned at Arequipa in the Andes, might be prepared to transfer it to Queensland provided that the atmospheric conditions were considered suitable. (Brisbane Courier Mail* (sic ) *1919.) For this purpose the Society approached Spowers, the Surveyor General, for help in carrying out a series of atmospheric tests in the Darling Downs region.*

*Spowers, who was at this stage still optimistic about the transfer of the* (Brisbane) *Observatory to the Bartley’s Hill site, agreed and detailed John Beebe the architect who had recently drawn the plans for the proposed new observatory, to carry out atmospheric tests. Beebe was also an enthusiastic amateur astronomer who contributed articles on astronomy to the Brisbane Courier and Telegraph in the 1920’s and ‘30s, and so the tests which he and his team conducted in the Toowoomba area may be considered reliable. But although Beebe’s report indicated favourable seeing at all these sites, the telescope failed to arrive, doubtless because of lack of funding from the state.”*

A very interesting article appeared in the *Brisbane ‘Courier’* on 21st October 1921,on page 7 that dealt principally with plans for viewing the 21st September 1922 Total Solar Eclipse (wrongly described as *September 20*), across the southern Darling Downs and elsewhere. A second headline for the article was: ’Proposed Transfer of American Observatory’, and referenced site testing on the Darling Downs but this was further north than the total eclipse track. This site testing was the ‘special duties’ for which Beebe was seconded to the Queensland Lands and Survey Department.

The article reads *‘... A matter quite apart from the observations in connection with the eclipse of the sun, but probably of even greater astronomical interest and importance to Australia in general and Queensland in particular is the suggestion that the observatory of the Harvard University, now placed at Arequipa in Peru, should be transferred to Queensland. Attention has been directed in the ‘Courier’ to the provision on the current Estimates for the carrying out of certain investigations and tests to decide the suitableness of several suggested sites in Queensland. These are Mount Gowrie* (Gowrie Mountain)*, Tabletop Mountain, and Square Top and a site on the Bunya Mountains also on the downs. The tests include the photographing of star trails for telescopic purposes and the determination of the suitableness of the sites in regard to access and astronomical and meteorological conditions generally.*

*These operations are being carried out by a State Officer – Mr Beebe – under the direction of the Surveyor-General (Mr A.A. Spowers), from whom it was ascertained yesterday that Mr Beebe was at present carrying out tests at Mount Gowrie* (Gowrie Mountain)*. The tests at these places are being spread over a period of 12 months, so as to secure as full an amount of data as possible respecting the varying conditions. Four sets of tests are to be carried out at each site, the first of which has been completed.*

*Dr Piggot* (sic) *of Riverview College, New South Wales, who is a prominent Australian astronomical authority, and is associated with the project, paid a visit to Queensland recently and discussed various points with the State authorities.’* (Correct spelling Dr.E.F Pigot - 1858 - 1929.)

The previous week, on 15th October 1921 at page 8, ‘The Daily Mail’ Brisbane had reported *‘Dr. Pigott* (sic) *(astronomer), spent last night on Gowrie Mountain with the object of ascertaining its suitability as an astronomical site. He left today for Brisbane for the week end and on his return with Messrs. Beebe and Sands* (S. D. Sandes?) *will continue his investigations for suitable sites for an observatory.’*

Nearly three years later on 14th July 1924 at page 5, the *‘Brisbane Telegraph’*, under the heading ‘Observatory Site’ and ‘Gowrie Mountain Favoured’ stated:

*‘Toowoomba July 14.*

*The Rev Dr. E. F. Pigot, who was given a civic reception in the Town Hall to-day, said the he was pleased to be back in Toowoomba again. Some little time ago admirable research work was carried out in the region of Southern Queensland with regard to the selection of a suitable site for an astronomical observatory for Queensland.*

*It had been his great pleasure to be associated with that research, and although nothing definite had yet been fixed with regard to the site, he thought that Gowrie Mountain near Toowoomba would be selected. (Applause.) Gowrie Mountain, perhaps, was the one site which astronomers looked upon as the best for an astronomical observatory in Queensland.’*

I make the supporting observation that Gowrie Mountain is conveniently situated near Toowoomba, easily accessible with the main road to Oakey and Dalby passing very close, direct access to the peak, and likely much less moisture and cloud than the peaks and rainforest of the Bunyas. Also the Toowoomba –Oakey- Dalby railway line is nearby. Both the Gowrie Mountain and the Bunya sites had another advantage, namely that they were triangulation stations with their latitudes and longitudes already determined by the Trigonometrical Survey started in 1883.

This is the task Beebe was engaged in during 1921-1922. It is understood that Government financial support for the relocation and establishment of the observatory was not forthcoming and the project foundered. Image 8 accompanying this paper shows the 4” refractor and other instruments, atop a hill during site testing in 1921. The persons shown are definitely John Beebe with his assistant the photographer Jack Lunn (J.A. Lunn) in the background behind the glass plate camera used to obtain star trails. It was likely taken on Gowrie Mountain, though the site has not been positively identified. (Personal communication from W. Kitson.)

The publication ‘Explorers of the Southern Sky’ published by Cambridge University Press confirms the foregoing information. It reports *‘...the offer by Professor William Pickering of Harvard Observatory of the Universities Grubb Equatorial telescope, then positioned at Arequipa in the Andes. Harvard University was apparently prepared to transfer it to Queensland provided the atmospheric conditions were considered suitable. Extensive atmospheric tests were conducted by John Beebe... ...but though the report indicated favourable seeing at no less than four sites, the telescope failed to arrive, doubtless because of lack of funding in Queensland.’*

Rather than the danger posed by earthquakes, the move from Arequipa seems to have ultimately largely been predicated by the extensive seasonal period each year when observations were not possible because of cloud and this was a continuing problem. Field stations fared better but there were access and other issues. Further, in the earlier days there may have been security concerns due to the local political situation.

Though there are references to site testing for an alternate site in other parts of the southern hemisphere, the connection with South Africa dates back to an expedition under Professor Bailey as early as 1908. Hence a suitable station in South Africa was quite likely at the top of the list when a decision was required. Nevertheless, had the Queensland Government offered appropriate inducements the result may well have been different.

In 1927 the Harvard Observatory transferred its southern station to South Africa.

**Removal of Irvinebank Observatory and its instrumentation**

After Dr. W.E. McFarlane died in 1919 his 17.8cm Cooke refractor, supporting instruments, and observatory building, at Irvinebank Observatory, North Queensland, were offered for sale. These were eventually purchased by Dr. E.F. Pigot who is previously mentioned herein. Dr. Pigot needed to have the instrumentation transported to Sydney where they would eventually be installed in the Riverview College Observatory. He engaged John Beebe to facilitate this removal and Beebe in turn arranged for S.D. Sandes, a colleague in the Survey Office of the Queensland Government to perform the task of moving the telescope and instruments. In January 1922 Sandes travelled to North Queensland, and despite considerable difficulties, successfully dismantled and packed the equipment, and arranged safe transport.

**The Total Solar Eclipse of 21st September 1922**

Official Queensland Government interest in astronomy was subdued and this is demonstrated by its reaction to this rather special event. During the later 19th and early 20th Centuries, spurred along by the discovery of an unknown element (Helium) in the Solar Chromosphere during the 1868 eclipse, total solar eclipses were a vital tool in the newly emerging study of astrophysics. On average a total solar eclipse will occur at a given site in the world only once every three or four hundred years, though such eclipses occur somewhere in the world around every 18 months. Consequently dedicated eclipse observers need to travel considerably – and they do!

The total shadow tracks sweeping from west to east vary in width but are relatively narrow for example the ground track was 187km wide at Goondiwindi on 21st September 1922 when it swept eastward across Australia. In south-east Queensland it passed through Goondiwindi and other centres on its way to the coast. There was an influx of scientific observers and their equipment, some from overseas, to key points in Australia to conduct important observations. In Queensland their observing stations included Goondiwindi, Stanthorpe, and Beaudesert. Brisbane was just outside the path of the total shadow but this will be rectified on 13th July 2037 when an eclipse with a very similar track will become total in the city and southern suburbs.

Apart from other research, the 1922 eclipse proved very important because of a particular experiment to measure the effects of General Relativity. At Wallal Downs in Western Australia, special photographic images during totality were taken by one team from the Lick Observatory (USA) using quite significant equipment, a 40 foot focus coronal camera which required supporting towers 36 feet high! The resulting very large scale photographs were used to conclusively confirm the deflection of the apparent position of stars near the solar limb to an extent consistent with Einstein’s recent theory of General Relativity rather than the accepted Newtonian theory. In the 1919 eclipse, observations attempting these measurements had not been completely satisfactory, but in 1922 over 100 stars appeared on the images and were measured, thus placing the conclusions beyond all doubt.

Both the forthcoming eclipse and the Harvard site selection are dealt with in the same newspaper report in the *Brisbane Courier* of 21st October 1921 (page 7) that has been previously referenced. This article commenced with details of this eclipse and the various expeditions proposed, stating ‘It is understood that no action is being taken by the Queensland Government.’ (To observe the eclipse.)

The Government must have at least partially relented. A party of two officials of the Surveyor General’s Department, namely the long term State Astronomical Observer Mr. T. D. Fraser, and an official photographer Mr. J. A. Lunn, are reported as being at Coongoola on the centreline some 700 km west of Brisbane. No mention is made of Beebe. According to verbal communication from Kitson, if there were any observations to be made it would be Fraser, the official observer, who would be selected.

The Coongoola site was ‘selected for the State Observing Station’ as being considerably separated from the other stations in case of clouds. (*Brisbane Courier*, 23rd September 1922, page 7.) Clearly this was a minimalist effort. Mr.J. A. Lunn, had been the photographic assistant to Mr. Beebe (image 8) for the ‘Harvard’ site testing and perhaps this equipment, or similar, appropriately modified, was used to photograph the eclipse.

John Beebe was still in Government employment at the time of the eclipse. On the evidence and given his background, Beebe also appears to have been involved in the Government planning for this eclipse. In the paper *The Historic Bendigo Observatories of J. Nelson Jones and John Beebe* at page 8,(*Martin & Orchiston 1987)* it is stated ‘ In 1921-22 the State Government was involved in the selection of a suitable observing site for the forthcoming total solar eclipse, and Beebe was employed by the Lands Department to co-ordinate the site survey. This work was referenced in a letter dated 7th February 1922 from Beebe to Father Pigot of Riverview College Observatory. MS in Riverview Archives, Sydney. (Observatory file :A4216.’)

Beebe did however observe the eclipse as also reported on page 7 of the *Brisbane* *Courier* of 23rd September 1922. His report is included in that given by the newspaper’s special representative in Stanthorpe. *‘The description given…by Mr. J. Beebe F.R.A.S. a practical observer…He watched for and obtained two distinct views of the flash spectrum at the commencement and end of totality.’* (He was using a spectroscope).The report continues thathe also saw shadow bands cast on the ground (an atmospheric effect), and studied the polar rays of the solar coronal atmosphere. At total eclipse the sky had darkened sufficiently for him to locate and identify the planets Mars, Venus, Jupiter and Mercury, the star Spica, as well as the pointers and four principal stars of the Southern Cross. The background illumination during totality is reported as being *‘much lighter than was expected.’*

**Later Career in private practice as an architect**

Returning to *‘A Directory of Queensland Architects to 1940’ by Watson Donald and McKay* at page 30, John Beebe’s period in private practice in Queensland is detailed as:

*Architect, Brisbane 1924-1936*

*AQIA* (Associate of the Queensland Institute of Architects) *1925.*

*Registered Architect (Q’ld) 1929,*

*qualification (e) ARAIA* (Associate of the Royal Australian Institute of Architects)*1930 FRAIA* (Fellow of the Royal Australian Institute of Architects)*1932.*

His name appears in the Pugh’s Almanac 1925 edition (in fact 1924 information) under the listing of architects on page 337 as:

Bebe J. (sic) Architect, T&G Building, Queen St., Brisbane. (This address was the office of A.E. Harding Frew, Consulting Engineer that Beebe had joined in 1924.)

Page 3 (Classified Section) of the Brisbane Courier dated 29th July 1930 states ‘John Beebe, Exton House’,

A listing in a publication of the Royal Australian Institute of Architects dated 1st February 1931 shows at page 34 : Beebe, J., Metropolitan Building, Adelaide Street, Brisbane.

 Page 4 (Classified Section) of the Brisbane Courier Mail dated 4th April 1936 states ‘John Beebe, architect, 85 Adelaide Street. (Brisbane)

**His association with M. R. Hornibrook**

In his architectural practice in Brisbane John Beebe was responsible for a number of significant works including the large concrete silos at Darra, a Brisbane suburb, for the Queensland Cement and Lime Company. Others are referenced below.

One of the signal events in his later career was his friendship with (Sir) Manuel Hornibrook. (Commonly known as M.R. Hornibrook.)In March 1924 Beebe had joined the consultant group under A E Harding Frew. (Report headed ‘Memo’, Rockhampton Morning Bulletin 14th March 1924, Page 8) This was an Australian engineering firm principally concerned with Queensland civil engineering projects. Among other works this firm was responsible for the major cross river William Jolly Bridge (constructed 1928 – 1932) and the Hornibrook Highway across Bramble Bay (1932 – 1935) both of which were constructed by M R Hornibrook Pty. Ltd.

It is likely that Beebe first met Hornibrook through via this connection and their friendship was later cemented by their association with the Hamilton Bowls Club, where both men occupied committee positions in the early 1930s. Beebe had designed the club’s new pavilion, which opened in 1931, and a year later he signed a contract with Hornibrook for the tollhouses (Portals) for the Hornibrook Highway across Bramble Bay from Sandgate to the Redcliffe Peninsula. In addition the 1932 John Oxley memorial in Redcliffe was designed by Beebe and constructed by Hornibrook. It was in the form of an obelisk 20 feet (6 metres) high on a stepped base 12 feet (3.65 metres) square.

The ‘Hornibrook Highway’ was a major employment project during the great depression. Completion of the 2.7km bridge took three years. The extract below from the *Queensland Deco Project – the story of art deco in Queensland* *– Hornibrook Highway: Bayside Art Deco (queenslanddecoproject.com/2015/10/04/hornibrookhighway/)*describes John Beebe’s designs for his aspect of this project.

*‘Beebe’s choice of an Art Deco style is curious in the context of his body of work. While few records remain of his architectural footprint, his other known projects in Queensland, such as the Hamilton Bowls Club and Kirra Beach Pavilion, looked back to styles from the past. In any case, given the association of Art Deco with speed and progress, often symbolised by modern transport, it seems appropriate that the design for the Hornibrook Highway was classically of this style. The mass of symmetrically arranged vertical fins that adorn each pylon soars skywards, creating a stepped silhouette effect. This is balanced by an equally strong use of horizontal lines etched into the banded spandrel that connects the pylons and into the pylons’ rusticated bases. The tollhouse doors are framed by a stylised, low-relief geometric pattern. On approach to the portals are two smaller freestanding pylons which, in their tapered obelisk design, are reminiscent of the wave of ‘Egyptomania’ that influenced Art Deco styling. Viewed in their entirety, the portals exhibit a monumentality that suggests solidity and strength – important qualities for a bridge expecting high volumes of traffic.’*

**Queensland Amateur Astronomical Organisations of the time - 1896 to 1927**

In addition to his architectural practice, John Beebe remained active in astronomical circles. The original Brisbane Astronomical Society had been formed in 1896 with Dudley Eglinton as its principal promoter and effectively the only member who continued to demonstrate an active interest. The Society itself had been inactive since the early 1900’s and any hope of revival was quashed by the sale of their 6 inch Grubb refractor in 1917 at auction to agents of Archbishop Duhig. Following this in 1919 John Beebe had directed the construction of the St Leo’s College Observatory and the installation of this instrument. This was quite possibly to the chagrin of Dudley Eglinton whose auction bid had been unsuccessful.

In 1919 the indefatigable Dudley Eglinton formed another society, ‘The Queensland Popular Science and Arts Society’ which purchased a 12 inch reflector from Sydney that was mounted atop the Old Fire Brigade Building in Ann Street. However it appears that it was not ready for use until late 1922, and when two years later Eglinton went blind, there was no obvious person to replace him as a demonstrator and the instrument was largely unused. John Beebe is not recorded as being associated with this body, formed under the aegis of Dudley Eglinton. There are few later references to this society.

So matters apparently went into recess until a new body was formed in 1927, soon to be renamed the Astronomical Society of Queensland. Eglinton managed to transfer the remaining funds from the Brisbane Astronomical Society to this body and, though blind, was made a vice president. It is doubtful whether Eglinton attended any meetings, being represented at times by his very capable wife Anna who helped him with his continuing popular astronomical articles.

**John Beebe’s Involvement with the Astronomical Society of Queensland**

A newspaper report (Brisbane ‘Courier’) 3rd October 1927 at page 21, deals with a paper presented on 1st October to the inaugural meeting of the new society, within months to be renamed the ‘Astronomical Society of Queensland’ (ASQ). The paper was presented by Mrs Eglinton on behalf of her husband who did not attend. A list of officers elected at the meeting was published, Dudley Eglinton being one of the two vice presidents, and J. Beebe F.R.A.S. as one of the councillors.

In fact Beebe was a member of the ASQ Council from the time of the formation of this society in 1927 until his death. He was firstly a Councillor between 1927 and 1929, then President in 1929-1930. He was a Vice President 1930-1933, President again in 1933-1934, following which he was a Vice President again from 1934 until his death in December 1936. At the time this was not a large body, recording a membership of just 43 at the 1936 Annual General Meeting. As an aside, A J M (Arch) Stoney was elected President at this 1936 meeting after having served as Vice President the previous year, and on council for several years prior to that. Stoney had relocated from Victoria in June 1929 to take up a lecturing position at the University of Queensland. His very long association with Queensland astronomy came to an end with his death in 1994, aged 100.

John Beebe was certainly astronomically active throughout this later period in his life. As one example a newspaper notice on 3rd April 1929 advised that Mr. J Beebe FRAS would be addressing the ASQ meeting on that date and visitors were invited to attend.

A report under the heading ‘Astronomical Society’ on page 7 of the Brisbane Courier dated 7th June 1929 reports a lecture to the society at the Teachers Training college. Beebe detailed the work of observatories from historical times to the present largest, the great 100 inch reflector at Mt. Wilson.

John also supported the society in other ways. In a description of the ASQ records held by the John Oxley Library, State Library of Queensland, it is stated ‘*In 1933 the Society began to publish a bulletin under the editorship of Messrs Holdway and Beebe. ...’*

**Thoughts on John Beebe’s involvement with Queensland Astronomy**

I have found no evidence that during his two decades in Brisbane John Beebe established an observatory, or made serious astronomical observations apart from the Harvard site testing in 1921-22 and his 1922 total solar eclipse site testing and observations.

His East Bendigo observatory could be regarded as a public observatory and provided a time service. In effect its official ‘recognition’ came in 1908 when the responsibility for rainfall /temperature etc. observations for Bendigo were assumed. This was conducted between 1908 and 1914. Though Beebe made some comet, solar, and other relevant observations, it cannot be said that these were a significant part of operations or that a regular program was in place. He did possess a good transit instrument for time determination. There appeared to be no instruments in operation over 4.5 inches (11.4cm) in aperture.

In Queensland, the Government Survey Office provided the time service, a key function of astronomical observatories at the time and Mr. T.D. Fraser was the ‘Astronomical Observer’ throughout this period. Therefore the time service aspect was already addressed – and had been for half a century.

Dudley Eglinton was well known for providing articles in the popular press, though no longer public demonstrations after his blindness in 1924. Beebe is also known to have contributed articles to the press throughout his period in Queensland.

It is a great pity that the Queensland Government Observatory and the Relocation of the Harvard Southern Station proposals came to nothing. Lack of Government funding was the likely major factor and it would have been very frustrating. It is just conjecture but had either of these two projects come to fruition it is possible that John Beebe could well have secured an appropriate position and then embarked on an astronomically oriented career. Whatever his reasons Beebe soon left Government employ and re-entered private practice. A further disappointment came later - St. Leo’s College Observatory was to last less than a decade.

In the last decade of his life (1927-1936) the Astronomical Society of Queensland provided some social interaction and other stimulus. John Beebe was very prominent in this society. He may have been content with this as his ongoing contribution to astronomy.

**Electoral Rolls**

John Beebe appears on Victorian rolls until 1917 (Bendigo city), then also in 1917 Queensland (Brisbane City), then Queensland, (Lilley) from 1925 but the final entry in 1936 shows Brisbane City.

**Death**

**John Beebe died on 15th December 1936 at age 70. (1866 – 1936)** At that time (from the Court Probate documentation), he was described as Architect and Consulting Engineer, and was living at More Street, Kelvin Grove. He was buried in an unmarked grave at Lutwyche Cemetery, Brisbane. His probate notice in the Supreme Court of Queensland is dated 22nd December 1936.

Beebe’s wife Hulda Minnie Campbell Beebe, still living in Bendigo (but at a different address), is shown on the Death Certificate as the informant. She died a decade later in 1946 in Hampton Victoria, which is an affluent suburb of Melbourne.

**John Beebe’s library**

John Beebe left his library of Astronomical Books to his friend M. R. Hornibrook. In July 1944 Hornibrook presented them to the Astronomical Society of Queensland, each flyleaf bearing a prominent printed sheet *‘The John Beebe Memorial Library, Presented to the Astronomical Society of Queensland by M. R. Hornibrook July 1944’.* This library has now been passed to the Astronomical Association of Queensland, the successor of the Astronomical Society of Queensland.

At a culling of old and excess material in 2015 I acquired four of these volumes. Two of them actually have ‘John Beebe’ written in script on the flyleaf, and from investigation this appears to have been his signature.

**IMAGES**

**Beebe 1 - East Bendigo Observatory.** (From Martin & Orchiston 1987.)

**Beebe 2 –John Beebe Bendigo Observatory 2004** Mike Butcher

**Beebe 3 – John Beebe Bendigo Observatory domes 2004** Mike Butcher

**Beebe 4 – John Beebe in his study.** - David Bolton

**Beebe 5 – ‘Rocky Vale Villa’ built by Beebe’s father - (photo 1986).** – Mike Butcher.

**Beebe 6 – The Proposed Brisbane Observatory 1916-1918** – (Described as Queensland State Observatory.) Department of Lands, Queensland

**Beebe 7 - St Leo’s College Observatory in 1919.** via State Library Qld/ History of St Leo’s College page 140.

**Beebe 8 – Darling Downs Site Testing 1921** –Queensland Museum of Lands Mapping and Surveying.

**Beebe 9 - Dr. Edward Francis Pigot, Saint Ignatius College, (Riverview Observatory)**

**Beebe 10 – Hornibrook Highway Portals** – environment ehp.qld.gov.au

**Beebe 11– Hornibrook Highway record numbers in 1935** – John Oxley Library Qld.

**Author Profile**

Peter Anderson has been President of the Astronomical Association of Queensland and its predecessors on five occasions since 1966. In addition to active participation in astronomical tourism, especially to observe total solar eclipses, Peter has been a guest lecturer on cruise ships for nine years presenting astronomical topics. He has also written many articles and is an active contributor in the field. For the last 42 years he has conducted astronomical research from his observatory at The Gap, Brisbane, specialising in the field of lunar and asteroidal occultation of stars. Peter maintains a strong interest in the history of Queensland astronomy.