

Memoirs of the Queensland Museum | **Nature**

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National Library of Australia card number
ISSN 0079-8835 Print
ISSN 2204-1478 Online

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A Queensland Government Project
Typeset at the Queensland Museum

Elizabeth Coxen: pioneer naturalist and the Queensland Museum's first woman curator

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Citation: McKay, J. & Healy, J.M. 2017. Elizabeth Coxen: pioneer naturalist and the Queensland Museum's first woman curator. *Memoirs of the Queensland Museum–Nature* 60: 139–160. Brisbane. ISSN 2204-1478 (Online) ISSN 0079-8835 (Print). Accepted 10 May 2017 First published online: 31 August 2017.

<https://dx.doi.org/10.1082/j.2204-1478.60.2017.2017-05>

LSID: urn:lsid:zoobank.org:pub:BA9A55A5-47F8-4319-BD6D-373DAEC05FF9

ABSTRACT

Elizabeth Coxen (1825–1906) was a remarkable woman of her time. The wife of naturalist, politician and public servant Charles Coxen (1809–1876), best known as founder of the Queensland Museum, Elizabeth shared her husband's extensive scientific interests. Not only a devoted and knowledgeable companion, she achieved notability in her own right: as a conchologist, meteorologist and horticulturist. More remarkably, in 1877, in middle age, she effectively became the Queensland Museum's first woman curator (molluscs) and the first person to be paid to oversee any part of the museum's invertebrate collections. Probably she was the first woman curator of any natural history museum in Australia. Widely respected within the local scientific community, in 1886 she became the first woman to be elected as a member of a scientific organisation in Queensland. This paper documents Elizabeth Coxen's life, which has not been investigated in detail before, and records her various contributions to science and public life in nineteenth-century Queensland. Special focus is placed on her contribution to the establishment, recording and growth of the original molluscan collection of the Queensland Museum and her links with the research world of molluscs both within Australia and overseas. □ *Elizabeth Coxen, Queensland Museum, curators, molluscs, Charles Coxen.*

This paper has its origins in a talk presented on 13 March 2004 as part of a seminar on 'Founders of the Queensland Museum and the women who shared their vision', focusing on the careers of Charles and Elizabeth Coxen (Fig. 1A, B) and Heber and Irene Longman. The seminar was the last of the museum's annual offerings held from 1995 to mark International Women's Day. In preparing the talk it became evident how little was known about Elizabeth Coxen and how her achievements have been overshadowed by those of her husband. Charles Coxen has an entry in the Australian Dictionary of Biography (Chisholm 1969) and his life and

contribution to the Queensland Museum are well recorded in the museum's official history (Mather 1986). Elizabeth Coxen, by contrast, like so many women of her era, has a lesser place in history and is sometimes confused with her sister-in-law of the same name, some twenty years her elder, who in 1829 married the famous British ornithologist John Gould and, until her untimely death in 1841, collaborated in his publications. Elizabeth Coxen, the subject of this paper, was one of 34 women featured in a previous Queensland Museum publication and exhibition, *Brilliant Careers: Women Collectors and Illustrators in Queensland* (McKay 1997).

However, that project predated the digitisation and online availability of critical historical data, most notably contemporary newspapers, and therefore was based on only limited information. The present paper draws on these newfound riches as well as a range of other sources, including records of the Queensland Museum (archival letters and newly-digitised registers), the Royal Society of Queensland, the Acclimatisation Society, the National Association and the Anglican Diocese of Brisbane.

Biography

Elizabeth Coxen was born Elizabeth Frances Isaac in Marshfield, Gloucestershire, England, in 1825, the eldest daughter of George Frederick Isaac, solicitor, and his wife Elizabeth, née Fromow. Coxen family papers record that the Isaacs were related to wealthy bankers; they were certainly gentry and, unlike their future in-law Charles Coxen, managed to recover from financial downturns. In 1839, at the age of 13, Elizabeth emigrated with her family to Sydney. Her father, who had practised in Pall Mall, London before his departure, set up as a solicitor in Sydney until he became insolvent in 1843. Meanwhile Elizabeth's elder brothers, Henry Edward and Frederick Neville Isaac, went north to try their luck as squatters on the rich grasslands of the Darling Downs, which had only recently been discovered by Allan Cunningham. In 1841, together with their friend Henry Hughes, they took up Gowrie station near the future city of Toowoomba, becoming some of the district's first white settlers. Henry Isaac, while retaining his interest in Gowrie, spent much of his time in Brisbane soon after the former penal settlement was opened to free settlers in 1839; in 1844 he moved into a house in Kangaroo Point built by pioneer settler Andrew Petrie (Stewart 2004). A few years later Elizabeth was also living at Kangaroo Point, probably in Henry's house, for it was from there that she witnessed Brisbane's flood of March 1847 which covered Stanley Street (Coxen 1894a).

By 1847 Elizabeth had already met her future husband Charles Coxen; she recalled that he came to town with cattle during the

flood. Also about this time she lived with her brother Frederick at Gowrie and possibly this experience sparked her interest in natural history. Frederick, a skilled bushman and also interested in natural history, accompanied the explorer Leichhardt on some of his travels in the area, and, like Coxen, became an early member of the Queensland Philosophical Society, the colony's first scientific organisation. The Isaacs found many fossils in the vicinity of Gowrie, including a complete skeleton of the giant marsupial diprotodon (*Diprotodon optatum* Owen, 1838), discovered soon after they settled (Stewart 2004). At Gowrie, Elizabeth would have come into further contact with Coxen, who held several runs in the Darling Downs and Maranoa districts, including, until 1845, Jondaryan adjoining Gowrie's western boundary. By 1851, Coxen was based at Bimbian, which adjoined Dulacca then held by the Isaacs. Being a neighbouring gentleman-squatter and sharing similar interests, he would have had much in common with the Isaacs.

On 27 December 1851, at the age of 26, Elizabeth married Charles Coxen at St Ann's Church of England, Ryde, Sydney. In the following months Coxen took her back to Bimbian, then regarded as 'the boundaries of civilisation', being 'the furthest station on the Darling Downs' (Leavitt 1887); situated on Dogwood Creek, it was on the edge of the Maranoa. Soon after the marriage other members of the Isaac family came to Queensland (until Separation in 1859 known as the Moreton Bay District of NSW). By 1854, another of Elizabeth's brothers, Frederick Edward Isaac, was living in the Parish of Bulimba, Brisbane (more extensive than the present suburb) and taking up runs in the Leichhardt district, while her parents were living at Kangaroo Point, her father again practising as a solicitor. Her parents did not stay long; they returned to England in 1857 and settled in Bath, Somerset where her father became an emigration agent for Queensland (*Bristol Mercury*, 5 August 1865, extracted from British Library Newspapers). Their departure was followed by the deaths of Elizabeth's three brothers, in at least one case due to tuberculosis: Frederick Edward Isaac died in

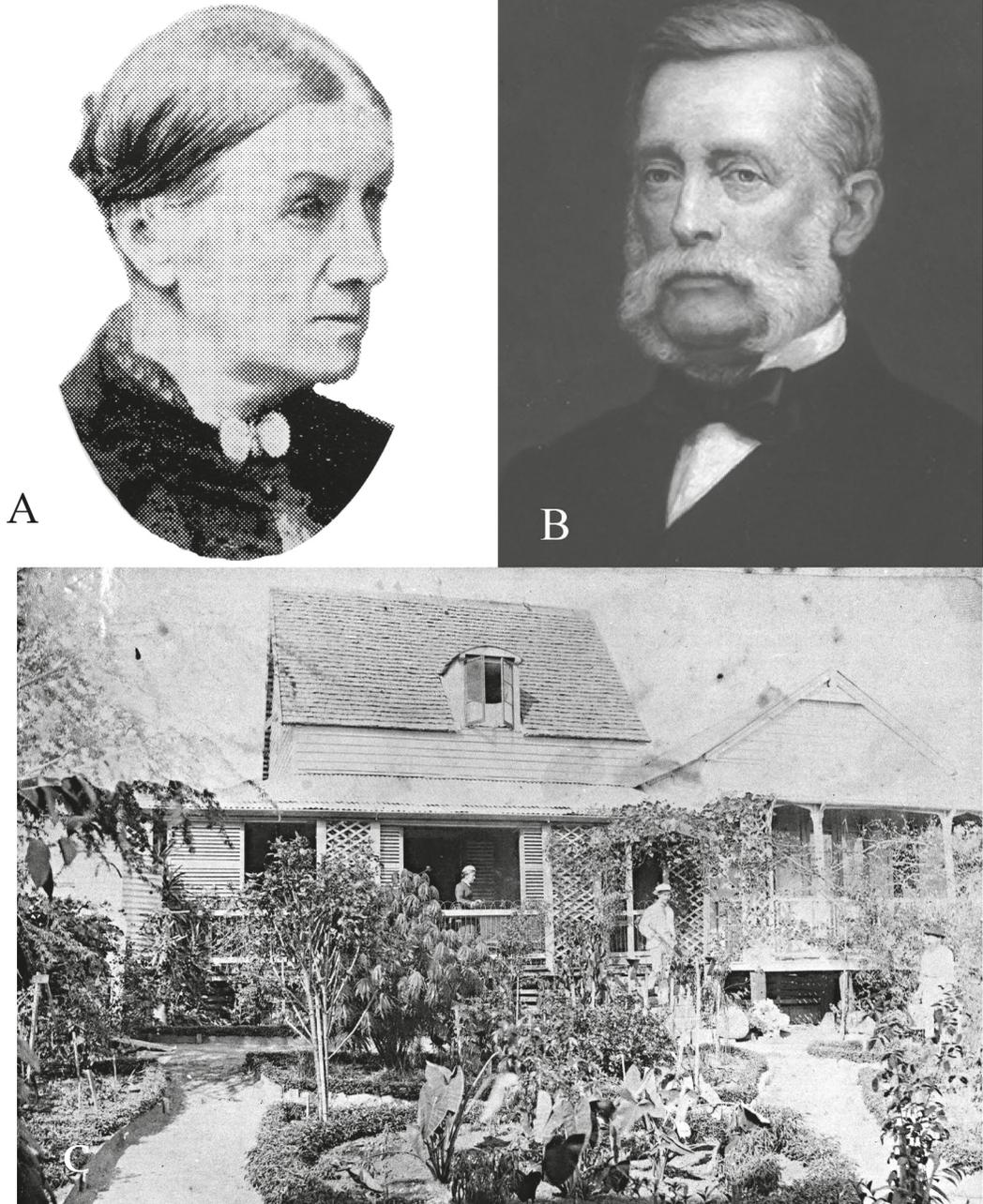


FIG. 1. **A**, Elizabeth Coxen – note her sea shell ‘butterfly’ brooch, possibly made from Moreton Bay venus clam valves, indicating her interest in shells (From a booklet on St John the Baptist Church, Bulimba, held by the Anglican Diocese of Brisbane Records and Archives Centre). **B**, Detail of a portrait of Charles Coxen by Dickinsons of London (Queensland Museum collection – for full portrait see Fig 9). **C**, Omega Cottage in Church Street, Bulimba, January 1886, with Elizabeth on the verandah (From Elizabeth Coxen’s photograph album, APO-17, John Oxley Library, State Library of Queensland).

1861 at Deepwater, Maranoa, one of Coxen's runs; Henry Edward Isaac died in 1862 back in England, having returned in the hope of regaining his health; while Frederick Neville Isaac died in Brisbane in 1865. No doubt the departure of her parents and premature deaths of her brothers and eventually her husband would have left Elizabeth feeling isolated as much as bereft, contributing to the resilience that would characterise her later life.

At Bimbian, life would have been tough for Elizabeth Coxen. Not only cut off from civilisation, she would have lived in a slab hut, which was then standard accommodation even for larger stations like Gowrie, and the station would have been under constant threat of Aboriginal attack, a situation that had forced her brother Frederick off the neighbouring Dulacca (obituary of Frederick Neville Isaac, *Brisbane Courier*, 15 July 1865). By way of consolation, Elizabeth would have been able to indulge her passion for natural history, as an early account of Coxen's life states that at this time she began assisting him with his collecting activities (Leavitt 1887). The Coxens soon had to leave Bimbian due to Charles's ill health. After spending some time in Brisbane while he recovered, they moved to a less remote station, Daandine, near Dalby. During their six years at Daandine Coxen became Dalby's magistrate and, in 1860, was elected as member for the Northern Downs in Queensland's first parliament. He held the seat until 1867, by which time he had given up squatting, though he continued to hold some runs into the mid-1860s.

In 1861 the Coxens returned to Brisbane, settling at The Terraces overlooking the river at Murarrie, an extensive property of 84 acres which Charles had purchased from 1854. The property was partly under cultivation, with a commodious stone residence and outhouses, commanding a magnificent view of the river extending from Breakfast Creek almost to Lytton (sale notice, *Brisbane Courier*, 1 July 1868). It was on the opposite bank of the river from Coxen Point, named after them, where the Royal Queensland Golf Club is now located. The garden was laid out in terraces stepping

down to the river's edge where there was an old coal mine hence the property was also called The Quarries. While living at Murarrie the Coxens took an active interest in local affairs, joining with other residents to lobby for better roads and, as devout Anglicans, leading the campaign for a church to serve the area. Christ Church, Tingalpa, designed by Brisbane architect R.G. Suter, opened in 1868; however the present church located in Wynnum Road and now on the Queensland Heritage Register is a replacement of the earlier building destroyed in a cyclone of 1885. Charles Coxen was also a foundation member of the Tingalpa branch of the East Moreton Farmers' Association established in 1867 to promote agricultural activities in the district.

Already by late 1864 Coxen was suffering financial difficulties and had to mortgage The Terraces, taking out a second mortgage in 1866. In 1867 he sold the property to Dr Hugh Bell, a pioneer Brisbane medical practitioner, who in turn sold it in 1883 to the Premier Sir Thomas McIlwraith and his trustees. Meanwhile, Coxen with his influential connections was able to secure government employment: from 1868 as Land Commissioner for the East and West Moreton districts, and then from 1872 as Land Commissioner for the East Moreton district and Inspecting Commissioner for the settled districts of the colony; he held these latter posts until 1876. After leaving The Terraces the Coxens moved to a more modest dwelling nearer town, a timber cottage known as Omega Cottage, located in Church Street (now Birkalla Street) near the river at Bulimba (Fig. 1C). Though Coxen had off-loaded much of his Brisbane property during the late 1860s, he still held a number of blocks in Bulimba and Kangaroo Point. Despite their straightened circumstances, the Coxens remained public-spirited citizens, providing annual 'tea-feasts' for local children at which Elizabeth would distribute books and toys (*Brisbane Courier*, 1 January 1876). Elizabeth, described by Charles's nephew Henry William Coxen as 'intelligent and pleasant', loved children and always made them welcome at Omega Cottage. She became known as 'the

TABLE 1. Animal species named after Charles or Elizabeth Coxen.

Original Name	Type locality	Current Name	Original publication
MOLLUSCA			
<i>Pupina coxeni</i> (operculate land snail)	'Mount Dryander, Port Denison, N.E. Australia'	<i>Signepupina coxeni</i> (Brazier, 1875)	Brazier, 1875
<i>Helix</i> (Hadra) <i>coxenae</i> (land snail)	'Johnson river [sic], Queensland' (= Johnstone River)	<i>Spurlingia dunkiensis</i> (Forbes, 1851)	Brazier, 1875
<i>Conus coxeni</i> (marine cone snail)	'Moreton Bay'	<i>Conus cyanostoma</i> (A. Adams, 1855)	Brazier, 1875
<i>Helicina coxeni</i> (operculate land snail)	'Yule Island, New Guinea'	<i>Palaehelicina coxeni</i> (Brazier, 1875)	Brazier, 1876
<i>Helix coxeni</i> (land snail)	'Whitsunday Island, Queensland'	<i>Gloreugenia coxeni</i> (Cox, 1871)	Cox, 1871
<i>Cypraea coxeni</i> (marine cowrie)	'Solomons'	<i>Eclagavena coxeni</i> (Cox, 1873)	Cox, 1873
<i>Cythera coxeni</i> (marine venus clam)	'Port Molle, Queensland'	<i>Pitar coxeni</i> (E.A. Smith, 1884)	E.A. Smith, 1884
VERTEBRATA			
<i>Cyclopsitta coxeni</i> (fig parrot)	none stated	<i>Cyclopsitta diophthalma coxeni</i> (Gould, 1867)	Gould, 1867
<i>Halmaturus coxeni</i> (pademelon marsupial)	'North Australia, Port Albany'	<i>Thylogale stigmatica coxeni</i> (Gray, 1866) or <i>Thylogale stigmatica</i> (Gould, 1860)	Gray, 1866

mother of Bulimba' (Anon. 1906). The Coxens had no children of their own.

In Brisbane, the Coxens maintained their love of natural history, with Elizabeth taking a particular interest in conchology and Charles focussing more on ornithology and taxidermy. Fittingly, both were honoured by having new species named after them by Australian and English scientists based on material from the Coxen collections, including a parrot, a marsupial and a number of molluscs (Table 1, Fig. 2). According to Henry William Coxen, 'The pair frequently "roughed it" together on natural history hunts in Moreton Bay – long before it was thought proper for ladies to do so.' Elizabeth later wrote of their boating trips to collect shells from around the bay. She recounted how they would keep live cowries in a vessel of water in their boat, as it had been Charles's intention to make wax models of the curious animals inhabiting the shells, and then to place these in the shells of the respective species; however illness had prevented him from

carrying out his project (Coxen 1894b). She took an interest in the Queensland Philosophical Society, founded in 1859 by Coxen and others to promote the study of natural history in the colony. In 1875 Elizabeth became the only woman ever to attend one of the society's meetings, accompanying her husband to the meeting of December 1875 (Marks 1960); this was to be the last he was to attend as his health was failing. He died at Omega Cottage, Bulimba several months later, on 17 May 1876, leaving a small estate of £500.

Following Charles Coxen's death Elizabeth continued to live at Omega Cottage and maintained her scientific interests, including undertaking curatorial work for the Queensland Museum, as will be discussed later. Her work for the museum continued until 1882 when she visited England. In April that year she sailed for London, travelling saloon class, which suggests that her financial position had improved. In recent years her parents had died so possibly she had received an inheritance, and since Coxen's death she had been selling off some of



FIG. 2. Preserved skins of Coxen's Fig Parrot (*Cyclopsitta diophthalma coxeni* Gould, 1867), Queensland Museum Collection. Charles Coxen had provided English ornithologist John Gould with his notes and an accurate drawing, but disappointingly Gould's description was not accompanied by any illustration.

his land in Bulimba and Kangaroo Point. While in England, Elizabeth undertook an assignment for the museum: a report in the *Brisbane Courier* of 26 May 1882 states that she procured a supply of artificial eyes for bird mounts. Her photograph album, now preserved in the John Oxley Library, records that during her stay in England she also visited the Natural History Museum in London and witnessed a violent storm that lashed the coastal city of Hastings in September 1882; and it was probably at this time that she commissioned a portrait of Coxen. On her return to Brisbane, Elizabeth kept up her scientific work more vigorously than ever. During the 1880s she donated many specimens to the Queensland Museum, not only shells but such diverse material as crabs,

a freshwater turtle, sea urchins, birds, insects, a death adder, fungi and lichens. These indicate the range of her curiosity as a naturalist. She also developed the garden at Omega Cottage and added a meteorological station to pursue her newfound interest in rainfall and climate.

In December 1886 Elizabeth Coxen was elected as a member of the Royal Society of Queensland, making her the first woman member of a local scientific organisation (Marks 1960). This society, founded three years earlier to promote 'the furtherance of Natural Science' in the colony, was successor to the previously-mentioned Philosophical Society. In November 1893, Elizabeth became the first woman to read a paper to the society, her subject being cowrie

shells (Marks 1960; see Coxen 1994b). Also at this time she gave a paper on Brisbane's floods (Coxen 1894a), written in the wake of the disastrous flood of February 1893 which she witnessed at first hand (Fig. 3A). At Bulimba, she reported, the water rose to 12 feet above ordinary high tides and probably Omega Cottage was inundated as about this time she moved temporarily to another house around the corner. She kept attending Royal Society meetings until 1899 and tabled no fewer than twelve papers, mostly weather reports, which are published in the society's Proceedings (Coxen 1889a, b; 1891; 1894a-d, 1896, 1897, 1898, 1899a, b). By the 1890s she was joined by other women members, most of whom were school teachers and included Eliza Fewings, founder of the Brisbane High School for Girls (later Somerville House).

In her later years Elizabeth maintained her support for the Anglican Church. In early 1887 she put up a notice near the Bulimba ferry calling a meeting of local residents, to be held at Omega Cottage, to initiate the building of a church for the area (*Telegraph*, Brisbane, 30 July 1887). To this end, she gave the Diocese of Brisbane a block of land in Church Street and started a subscription list by giving £100. Later this land was sold and the present more central site in Oxford Street was purchased. St John the Baptist Church, Bulimba, designed by the Diocesan Architect J.H. Buckeridge, was opened in September 1888 and is now on the Queensland Heritage Register (Fig. 3B). In the following year Elizabeth gave the Diocese another block of land, this time in Brisbane Street and valued at £300, to be mortgaged and the proceeds put towards building a rectory for the local clergyman, and, in return, the Synod was to pay her an annuity of £18 during her lifetime. This land was also sold, but not until after her death. The Diocesan newspaper, the *Church Chronicle*, records that Elizabeth was one of Bulimba's most active parishioners: making Omega Cottage available for church meetings, helping with fetes and other functions, providing prizes for annual Sunday school picnics, contributing funds, even making church vestments (*Church Chronicle*, 1 February 1893).

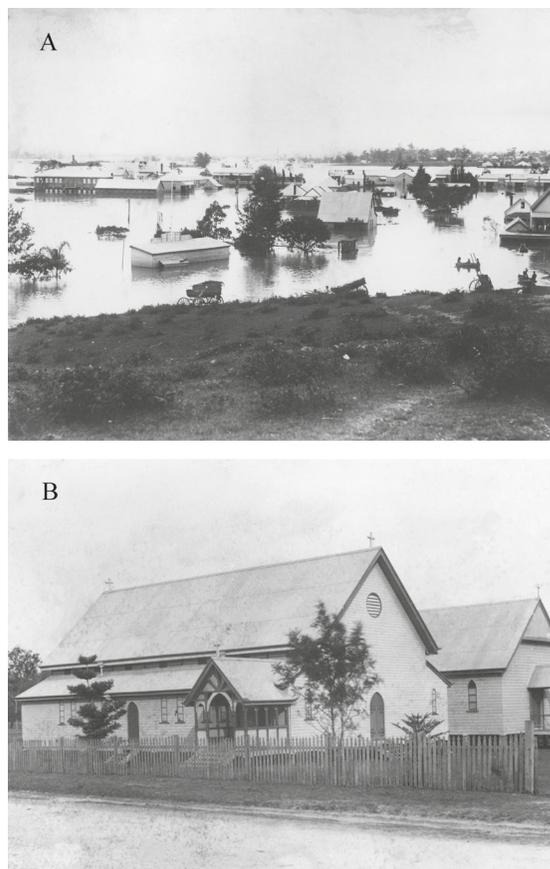


FIG. 3. **A**, Flood on the Brisbane River at Bulimba, 1893. **B**, St John the Baptist Church, Bulimba, instigated by Elizabeth Coxen and opened in 1888 (Both from Elizabeth Coxen's photograph album, APO-17, John Oxley Library, State Library of Queensland).

At the turn of the twentieth century Elizabeth Coxen's health began to fail, so she moved to the care of friends, Mr and Mrs Benson Hall, who had been fellow Bulimba residents and also keen gardeners (*Brisbane Courier*, 24 July 1906). She died at the Halls' Teneriffe home on 11 August 1906 at the age of 80 years. Later she was buried beside her husband in Tingalpa Cemetery in the grounds of Christ Church. The Coxen graves are among those of other pioneers in the picturesque churchyard. In 2003 the Friends of Tingalpa Cemetery Heritage Group restored the graves and the Queensland Museum provided a new memorial plaque.

Elizabeth is also remembered by a handsome timber lectern presented in 1907 by her friends to St John the Baptist Church, Bulimba, the church she had so generously supported.

Conchologist and Museum 'Curator'

The Coxens' and Queensland Museum Shell Collections

By the 1860s the Coxens had already amassed a large shell collection. In September 1867, when a newspaper reporter visited them at The Terraces, Murarrie, he commented on their collection of shells and marine flora all 'scientifically arranged and classified' (*Queensland Daily Guardian*, 19 September 1867). When shown several years later in an exhibition at the Brisbane School of Arts, the collection again attracted attention: 'The conchological treasures of Mr Coxen are contained in twenty-six trays, and comprise 1350 specimens of very rare and beautiful shells. ... They deserve more than a passing notice, if for no other reason but because the collection has been made with the view of presenting it, or duplicates of many of its objects, to our National Museum' (*Queenslander*, 22 November 1873). Likewise, in January 1876, when the young Scottish naturalist James Whitelaw Craig visited the Coxens at Bulimba, he mentioned their 'very extensive' shell collection (Craig, 1908). In the Queensland Museum's annual report for 1875, custodian Karl Staiger (February 1876) noted that 2000 specimens of shells, representing 1405 species, were on display during the year, and that all had been donated by Charles Coxen; Coxen, he added, was willing to donate a further 1500 specimens 'as soon as space can be found for their exhibition'. Staiger also stated that the 'arrangement of the shells' (presumably the systematic arrangement of them) was the result of Elizabeth's Coxen's considerable efforts.

From the above evidence it seems that the Coxens' shell collection contained at least 3500 specimens, possibly many more; however it remains uncertain whether the 1500 specimens pledged to the Queensland Museum in early 1876 were eventually donated or (more likely) sold by Elizabeth following her husband's death.

Though contemporary accounts credit Charles as the driving force behind the collection, there is little doubt that both he and Elizabeth shared a passion for molluscs and their shells and embarked on many collecting trips together, particularly within Moreton Bay. Elizabeth's photograph album includes images of Dunwich on Stradbroke Island and John Brazier (1879), using Coxen's unpublished notes on cowries, mentions the following collection locations within the bay: Amity Point, Myora (both on Stradbroke Island), Peel Island, Burleigh Heads and Caloundra. The collection, in its size and apparent diversity, was the outcome of their joint collecting efforts, their scientific and personal connections and purchases from overseas dealers. In fact, Monteith & Mather (1986) have suggested that the shell collection may have been Elizabeth's domain rather than Coxen's as his interests were largely centred on ornithology and taxidermy. Certainly Staiger's annual report of 1875 confirms Elizabeth's expertise with molluscs.

That the Coxens had many important contacts in the scientific world, including within the sphere of malacology (or conchology as it was usually termed at this time and will be used in this paper) is evidenced by papers published by such notable scientists as John Brazier (1875, 1876, 1877), James Cox (1871, 1873) and Edgar A. Smith (1884) (Fig. 4A–C). Between them, these three authors named species of marine or terrestrial molluscs and a marine bivalve mollusc after either Charles or Elizabeth (Table 1 and Figs 5, 6). Brazier's 1875 paper title actually states that his material came from Charles Coxen's shell collection, although interestingly the type specimens associated with that paper were lodged with the Australian Museum in Sydney rather than the Queensland Museum [the holotype of *Conus coxeni* cannot be located in either museum's molluscan collections and was possibly deposited elsewhere]. We also know from the Queensland Museum archives that Elizabeth exchanged specimens from Queensland with the prominent English conchologist Sylvanus Hanley, author of important taxonomic papers and books on molluscs such as the



FIG. 4. Notable molluscan workers who corresponded with or benefitted from material from the Coxens. **A**, John Brazier (Australia) (from Iredale, 1930; Australian Museum); **B**, James C. Cox (Australia) (from Walkom, 1925; Linnean Society of NSW); **C**, Edgar A. Smith (England) (from Dance, 1966; Conchological Society of England and Ireland); **D**, Charles Hedley (Australia) (from Walkom, 1925; Linnean Society of NSW).

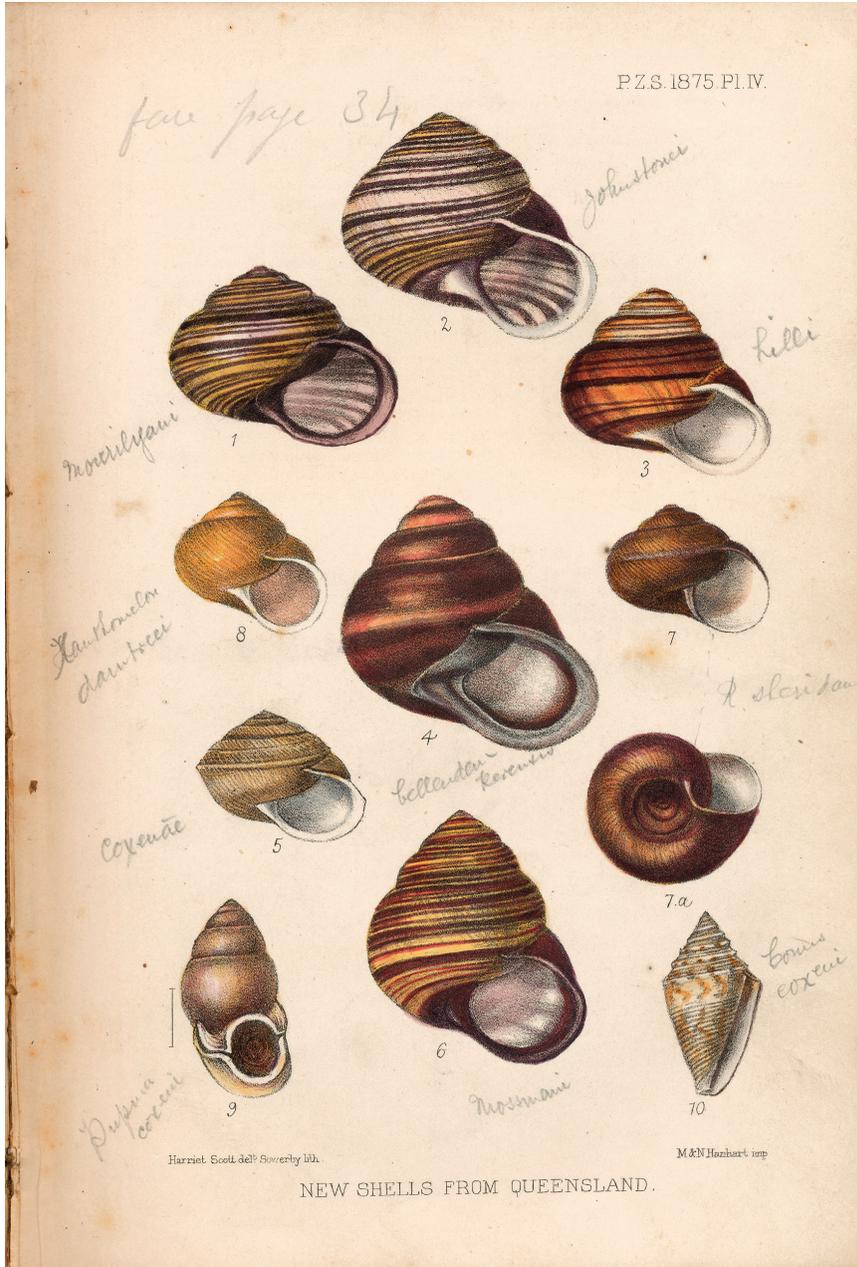


FIG. 5. Hand-coloured plate from Brazier (1875) showing holotypes of ten species described from specimens supplied by the Coxens to John Brazier (Queensland Museum Library). Their original names are: 1. *Helix* (*Hadra*) *mourilyani*; 2. *H. (H.) johnstonei*; 3. *H. (H.) hilli*; 4. *H. (H.) bellenden-kerensis*; 5. *H. (H.) coxenae*; 6. *H. (H.) mossmani*; 7, 7a. *H. (Rhytida) sheridani*; 8. *H. (Xanthomelon) daintreei*; 9. *Pupina coxeni*, 10. *Conus coxeni*. A number of these species names have since disappeared into synonymy (see Table 1; also Stanisc *et al.*, 2010). The pencilled-in species names were added by Dr John Shirley of the Queensland Museum (Honorary Conchologist 1912–1914, Conchologist 1920–1921).

Index Testaceologicus and *Conchologica Indica*. Presumably those specimens are still in the Leeds Museum Discovery Centre where most of Hanley's large collection and associated notebooks and other archival material resides (Rebecca Machin, pers. comm. to JMH). She also exchanged specimens with London's Natural History Museum (NHM) which, as mentioned earlier, she made a special point of visiting in 1882. The specimens exchanged with the NHM included species named after herself or Charles; recent checking has confirmed their existence (see Table 1). Elizabeth Coxen had recognised the need for the Queensland Museum to obtain specimens of foreign species to exhibit here and also the need to have shells of our own indigenous species represented in the great museums of other countries. Given the increasing importance of biosecurity in modern Australia - and therefore the need for prompt and accurate identification of potential or actual invasive species - her view that local museums should have specimens of foreign species in their collections seems prophetic. One of the strengths of the Queensland Museum's current mollusc collection is its strong representation of foreign species, and this material has often proved crucial for identifying invasive species. As Elizabeth would have been aware, illustrations in books and papers rarely convey all the subtleties of form and colour of actual specimens, nor are they any substitute when it comes to educating the public.

Curator of Conchology

Just before his death on 17 May 1876, Charles Coxen conveyed a message to the Queensland Museum's Trustees proposing that the museum purchase 'certain books, bird skins etc.' and 'expressing Mrs Coxen's wish to continue her connection with the museum at the price of a small remuneration' (Trustees' Minutes, 18 May, 1876) [Unfortunately, Coxen's communication, assuming it was written rather than verbal, is missing from the museum's archives, hence we must rely on the wording of the minutes]. Although not expressly stated in the minutes, it was undoubtedly Coxen's wish for Elizabeth to continue her care of

the museum's shell collection, to which the couple had so generously contributed through their donations of specimens and time. While the Trustees agreed to purchase the Coxen collection material and books, the proposed employment of Elizabeth met with some resistance, particularly from William Miskin, a solicitor of punctilious disposition. The Trustees' Minutes of 24 January 1877 record that: 'he thought that such an appointment would be most injurious and calculated to be subversive of the future systematic working of the institution and that it was really unnecessary. It would be much better for the Trustees to call on Mrs Coxen's assistance at such times as might be found necessary for which she should be remunerated, but that no fixed appointment ought to be made.' Miskin did, however, recommend that £50 be set aside for 'any service that might be required on behalf of the museum during the following twelve months and that it be further represented to the Government that in the opinion of the Board no appointment should be made to the museum without being first submitted to them for consideration and approval at one of their meetings.....'

While it is understandable that Miskin was trying to be careful with museum and therefore government funds, it is also clear that the Coxens' intentions had been misunderstood. Charles Coxen had never sought a permanent post, curatorial or otherwise, for his wife; simply some 'small remuneration' for maintaining the shell collection. He himself had only ever been an honorary curator, and museum records of the 1870s and 80s show that it lacked the financial capacity to employ more than one paid curator at any given time. Elizabeth Coxen's expertise with molluscan shells was well recognised and the prospect of her continued involvement with the museum was applauded in the local press. The *Queenslander* newspaper of 3 February 1877 reported: 'It is rumoured that the widow of the late Charles Coxen, Esq., who is well up in conchology, will assist in setting up this branch of science in the museum.' But shells, despite their appeal to the general public, inevitably would be viewed as less important



FIG. 6. Shells and living specimens of molluscan species named after Charles or Elizabeth Coxen (from the Queensland Museum collection). **A**, Shells. Land snails: (1) *Spurlingia dunkiensis* (Forbes, 1851) (formerly *Helix coxena* Brazier, 1875); (2) *Gloreugenia coxeni* (Cox, 1871). Operculate land snails. (3) *Signepupina coxeni* (Brazier, 1875); (4) *Palaehelicina coxeni* (Brazier, 1876). Marine snails: (5) cowrie *Eclogavena coxeni* (Cox, 1873), (6) cone *Conus cyanostoma* A.Adams, 1855 (formerly *Conus coxeni* Brazier, 1875). Diameter of (1) 32 mm; **B**, Live *Spurlingia dunkiensis* (Forbes, 1851) (photo : John Stanisic); **C**, Live *Signepupina coxeni* (Brazier, 1875) (photo: Darryl Potter); **D**, Live *Conus cyanostoma* A.Adams, 1855 (photo: Don Byrne).

than birds, mammals, insects or even minerals, and therefore unworthy of a formal curatorial position. Eventually the museum agreed to hire Elizabeth on a daily basis (10 shillings per day attended) but without any formal title; this was not only to maintain the shells but also to assist with other collection duties.

In 1877, when Elizabeth Coxen officially assumed responsibility for the Queensland

Museum's shell collection, undoubtedly many of the specimens she was to oversee had come from her and her husband's own collection, either by donation or purchase. In a ledger preserved in the Queensland Museum's Rare Book Collection ('Mrs Coxen's List'), Elizabeth records 942 named species of molluscs together with basic locality and, if known, specimen source information (Fig. 7). Almost certainly this is a catalogue of the museum's mollusc

collection compiled while she was employed by the museum (1877–1882), as it is entirely in her hand and includes a short preamble signed by her. The ledger mentions several notable scientists or collectors of the era, such as Hargraves, Thatcher, Jardine, Le Grand, Cox, Brazier, Stutchbury and Bednall, and through these names we can develop some idea of the Coxens' wide circle of Australian and overseas natural history contacts and colleagues. Some of the entries in the list bear the donor initials 'CC', suggesting that such specimens had come from Charles Coxen. The ledger shows that the museum's mollusc collection covered many of the important marine mollusc groups: gastropods, such as cones, strombs, cowries, mitres, olives, helmets, murexes; bivalves, such as pearl oysters, venus clams, giant clams, mussels; chitons; some cephalopods; and at least four of the seven molluscan classes. As much of the collection at the time would have been on public display, emphasis was given to the larger, more colourful Indo-Pacific species, but many foreign species and common species from Moreton Bay were also represented. Looking now through the range of species in 'Mrs Coxen's List', it is obvious why sea shells were always a major attraction for museum visitors as evidenced by newspaper items of the time (e.g. *The Queenslander*, 25 September, 1875, 6 April, 1878).

Sadly, few specimens bearing definite Coxen provenance have been located to date in the Queensland Museum's present mollusc collection (Fig. 8). Some Coxen specimens may have lost their original labels (through insect or water/humidity damage) and been re-labelled without donor information, while others may have been exchanged with other institutions, or simply deteriorated over time and subsequently culled. Given that the museum has occupied at least five premises since the 1860s, some loss of Coxen shells was almost inevitable. Past exchanges would seem the most likely reason for the scarcity of Coxen material from today's collection, as the Registers of Exchange record several out-going transactions in which Queensland shells (many from Moreton Bay where the Coxens had

personally collected) were sent overseas. From Elizabeth Coxen's surviving correspondence we know that she actively pursued foreign shells for the museum via exchange, as she had done earlier in her career and was to continue later. Exchange was standard practice in her day—virtually all world museums utilised this method of expanding the diversity of their natural history collections as it avoided at least some of the need for purchase funds.

Apart from compiling the previously-mentioned collection ledger, Elizabeth Coxen appears not to have prepared any formal scientific papers relating to molluscs during her five-year employment by the Queensland Museum. She did, however, supply John Brazier with her late husband's unpublished notes relating to the cowries of Moreton Bay (and associated collection localities), which became the whole basis of Brazier's annotated list of species (see Brazier 1879). Possibly Elizabeth saw her role more as maintaining the collection, adding to it through her wide circle of contacts, and facilitating the work of established scientists. Also, given her success in public displays of specimens, at international exhibitions, fund-raising events as well as the museum (*Brisbane Courier*, 2 November 1895), it seems likely that she saw such displays as her most important contribution to the study of molluscs or invertebrates in general. Another aspect of her museum work would have been dealing with inquiries relating to the shell collection and invertebrates generally, however little evidence of this survives in the museum's archives.

Elizabeth Coxen's only known contributions to the scientific literature relating to malacology are two short papers dating from after her museum employment and read to meetings of the Royal Society of Queensland which, as previously explained, she was the first woman member. The first of these papers was on cowries (Coxen 1894b), based partly on her late husband's unpublished notes on the living animals, while the other was on the dangers of living cone snails (Coxen 1894c). Given Elizabeth's life-long passion for molluscs and their shells, her lack of publications in this field

4 th Class Gasteropoda				
1 st Sub Class prosobranchiata				
1 st Sub Order prosoboscidiifera				
1 st Family Muricidae				
1 st Sub Fam Muricinae				
1 st Genera Murice, 1 st Sub Fam Murice				
12	<i>M.</i>			
13	<i>M. capucinus</i>	Cape York	Lamarck	Jardine
14	<i>M. brevispinus</i>	NE Coast	Lamarck	Shakelton
15	<i>M. Stamfordii</i>	Port Denison?		Hargraves
16	<i>M. Angasi</i> <i>triformis</i>	Watson's Bay		"
17	<i>M. acanthopterus</i> <i>triformis</i>	Botany	Lam.	Hargraves
18	<i>M. chlorostomum</i>	Moreton Bay	Gray	
19	<i>M. crenifer</i>	West Australia		
20	<i>M. fusiformis</i>	Vaucluse		Hargraves
21	<i>M. palmiferus</i>	2 Sydney		"
x 22	<i>M. triformis</i>	1 Banks Straits		2. Murice
23	<i>M. tripterus</i>	Port Denison		
24	<i>M. bifrons</i>	1		Hargraves
25	<i>M. monodon</i>	1 W Australia		"
26	<i>M. chrysozona</i>	Moreton Bay		
	<i>M. adustus</i>	3 Cape York		Baldome
	<i>M. funiculatus</i> <i>deare</i> ?	Moreton Bay		
	- <i>antoniensis</i> <i>deare</i> ?	2		
3 rd Genera Trophom				
	<i>T. laciniatum</i>			

FIG. 7. 'Mrs Coxen's List', the earliest known catalogue of the Queensland Museum's molluscan collection (Rare Book Collection, Queensland Museum Library). Although undated, this ledger of specimens is written entirely in Elizabeth Coxen's hand, with a brief preamble signed by her (simply as 'Coxen'). Similar ledgers ('Hedley's List' by a later curator of molluscs Charles Hedley, and museum collector 'C.J. Wild's List') are also held by the Queensland Museum, indicating that 'Mrs Coxen's List' was almost certainly drawn up during her employment by the museum (1877-1882).

may seem surprising. However, in her day there would have been reservations about a woman actively publishing scientific work, as women were only beginning to take up scientific studies at Australian universities, though not yet in Queensland (McKay 1997). Also, obtaining current publications pertinent to the subject was always a problem for Australian researchers, especially those living outside the southern capitals, so Elizabeth would have had, at best, only limited access to the wealth of information published on molluscs during the

late nineteenth century. Indeed her successor at the Queensland Museum, John Shirley, was to resign his post in 1914 lamenting that the lack of key taxonomic works prevented him from undertaking research on the mollusc collection (Monteith & Mather 1986).

Although Elizabeth Coxen was never given the formal title of 'curator', we believe that, by virtue of the work she undertook, she largely fulfilled this role and should be seen as the Queensland Museum's first Curator and/or

Collection Manager of Molluscs (Conchology). In her official history of the museum Dr Patricia Mather (1986) lists Elizabeth as 'part time Conchologist' in her summary of the early staff, however we have not been able to confirm this title in contemporary records. Elizabeth was certainly the first person – male or female – to be paid to oversee any part of the museum's invertebrate collections, and was probably the first woman curator of any natural history museum in Australia.

From 1882, when Elizabeth Coxen's employment by the Queensland Museum ended, the shell collection was overseen by various honoraries and/or collectors, such as Henry Tryon, Kendall Broadbent and C.J. Wild, until Charles Hedley was appointed as a temporary 'conchological assistant' in 1888 (Monteith & Mather 1986) (Fig. 4D). According to those authors, Hedley 'completely rearranged the collection and donated a collection of his own' and in 1889 he contributed much material from his collecting in New Guinea as part of the William MacGregor expedition. He also compiled another ledger of the shell collection ('Hedley's List'), more detailed than Elizabeth's earlier ledger but no doubt drawing on it. Hedley would have known Elizabeth as they were fellow members of the Royal Society, and on one page of his collection ledger he made specific mention of her in relation to the identification of a species. Hedley left the museum in 1890 for a spectacularly successful 33-year career as a scientist and notably conchologist at the Australian Museum (Fairfax 1983). Monteith & Mather (1986) record that following his departure the shell collection remained largely untended until the honorary conchologist Dr John Shirley was appointed in 1912. To what extent Elizabeth Coxen interacted with the museum in her later life is uncertain, although her continuing donations suggest a cordial relationship.

Horticulturist

After returning from her visit to England in 1882, Elizabeth Coxen devoted more time to her other interests, notably gardening, an interest she had shared with her late husband. Their

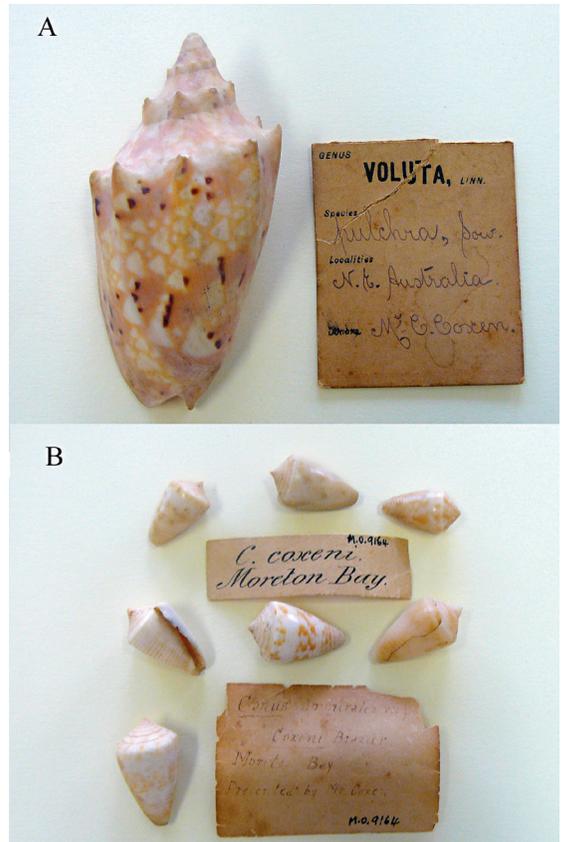


FIG. 8. Two rare lots of gastropod shells with labelled Coxen provenance: **A**, *Cymbiola pulchra* (G.B. Sowerby I, 1825) 'N.E. Australia' [this is the form found at Heron Island, Great Barrier Reef]; **B**, *Conus cyanostoma* A.Adams, 1855 (formerly *C. coxeni* Brazier, 1875) from Moreton Bay.

garden at The Terraces, Murarrie, was said to be 'the very embodiment of horticultural loveliness' (*Queensland Daily Guardian*, 19 September 1867). It featured a series of flower-laden terraces which descended down to the river to terminate in an arbour of ornamental and fruit-bearing trees; this was reached by stone steps winding around rocks and boulders 'placed in the most admirable disorder'. Though the Coxens employed resident gardeners, Elizabeth undertook much of the gardening herself. According to the diary of Bertha Pears, a pioneer settler of the area, 'tiny old Mrs Coxen' was often to be seen digging

until late. Besides their garden, the Coxens had grapes and sugar under cultivation at The Terraces, being experiments into the successful introduction of these products to Queensland. As a parliamentarian Charles Coxen advocated agricultural development, favouring liberal land laws to allow farmers to take up country lying idle under pastoral leases. As mentioned earlier, he was a foundation member of the local branch of the East Moreton Farmers' Association; as well, he was a foundation member of the Queensland Horticultural Society and the Acclimatisation Society which also promoted agriculture. No doubt Elizabeth would have supported her husband's agricultural interests; however his liberal views would not have been shared by many other squatters and probably contributed to his electoral defeat in 1867. For instance, Elizabeth's brother Frederick was one of the Darling Downs's most notorious land-grabbers, using dummying and pre-emptive purchase to monopolise 2200 acres of land and so prevent farming near Gowrie.

The Coxens showed produce from The Terraces in Brisbane's earliest horticultural exhibitions, held from 1862 by the Horticultural Society. In 1864 Elizabeth showed 'a good collection of petunias, verbenas, fuschias and balsams' and won prizes for a table bouquet and beeswax (*Brisbane Courier*, 16 January 1864). The Coxens also donated seeds and plants to the Acclimatisation Society, a practice continued by Elizabeth after Charles's death. In 1875 she gave seeds of the 'lady apple' tree (*Syzygium suborbiculare*) from Cape York Peninsula, indicating the depth of her interest in plants (*Queenslander*, 25 December 1875). Surprisingly, though the Acclimatisation Society had several women members by the 1870s, there is no evidence to suggest that Elizabeth ever joined.

In later life Elizabeth Coxen made her smaller garden at Omega Cottage, Bulimba a showplace. At this time she was assisted in her efforts by another prize gardener from Bulimba, Mr C. Rosenthal. Besides maintaining her donations to the Acclimatisation Society, Elizabeth continued exhibiting, now in Brisbane's annual exhibitions organised by

the National Agricultural and Industrial Association. Between the years 1881 and 1887 she was a regular exhibitor in the exhibitions' horticultural sections, mostly showing cut flowers, pot plants, fruit and vegetables. In 1886 she was the main horticultural exhibitor (Scott 2008), her exhibits including a 'collection of not less than 24 varieties' of cut flowers.

In 1886, in an essay on medicinal plants, the eminent medical practitioner and naturalist Dr Joseph Bancroft included mention of *Eucalyptus staigeriana* F. Mueller ex Bailey, 1883, the Lemon Ironbark from North Queensland, the foliage of which is rich in lemon-scented oil. Bancroft wrote: 'The only tree of this species, in Brisbane, grows in the garden of Mrs C. Coxen, a lady who has assisted materially in the furtherance of this study of natural history' (Bancroft 1886).

Meteorologist

Besides gardening, Elizabeth Coxen devoted time to her newfound interest in meteorology. In January 1883 she began compiling monthly weather reports at her home in Bulimba, using her own meteorological station to record temperatures and rainfall. In doing so she became a pioneer of climate science in Queensland, predating the establishment of the colony's official weather service in 1887 with the appointment of meteorologist Clement Wragge. By 1889 Elizabeth was using the initials 'MRMS' after her name, indicating that she was a proud member of the Royal Meteorological Society of London. By this time there were many other meteorological stations across Queensland, however most of the observers were government officials, not private citizens, and presumably they were male. Elizabeth's meteorological work would have been onerous as generally observations were taken thrice daily. Between 1889 and 1899 she published several tabulated rainfall and temperature reports (Coxen, 1889a,b, 1891, 1896, 1897, 1898, 1899a,b) and a paper on Brisbane's floods. The latter, written in the wake of the city's worst flood on record, reflected community interest in rainfall and its often dramatic consequences (Coxen 1894a). Sometimes Elizabeth recorded maximum and minimum temperatures for all



FIG. 9. Portrait of Charles Coxen, Founder of the Queensland Museum, oil on canvas, c 1883, by Dickinsons of London, donated by Elizabeth Coxen to the Queensland Museum in February 1887 (Queensland Museum Cultures and Histories collection, H42666).

Australia's capital cities over recent years, suggesting that she was corresponding with colleagues in other colonies. Her meteorological reports are now preserved in the archives of the Royal Society and the Queensland Museum.

Honouring Charles Coxen

Elizabeth Coxen maintained her late husband's interest in international exhibitions; he had been one of Queensland's commissioners for several exhibitions in London and Paris between 1862 and 1871. She contributed to Queensland's exhibits at the Sydney exhibition of 1879 and to Melbourne's event of the following year, showing shells and mounted birds. The birds—rifle birds, regent birds and bowerbirds—had been artistically mounted by Charles Coxen and contained in handsome yellowwood and cedar cases. They won a first degree of merit at Sydney. However, on return from Melbourne three of the cases of birds, along with the shells and many other exhibits, were badly damaged by defective packing, resulting in an insurance claim (McKay 1998). This would have been distressing for Elizabeth as the birds were prize examples of Coxen's skill in taxidermy, ones that she had kept in her own possession.

In 1887 she donated a portrait of Charles Coxen to the Queensland Museum (Fig. 9) (Donation 4258). It is a large and impressive oil portrait depicting him in later life when he was a land commissioner, and set in an ornate gilt frame. According to the museum's Trustees' Minutes of 3 March 1887, the portrait was painted by an artist called 'Dickinsny' (sic) but no other information was recorded. However, when the portrait was conserved in recent years, the true maker was revealed as Dickinsons of New Bond Street, London—'by appointment to the Queen'. Dickinson Brothers was one of England's most fashionable portrait studios of the Victorian era. Its master, Lowes Cato Dickenson (1819–1908), was a regular exhibitor at London's Royal Academy and could number such notables as the Queen, Cabinet ministers and colonial governors among his sitters. From the studio address, the Coxen portrait can be dated to after 1882, which suggests that Elizabeth would have

commissioned it during her visit to England. Presumably it was painted from a photograph, which is still standard practice for portraying deceased subjects. Whatever the circumstances of its commissioning, the portrait would have been very costly, again indicating Elizabeth's rise in fortunes at this time.

On 15 February 1887, when she gave the portrait to the museum, Elizabeth wrote to ask that a brass plaque be affixed with the words 'Charles Coxen CMZS [corresponding member of the Zoological Society], Crown Lands Commissioner, Founder of the Museum', or alternatively, 'Father of the Museum' (Fig. 10). But the then Trustees refused to accept either title and changed the wording to 'Charles Coxen Esq. CMZS, first honorary curator, one of the earliest Trustees and contributors to the Museum'. The meetings at which the portrait was discussed were chaired by Sir Arthur Palmer, a pastoralist and former premier; possibly he and Coxen may have had differences. A few weeks later, on 8 March, Elizabeth replied to the museum expressing her disappointment. She wrote: 'Many years ago, on reading an account of the Australian Museum, in which Alexander Macleay was mentioned as the Father or Founder of that institution, Mr Coxen expressed a hope that, that term might someday be applied to him in connection with the Queensland Museum'. She added, graciously, that she would accept the changed wording. The portrait is but one of the legacies Elizabeth Coxen has left Queensland.

Concluding Remarks

The contribution of Elizabeth Coxen to the understanding of Queensland natural history has been significantly underestimated, as has her role in supporting her husband Charles in his ornithological work and in founding and championing the Queensland Museum. One of Elizabeth's contemporaries, Henry Tryon, was to imply that it was her influence, rather than her husband's, which led the youthful Rowland Illidge to an interest in shells (Monteith & Mather 1986); Illidge, a fellow resident of Bulimba, later became one of Brisbane's leading naturalists of the early twentieth century (Tryon 1929). Elizabeth lived at a time when women

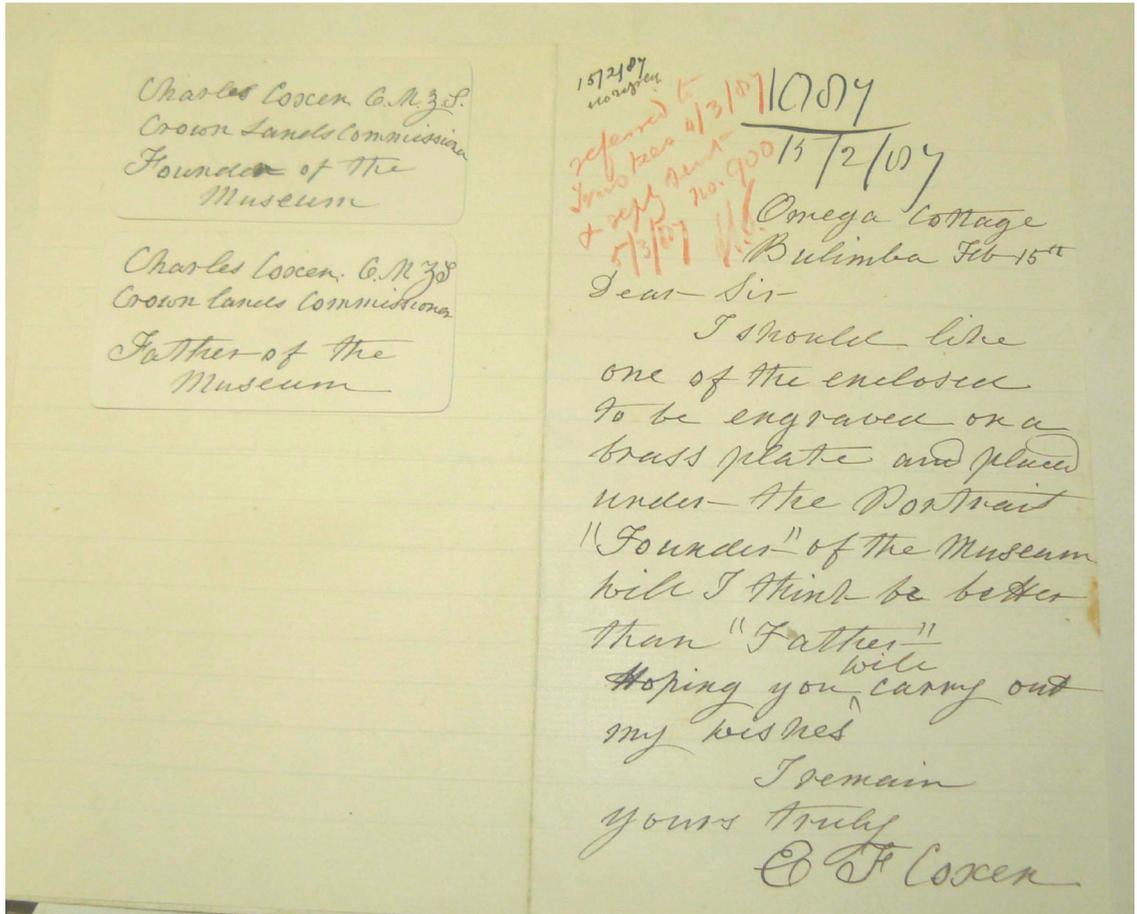


FIG. 10. Letter from Elizabeth Coxen to the Queensland Museum Trustees providing her two proposals for a plaque to be attached to the portrait of Charles Coxen. Sadly neither of these was used (Queensland Museum Library, archives, Letter 1087).

were not encouraged to partake in the sciences, let alone develop professional expertise or correspond with eminent scientists. Following her husband's premature death in 1876 she did not fade into the background as the widow of a prominent man, but sought recognition for his achievements and attempted to continue the scientific endeavours they had begun together. Her election as the first woman member of the Royal Society of Queensland in 1886 shows the esteem in which she was held within the learned community of her time. Elizabeth Coxen, as probably the first woman curator of any natural history museum in Australia, can be seen as a role model for today's museum

women. But she did not seek such laurels. Rather, she would have believed in the public educational value of her work and in the importance of museums as key components of any progressive society.

ACKNOWLEDGEMENTS

The authors wish to thank the following for assistance with their documentary research: Meg Lloyd of the Queensland Museum Library, Kaye Nardella of the Museum of Lands, Mapping and Surveying, Sue Laidlaw of the Anglican Diocese of Brisbane Records and Archives Centre, and Stephanie Ryan and

Dianne Byrne of the State Library of Queensland. The following institutions and individuals generously permitted reproduction of images from their collections: the State Library of Queensland (Omega Cottage, St John the Baptist Church and Brisbane river flood 1893); the Queensland Museum (portrait of Charles Coxen); the Linnean Society of New South Wales (portraits of James Cox and Charles Hedley), and the Australian Museum (Sydney) (portrait of John Brazier); Adrian Norris, Peter Dance and Conchological Society of Britain and Ireland (portrait of E.A. Smith from the John William Taylor Collection held in the West Yorkshire Archives Department in South Leeds); Jeff Byrne of Brisbane (colour slide of *Conus cyanostoma* (formerly *Conus coxeni*) by Don Byrne). Various staff of the Queensland Museum's Biodiversity and Geology Program also assisted: Heather Janetski provided access to specimens of Coxen's fig parrot for photography; John Stanisic and Darryl Potter allowed us to reproduce their photographs of living snail species (*Gloreugenia coxeni*, *Signepupina coxeni*). Peter Volk (Collections Manager, QM Cultures and History Program) and Meg Lloyd (QM Library) allowed access, respectively, to the oil portrait of Charles Coxen (QM Collection) and Mrs Coxen's List, for photography by Peter Waddington (QM Photography section). All other images by JMH. Rebecca Machin of the Leeds Museum Discovery Centre, UK, is thanked for confirming the location of the Hanley Collection (and associated archival material), and Andreia Salvador (Natural History Museum, London, UK) and Nerida Wilson (Western Australian Museum) confirmed the presence of Coxen-donated shells in the NHM Mollusca Collection. Finally we thank Geoff Monteith and John Stanisic (both Queensland Museum) for providing very valuable comments in their reviews of the manuscript.

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