The Reinvention of Banknotes

THE AUSTRALIAN
INNOVATION OF
POLYMER BANKNOTES

RESERVE BANK OF AUSTRALIA

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Aboriginal and Torres Strait Islander readers are respectfully advised that this booklet includes the names and images of people who are now deceased.

The Reserve Bank of Australia worked jointly with the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in developing new technology for the security of the banknotes. The first banknote printed on polymer substrate – the $10 banknote – was issued in January 1988 to mark Australia's bicentenary. Between 1992 and 1996, a series was issued progressively to replace the original decimal banknotes. Known as the New Note Series, it comprised the $5, $10, $20, $50 and $100 denominations. With the introduction of this series, Australia became the first nation to convert successfully its paper-based currency to polymer banknotes.

The banknotes were printed by the Reserve Bank's Note Printing Branch in Craigieburn, Victoria. It was renamed Note Printing Australia in 1990 and established as a separately incorporated, wholly owned subsidiary of the Reserve Bank in 1998.

When Australia's first decimal currency series was introduced in February 1966, the banknotes were thought to contain the most advanced security features available. The series included a watermark, metal thread, quality rag paper and sophisticated printing; however, by the end of the year the $10 banknote had been counterfeited. It became apparent that improved security features were necessary to impede counterfeiters and the Governor of the Reserve Bank, Dr HC Coombs, sought a long-term solution from Australia's scientific community, which was expanding its research capability at this time. The Bank began a series of discussions with the Commonwealth Scientific and Industrial Research Organisation (CSIRO) concerning the

development of technology that would revolutionise the security of the banknotes. Included in the initial discussions were Dr Sefton Hayman, then Chief of the CSIRO Division of Applied Chemistry, and Professor David Solomon, who led the research team to its ultimate achievement.
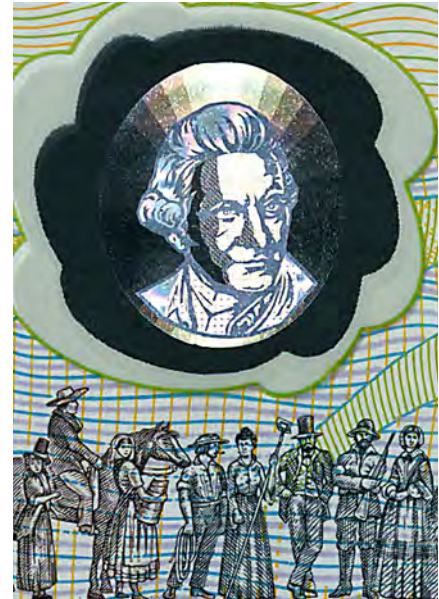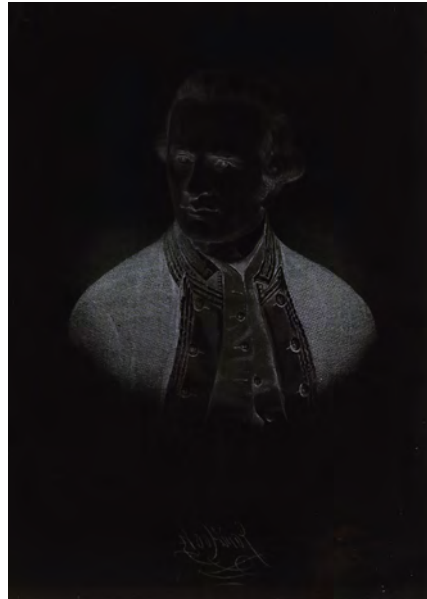
The initial motivation was directed towards developing a banknote that could not be copied by counterfeiters through photographic means, while ensuring that forgeries would be recognised easily by the public. This focus lead to exploring the hologram-like optically variable device. As its name suggests, the device's appearance varies according to external changes, including the angle of viewing. Its integration

with the banknotes meant that counterfeiters were unable to photograph them accurately, whereas they could reproduce banknotes with static images. The device produced better optical effects when applied within a smooth, transparent surface, contributing to the decision to develop a clear plastic film as the substrate to replace traditional, fibrous paper. Research was propelled during this period by awareness that improved reprographic technology was becoming increasingly available to the public. By 1974, the research had matured into the stage of experimental banknotes and the Bank officially engaged the CSIRO on the project.

An experimental $50 banknote, 1985.
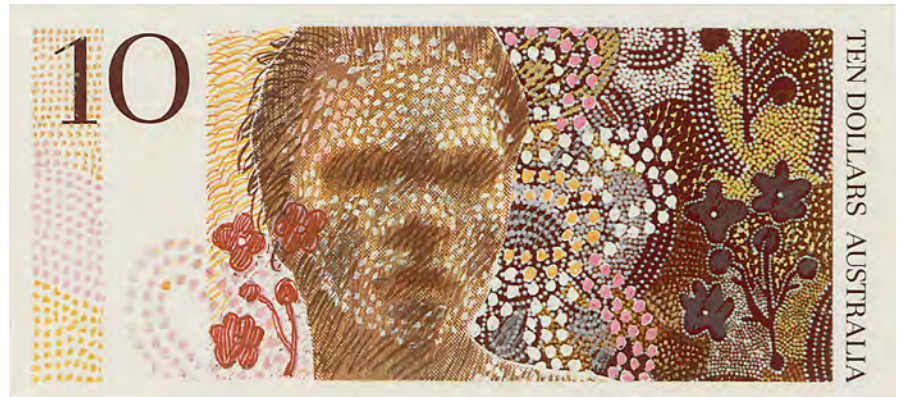Reserve Bank of Australia Archives, NP-004655.

Source image of Captain James Cook's portrait by Nathaniel Dance (William Holl, engraver, and Fisher, Son & Co London, publisher) and negative with the optically variable device used in the commemorative $10 banknote, first issued in January 1988.
Reserve Bank of Australia Archives, NP-002847, NP-004390.

In 1988 Australia became the first country to incorporate optically variable devices into its banknotes.

The experimental banknotes underwent rigorous tests that gauged their resilience to different conditions and predicted their lifespan. It was estimated that the longer life of banknotes printed on plastic film more than compensated for the increase in the cost of production. The Bank's then Governor, Robert Johnston, decided to release a limited edition of the banknotes in the Bicentennial year of 1988 to serve as a type of trial.

A preliminary banknote design for the commemorative $10 banknote of 1988.
Reserve Bank of Australia Archives, NP-004219, NP-002753.

The commemorative $10 note was the first banknote to be printed on polymer substrate with an integrated optically variable device; it was released on 26 January 1988, the bicentenary of Governor Arthur Phillip's naming of the colony Sydney Town. Harry Williamson, designer of the $100 decimal banknote, was chosen to lead the design team. The banknote incorporates an optically variable device that portrays Captain James Cook. It features a vessel of the First Fleet, HMS *Supply*, the first ship to drop anchor in Sydney Cove, and a frieze of figures across the landscape, beginning with convicts and continuing with subsequent waves of migration to Australia.
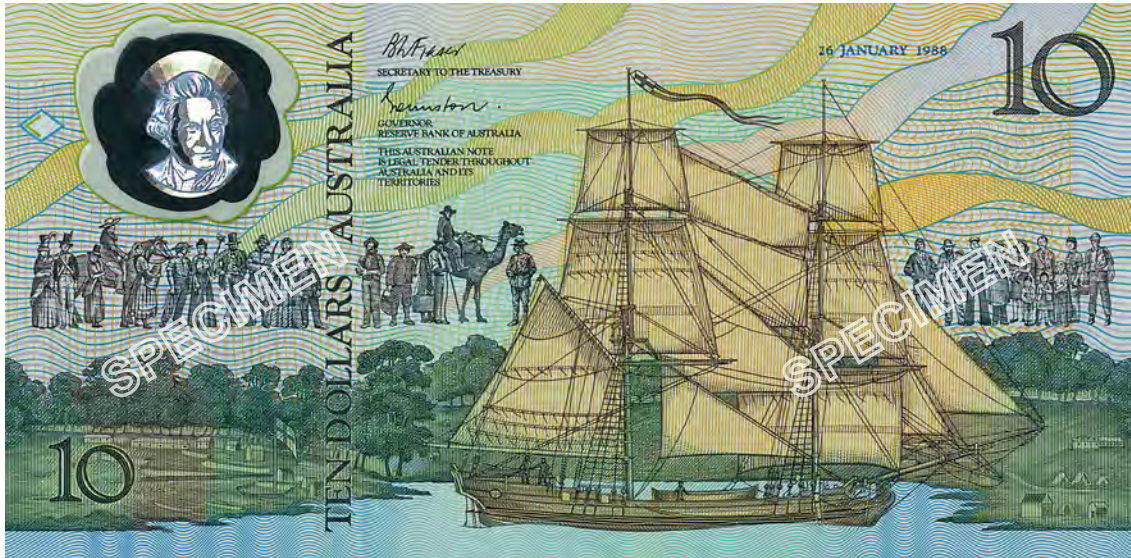
The culture of Aboriginal people is represented through layered imagery and patterns on the other side of the banknote. In its centre is an image of a youth with body decoration that was commissioned from the artist, Wayne Williams. Ancient rock paintings from Deaf Adder Gorge, Western Arnhem Land, appear behind the figure and a ceremonial Morning Star Pole, created by Terry Yumbulul (Djangu), is placed between the youth and the ancestral paintings. Different styles of art works are depicted in the background: hand stencilling; dot painting based on works acquired by the Bank from Paddy Carroll Tjungurrayi (Warlpiri; Anmatyerr); and cross-hatching or rarrk from a bark painting commissioned from George Milpurrurru (Yolgnu).

The trial of the new technology was successful, and a complete series of polymer banknotes was planned for issuance. For the production of the new series, the focus shifted from the optically variable device to less expensive alternatives that had become available. The introduction of a clear window replaced the device as it was equally effective in hindering counterfeiting. With the introduction of the New Note Series, issued between 1992 and 1996, Australia became the first nation to convert successfully its paper-based currency to polymer banknotes.

AUSTRALIAN BICENTENARY COMMEMORATIVE BANKNOTE, 1988

Front of Commemorative $10 banknote, offset and intaglio printing on polymer substrate, with an optically variable device of Captain James Cook; design concept by Harry Williamson, first issued in January 1988.

Reserve Bank of Australia Archives, NP-004390.

Back of Commemorative $10 banknote, offset and intaglio printing on polymer substrate, with an optically variable device of Captain James Cook; design concept by Harry Williamson, first issued in January 1988.

WITH THE INTRODUCTION OF THE NEW NOTE SERIES, ISSUED BETWEEN 1992 AND 1996, AUSTRALIA BECAME THE FIRST NATION TO CONVERT SUCCESSFULLY ITS PAPER-BASED CURRENCY TO POLYMER BANKNOTES.

THE REINVENTION OF IDENTITY

The technical innovation of the new series was accompanied by a fresh approach to the selection of the identities for the banknotes, based on criteria developed by the Bank. An advisory panel was established with the historian Geoffrey Blainey; architect Phillip Cox; artist Janet Dawson; and the designer of the first decimal currency series, Gordon Andrews. The design of the new banknotes sought to expand the diversity established by the first decimal series, with increased emphasis on archival research and consultation for the selection of themes and individuals. With the exception of the reigning monarch, all figures on the banknotes were to be of people deceased; however, they were to describe achievements

THE DESIGN OF THE NEW BANKNOTES SOUGHT TO EXPAND THE DIVERSITY ESTABLISHED BY THE FIRST DECIMAL SERIES.

from more recent times than previous series, with the suggested timespan being between 1870 and 1970. A reasonable distribution of different Australian states was recommended together with the celebration of Aboriginal culture.

Other than the monarch, only one woman – Caroline Chisholm – appeared on the first series of decimal currency banknotes. For the new series, there would be equal representation of women and men. Owing to a concern that there may be a preponderance of women associated with the arts, consideration was given to women from diverse disciplines. A preliminary selection of women reflects this diversity. As well as the artist Margaret Preston, and writers Miles Franklin and Christina Stead, the initial selection included the social reformer and suffragette Vida Goldstein, and the champion swimmer Sarah Durack. The influential landscape designer, Edna Walling, appeared on the list of possibilities, together with the noted botanist and conservationist, Thistle Harris.

The Bank conferred with the board of the Aboriginal and Torres Strait Islander Commission for advice on the representation of its culture. The Commission's suggestions of identities for the banknote comprised Sir Douglas Nicholls, former Governor of South Australia; the singer Harold Blair; the artist Albert Namatjira; and David Unaipon, writer, inventor and advocate for his people, who became the chosen candidate.

Like the first decimal series, the final choice of identities saw a degree of compatibility between the sides of the banknotes. The poet Dame Mary Gilmore was coupled with fellow writer, Banjo Paterson on the $10 banknote, and the entrepreneurial minister, the Reverend John Flynn, joined pioneering businesswoman, Mary Reibey, on the $20 banknote. The $50 banknote partnered two innovators in social reform: David Unaipon and the politician Edith Cowan. The celebrated soprano Dame Nellie Melba and military commander Sir John Monash, appeared together on the $100 banknote.

FOR THE NEW SERIES, THERE WOULD BE EQUAL REPRESENTATION OF WOMEN AND MEN.

Unlike Gordon Andrews and Harry Williamson, who were based in Sydney, the designers for the new series worked from Melbourne. The prominent graphic designers Max Robinson, Garry Emery and Brian Sadgrove designed concepts for the $10, $20 and $50 banknotes respectively; they joined Note Printing Australia's designer, Bruce Stewart, who produced the designs of the $5 and $100 banknotes. The designers imparted distinctive characteristics to their in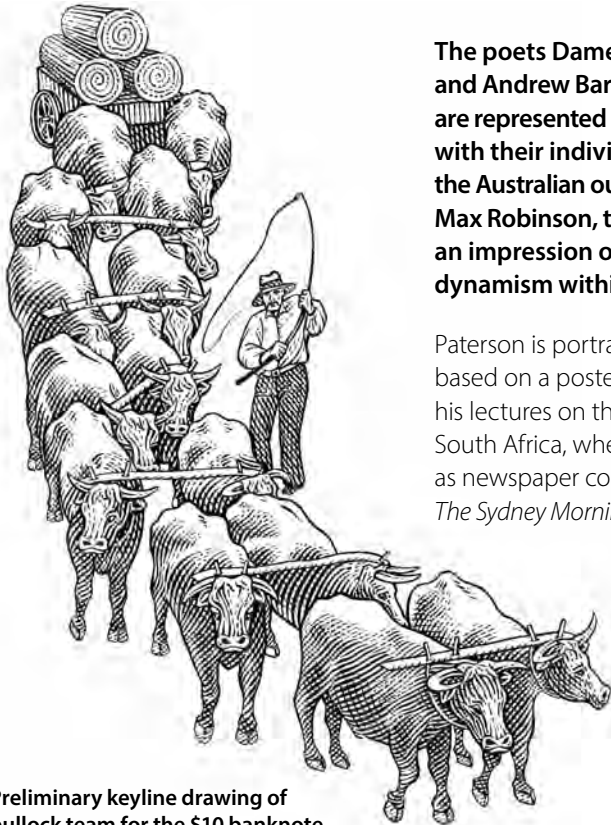dividual banknotes and also ensured that there was stylistic coherence within the series. They shared the common objective of creating concise, visual narratives that portrayed the identities' careers.

THE DESIGNERS IMPARTED DISTINCTIVE CHARACTERISTICS TO THEIR INDIVIDUAL BANKNOTES AND ALSO ENSURED THAT THERE WAS STYLISTIC COHERENCE WITHIN THE SERIES.

Since the replacement of the $1 banknote with a coin in 1984, the portrait of the reigning monarch had not appeared on a banknote. In 1992, Her Majesty Queen Elizabeth II reappeared on Australia's banknotes, moving to the $5 banknote, being the lowest denomination of the new series. Her portrait is based on John Lawrence's photograph. The informality of his image is accentuated in Bruce Stewart's design of a gum tree branch *(Eucalyptus haemastoma)*, whose naturalness contrasts with the stylised depictions of flora on previous banknotes.

Views of Old and New Parliament Houses in Canberra connect the monarch's ongoing role in Australia with its inheritance of constitutional monarchy and Westminster parliamentary democracy.

$10: THE ROMANCE OF THE OUTBACK

Preliminary keyline drawing of bullock team for the $10 banknote.
Reserve Bank of Australia Archives, NP-002729.

The poets Dame Mary Gilmore and Andrew Barton (Banjo) Paterson are represented on the $10 banknote with their individual evocations of the Australian outback. Designed by Max Robinson, the banknote imparts an impression of spaciousness and dynamism within its limited size.

Paterson is portrayed with an image based on a poster advertising his lectures on the Boer War in South Africa, where he had worked as newspaper correspondent for *The Sydney Morning Herald* and Melbourne's *The Age*. His popular verses portrayed Australian bushmen, drovers and horsemen, and characterised them as being independent and instinctual. The background of the $10 banknote includes imagery from his ballad, *The Man from Snowy River* (1890), depicting the dramatic recovery of a colt by a skilled horseman, together with his manuscript of its opening lines. Excerpts from the verse also appear on the banknote in microprint: tiny, clearly defined text that acts as a security feature. Paterson was also the author of the lyrics for *Waltzing Matilda*, and the song was adapted by Marie Cowan to advertise Billy Tea. The title page of her musical arrangement appears in the banknote's background.

During the Second World War, Mary Gilmore wrote some of her most celebrated verse, including

No Foe Shall Gather Our Harvest (1940), which supported national morale at this critical time. The banknote illustrates the poem's theme in an image of a bullock team with bales of wool, invoking the exertions that have contributed to the country's prosperity. Gilmore's manuscript of the refrain is reproduced on the side of the banknote and excerpts from the poem also feature in microprint. In her later years, Dame Mary Gilmore became a national figure and the artist William Dobell was commissioned by the Australasian Book Society to paint her portrait. A reproduction of Dobell's painting of the poet as an elderly woman combines with the youthful portrait to reflect the longevity of her creativity and influence.

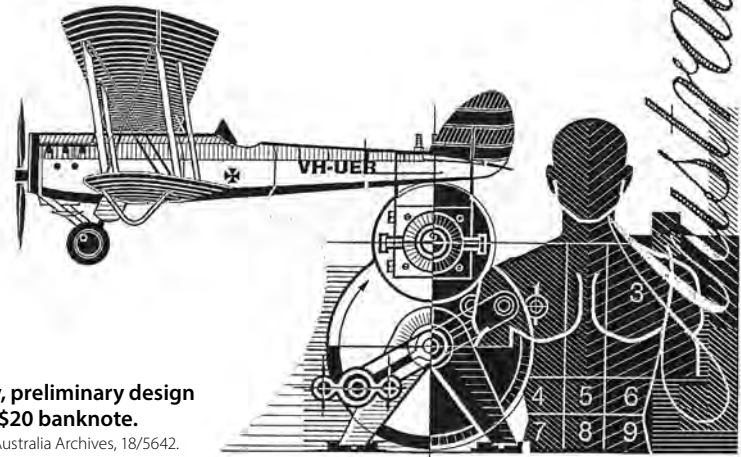**Preliminary designs by Max Robinson of the $10 banknote.**
Reserve Bank of Australia Archives, NP-004222, NP-004223.

$20: THE REWARDS OF ENTERPRISE

The $20 banknote brings together the colonial businesswoman, Mary Reibey, with the Presbyterian minister the Reverend John Flynn, who explored aviation as a means of revolutionising the delivery of medical services to the outback. The banknote's design by Garry Emery combines these disparate elements in dramatic montages suggestive of Surrealism, an art movement that has influenced his career.

Garry Emery, preliminary design element for $20 banknote.
Reserve Bank of Australia Archives, 18/5642.

Transported to New South Wales in 1792 for the theft of a horse, Mary Reibey was assigned as a nursemaid before her marriage to Thomas Reibey. After his early death, she developed his business interests with acumen. Her premises in George Street, Sydney, are illustrated on the banknote by a drawing from Joseph Fowles' *Sydney in 1848*, and her involvement in shipping is represented

with an image of the schooner, *Mercury*, which was used for trading in the Pacific Islands. Reibey contributed to the development of colonial society as a founding member of the Bank of New South Wales and through her support of educational and charitable causes.

John Flynn's ambition to improve communication systems and medical services in the outback led to the founding of the Royal Flying Doctor Service of Australia. His vision was first realised in 1928 when the air ambulance *Victory* made its flight from Cloncurry, Queensland, for the Australian Inland Mission Aerial Medical Service; the aircraft, a de Havilland DH.50 biplane, is depicted on the

banknote. The design contrasts aviation with the use of camels that were acquired by Flynn for his 'Patrol Padres' across northern Australia. A photograph of one of the ministers, the Reverend Coledge Harland, mounted on his camel is the basis for the background image on the banknote.
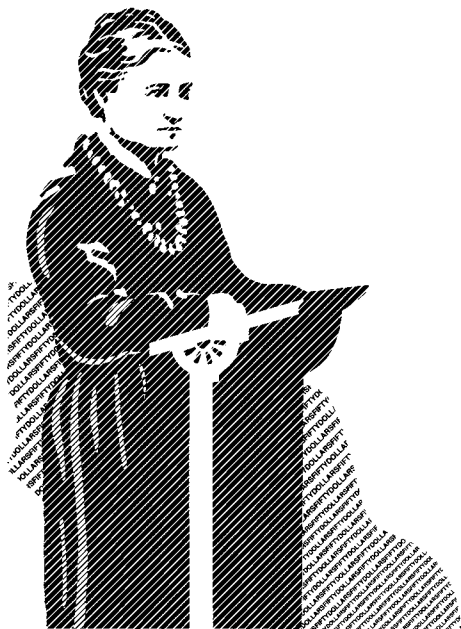
The capabilities of wireless communication were turned to reporting emergencies to the aerial service. The banknote includes an interpretation of the pedal-powered generator, invented by Alfred Traeger and used to operate transceiver wireless sets. It is paired with the 'Where Does It Hurt?' body chart that was used to identify affected areas during communication with the medical service.

Preliminary designs by Garry Emery of the $20 banknote.
Reserve Bank of Australia Archives, NP-002654.

Keyline drawing of Edith Cowan at a lectern for the $50 banknote.
Reserve Bank of Australia Archives, P12/255.

The $50 banknote coupled the politician Edith Cowan with David Unaipon, a Ngarrindjeri man whose career included activities as an author, inventor and advocate for his people. The banknote's design by Brian Sadgrove suggests a sense of the complex and abstract qualities of their work, portraying both subjects with thoughtful expressions from three-quarters views.

David Unaipon was born at the Point McLeay Mission, South Australia, now known by its original name of Raukkan. Unaipon's father, James Ngunaitponi, was the first convert to Christianity from the Lower Murray clans, and he became an evangelist. The mission's church, built in 1869, is depicted on the banknote with Milerum (Clarence Long) and his wife Polly Beck.

David Unaipon was especially interested in recording myths and legends and, in 1924 and 1925, travelled through southern Australia collecting the stories. In the preface to his volume titled *Legendary Tales of the Australian Aborigines*, Unaipon records, "as a full-blooded member of my race I think I may claim to be the first – but I hope, not the last – to produce an enduring record of our customs, beliefs and imaginings."[1] The excerpt is reproduced on the banknote, together with one of his inventions, an improved mechanical handpiece for shearing sheep.

Edith Cowan became the first female member of an Australian parliament when she was elected to the Legislative Assembly of the Western Australian in 1921; the original facade of Western Australia's Parliament House is represented on the banknote. Cowan is shown delivering a speech

from a lectern, as she did on subjects including children's welfare and women's rights. During her maiden speech to parliament, she invited her fellow members to consider the benefits of including more women in their political decisions, noting that "'if men and women can work for the State side by side and represent all the different sections of the community … I cannot doubt that we should do very much better work in the community than was ever done before."[2]

Preliminary designs by Brian Sadgrove of the $50 banknote.
Reserve Bank of Australia Archives, NP-004227, NP-004226.
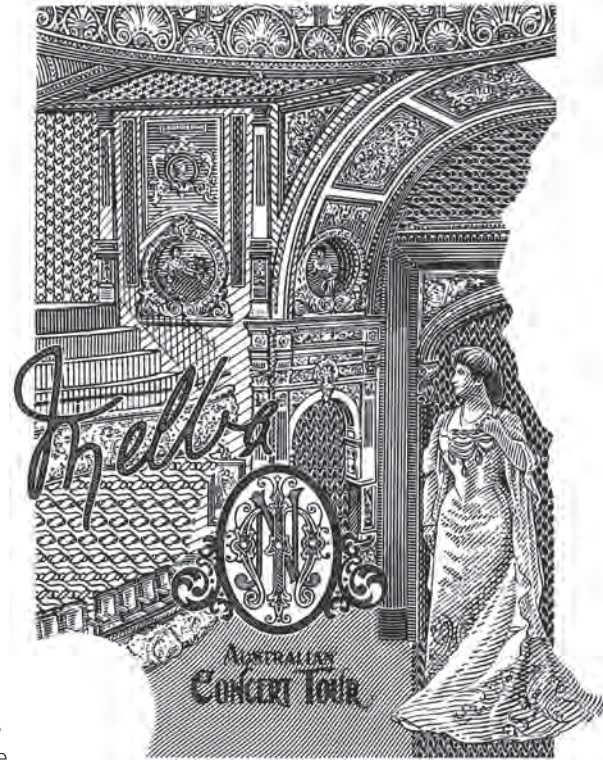
$100: THE RISE OF TALENT

Dame Nellie Melba and Sir John Monash, were united on the $100 banknote, designed by Note Printing Australia's Bruce Stewart. Both identities received international recognition: Nellie Melba as an acclaimed soprano, and John Monash as the commander of the Australian Corps during the First World War.

Nellie Melba appeared in the major opera houses of Europe and North America and reigned as the prima donna of Royal Covent Garden, London. In 1902, Melba returned to Australia for the first time since her European success and was given an overwhelming reception. The interior of Her Majesty's Theatre, Sydney, is shown on the banknote with a detail from Melba's Australian and New Zealand concert tour program, including her monogram. She was in Australia at the outbreak of the First

World War and remained based in the country for its duration, except for concert tours of North America. During this period, her performances and charitable work raised as much as £100,000 for the war effort.

As a civil engineer prior to the war, John Monash introduced the use of reinforced concrete into Victoria while also serving as a citizen soldier. With the outbreak of the First World War, he became a full-time army officer, and his promotions continued until he was given command of the Australian Corps. From May 1918, Monash led a sequence of attacks that succeeded in breaking Germany's Hindenburg Line, its strongest defence on the Western Front. A scene of the Australian field artillery attacking the Hindenburg Line is represented on the banknote to the right of Monash's portrait. Private John Simpson is portrayed with the donkey used

Keyline drawing of the interior of Her Majesty's Theatre, Sydney, for the $100 banknote.
Reserve Bank of Australia Archives, P12/211.

to transport the wounded during the battles of Gallipoli. Above the image of Simpson is the badge of the Rising Sun, worn by the Australian Imperial Force.

Monash became the Director-General of Repatriation and Demobilisation and oversaw the demanding task of returning 160,000 Australian troops home within eight months. He continued his leadership in the civic sphere with roles that included Vice-Chancellor of the University of Melbourne, Chairman of the State Electricity Commission of Victoria and as an expert proponent for the creation of the Shrine of Remembrance, Melbourne.

Preliminary design by Bruce Stewart of the $100 banknote.
Reserve Bank of Australia Archives, NP-004228, NP-004229.

Multi-coloured and multi-directional patterns of fine lines appear on each banknote. Under ultraviolet light, the serial numbers on the back of the banknote glow and a patch showing the value of the banknote becomes visible. The banknotes' intaglio printing, used for the portraits and selected design elements, results in a distinctive texture.

The banknotes for the New Note Series were printed in Craigieburn, Victoria, by Note Printing Australia, a separately incorporated, wholly owned subsidiary of the Reserve Bank.

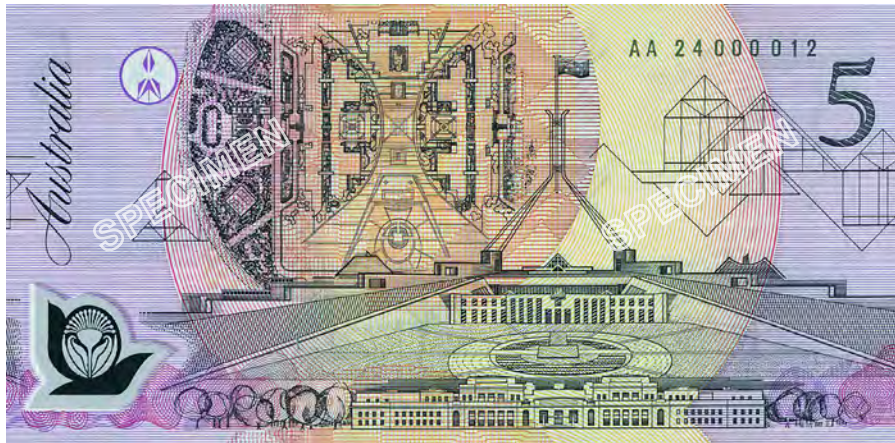**Queen Elizabeth II by John Lawrence, photograph, 1984.**
Reserve Bank of Australia Archives, P12/272.

Front of the $5 banknote showing Queen Elizabeth II, offset and intaglio printing on polymer substrate, with a clear window depicting a gum flower; concept design by Bruce Stewart, first issued in July 1992.

Reserve Bank of Australia Archives, 16/2683.

Back of the $5 banknote, offset and intaglio printing on polymer substrate with a clear window depicting a gum flower; concept design by Bruce Stewart, first issued in July 1992.

Reserve Bank of Australia Archives, 16/2683.

The $5 banknote received a mixed public response. Disappointment was expressed at the loss of Caroline Chisholm's portrait, including from then Prime Minister, Paul Keating. In April 1995, a more brightly coloured $5 banknote was issued to distinguish it more clearly from the $10 banknote.

Front of the $5 banknote showing Queen Elizabeth II, offset and intaglio printing on polymer substrate, with a clear window depicting a gum flower; concept design by Bruce Stewart, first issued in April 1995.
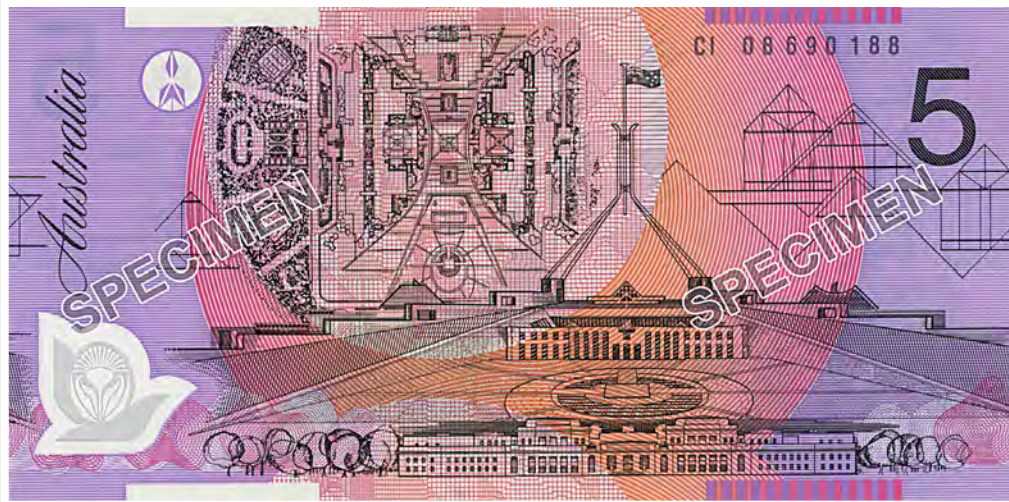Reserve Bank of Australia Archives, 18/73812.

Back of the $5 banknote, offset and intaglio printing on polymer substrate, with a clear window depicting a gum flower; concept design by Bruce Stewart, first issued in April 1995.
Reserve Bank of Australia Archives, D18/73805.

The cover of the sheet music for the song, *Waltzing Matilda*, adapted for the $10 banknote.
State Library of New South Wales.

Photograph of Banjo Paterson used to advertise his lectures on the Boer War and adapted for the $10 banknote.
Newspix.

Front of the $10 banknote, showing Banjo Paterson, offset and intaglio printing on polymer substrate, with a clear window depicting a windmill; concept design by Max Robinson, first issued in November 1993.
Reserve Bank of Australia Archives, D18/73807.

Photograph of Mary Gilmore adapted for the $10 banknote.
Newspix.

William Dobell, Portrait of Dame Mary Gilmore, oil on hardboard, 1957.
Art Gallery of New South Wales
© Courtesy Sir William Dobell Art Foundation.

Back of the $10 banknote, showing Dame Mary Gilmore, offset and intaglio printing on polymer substrate, with a clear window depicting a windmill; concept design by Max Robinson, first issued in November 1993.
Reserve Bank of Australia Archives, D18/73816.

Front of the $20 banknote, showing Mary Reibey, offset and intaglio printing on polymer substrate, with a clear window depicting a compass; concept design by Garry Emery, first issued in October 1994.
Reserve Bank of Australia Archives, D18/73808.

Mary Reibey by an unknown artist, watercolour on ivory, circa 1835.
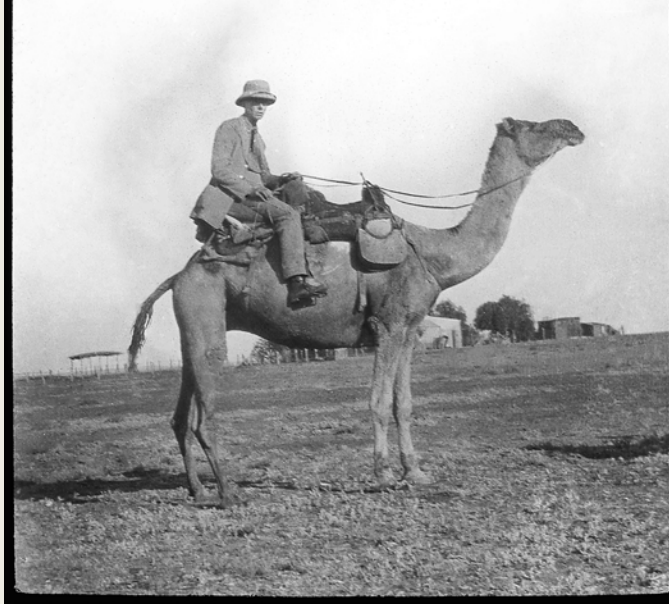State Library of NSW.

Photograph of the Reverend Coledge Harland, on one of John Flynn's 'Padre Patrols', 1919.
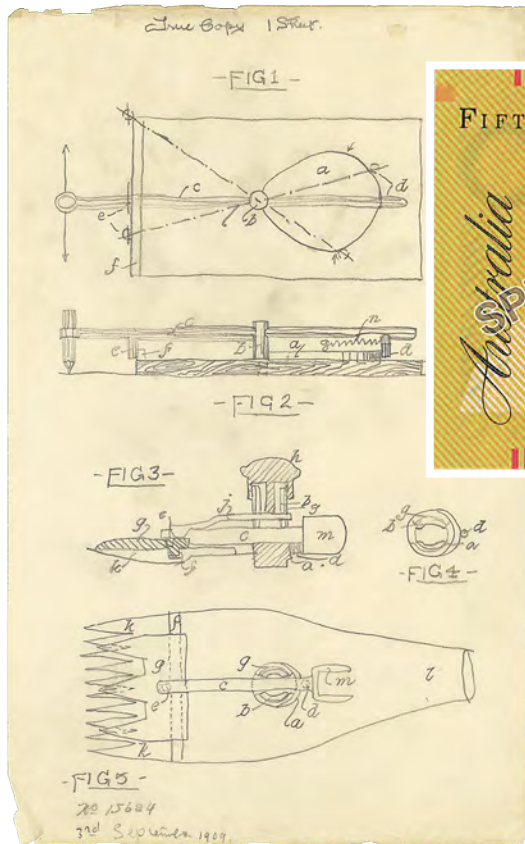National Library of Australia.

Photograph of the Reverend John Flynn, circa 1929, from Australian Inland Mission Collection.
National Library of Australia.

Back of the $20 banknote, showing the Reverend John Flynn, offset and intaglio printing on polymer substrate, with a clear window depicting a compass; concept design by Garry Emery, first issued in October 1994.
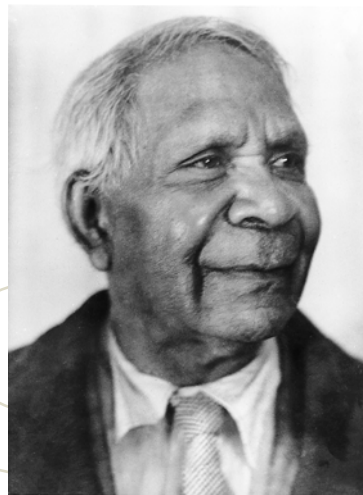Reserve Bank of Australia Archives, D18/73819.

David Unaipon, diagram of his 1909 improved mechanical handpiece for sheep shearing, drawn for Herbert Basedow in 1914.
State Library of New South Wales and Courtesy Ms Judy Kropinyieri.

Front of the $50 banknote, showing David Unaipon, offset and intaglio printing on polymer substrate, with a clear window depicting the Southern Cross; concept design by Brian Sadgrove, first issued in October 1995.
Reserve Bank of Australia Archives, D18/73810.

Photograph of David Unaipon, 1938, adapted for the $50 banknote.
State Library of South Australia.

Back of the $50 banknote, showing Edith Cowan, offset and intaglio printing on polymer substrate, with a clear window depicting the Southern Cross; concept design by Brian Sadgrove, first issued in October 1995.

Reserve Bank of Australia Archives, D18/73825.

Photograph of Edith Cowan, 1921.
State Library of Western Australia.

Photograph of Parliament House, Perth, 1918.
State Library of Western Australia.

The denominations of the banknotes continued the selection of colours from the previous decimal series, with the exception of the $100. The pale grey and blue tones of the first $100 banknote were considered unsuitable from the perspective of security and accessibility by those with impaired vision. As the $2 banknote had been replaced by a coin in 1988, its green colour was adapted for the new $100 banknote.

Front of the $100 banknote, showing Dame Nellie Melba, offset and intaglio printing on polymer substrate, with a clear window depicting a lyrebird; concept design by Bruce Stewart, first issued in May 1996.
Reserve Bank of Australia Archives, D18/73811.

Members of the Australian Field Artillery using an 18 pounder gun in action at Noreuil Valley attacking the Hindenberg Line, during the battle for Bullecourt, circa 1917.
Australian War Memorial.

Back of the $100 banknote, showing Sir John Monash, offset and intaglio printing on polymer substrate, with a clear window depicting a lyrebird; concept design by Bruce Stewart, first issued in May 1996.
Reserve Bank of Australia Archives, D18/73827.

THE REMEMBRANCE OF FEDERATION

A commemorative $5 banknote was issued in January 2001 for the centenary of Federation, the act that unified the six self-governing colonies into a single nation, the Commonwealth of Australia. Preparations for the new banknote began in 1997. A committee from a cross-section of the Australian community was established to assist in deciding matters such as the denomination to be issued and the identities to be represented. Following a competition among Australia's leading practitioners, Garry Emery was selected as its designer.

The banknote focussed on Sir Henry Parkes, a proponent of Federation, and Catherine Helen Spence, an advocate for electoral and social reform. Tom Roberts' commanding painting of Henry Parkes influenced his portrait, and the image of Catherine Spence relates to a posthumous portrait by Margaret Preston, whose early art she had supported.

In 1889, Parkes delivered an address to his former constituents at the Tenterfield School of Arts building, which is represented on the banknote to the left of his portrait. He declared that the time was right for a convention of representatives from all the colonies "to devise the constitution which would be necessary for bringing into existence a federal government with a federal parliament for the conduct of national undertaking".[3] The image of the Tenterfield building on the banknote is lined with the symbols of the six states to reflect the spirit of Parkes' address.

The banknote continues the visual narrative of Federation by representing the ceremonial pavilion in Centennial Park, Sydney, constructed for the inauguration of Federation on 1 January 1901. It completes the process of Federation with the depiction of the dome of Melbourne's Royal Exhibition Building, where the first Parliament of Australia was opened on 9 May of that year. They are combined with a detail of Tom Roberts' painting portraying the Duke of Cornwall and York (later King George V) as he opened the first parliament.

Catherine Helen Spence worked to obtain the vote for women, which was achieved by South Australia in 1895. South Australia became the first place in the world where women were granted the right to stand for parliament, and Catherine Spence

became the country's first female political candidate when she unsuccessfully contested the election for delegates to the 1897 Australasian Federal Convention. Her portrait on the banknote is accompanied by advocates of the Federation movement, being from left: Andrew Inglis Clark (Tasmania), Edmund Barton (New South Wales), John Forrest (Western Australia), Alfred Deakin (Victoria), Charles Kingston (South Australia) and Samuel Griffith (Queensland).

Spence also argued for the rights of children, including the removal of children from institutions to be raised in approved homes. She co-founded the Boarding Out Society in 1872. The society's responsibilities – visiting the children and inspecting the homes – were taken over by the South Australian State Children's Council, represented on the banknote by the building's facade.

Preliminary designs by Garry Emery of the Centenary of Federation commemorative banknote.
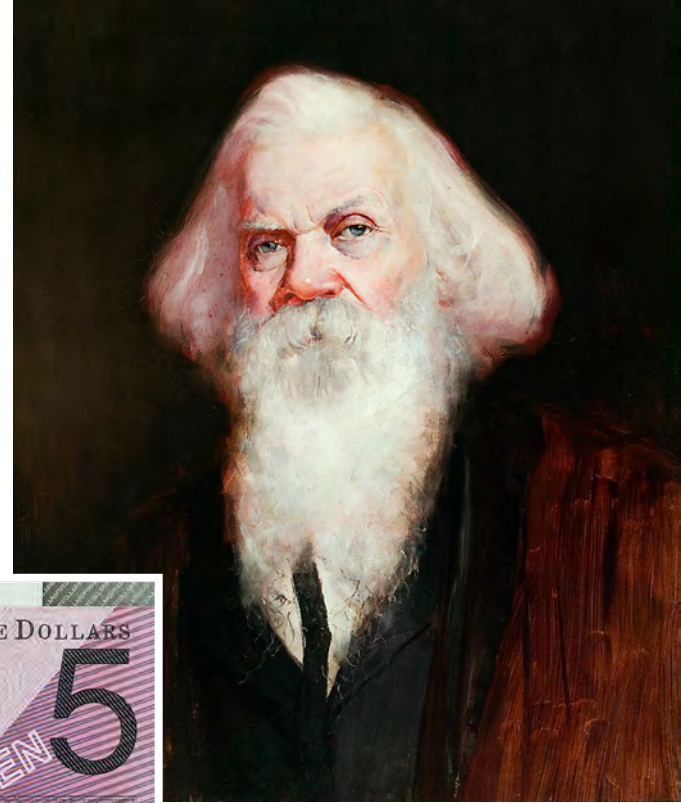Reserve Bank of Australia Archives, NP-004230, NP-004231.

CENTENARY OF FEDERATION COMMEMORATIVE BANKNOTE, 2001.

An extract from Henry Parkes' Tenterfield speech and words from the national anthem, *Advance Australia Fair*, appear in microprint on the banknote.

Front of the $5 banknote, showing Sir Henry Parkes, offset and intaglio printing on polymer substrate, with a clear window including a depiction of a gum leaf; concept design by Garry Emery, first issued in January 2001.
Reserve Bank of Australia Archives, NP-004205/4.

Sir Henry Parkes by Tom Roberts, oil on canvas, 1892.
Art Gallery of South Australia, Adelaide, Elder Bequest Fund, 1901.

Catherine Helen Spence by Margaret Preston, oil on canvas, 1911.
Art Gallery of South Australia, Adelaide, Gift of the Citizens Committee 1911. © Margaret Preston/ Copyright Agency, 2020.

Back of the $5 banknote, showing Catherine Helen Spence, offset and intaglio printing on polymer substrate, with a clear window including a depiction of a gum leaf; concept design by Garry Emery, first issued in January 2001 for the centenary of Federation.
Reserve Bank of Australia Archives, NP-004205/4.

THE RETURNS OF POLYMER BANKNOTES

Polymer banknotes not only enhance security against counterfeiters but are also more durable and cleaner than paper banknotes. Their substrate is robust and resistant to damage from moisture, dirt, oils and household chemicals. Its longevity has resulted in a reduction in the number of banknotes required and significant savings in the cost of printing.

Whereas expired paper currency can only be burnt or buried, polymer banknotes can be recycled. The banknotes are granulated, melted and blended into pellets that are the raw material for recycling into a range of plastic products. The advanced technology of Australian banknotes has also attracted considerable interest from other countries and many of the polymer banknotes in circulation throughout the world have been printed on Australian-made substrate.

In preparation for the New Note Series, the Bank increased the technical and research capacities of its Note Printing Branch in Craigieburn, Victoria, where the series was printed. The branch was renamed Note Printing Australia in 1990 and established as a separately incorporated, wholly owned subsidiary of the Reserve Bank in 1998. The nation's banknotes have continued to be printed on polymer and this substrate has allowed for additional design and security features to be introduced. A new series – the Next Generation of Banknotes – was issued from 2016 to 2020 and the concluding Pocket Guide describes its innovations to the banknotes' security and accessibility.

The New Note Series can be granulated, melted and blended into pellets that are the raw material for recycling into a range of plastic products.
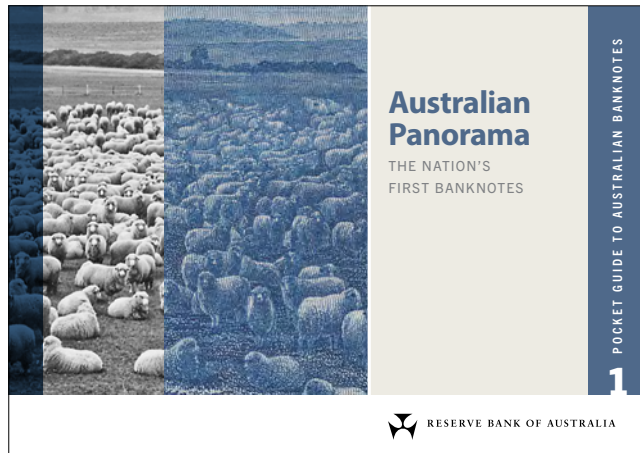Reserve Bank of Australia Archives, D20/258701.

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3. Henry Parkes, 'Tenterfield Oration', *The Sydney Morning Herald*, 25 October 1889.
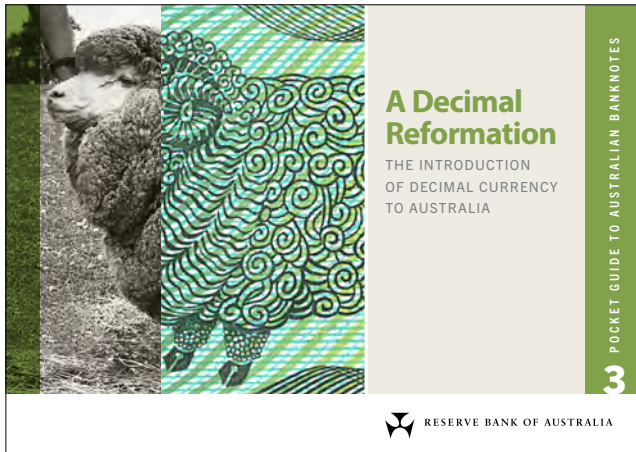
POCKET GUIDES TO AUSTRALIAN BANKNOTES

Pocket Guides to Australian Banknotes **is a series of booklets that represents a complete catalogue of Australia's issued banknotes.**

Australian Panorama
the Nation's First Banknotes
(1913–1914; 1923–1925)

Change and Stability
Australian Banknotes from the 1930s to 1950s
(1933–1934 and 1938–1940; 1953–1954)

A Decimal Reformation
the Introduction of Decimal Currency to Australia
(1966–1967; 1973; 1984)

The Reinvention of Banknotes
the Australian Innovation of Polymer Banknotes
(1988; 1992–1996; 2001)

A New Vision for Banknotes
Next Generation of Banknotes
(2016–2020)

The guides are a companion to the Reserve Bank of Australia Museum, where visitors can view examples of Australia's banknotes within their social and economic context.

Further information concerning the identities who have been represented on the banknotes, coupled with photographs or paintings of the individuals, may be found in the publication, *Notable Australians, Historical Figures Portrayed on Australian Banknotes* (Reserve Bank of Australia, 2016). See **<museum.rba.gov.au/ exhibitions/notable-australians>.**

A detailed history of the introduction of the polymer banknotes may be found in *The Plastic Banknote: From Concept to Reality* by David Solomon and Tom Spurling (CSIRO Publishing, c. 2014).

Reserve Bank of Australia
Museum Visitor Information

10.00 am – 4.00 pm
Monday to Friday

Closed Public and NSW Bank Holidays.

Admission to the Museum is free.

Lifts are available for entry to
the Museum.

Hearing loops are available for
booked presentations.

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