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The imagery and themes of the Series 7 ‘Brighter Money’ banknotes

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The Series 7 banknotes, introduced from late 2015, represented the first major re-design of New Zealand’s banknotes since the early 1990s. Although the selection of people, places, birds and other pictorial themes remained largely unchanged from the earlier Series 5 and 6 notes, the specific imagery was updated and full advantage taken of modern printing techniques to increase the reproduction fidelity. Some of the new security features, such as the ‘Spark Live’ bird image and the holographic window, are themselves of significant aesthetic appeal.



1 Introduction

Note issue was one of the key rationales for the Reserve Bank of New Zealand’s establishment by government statute in 1933–34, and a Coinage and Bank Note Designs Committee was set up by government to prepare the new currency,² well before the Bank officially began operations in August 1934.³ Since then, the Reserve Bank has issued seven distinct series of banknotes.

The basic parameters for circulating notes have not changed since: currency has to be distinctive and with clear New Zealand visual themes, accessible, able to stand up to regular handling, resistant to being counterfeited, and with a professional design that both reflects its purpose as legal tender, and which is likely to appeal to a wide range of the public.

¹ I am grateful to Naomi Mitchell and Graeme Denny for their comments on early drafts of this article.

² Robert Pepping, *New Zealand History Noted: Reserve Bank of New Zealand bank notes*, Robert Pepping, Auckland 2010, p4

³ See Matthew Wright (2006), ‘The Policy Origins of the Reserve Bank of New Zealand’, Reserve Bank of New Zealand *Bulletin*, Vol. 69, No. 3, <http://www.rbnz.govt.nz/research-and-publications/reserve-bank-bulletin/2006/rbb2006-69-03-01>

In Reserve Bank parlance, note types are distinguished by ‘series’, not ‘issue’. Work began on the Series 7 notes in 2010. This article focuses on the nature of the designs, and on the themes and their origins.

2 A brief history of Reserve Bank notes

The Reserve Bank has issued seven series of banknotes since 1934. The first was always intended to be temporary, given the constrained development period. Work could not begin until the legislation establishing the Bank was passed in late 1933, but all that could be done between then and the beginning of operations the following August was to hastily prepare three denominations for issue, basing them broadly on the Bank of New Zealand notes then in circulation. A fourth denomination followed a little later.

These were always considered stop-gaps. The ‘permanent’ issue, Series 2, followed at more measured pace and was released in 1940, with themes reflecting the mind-set and social context of the day, notably the fact that the New Zealand state was in its centenary year. Captain James Cook featured prominently on the notes, along with characteristic New Zealand scenes and plants, and a vignette of the signing of the Treaty of Waitangi on the reverse. This series remained in circulation until 1967 when New Zealand decimalised.

The first decimal issue, Series 3, reflected a subtle change of social thinking and focus by comparison with a generation earlier, featuring Her Majesty Queen Elizabeth II on all the notes. The other themes — birds and local flora — were chosen for their importance and iconic value to New Zealand and retained in the next series, Series 4, which was



Top: Series 1 ten shilling note issued in 1934, based on the earlier Bank of New Zealand designs and featuring distinctively New Zealand iconography in its early-mid twentieth century form.

Bottom: Reverse of the Series 1 £1 note. This was a very simple design, reflecting the haste with which the entire series was prepared. All used the same design, differentiated only by colour and denomination.



Top: Reverse of the Series 2 £1 note issued in 1940. This carried substantial complexity, a necessary anti-counterfeiting measure made possible by the more extended development period.

Bottom: Obverse of the Series 3 \$1 note issued in 1967. Note the change of design iconography, reflecting thinking a generation on.

developed because of a 1978 government decision to have notes printed at a purpose-built plant in Whangarei. This change of printer required the printing plates to be re-made, necessitating a slight design change. Series 4 also introduced the \$50 note, in late 1983, and updated the picture of Her Majesty. However, these notes were otherwise very close in appearance to the original decimal issue.

A more dramatic design change followed in the early 1990s. This was driven by the closure of the Whangarei note-printing plant, and with it the need to further re-make the printing plates. However, once again, there was also a requirement to improve security features on the back of emerging technology.

By this time, the original decimal design themes were 25 years old and beginning to show their ‘period’ styling. New Zealand was emerging from its ‘mid-century’ mind-set on many levels, and a different selection of themes seemed appropriate. The Series 5 notes that began circulating from 1992–93 therefore introduced a selection of historical New Zealand figures on different denominations, retaining Her Majesty on the \$20, along with a selection of New Zealand scenes, flora and fauna.

All these notes were printed on cotton-based paper. This had a relatively short life, and during the mid-1990s the Reserve Bank began looking at options for using a polymer substrate under development by Note Printing Australia. It was a relatively new technology: the first Australian notes had been issued only in 1988, but it offered substantial advantages both in terms of durability – which implied substantial reductions in life-cycle costs for the Bank – and in terms of the range of possible security features. So-called ‘windows’ with diffraction features now became possible.



Obverse of the Series 6 \$5 note, printed on polymer and featuring 'windows' with diffraction features.

The decision was made to switch New Zealand's currency to a polymer substrate in the late 1990s. From this emerged Series 6, which began entering circulation from 1999. These notes used the same designs as Series 5, slightly modified to incorporate the 'window' security features.

3 Series 7 rationale and design themes

Planning began for Series 7 as early as 2010, initiating a project that was expected to take a number of years to bring to fruition. As with Series 5 and 6, the prime rationale was keeping the security features ahead of counterfeiting technology. New Zealand's rate of counterfeiting had always been low by international standards. In the 12 months to June 2016, for example, 131 counterfeit notes were uncovered, representing 0.8 counterfeits per million notes in circulation, well below the upper limit of 10 per million specified in the Bank's internal measures.

However, the advent of relatively low-cost and high quality home scanning and printing technology changed the calculation. Lower-cost printing technologies also increased the risk of being targeted by larger-scale international counterfeiters. A spike in counterfeiting in Australia underscored the issues, and one potential risk New Zealand faced if Australia upgraded its notes was that, from the perspective of international counterfeiters, New Zealand's currency would then become a 'soft target'.

The decision was taken early in the design process to retain the existing visual themes of Series 5 and 6, including the overall colour of each denomination. This provided a continuity and familiarity, and followed a survey in which 91.5 percent of respondents reported features they liked, including 64.5 percent who liked the birds. The principle of retaining older themes through design changes also had precedent in prior note issue extending back to 1967, when the Series 3 themes were retained for Series 4 of 1984; and in the late 1990s when Series 5 was used with little change, other than that required for the security features, to develop the polymer-based Series 6.

The themes used on Series 5, 6 and 7 emerged from intensive consultation and development in the early 1990s. The task began in mid-1991 under the auspices of a committee chaired by the Governor of the day, Don Brash, and involved extensive public consultation. Expert input was sought, covering the general design of the notes, the cultural significance, history, and the scientific technicalities of the flora and fauna being considered for inclusion. Much of the initial groundwork was co-ordinated by a design company who obtained advice from leading New Zealand experts. Consultants included Professor W. H. Oliver, one of New Zealand's foremost historians of the day; and Dr J. R. H. Andrews, Chairman of the School of Biological Sciences at Victoria University of Wellington.

As with the earlier notes, the themes needed a unique New Zealand quality, visually rich and appealing to a wide cross-section of the public; something that would reinforce national identity; that included bi-culturalism; that was of enduring significance; and which was politically neutral.

An early decision was made to feature the Queen on one denomination, but to put New Zealanders on the others for the first time since Series 1, when Tukaroto Matutaera Potatau Te Wherowhero Tawhiao, the second Maori King, was selected for all denominations. In some respects this switch away from featuring the monarch on all notes was a significant step, but in others it simply followed international and Commonwealth trends of the early 1990s.

A substantial number of submissions were received from the public and a variety of experts proposing various prominent historical figures. The issue for the Bank's committee became one of identifying just four people, a task that involved extensive discussion and analysis, with substantial professional input from external experts. In this there was no

Box 1

The people

Sir Edmund Hillary (1919–2008)

Sir Edmund Hillary is New Zealand's best known mountaineer. In 1953, he and Tenzing Norgay were the first men to reach the summit of Mount Everest, and in 1958 he was the first to drive over continental Antarctica to the South Pole. When selected for the \$5 note, he was the first living person, other than a monarch, to appear on a New Zealand banknote.

Kate Sheppard (1848–1934)

Kate Sheppard was a prominent leader of the campaign to give women the vote in New Zealand. She worked tirelessly to organise and promote this cause. A long campaign culminated in 1893 when New Zealand became the first country in the world where all adults could vote.

Her Majesty Queen Elizabeth II (1926–)

Queen Elizabeth II is Britain's longest-reigning monarch, ascending the throne in 1952. She is also Queen of New Zealand.

Sir Apirana Ngata (1874–1950)

Sir Apirana Ngata played a significant role in the revival of Māori people and culture during the early years of the twentieth century. He was the first Māori to graduate from a New Zealand university, and was an elected Member of Parliament for 38 years

Lord Rutherford of Nelson (1871–1937)

Ernest, Lord Rutherford of Nelson is recognised as the 'father of the atom'. He explained the perplexing problem of naturally occurring radioactivity, determined the structure of the atom, and changed one element into another.



*Left: The New Zealand falcon, the bird featured on the \$20 note.
Photography: Rob Suisted.*

absolute ‘right’ or ‘wrong’, and one of the issues that had to be tackled was the fact that – historically – some of New Zealand’s best known figures had made their names while living overseas.

The final selection included Sir Edmund Hillary, who became the first living person – other than a monarch – to appear on a New Zealand banknote. He provided the photograph for the note from his personal collection.

Flora and fauna were also challenging to select. A report commissioned from a leading expert pointed out that New Zealand had no indigenous land mammals other than two species of bat; marine mammals offered issues of unfamiliarity; and the best option seemed to be our bird-life, particularly ‘those species with which we are very familiar’.

The final selection of plants, scenes and birds was linked thematically. The \$5, for example, featured the Yellow-eyed penguin/Hoiho (*Megadyptes antipodes*) along with scenes of Campbell Island and some of the plants associated with that rugged landscape.⁴ The \$10 featured the flower associated with Kate Sheppard’s suffrage campaign, the white camellia (*Camellia japonica* ‘*alba plena*’).

Other unique flora selected for the notes included the blue mushroom (*Entoloma hochstetteri*), the first fungus known to feature on a banknote — in this case, the \$50. Although selected at the time purely as a way of underscoring the very wide and unique range of plant, bird and insect life hosted across the New Zealand archipelago, the mushroom came under

⁴ This corrects wording in the original release.



Above: Apirana Ngata around 1905, an official Parliamentary portrait used on the \$50 note.

*Right: Blue mushroom (*Entoloma hochstetteri*) featured on the reverse of the \$50. Photography: Rob Suisted.*

active scientific investigation by the University of Auckland in the early 21st century as a possible source of natural blue food colouring.

Conceptually connected themes were followed for all the notes and are more fully detailed on the Reserve Bank's website: <http://www.rbnz.govt.nz/notes-and-coins/notes/the-history-of-banknotes-in-new-zealand>



4 Updating the imagery for Series 7

While the earlier selection of people, scenes, flora and fauna were retained for Series 7, the specific pictures – with the exception of most of the portraits – were renewed. One of the main motives for this decision was rights administration. Although full rights had been obtained in 1991–92 for the specific images used in the notes, fresh permissions had to be obtained for use in a completely new series, and a 2012 study by the Bank identified that this was likely to be complex. By the early 2010s, some of the original photographers had passed away, and in other cases



Campbell Island scene with the Ross Lilly in foreground, themes selected for the Series 5 \$5 note, and retained for Series 6 and 7.



the organisations that had originally held the rights no longer existed. The decision was accordingly taken to select all-new images of the same themes and subjects, and negotiate new agreements with the rights holders of those images. This work was handled by the Reserve Bank's legal team.

Other motives to renew the specific images came from the fact that the same period had brought changes to some of the scenes, particularly Parliament Buildings, which had been subtly but clearly altered since the early 1990s with the addition of new structures and an annexe between the Beehive and main building, among other developments.

New images were therefore commissioned of Parliament Buildings and – because opportunity presented itself – of the white camellia used by Kate Sheppard as the symbol of her suffrage movement. The actual camellia picture was obtained by chance. While camellias can be found in many



Above: White camellia (Camellia japonica 'alba plena') in the Wellington Botanic Gardens. Photography: Stephen A'Court.

domestic gardens, the one Sheppard used was a specific species. An effort to locate a public specimen to be photographed revealed that few of that particular type existed in public gardens anywhere in New Zealand, and that their flowers had a short lifespan before deteriorating. However, one was newly flowering that very day in the Wellington Botanic Gardens.

The moment had to be captured before it was lost, and it was professionally photographed within two hours. These photographs became the basis for the camellia artwork used in the new \$10 note. These images are owned outright by the Reserve Bank. Other pictures of the scenes, birds and flora were obtained from photographic libraries, and licenses were contracted by the Reserve Bank legal team.

Four of the original portraits were also retained. They had been selected in 1991–92 and were considered the most appropriate pictures of the people in question. They were: Hillary at base camp on Mount Everest, shortly after conquering it – a personal favourite of Hillary's which, as noted, he had provided for the Bank's use; Sir Apirana Ngata at the height of his initial parliamentary career before the First World War; and Ernest Rutherford as the young man who had made the pioneering scientific discoveries. In the case of Kate Sheppard, the image selected in 1992 was the sole high-quality portrait known in archival records, and no other image had been discovered for public use since. Curiously, a reasonable selection of publicly available portraits were available for Ngata: but the majority of those showing him in the desired period were virtually identical, although taken at different times.

The original photographs were re-scanned at very high resolution to provide a base for new high-fidelity artwork.

The only portrait change was that of Her Majesty, Queen Elizabeth II. With the exception of Series 5 and 6, which were just a few years apart, her portrait had been updated for each series since 1967; and the opportunity was taken to do so with Series 7. The specific portrait was suggested by the Reserve Bank, a photograph by London-based photographer Julian Calder of the Queen in the Blue Room of Buckingham Palace, wearing her New Zealand honours. This had been commissioned specifically for the Queen's Diamond Jubilee, and seemed appropriate for the new \$20 note. The Palace concurred.

In the end not all the earlier Series 5 and 6 images could be used. Because the security features required a certain amount of space, there was simply not room. The Massey Ferguson tractor used by Sir Edmund Hillary to drive to the South Pole, for example, had to be removed. However, the majority were retained.

5 Series 7 designs and security features

Although the themes and imagery of the previous two series were largely retained, the range and nature of the security features planned for the new series required an all-new design. This gave an opportunity to update the overall visual look and feel of the notes for the 21st century. The specific design process has been described in a previous *Bulletin* article⁵ and involved extensive consultation to ensure appropriateness, clarity and detail.

New elements included more extensive use of Te reo Māori on the notes. All had to be integrated into an appealing note. The designs offered by the Canadian Banknote Company were selected after assessment, including feedback from confidential focus groups.

Integrating the security features into the design was a key consideration. These included a unique ‘Spark Live’ feature, a world first. Full details are published here: <http://www.rbnz.govt.nz/notes-and-coins/notes/security-features-of-new-zealands-banknotes>⁶

A poster highlighting these features is reproduced opposite, and is downloadable here: <http://www.rbnz.govt.nz/notes-and-coins/notes/security-features-of-new-zealands-banknotes>



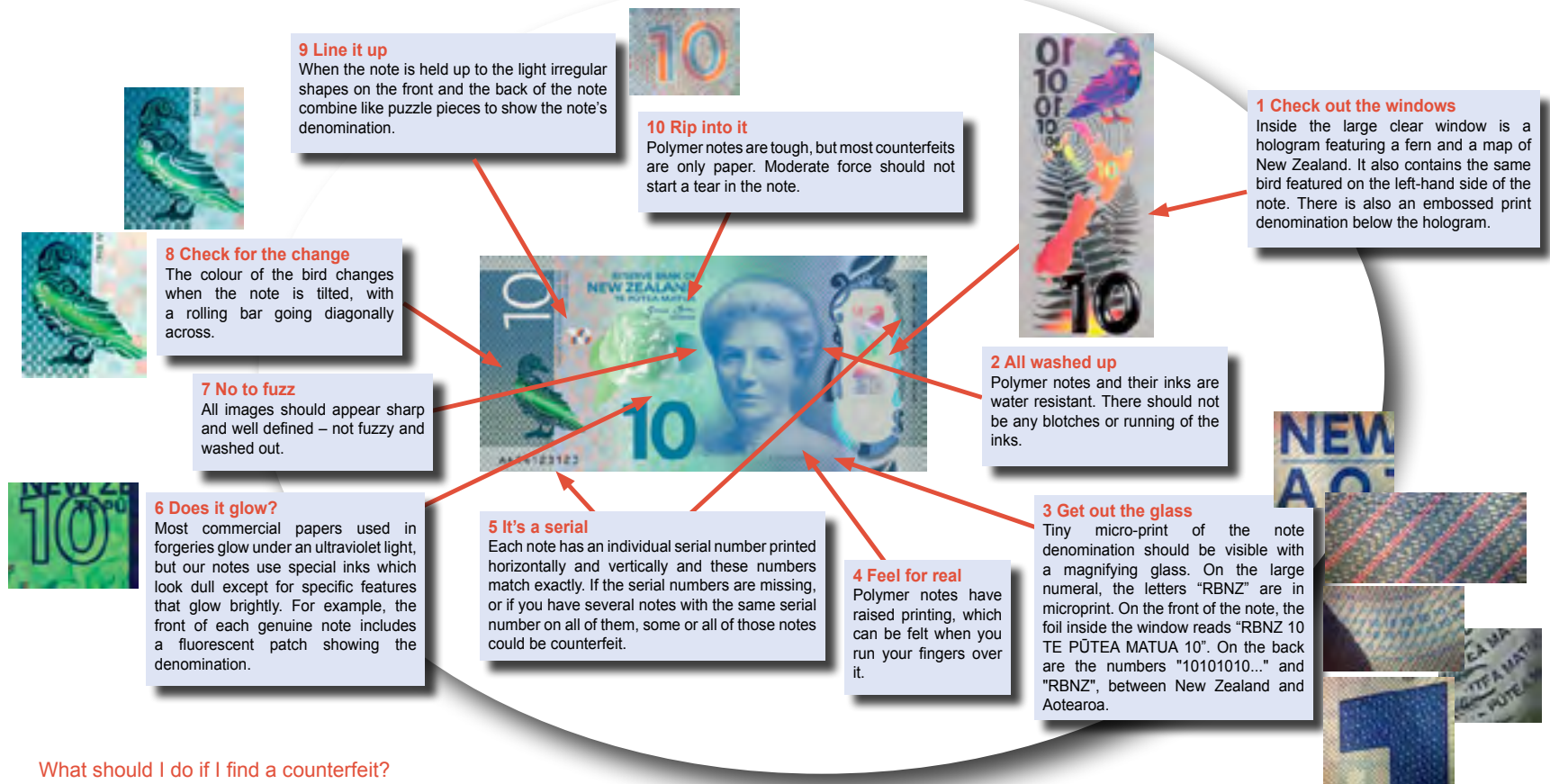
Above: Some of the security features in Series 7 notes. These have significant aesthetic appeal in their own right, quite apart from their role as authenticators of the note.

⁵ Kristin Langwasser (2014), 'Designing New Zealand's new banknote series', Reserve Bank Bulletin Vol. 77, No. 7, <http://www.rbnz.govt.nz/research-and-publications/reserve-bank-bulletin/2014/rbb2014-77-07>

⁶ This corrects wording in the original release.



New Zealand has low levels of counterfeiting by international standards, but that doesn't mean we can forget about checking our banknotes. By regularly taking a second look we can all do our bit to keep forged banknotes out of circulation. Our banknotes are made of polymer (a type of plastic) and have security features carefully built in to help make spotting a counterfeit easier. Here are ways to make sure the notes you've got are the real thing. Features are the same on all denominations.



What should I do if I find a counterfeit?

- If you believe someone is trying to pass you a counterfeit note, do not accept it, and notify the Police.
- If you find you've already received a counterfeit note, put it in an envelope to avoid handling it further and take it to the Police.

Further information

- Go to the Reserve Bank website http://www.rbnz.govt.nz/notes_and_coins/notes/

Box 2

The Series 7 notes







6 Conclusion

The Series 7 notes issued by the Reserve Bank from late 2015 brought New Zealand's currency up to the highest international standards relative to security features. However, while security from counterfeiting was the prime rationale for the upgrade, opportunity was also taken to renew the specific images used for all but the majority of the portraits, creating sharper and more detailed banknotes. Improved printing techniques made it possible to 'brighten' the colours and to create circulating currency well suited for at least the next 10–15 years.

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Further reading

<http://www.rbnz.govt.nz/notes-and-coins/notes>

<http://www.rbnz.govt.nz/notes-and-coins/notes/security-features-of-new-zealands-banknotes>

<http://www.rbnz.govt.nz/research-and-publications/reserve-bank-bulletin/2014/rbb2014-77-07>

<http://www.rbnz.govt.nz/notes-and-coins/notes/the-history-of-banknotes-in-new-zealand>