

Ngā Kupu Arotau – eweri tāima

Loanwords in Māori 1842-1952

Some interesting features of loanwords collected from the Māori language newspapers, the Paipera Tapu and some early published writings

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What are loanwords?

A loanword is a word adopted from a foreign language. When two groups of people of different cultures and speaking different languages are in contact for a significant period of time, it is inevitable that bilingualism will occur. As one group becomes bilingual, large-scale borrowing of vocabulary from the second language takes place. As a result of this process, modern spoken and written Māori has a significant number of words that have been adopted from non-Polynesian sources, and these have almost always been changed to suit the phonology and orthography of Māori.

Māori quickly adapted to the changes brought about by the introduction of new technology and the new culture of the colonists. Hand in hand with these changes came additions to the language, mainly vocabulary. Printed material from the nineteenth century indicates that adapting words from the languages that Māori came into contact with, principally English, happened whenever new words were required for items that had not existed in their society prior to the arrival of the Pākehā immigrants and their culture, religion and technology. In addition, names of people, places, ships, racehorses, etc. were also adapted to the sound system and orthography of Māori. Reading the Māori language newspapers of the nineteenth century reveals that these words were a significant part of the language at the time, as they are now. In Aotearoa/New Zealand this process of adopting words from English into Māori and vice-versa has expanded the lexical bank of both languages and enriched them both.¹

A number of terms have been used to describe these words. The most common ones are probably 'loanword' or 'borrowed word'. Others used are 'transliteration' and 'denizen'. 'Borrowing' is commonly used to describe the process of adapting words from one language into another. Terry Duval, in discussing these kinds of words in Māori, has suggested that the best term to use for words adopted into another language is 'gainword' or 'gain' and the process should be called 'gaining'.² Although these have some appeal, loanword and borrowing will be used in this article because they are the terms preferred in the literature on this subject.

¹ For the words borrowed from Māori into English see, for example, J. Macalister (ed.) 2005. *A Dictionary of Maori Words in New Zealand English*. Oxford. This book lists 981 headwords that originate from Māori.

² T. Duval, 'A preliminary dictionary of Maori gainwords compiled on historical principles'. Unpublished PhD thesis. University of Canterbury, 1995, p. 2.

Previous studies

Most Māori language dictionaries do not treat loanwords with the same rigour with which traditional words are handled. There are many commonly used loanwords that are not in these dictionaries. To date no separate dictionary of Māori loanwords has been published. The loanwords dictionary will fill this gap and provide a database for other dictionaries, including those on the web, thus enabling them to be more comprehensive. It will be particularly useful for the monolingual Māori dictionary, *He Pātaka Kupu*.³ It will also be a source of vocabulary for future editions of the dictionary *Te Aka: Māori-English, English-Māori Dictionary and Index* for learners of Māori designed to accompany the *Te Whanake* series of textbooks, study guides and resources.⁴ An enhanced version of *Te Aka: Māori-English, English-Māori Dictionary and Index* is available online and is being added to almost daily.⁵ As well as being a source of data for *He Pātaka Kupu* and *Te Aka*, the loanwords dictionary will complement other dictionaries of Māori, thus providing a valuable resource for learners, speakers and readers of Māori. It is hoped that eventually a full dictionary of all loanwords from written and oral sources will be published.

Williams's *A Dictionary of the Maori Language*, for a long time the standard Māori-English dictionary, does not include loanwords, except for a limited word list of 619 words with their English gloss as an appendix, but this is only a small percentage of the loanwords used in modern Māori.⁶ Only the meaning in English is given for each loanword, with no examples of the word's use in a sentence or any other information. Headwords in the main part of the dictionary provide much more detail than is given for the loanwords, including: parts of speech; meaning and/or explanation; examples of the word in a sentence with the source of each example; and words of the same or similar meaning. Where there are several meanings of the word, these are listed numerically. Each may have its own example. None of this detail is given for the loanwords. Quite common loanwords used in the Māori-language newspapers, other written sources and in modern Māori do not appear in this list. Ngata's dictionary and the *Te Aka: Māori-English, English-Māori Dictionary and Index* do include a significant number of loanwords.⁷

Three studies of the form and range of loanwords in Māori have been published. The first is that of J. S. Ryan, who has analysed them by relating their introduction to the changes in the lifestyle of Māori.⁸ Although Ryan does not give the sources of the loanwords used in the article, most examples are from *A Dictionary of the Maori Language*, with the remainder from Bruce Biggs' *English-Maori Dictionary*⁹ and a few from the Paipera Tapu, the Māori Bible.¹⁰ He has made no reference to the wealth of examples from the Māori-language newspapers. Ryan also includes a table of the frequent sound changes used when words are adopted from English into Maori.¹¹

³ Te Taura Whiri i te Reo Māori, *He Pātaka Kupu te kai a te rangatira*. North Shore, 2008.

⁴ J. Moorfield, *Te Aka: Māori-English, English-Māori Dictionary and Index*. Auckland, 2005.

⁵ See www.maoridictionary.co.nz

⁶ H. Williams, *A Dictionary of the Maori Language*. Seventh edition. Wellington, 1971.

⁷ H. Ngata, *English-Maori Dictionary*, Wellington, 1993.

⁸ J. Ryan, J.S., 1972. 'The form and range of borrowings from English in Modern Maori'. *Orbis*. 21, pp. 136-166.

⁹ B. Biggs, Bruce, *English-Maori Dictionary*. Wellington, 1966.

¹⁰ The British and Foreign Bible Society, *Ko Te Paipera Tapu, Ara, Ko Te Kawenata Tawhito me Te Kawenata Hou*. 1952.

¹¹ J. Ryan, p. 144

Ryan includes about a dozen examples from the main part of *A Dictionary of the Maori Language* as loanwords, but the experts who revised this dictionary and most speakers of the language would probably dispute the classification of these as loanwords. They include *tai* (tide), *tai timu* (ebb tide), *pīkau* (from ‘pack’ or ‘pick-a-back’), *uaua* (vein), *tōrea* (stilt), *wātea* (vacant), *kāhu* (hawk), *pūrua* (pair), *tahi-a* (to clear, as of land), *wahie* (firewood), *takutai*, *tahatika* (coast), *taurapa* (stern post), and *pōkai* (flock).

A more recent commentary is an article by Ray Harlow.¹² Borrowing is discussed in the context of other ways in which Māori has created new vocabulary. Harlow uses the Renata text of 1842-43 for most of his examples of loanwords, 31 in all.¹³ Harlow argues that ‘these can confidently be regarded as having truly been borrowed into Māori, as opposed to more ephemeral, nonce loans in some other types of document.’¹⁴ This criticism of some loanwords used in the newspapers being nonce words has some merit in that a significant number of loanwords collected in the Kupu Arotau Project (see page 4) were encountered only once. Many of these are proper nouns for obscure place names, personal names, names of horses and ships and were, no doubt, created for the particular newspaper article and had not, and have not, become part of the language of speakers and writers. Where the tallies in the database for particular words occur in significant numbers, it is unlikely that these would be nonce words.

Harlow does not include loanwords of place names or people’s names in his list from the Renata text, although there are a number of personal names for which Renata has used a loan, including: *Renata* (Leonard), *Kātene* (Cotton), *Hapimana* (Chapman), *Penaha* (Spencer), *Matenga* (Martin), *Teira* (Taylor), *Naera* (Nihill), *Wirihana* (Wilson), *Harawira* (Hadfield), *Koro* (Cole), *Rei* (Reay), *Porana* (Bolland), *Ahiwera* (Ashwell) and *Pepene* (Fairburn). Interestingly, all of these, along with the loanwords that Harlow does list, occur from other sources used for our database. The three exceptions are *pouaka*, *Pākehā* and *Koro* (Cole). We accepted the argument presented in Williams that *pouaka* is not a loanword.¹⁵ *Pākehā* as a headword is also not included, although it is quite likely that it may have been the first Māori loanword.¹⁶ The only loan in the Renata narrative for a place name is *Pōneke*, derived from Port Nicholson now called Wellington). All other place names mentioned have Māori origins.

While most loanwords derive from English words, there are a few that owe their origin to other languages, including French after they established the Catholic Mission in Aotearoa/New Zealand in 1838. The two most notable examples of these that are still current in modern Māori are *mīere* (from *miel* for honey) and *Wīwī* (from *oui oui* and used to mean French, France and Frenchman).¹⁷

¹² R. Harlow, ‘Borrowing and its alternatives in Māori’ in J. Tent & P. Geraghty (eds). *Borrowing a Pacific Perspective*. Canberra, 2004, pp. 145-169

¹³ H. Hogan, Helen M. 1994. *Renata’s Journey Ko te Haerenga o Renata*. Christchurch, 1994, pp. 40-72.

¹⁴ R. Harlow, 2004, p. 160.

¹⁵ H. Williams, p. 299.

¹⁶ J. Moorfield & L. Paterson, ‘Loanwords used in the Maori-language newspapers’ in J. Curnow, Ng. Hopa & J. McRae (eds). *Rere atu, taku manu! Discovering history, language and politics in the Maori-language newspapers*. Auckland, 2002, pp. 60-61.

¹⁷ For a full discussion of the French loanwords see T. Duval, ‘The French contribution to the Maori language’ in J. Dunmore (ed.) *The French and the Maori*, Waikanae, 1992, pp. 132-138.

The Kupu Arotau project

The primary aim of the Kupu Arotau research project was the collection and analysis of loanwords adopted from non-Polynesian sources into spoken and written Māori. The major sources for the collection are the Māori-language newspapers, or *niupepa*. These historic newspapers were published primarily for a Māori audience between 1842 and 1939. The collection consists of over 17,000 pages taken from 34 separate periodicals. 70% of the collection is written solely in Maori, 27% is bilingual and about 3% is written in English. There were three main types of *niupepa* published; government sponsored, Māori initiated, and religious.¹⁸ The collection of articles on the newspapers edited by Curnow, Hopa and McRae provides a very useful understanding of the nature of these newspapers and their content.¹⁹

The project was undertaken partly to provide a resource to help people reading the newspapers, and partly in order to establish a more comprehensive database of loanwords and to understand the nature of linguistic borrowing in Māori. The dictionary will be a resource for learners, speakers and readers of Māori, for linguists and for further research.

A preliminary account of the Kupu Arotau project was written in 2002, but at that stage the data collection was a long way from being completed.²⁰ Some aspects of that article are covered again here in this discussion.

Preliminary work on the Kupu Arotau project began in the period from 1998 to 2002. This initial research formed the basis of a successful application to the Foundation for Research Science & Technology, which enabled the completion of the project between 2005 and 2009. In both cases postgraduate students with fluency and literacy in Māori were employed as the researchers in this project, thus developing the research skills of budding researchers as well as giving them the opportunity to improve their language skills.²¹

The Kupu Arotau research project provides a complete dictionary of loanwords from all the Māori language newspapers and the Paipera Tapu, which will complement existing dictionaries in Māori, most notably the following:

E. Tregear, *The Maori-Polynesian Comparative Dictionary*. Wellington, 1891.

H. Williams, *Dictionary of the Maori Language*. Seventh edition. Wellington, 1971.

H. Ngata, *English-Maori Dictionary*. Wellington, 1993.

J. Moorfield, *Te Aka Māori-English, English-Maori Dictionary and Index*. Auckland, 2005.

Te Taura Whiri i te Reo Māori, *He Pātaka Kupu Te Kai a Te Rangatira*. Auckland, 2008.

¹⁸ J. Curnow. A brief history of Maori-language newspapers, in J. Curnow, Ng. Hopa & J. McRae (eds). *Rere atu, taku manu! Discovering history, language and politics in the Maori-language newspapers*. Auckland, 2002, p. 17.

¹⁹ J. Curnow, Ng. Hopa & J. McRae (eds). 2002. *Rere atu, taku manu! Discovering history, language and politics in the Maori-language newspapers*. Auckland.

²⁰ Moorfield & Paterson, 2002.

²¹ We wish to acknowledge the dedication of Dean Mahuta, Lachy Paterson, Sarah Naylor and Anahera Jordan and their long hours of work searching systematically through all the Māori-language newspapers, the Paipera Tapu and the other sources used. We also wish to thank Dean Mahuta and Rachael Ka'ai-Mahuta for some initial analysis of the data.

The last in the list is a monolingual dictionary that contributes significantly to the development and survival of the Māori language.

These five dictionaries are the only comprehensive dictionaries available for Māori language learners and speakers. Other dictionaries and sources of word meanings, both hard copy and online, are really only finder lists, i.e. they do not give examples of the word being used in sentences, ranges of meaning, parts of speech, synonyms, and other information that one would expect in a full dictionary.²² The last three in the list above also have free to access online versions. The Māori Loanwords Dictionary will be a full dictionary similar to those of Ngata, Tregear, Williams and Te Taura Whiri and is also available free online.

Having a dictionary of loanwords will be of benefit to other Māori language dictionaries because incorporating most loanwords into these will help change attitudes to borrowed words.

The dictionary supplies the derivations and meanings of each word and gives examples of many of the loanwords learners will hear or read in modern Māori, in archival sound and video recordings, in 19th and 20th century publications, or in Māori texts. Many loanwords are such an integral part of the language that learners need to include them in their active language in order to communicate effectively and naturally. The dictionary also provides information about when a particular loanword was first used in the sources, thus providing an indication of how long a loanword is likely to have been part of the language.

For Māori researchers reading primary and secondary sources in Māori, including the Māori language newspapers, the dictionary is a useful resource for their understanding of the texts they are reading as they search for historical information. It also helps provide a source for language study and for comparison of loanwords and linguistic borrowing in other languages. As mentioned already, most of the dictionaries currently available are quite limited in the number of loanwords they contain and the information about each word. This dictionary will help researchers using the Māori language newspapers gain a greater understanding of New Zealand history and social development.

The Kupu Arotau project also complements the work that has been done by the University of Auckland team led by Jenifer Curnow, Ngapare Hopa and Jane McRae, who have written summaries in English of the contents of some of the Māori-language newspapers. These summaries enable researchers and readers to find relevant sources of information. When they read the original full accounts in Māori they now have the Māori loanword dictionary to help them, particularly with words that are no longer commonly used in modern Māori. Most of the Māori-language newspapers are now available at the following website, together with the written commentary about some of the newspapers: <http://www.nzdl.org/niupepa>.

²² The monolingual children's dictionary *Tirohia Kimihia He Kete Wherawhera*, Te Whanganui-a-Tara, 2006, falls between the two groups, the dictionaries and the finder lists. It has definitions in Māori and synonyms but does not provide other information about such things as parts of speech, passive endings and examples of usage.

Linguistic borrowing

Linguistic borrowing is a feature of all languages when the speakers have been in contact with other languages. Attitudes to loanwords vary, but it is not the intention of this article to delve into these attitudes in detail, as they have already been discussed in some of the existing literature.²³ At the time of early contact, when all Māori had their own language as their first and preferred language, they were not concerned about keeping the language ‘pure’. But as the percentage of fluent speakers declined the attitude to linguistic borrowing changed. The recent aversion, mainly amongst second language learners of Māori, to using loanwords has led to comprehension difficulties between older fluent native speakers and younger second language learners and speakers emerging from Māori medium schools. A greater understanding of linguistic borrowing by learners of Māori will help overcome their unnecessary and unrealistic desire to ‘purge’ the language of loanwords.

Reweti Kohere of Ngāti Porou, the editor of *Te Pīpiwharauroa* for ten years, wrote an article in 1905 about the decline in the correct use of Māori, in which he included criticism of the intrusion of loanwords into the language when there existed suitable traditional vocabulary.²⁴ Kohere gave a list of 47 loanwords with their English equivalents, together with the words in Māori that the loanwords were replacing. A little over half of the 47 loanwords he listed are still commonly used in spoken and written Māori. One could argue that some of these current loanwords came into existence because the item or concept the loanword is being used for was not the same as that of the Māori, e.g. *pera* for the English ‘pillow’, for which Kohere gives *urunga* as the Māori equivalent. It is likely that *pera* has become part of the language because the pillow that was introduced by Pākehā was considerably different in form from the traditional Māori pillow. One could use similar arguments for most of the loanwords listed by Kohere that remain part of modern Māori. These became part of modern Māori because of a need.

Kohere’s criticism was confined to the use of loanwords when, in his opinion, there were already traditional words in existence. He accepted that there was a need to use words adapted from English for modern items and concepts where no word existed. He used these himself when necessary in the article quoted above, e.g. *hīmene* (hymn), *reta* (alphabet letter), *nūpepa* (newspaper), *awhekaihe* (halfcaste, pidgin) and *ngarihi* (English). It is likely that the loanwords from earlier times that have disappeared from modern Māori did so because the traditional word was adequate for the need.

With the exception of Edward Tregear’s *Maori-Polynesian Comparative Dictionary* published in 1891 and the first edition of William Williams’s *A Dictionary of the New Zealand Language* of 1844, all the dictionaries of Māori include a small number of loanwords. Until now no separate dictionary of loanwords has been published.

Quite common loanwords used in modern Māori do not appear in Williams’s dictionary, e.g. *etita* (editor), *harirū* (to shake hands), *heketa* (hectare), *hiripa* (slipper), *hītori* (history), *hō* (spade), *kāmata* (scarf), *kamupūtu* (gumboot), *karahipi* (scholarship), *Karaitiana* (Christian), *kī*

²³ See, for example, T. Crowley, Borrowing in Pacific languages: language enrichment or language threat? In J. Tent & P. Geraghty (eds). *Borrowing: a Pacific Perspective*. Canberra: Pacific Linguistics, 2004, pp. 41-53; and R. Harlow, Lexical Expansion in Māori. *Journal of the Polynesian Society*. 1993, 102:99-107.

²⁴ R. Kōhere. Te reo Maori. *Te Pīpiwharauroa*, 1903, No. 70, pp. 2-3.

(key), *kīhini* (kitchen), *kiki* (to kick), *kirikiti* (cricket), *kokonati* (coconut), *māmā* (mother), *mīhini* (machine), *mita* (metre), *mīti* (meat), *paihamu* (possum), *pāketē* (packet, bucket), *parakipere* (blackberry), *pea* (pear, pair), *pēkana* (bacon), *pēneti* (bayonet), *pēpi/pēpe* (baby), *pīnati* (peanut), *pitihana* (petition), *pūtia* (butcher's shop, butcher), *raiwhara* (rifle), *rāpeti* (rabbit), *rētihi* (lettuce), *rēwena* (bread made with potato yeast), *rohi* (loaf of bread), *tia* (deer), *tiakarete* (chocolate), *wātakirihi* (watercress) and *wheketere* (factory).

Until now, Terry Duval's unpublished PhD thesis is the most serious attempt to compile a separate fully-fledged historical dictionary of Māori loanwords. His unpublished work is confined to a sample selection of printed Māori between 1815 and 1899, but presents over 2500 items of Māori vocabulary that have their origin in foreign languages.²⁵ Only four of the Māori-language newspapers were included in his sample: *Te Karere o Nui Tirenī* (1842-46), *Te Karere Maori* (1855-62), *Te Hokioi e Rere atu na* (1861-63) and *Te Wananga* (1874-78). The first two were government sponsored and edited by Pākehā, probably by C.O.B. Davis, a clerk and interpreter.²⁶ The other two were entirely owned and edited by Māori.²⁷

TE HOKIOI, O NUI-TIRENĪ, E RERE ATUNA.

NGARUA-WAHIA. HUNE. 15 1862

Kote perehi kua tae mai ki Ngarua-Wahia. ka puta i a ia nga Nui-pepa, me tino kaha rawa ki te whakarite; i nga nupepa, ina tae atu ki a koe, e toru pene; tau e whakaritea, ina pai koe, ko te pai o tenei perehi: hei kawē i a tatou whakero, ki nga iwi o te Ao; no te mea hoki e takoto marotonu ana nga kupu o te timatanga ko te whakapono, ko te aroha; ko te ture.

Otawhao. Aperira, 26, 1862.

E hoa ma, tena koutou. he kupu taku kia rongō ai koutou, i te ture kore o tenei whenua, i nanahi, i hacre mai a tumutumu he tangata maori ki te tiki hamene, mo hori-keti he hawhe-kāihe, ko te take he moni, a tukuaatu ana e a hau tetahi hamene kia tumutumu mauriaana kia hori-keti, i te whare ia o hone-arena; a hacreana ki kihiki: kia ware-tini ma, a tuhituhia mai ana e ratou te tchi pukapuka mauria mai ana e hori a e ki ana, taua reta e kore e tukua mai a hori kia whakawakia ka ki atu a hau ki a hori; no te taha pakeha koe? me he mea e kore

pakeha kai w rarangi, wha na ki taku ma rawa tera ko a rere ake ke mahi e mari kupu a te Ka i Taupari, im te kingi maor mai i nga iw paoa, i a nga na ki taku ma i a ia ina wh te tukunga ma whakawa ki kingi: whaka pea hehe to

Figure 1. Part of the first page of the first issue of *Te Hokioi o Nui Tirenī e rere atu na*.

²⁵ T. Duval, 'A preliminary dictionary of Maori gainwords compiled on historical principles'. Unpublished PhD thesis, University of Canterbury. 1995, p. 1.

²⁶ J. Curnow, 2002, p. 18.

²⁷ J. Curnow, 2002, pp. 21, 24.

Te Taura Whiri i te Reo Māori has been the source and focus for the creation of new words since it was established in 1987.²⁸ These new words have been published as a dictionary of over 2,000 words, *Te Matatiki Contemporary Māori Words*.²⁹ While some loanwords from English that have become embedded in the language have been used in this dictionary, they are few. There has been a preference for creating new words in other ways.³⁰ New vocabulary created by Te Taura Whiri through the process of borrowing seems confined to foreign place names. This work has mainly been in response to requests from people using the language, particularly teachers of Māori language, writers of curriculum documents and resources, and translators.



Figure 2. Part of the front page of *Te Paki o Matariki* a Kīngitanga newsletter.

²⁸ See R. Harlow, 'Lexical expansion in Māori'. *Journal of the Polynesian Society*. 1993, Vol. 102, pp. 100-101 for the guidelines Te Taura Whiri follows in creating new vocabulary.

²⁹ Māori Language Commission Te Taura Whiri i te Reo Māori, *Te Matatiki Contemporary Māori Words*, 1996, Auckland: Oxford University Press

³⁰ R. Harlow 1993, pp. 99-107.

Sources of loanwords for the Kupu Arotau project

Duval suggests that nearly all new items of vocabulary introduced into Māori during the nineteenth century were introduced and imposed by Pākehā because they controlled the printed word.³¹ However, this suggestion is open to debate. As we have shown above, two of the four Māori-language newspapers he searched were owned and edited by Māori. While it is true that most of the Māori newspapers in the 1842-1862 period were edited by Māori-speaking Pākehā and were published by the government for colonising purposes, or were church and philanthropic papers, Māori-owned newspapers flourished from 1862.³²



Figure 3. The masthead of the newspaper *Te Pipiwharauoa – He Kupu Whakamarama*.

Newspapers owned and edited by Māori include *Te Hokio o Niu Tirenī e Rere atu na* (1862-1863), *Te Wananga* (1874-78), *Te Paki o Matariki* (1892-1935?), *Ko te Paunui [Pānui] o Aotearoa* (1894-1896), *Aotearoa* (1892), *Huia Tangata Kotahi* (1893-5), *Te Puke ki Hikurangi* (1897-1900; 1901-1906; 1911-1913), *Te Tiupiri* (1898-1900), *Te Matuhi* (1903-1906), *Te Mareikura* (1911-1913), *He Kupu Whakamarama* (1898), *Te Pipiwharauoa* (1899-1913), *Te Kopara* (1913-1921), *Te Toa Takitini* (1921-1932), *Te Reo o Aotearoa* (1932-1933), *Te Whetū Marama o te Kotahitanga* (1924-1939), *Te Matakokiri Taima* (1911-1914) and *Te Manukura* (1916-1923).³³ Some of these were the longest-running series. In addition, Pākehā may have

³¹ Duval, 1995, p. 2.

³² J. Curnow, 'A brief history of Maori-language newspapers', in J. Curnow, Ng. Hopa & J. McRae (eds), *Rere atu, taku manu! Discovering history, language and politics in the Maori-language newspapers*. Auckland, 2002, p.17-18

³³ Curnow, 2002, pp. 17-34.

controlled the early publishing in Māori, but it does not necessarily mean that none of the writers of printed Māori in that period were native speakers of the language. Certainly Rēweti Kōhere in his article discussed above does not attribute these loanwords to Pākehā. Nor does Herbert Williams, who has a similar attitude to loanwords as that of Kōhere. Contributions to many of the newspapers were by literate native speakers, including Sir Apirana Ngata and Mohi Tūrei of Ngāti Porou.

As well as all the Māori-language newspapers, the other major source for the Kupu Arotau database is the Paipera Tapu. The first full version of the Paipera Tapu was published in 1868, and although revisions were made in 1887 and 1924, these were not accepted by Māori speakers, so in 1946 a committee was set up to make a fourth revision.³⁴ The new revision was completed by Sir Apirana Ngata and the Reverends Wiremu N. Pānapa, E. Te Tuhi and Te Hihi Kaa, and was published in 1952.³⁵ The 1952 version was used for the Kupu Arotau loanwords project.

A few other 19th century sources were also searched, namely:

Popi, Hemi H. 1896. *Te Ora Mo Te Maori: He Pukapuka Hei Korerotanga Mo Nga Kura Maori*.
Poneke: Kaita a Te Kawanatanga.

Popi, Hemi H. (translated by Emiri Wei) 1897. *Te Pukapuka Kura Maori*. Poneke: Kaita a Te Kawanatanga.

Ko nga Ture o Ingarangi (1858).

The database

FileMaker Pro was the software used to record the data. This was the preferred software because it enabled easy entry of data and has helped with the analysis of that data.

Each entry includes the following information:

- The keyword with separate numbered entries for each different meaning and grammatical category
- The loanword
- The loanword derivation
- The English meaning of the headword
- The grammatical category of the loanword
- An example phrase or sentence taken directly from one of the sources used
- A translation of the example
- The source of the example
- A comment box which enabled the researchers to add relevant extra information about the loanword and/or the example phrase or sentence
- The earliest source in which the loanword occurs
- The earliest occurrence date
- The number of times the particular loanword has been found in the sources used

³⁴ *Te Ao Hou*. March 1968, No. 62, p. 45.

³⁵ New Zealand Bible Society Māori New Testament Launch – Te Kawenata Hou delivered by Rev. Mark Brown, 17 December 2008.

- An indication of how confident the researchers were of the derivation and meaning of the loanword by a dropdown box with three categories: unsure, reasonably sure and confident.
- The initials of the translator.

Figure 4 shows an example of a FileMaker Pro loanword entry from the database.

The screenshot shows a FileMaker Pro window titled 'Kupu Arotau - Matua'. The main area displays a record for the loanword 'Roiha'. The fields are as follows:

- key:** roiha
- loanword:** Roiha
- derivation:** Louise
- meaning:** Louise
- grammar:** proper noun - person
- example sentence:** ... ko tōna ingoa tēnei: Wikitōria Meri Akuhata **Roiha** Oroka Porina Kororina Akenihi.
- translation:** ... this is her name: Victoria Mary Augusta Louise Olga Pauline Claudine Agnes.
- Source:** Pipi 6/1911 wh 6
- translated by:** JCM
- Example Comment:** Mary, wife of George V.
- earliest_source:** Pipi 6/1911 wh 6
- earliest_date:** 6/1/1911
- running total:** 1
- confidence:** confident

At the bottom, there are three buttons: 'GO TO ENTRY-CONSONANTS', 'To CHANGE to a different <<<< LAYOUT >>>>', and 'GO TO ENTRY-SOURCES'. On the right side, there is a vertical panel with several buttons and instructions:

- SORT**: Will SORT records by KEY unless otherwise programmed.
- NEW**: Will create a blank record ready for entry.
- SEARCH**: Search (FIND) format in this layout.
- RESTORE**: Will Restore all records after a search (FIND ALL).
- Navigation buttons: <<, <, >, >>.
- FINISH**: Will CLOSE this file and QUIT Filemaker.

The left sidebar shows the 'Browse' window with a 'Layout:' dropdown set to 'entry_mail', a 'Record:' field showing '2', and a 'Found:' field showing '3'. The 'Total:' field shows '18256' and the 'Unsorted' status is indicated.

Figure 4. The FileMaker Pro entry for the loanword 'Roiha'. The example sentence shows the eight loanwords used for the names of Queen Mary, the wife of King George V.

Where translations of the Māori were provided in the newspapers, these have been used if they were considered accurate, otherwise new translations have been provided. The equivalent King James Version of the English Bible was used for the translations of all examples from the Paipera Tapu.

Modern orthographic conventions are used, as exemplified in *He Pātaka Kupu*, the monolingual Māori dictionary. Macrons have been added to show long vowels, including headwords and examples for the Paipera Tapu. Corrections have been made where it is obvious that there are misspellings and misprints. All loanwords encountered in the sources have been included.

Determining the meanings of the loanwords

Various methods have been used to determine meanings and derivations. The bilingual newspapers often enabled the research team to define these with certainty, while the English Bible provided the source for the meanings of the large number of loanwords of the Paipera Tapu. One of the reasons for including the collection of loanwords from the Paipera Tapu was to help determine the meanings of some of the loanwords used in other sources.

Of the 18,256 headwords in the database, there are 300 loanwords whose meaning or derivation we are unsure of. Most of these are the names of people, places, horses and ships. Unfortunately, we may never be able to discover the meanings and derivations of some of these, but with further research the number of entries currently marked as ‘unsure’ will be reduced.

Where an English translation is not available, context has played an important part in determining the meaning of the loanwords. Often the loanword was used in relation to an historical event. In these cases it was often possible to determine the loanword for a place name or historical figure by searching through accounts of the event, although at times this could be a time-consuming and frustrating exercise.

The screenshot shows a database entry form for the loanword 'Tewhiri'. The form is organized into several sections:

- Header Section:** Includes a 'Loanwords File' title and a 'key' field with the value 'tewhiri'.
- Entry Fields:**
 - loanword:** 'Tewhiri' (highlighted in blue).
 - derivation:** 'Jeffries'.
 - meaning:** 'Jeffries'.
 - grammar:** 'proper noun - person'.
 - example sentence:** 'I te whawhai mekemeke a Timi **Tewhiri** o Amarika rāua ko Ropata Pititimona Tiamupiana o te Ao...'.
 - translation:** 'At the boxing match between James Jeffries of America and Robert Fitzsimmons, World Champion...'.
 - Source:** 'Tiu 13/7/1899 wh 8'.
 - translated by:** 'JCM'.
 - Example Comment:** 'Jeffries defeated Fitzsimmons on 9 June 1899 for the world title.'
 - earliest_source:** 'Tiu 13/7/1899 wh 8'.
 - earliest_date:** '7/13/1899'.
 - running total:** '5'.
 - confidence:** 'confident'.
- Navigation and Action Buttons:**
 - SORT:** Will SORT records by KEY unless otherwise programmed.
 - NEW:** Will create a blank record ready for entry.
 - SEARCH:** Search (FIND) format in this layout.
 - RESTORE:** Will Restore all records after a search (FIND ALL).
 - FINISH:** Will CLOSE this file and QUIT Filemaker.
 - GO TO ENTRY-CONSONANTS:** To CHANGE to a different <<<< LAYOUT >>>>.
 - GO TO ENTRY-SOURCES:**
- Left Sidebar:** Contains a 'Browse' section with icons for layout, record, and search. It also shows 'Record: 1', 'Found: 1', 'Total: 18256', and 'Unsorted'.

Figure 5. The entry for the loanword ‘Tewhiri’.

An example to illustrate such a search is the name *Tewhiri*, which occurs five times in the sources. It is used in the sentence: *I te whawhai mekemeke a Timi **Tewhiri** o Amarika rāua ko*

*Ropata Pititimonā Tiamupiana o Te Ao...*³⁶ By checking boxing bouts of 1899 just prior to the publication of the particular issue of the newspaper it was revealed that James J. Jeffries defeated Robert Fitzsimmons on 9 June 1899 for the world heavyweight boxing title (see Figure 5).

Thus this search provided sound evidence for the meanings of all six loanwords used in the example sentence. Often, as in this case, the content of the article in which the loanword occurs provides further corroborative evidence. Thus an accurate translation could be made, i.e. ‘At the boxing match between James Jeffries of America and Robert Fitzsimmons, World Champion...’

Grammatical categories

The loanwords were classified according to the grammatical category as used in the sources. All the loanwords collected are what are called ‘bases’, with a few interjections.³⁷ There is no evidence of any new categories having been created. Separate entries have been made for the same word being used in a different grammatical category or with a different meaning.

As can be seen from the bar graph, the largest category contained the loanwords for people’s names (6761), many of which were found in the Paipera Tapu. The second largest group was for place names (3989), including names of countries. Other proper nouns (2308), including loanwords of nationalities, ships, horses, etc., make up the fourth largest group.

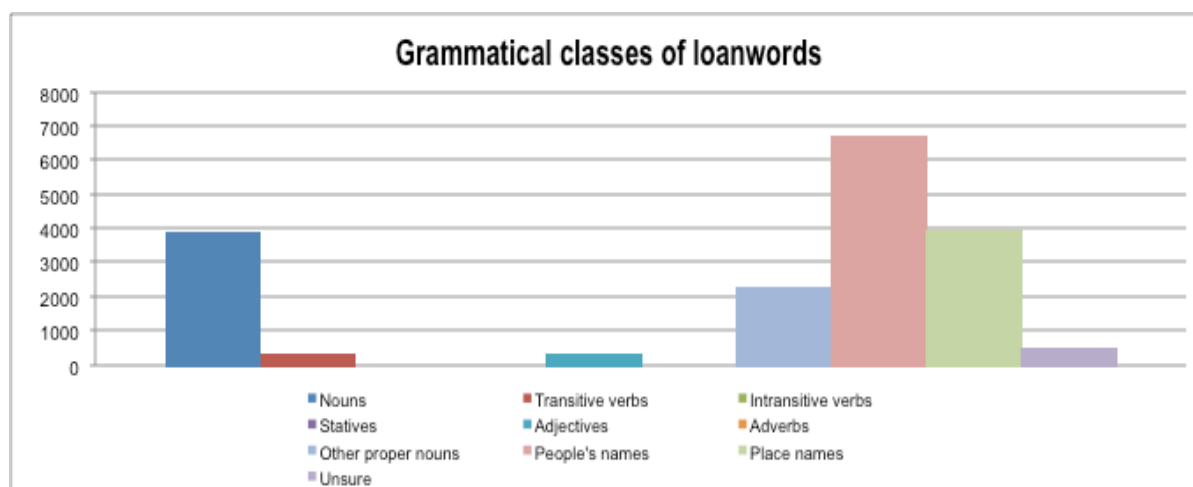


Figure 6. Bar graph of the grammatical classes of loanwords found in the sources 1842-1952.

Together these three categories of proper nouns make up a total of 13,058. The remaining categories total 5198. Of these by far the largest group are nouns (3903). The other categories are relatively small, but there are loanwords for all the grammatical categories of bases as follows:

³⁶ *Te Tiupiri*, 13/7/1899 p. 8.

³⁷ For further discussion on classes of words see: B. Biggs, *Let's Learn Maori*, Auckland, 1998, p. 4; R. Harlow, *A Māori Reference Grammar*, Auckland, 2001, pp. 41, 112; J. Moorfield, *Te Whanake 2 Te Pihinga*, (2nd edition) Auckland, 2001, pp. 54-55, 107-108, 148-149; J. Moorfield, *Te Whanake 2 Te Pihinga Pukapuka Tātaki Study Guide*, Auckland, 2003, p. 71.

Transitive verbs: 368
 Intransitive verbs: 122
 Statives: 113
 Adjectives: 349
 Adverbs: 43
 Unsure: 300

The unsure category contains a few words that are interjections.

Word meanings

When words have been borrowed from English and other languages into Māori the meanings and connotations often change. A simple example is *wāina*, which derives from ‘vine’ and/or ‘wine’ but is used in the sources for other meanings including ‘vinegar’, ‘grape’, and the surname ‘Vine’, so that it is not used only as a noun. Words that might belong in one grammatical category in the source language may change, so *wāina* is also used as a personal noun and as a stative (sometimes also called neuter verbs) with the meaning ‘be turned into wine’. Another example is the noun *tākuta* (doctor), which occurs 72 times in the sources with this meaning. However, it is also used five times as a transitive verb, with a passive ending of *-tia*, meaning ‘to practise medicine’; five times as an intransitive verb meaning ‘to become a doctor, practise as a doctor’; and five times as a derived noun *tākutatanga* meaning ‘the practice of being a doctor, position of a doctor’, e.g.

*E rua ōna tau ki Ōtepoti ka tākuta nei ia.*³⁸

He had five years in Dunedin, and then he became a doctor.

There are many examples of words, once adopted, being used in the same ways as the other words of Māori. This means they have been adapted to the grammatical system of Māori, as well as to Māori phonology. A further example is *tuari*, derived from the word ‘steward’, which is used not only as a noun but also as a transitive verb with the passive ending *-tia* meaning ‘to dispense, deal out, present’, e.g.

*E hoa, tēnā koe, te reo o te manu o te whakaoranga e tuari nei koe i te kupu o te Atua.*³⁹

Dear friend, the voice of the bird of salvation from which you dispense the word of God.

Likewise, *parakena*, derived from ‘blacken’, is used as a noun for ‘boot polish’ but also as a transitive verb meaning ‘to shine (shoes)’, e.g.

*...e rua ngā rā i ia wiki i ia wiki, ka mahi tahi hoki ia me rātou, arā, he parakena hū, he pupuri hōiho, he tahi i ngā tiriti.*⁴⁰

...two days a week, he worked alongside them, that is, shining shoes, holding horses and sweeping the streets.

³⁸ *Te Pīpīwharauroa*, 1904, No. 3, p. 4.

³⁹ *Huia Tangata Kotahi*, 1898, No. 11, p. 3.

⁴⁰ *Te Pīpīwharauroa*, 1908, No. 4, p. 6.

Grammatical features of loanwords

As discussed earlier in this article, previous studies have described the semantics and phonology of loanwords, but little has been written about how they adapt to the grammatical system of Māori.

Both prefixes and suffixes are used with loanwords. The most commonly used prefixes are *kai-*, *whaka-* and *ā-*, while passive endings (usually *-tia*) and derived noun endings (usually *-tanga*) feature. In addition, *kore* is used in the same way as with non-loanwords. It would seem that loanwords are completely adapted to the grammatical system of Māori.

kai-

The prefix *kai-* is added to verbs in the same way that the suffix ‘-er’ in English is added to verbs in English to denote the person who does an action. There are 28 different examples from the loanwords collected from the sources that are prefixed by *kai-* with 17 of these occurring more than twice in the sources. These are (with the number of occurrences in parentheses): *kaiparau* (ploughman) (5), *kairūri* (surveyor) (60), *kairīwhi* (successor, substitute) (16), *kaipōti* (voter) (20), *kaipeita* (painter) (20), *kaimāketē* (auctioneer) (9), *kairīhi* (lessee/lessor) (9), *kairēti* (lessee) (8), *kaimōtini* (nominator of a motion) (4), *kaihaeana hōiho* (farrier) (18), *kaiperēhi* (printer) (9), *kaiwāriu* (valuer) (3), *kairēhita* (registrar) (42), *kaiwea* (surveyor) (5), *kaiwira* (bequeather/will writer) (3), *kaipitihana* (petitioner) (5) and *kaikutikuti* (shearer) (3).

whaka-

Whaka- is used with loanwords in the same way that it occurs with traditional words:

1. The most common use of *whaka-* is when it combines with a stative (sometimes called a neuter verb), adjectives, intransitive verbs and nouns to create a new transitive verb.⁴¹ In these cases the meaning of *whaka-* is ‘to cause to be...’. Such words may also be used as nouns. Consequently, they all take passive endings and can be used in the *nā ... i ...* and *mā ... e ...* (or actor emphatic) sentence patterns, unlike statives and nouns which cannot.

Examples of these occurring more than twice in the sources include: *whakahōnore* (*-tia*) (to make honourable, honour) (61), *whakakorōria* (*-tia*) (to praise, give glory, honour, glorify) (40), *whakaoati* (*-tia*) (place under oath, take an oath, swear in) (35), *whakaporopiti* (to make a prophet, make prophecies) (3), *whakawhairūma* (*-tia*) (to divide into rooms) (4), *whakakīngi* (to make a king) (12), *whakaminita* (*-tia*) (to ordain, make a minister) (12), *whakakawhena* (*-tia*) (to reserve) (8), *whakataikiu* (*-tia*) (to thank) (4), *whakakawenata* (*-tia*) (to bind in a volume, publish, print, make a covenant) (4), *whakapōhara* (*-tia*) (to impoverish) (5), *whakamoni* (*-a*) (to count as money, calculate money) (9), *whakakaporeihana* (*-tia*) (to form into a corporation) (12), *whakanaiti* (*-tia*) (to knight) (3). Even *whakapita* (to be like St. Peter) occurs!

⁴¹ For a full explanation of the use of *whaka-* see Moorfield, 2005, p.195 (or the online Te Aka dictionary at <http://www.maoridictionary.co.nz/>); J. Moorfield, *Te Whanake I Te Kākano*, Auckland, 2001, pp. 111-112; or Harlow, 2001, pp.121-125.

Many of these are also used as nouns and/or adjectives, while some have been used with *-tanga* to form derived nouns, e.g. *whakapīhopatanga* (ordination as bishop) (2), *whakakīngitanga* (coronation) (8), *whakahōnoretanga* (honouring) (11), *whakakaraunatanga* (coronation, crowning) (2), *whakarīkonatanga* (ordination as deacon) (3).

2. The use of *whaka-* to show direction towards is also attested, e.g. *whaka-Pōneke* (towards Wellington) (1), *whaka-Piritōria* (towards Pretoria) (2), *whaka-te-nōta* (northward) (3), *whaka-te-hāhi* (towards the church, church going) (1) and *whaka-te-rēwera* (towards the devil) (1).

As well as the derived noun suffix *-tanga* discussed above, passive endings are also used with verbs, with *-tia* being the usual one used with loanwords, e.g. in the following example sentence the word *whaina* (to fine) has been used with the normal addition of its passive ending *-tia*.

*I whainatia te rangatira o te Kāpene Kūki Hōtēra i Tanītini e toru pauna £3 me ngā utu mō te kōti, mō tāna hokonga waipiro i te Rātapu.*⁴²

The manager of the Captain Cook Hotel in Dunedin was fined three pounds plus court costs for selling liquor on a Sunday.

ā-

There are also a few examples from the database of *ā-* used with loanwords. This precedes nouns to form a modifier, following a verb, to indicate the manner or means by which something is done, e.g.

Ko ngā take e pā ana ki ngā takiwā, ki ngā hapū rānei kei te whakamārama ā-pukapuka atu au i ia wā ki ngā tāngata nā rātau ngā take...

The matters affecting districts or *hapū*, I explain each time by letter to the people concerned.

kore

Used before or after nouns *kore* indicates the absence or lack of that thing and can be translated as ‘without’, ‘-less’ or ‘lacking’. It is sometimes written as a separate word, sometimes joined or hyphenated, e.g.

He wāhi kore wai tērā moutere.

That island is a place lacking water.

Loanwords can be used in the same way. Examples from the database include: *koremoni* (lack of money), *turekore* (lawless), *rēwanakore* (unleavened), *hōnorekore* (dishonour) and *hīrikore* (unsealed, open).

⁴² *Te Tiupiri*, 1/3/1898 p. 2.

These examples of the addition of prefixes and suffixes and the use of *kore* further illustrate how the loanwords are not only adapted to the phonology of Māori, but are also integrated into the grammatical classes of bases so that they function in the same way as other bases that are not loanwords.

12

H E M I W A I H I M A N A ,

KAI-HANGA TERA,

165 KUINI-TIRITI, AKARANA, 165.



P A N U I T A N G A .

He Pannu tenel NA TUWHA, ROLA, ki nga Tangata Maori katoa o te motu nei. Whaka rongorongo mai. Tenel ahanu te noho atu nei i Akarana nei. Kua puta he whakaaere maku i runga i te hiahia a etahi o nga Rangaitira e te motu nei. Kia tu ahanu he Kaiwhakahaere mo te hoko mo te reti o nga Whenua Maori. Na ki te hiahia koutou, kia retia, kia hokoma ranei etahi wahi o ou koutou Whenua me tuhi mai ki ahanu maku e whakahaere tika o koutou Whenua ki te utu tika e kitea e ahanu. Me tuku mai nga ingoa o ia Whenua, me nga takiwa, me nga eka hoki. He Whenua Karuuna karaaiti ranei, tiwhiketi ranei, papatupu ranei, me te akua hoki o nga Whenua. Me tuku mai he rola na koutou ki au ki taku tari kei **KUINI TIRITI, AKARANA.** Tetahi me haere mai ano te Tangata te Whenua kia ata korero tika nga tikanga.

NA TUWHA, ROLA,
Kei Akarana.

E MEA WHAKARITE MARIE E TA ATA KORANO,
TE KAWANA O NIU TIRENI.]

W. H. H A Z A R D ,

(W. H. HAHARA.)

KAI-HANGA PU,

166A KUINI TIRITI, AKARANA,

He whakaatu tenel ki nga hua tangata Maori, kei i a au te tini o

*Te Pu, te Paura, te Parahe, te
Whitiki Hota,*

me te tini noa atu o te hanga pera e minamiamia ana e nga Kai-puhitahi, a, ko te utu, he ngawari noa iho.



Mo te Pu Mangai Tahī	\$1 2 6
Mo te Tupara	2 15 0
Mo te Purukumu	4 10 0

45 Ko te rawakewewe mo tera hanga mo te Pu i runga i te taringonurungu, i te katipahi, me nga hanatanga o te Pu i ana mamata katoa, ka eiti tika, i runga i te tere, i te utu ngawari

Me nota ta e HEMARI FORTHE, mo te rangaitira o tenei nupepa. Te No. i Hoteani-tiriti, Akarana, i te 20 o nga ra o Hanuere, 1887.

TE KORIMAKO.

TUKUA MAI NGA PANUI
KI
'TE KORIMAKO,'
KO I NEI ANAKE TE TINO HUARARI HEI MATAKI-
TAKI MA TE
IWI MAORI.

KO tenei Nupepa he tini rawa nga mea e tukua atu ana ki nga kalinga i te tahamona me te tuawhenua me nga wahi katoa o Niu Tireni.

Ko nga utu enei mo nga Panui tuku mai:-

Mo te kouta koramu, me te marama e ..	3 0
Mo te haawhe koramu, e ..	6 0
Mo te tino koramu	10 0
Mo nga Whanautanga mo nga Mate kous e neke atu i nga rarangi e wha ..	1 0

Ko nga Panuitanga e hiahia ana kia roa te tuunga ki roto i te nupepa, me TE IRIMANA (S. J. EDMONDS), e whakarite te utu na patarira i te Tari o te Nupepa, Nama 43, Katimauhe-tiriti, Akarana.

Ko nga Panui katoa me tuku mai i mua i te whitu o nga ra o te marama.

ME FENHI TE TUHI—
'TE KORIMAKO,'
FOUAKA 270, POUTAPETA,
AKARANA;
TE IRIMANA,
43 KATIMAUHE-TIRITI, AKARANA.

[Translation.]

ADVERTISE
IN
'TE KORIMAKO,'
THE BEST MEDIUM FOR REACHING THE
MAORI PEOPLE.

THIS Paper has a LARGE CIRCULATION all over New Zealand, and reaches every *hanga* on the coast and in the interior.

The following rates are charged for Advertisements:-

Quarter Column, per month	3 0
Half	6 0
One	10 0

For Births, Deaths, or Marriages, each insertion, not exceeding four lines (front page)

1 0

Special terms for long-standing Advertisements may be obtained from S. J. EDMONDS, 43 Customs-street East, Auckland.

Advertisements should be sent in, with blocks or stereotypes (if any), not later than the 7th of the month.

ADDRESS—
'TE KORIMAKO,'
Box 270, Post Office,
AUCKLAND;
Or to
S. J. EDMONDS,
43 CUSTOMS-STREET EAST, AUCKLAND.

500 Stamps or Post Office Orders can be sent in payment for Advertisements.

E. PORTER & CO.,

*Kai-uta-mai i nga hanga katoa
e meatia ana ki te Mahi,
kite Ngakiwhenua,*

E HAPU NUI ANA I A RATOU

Nga PARAU RINO a Te Hone, a Te Hanata, he KOTIKOTI, he MAHIFI, me era atu hanga e tapiritia ana ki te Parau

He PARAU RAKAU no Amerika me ana tapiri, he hira nga Parau penei kua hokoma ki nga Maori o te Tai-rarawhiti.



He RAKARAKA RINO, RAKAU hoki

He RAKURAKU AHUA ke (Randall's) Disc. Ko nga tino kai-mahi penei o tenei takiwa kua rere ki tenei tu Parau mo o ratou whenua i mairi.

He MIHINI TAPAHU-KAKAU-WITI, me te Ringa etahi ehuri, me te Hohe etahi, me te Ramea etahi

Mo ana MIHINI, tenel ano nga mea o ta te Hohe MIHINI-PATU-WITI e-ringi etahi, a-huho etahi MIHINI KOWHA-KANGA, WHAKATOTO-KANGA

MIHINI RUI PURAPURA a-ringa, a-hohe heki He TIKI MAREKANA, TIKI me te TAMARIKI




He KAHERU

KOTA HAIRA, he PURAU TARUTARU, he PURAU RIWAI

He MAHIFI HAIRA KARATHE, me nga KAKAU, he KARAUNE, he RAKARAKA

He PATITI, me mo nga AWA KERI, he WHI POU-TAIEPA

KAKAU-TIKI, KAKAU-KAHERU, KAKAU-KAKARAKA

He WAKA-TAIEPA me nga WHAKARAWA

He OUMU, he KOUHA WAETORU

He FUNGA, he HAE-ROA, he HORAKA

He TAO WERO-KAPIA, he MAHIFI A-KAPIA

He PERE KAU, he PORIA IHU FOAKA



Ka Whakauturia nga utu ena potaia,

KO TE MANGANGATANGA O TENEI
TOA KEI WAIKAW.

E. PORTER & Co.,
KUINI TIRITI ME HAI TIRITI,
AKARANA

Figure 7. A page of advertisements from *Te Korimako* of January, 1887.

However, there is a possible innovation that reflects an English word order that is not normally used in Māori. Nouns following nouns as modifiers are common in Māori. The second noun functions as an adjective. This word order of a noun followed by a modifier, or an adjective, is also followed when loanwords are involved. Examples using loanwords are: *pouaka pī* (beehive), *karepe maroke* (dried grape, raisin) and *mīhini petipeti* (betting machine, totalisator). There are a few modifiers that do precede their headwords, but these are restricted to *āta* (deliberately, carefully), *āhua* (somewhat, quite, fairly), *mātua* (firstly, first), *tata* (nearly, almost) and *tino* (very, essential). There are a few other words that are sometimes used this way, i.e. *tere* (quickly), *paku* (a little) and *kaha* (strong). The loanword *pīki* (big) seems to be an addition to the first group where the words are only ever used preceding the words they modify.

However, there are a significant number of examples in the loanwords data where the English word order of modifier plus head is followed, e.g.

Modifier + base	Derivation/meaning	Modifier + base	Derivation/meaning
<i>parai mīti</i>	fried meat	<i>parāone pepa</i>	brown paper
<i>kerei paipa</i>	clay pipe	<i>pareme nōti</i>	promissory note
<i>petekoha ohonga</i>	pentecostal event	<i>pīki pāhi</i>	big boss
<i>pirini kākahu</i>	printed cloth	<i>rūmātiki pīwa</i>	rheumatic fever
<i>purū hāte</i>	blue shirt	<i>purū puka</i>	blue book
<i>purū rīpene</i>	blue ribbon, temperance	<i>purū-pepa</i>	blue paper
<i>tāone hōro</i>	town hall	<i>kōura pou</i>	goal post
<i>pōhi māhita</i>	post master	<i>pōhi nōti</i>	postal note
<i>pēke taiepa</i>	back fence	<i>piurara hate</i>	bowler hat
<i>eweri tāima</i>	every time		

This feature is also attested in Samoan.⁴³ There are two possible explanations for this English word order being used in Māori. It is possible that non-native speakers created these, although this seems unlikely, especially as some have high numbers of occurrences in the sources, and examples continue to be used in modern Māori. It is more likely that the English words from which the loanwords derive were treated as compound words, even if many are written as two words in the sources.

Some two-word loans are hybrid forms, i.e. one of the two words is not a loanword, although they may be written as one word. Examples of this feature are *pāparakāuta* (public house, hotel), *huripara* (wheelbarrow), *āwhetau* (half-yearly), *kura māhita* (school master, teacher), *toru-koata* (three-quarter caste, three-quarters – rugby), *toru-kapa* (threepence), *purukāta* (pull-cart, draught horse), *peka rohi/peka rohira* (baker, loaf baker), *pane kuīni* and *pane kīngi* (postage stamp), *whare reta* (envelope), *waea uira* (electricity) and *kaipaipa* (to smoke). Some are more open to debate, e.g. *Hanaraiti* (Sunlight) as used in the following sentence:

*I puta ngā kōrero whakakino ingoa a ētahi nūpepa o Rānana mō Lever Brothers, kamupene mahi hopi **Hanaraiti**.*⁴⁴

⁴³ U. Mosel, 'Borrowing in Samoan', in J. Tent & P. Geraghty (eds), *Borrowing a Pacific Perspective*. Canberra: Pacific Linguistics, 2004, p. 227.

⁴⁴ *Te Pīpiwharauoa*, 11/1907, p. 9.

Slandorous allegations about Lever Brothers, the company that makes Sunlight soap, were made by some London newspapers.

An argument could be made that the *Hana-* of *Hanaraiti* derives from the Māori word that means ‘to shine, glow’ and as a noun meaning ‘flame, gleam, glow’. However, it is more likely that it is transliterated from ‘sun’ as exemplified in the use of *-hana* for surnames ending in ‘-son’ discussed below.

Adaptation of loanwords to the phonology of Māori

This article will revisit some of the details of the adaptation of the loans to the phonology of Māori, although several publications have discussed this feature of Māori loanwords, or aspects of it, including Harlow⁴⁵, Ryan⁴⁶, Schutz⁴⁷ and Kearns⁴⁸. It will be obvious to those who know some Māori that:

- there are a significant number of English phonemes that have no direct equivalent in Māori;
- there are no consonant clusters and every consonant must be followed by a vowel.

Here are some of the more obvious patterns of phonological changes that are apparent from the database when words have been borrowed from other languages into Māori.

How does Māori cater for English phonemes that have no direct equivalent in Māori?

Unlike some other Polynesian languages (e.g. Samoan⁴⁹), new sounds have not been borrowed into Māori.

1. The voiced plosive /b/ in English becomes the voiceless /p/ in Māori.

Loanword	Derivation/meaning	Loanword	Derivation/meaning
<i>parakipere</i>	blackberry	<i>Parahiri</i>	Brazil
<i>pateri</i>	badger	<i>Hāku Pei, Hāki Pei</i>	Hawkes Bay
<i>peihana</i>	basin	<i>Pānapa</i>	Barnabas
<i>parata</i>	brother	<i>Pēri</i>	Barry
<i>pīwhi</i>	beef	<i>Papurona</i>	Babylon
<i>pēke</i>	bag, sack, bank	<i>paki</i>	buggy
<i>piriti</i>	bridge	<i>parakimete</i>	blacksmith
<i>puhera</i>	bushel	<i>Pukēria</i>	Bulgaria
<i>tūpara</i>	two barrelled, double barrelled shotgun	<i>Piritini, Piritana, Piritene, Piriteni, Piritani</i>	Britain
<i>pia</i>	beer	<i>pūtu</i>	boot
<i>pata</i>	butter	<i>pihikete</i>	biscuit
<i>parani</i>	brand	<i>paraihe</i>	brush
<i>paraikete</i>	blanket	<i>pire</i>	bill

⁴⁵ 2004.

⁴⁶ 1972.

⁴⁷ A. Schutz, ‘Accent and accent units in Māori’, *Journal of the Polynesian Society*, 1985, 94:5-26.

⁴⁸ K. Kearns, ‘A note on the glottal fricative in Maori’, *Te Reo* 1990, 33:65-81.

⁴⁹ Mosel, pp. 224-225.

<i>pāre</i>	barley	<i>parani</i>	brandy
<i>pēne</i>	band	<i>paraire</i>	bridle

2. Voiced stops in English usually become voiceless ones in Māori.
/z/ becomes /h/ or /t/, e.g.

Loanword	Derivation	Loanword	Derivation
<i>paitini, paihana</i>	poison	<i>Hakaraia</i>	Zachariah
<i>tarautete</i>	trousers	<i>Hiona</i>	Zion
<i>hepara</i>	zebra	<i>Heperi</i>	Zebedee
<i>tingiki</i>	zinc	<i>Tutimi</i>	Zuzim
<i>tā, hā</i>	tsar	<i>Tipeona</i>	Zibeeon
<i>makahini</i>	magazine	<i>Niu Tīreni</i>	New Zealand
<i>kahera</i>	gazelle	<i>Amahona, Amahana</i>	Amazon
<i>pahā, pihā</i>	bazaar	<i>Iharaira</i>	Israel
<i>kāhiti</i>	gazette	<i>Ataria</i>	Azaliah
<i>taihana</i>	dozen	<i>Tūru, Hūru</i>	Zulu

3. /ʒ/ also becomes /h/,
e.g. *mēhua, meiha* (measure).

4. a. The English sibilants /s/ and /ʃ/ usually become the Māori /h/, e.g.

Loanword	Derivation/meaning	Loanword	Derivation/meaning
<i>hekerē</i>	shekel	<i>Himiona</i>	Simeon
<i>heramana</i>	sailorman, sailor	<i>Hana Parahiko</i>	San Francisco
<i>hīri</i>	seal	<i>Hakarameto</i>	Sacramento
<i>hipi</i>	sheep	<i>Hahara</i>	Sahara
<i>hapira</i>	sapphire	<i>Hera</i>	Sarah
<i>hōpane</i>	saucepan	<i>Huhana</i>	Susan, Susannah
<i>hupa</i>	soup	<i>Hā</i>	Sir
<i>hōro</i>	shawl, hall	<i>Hātarei</i>	Saturday
<i>hanawiti</i>	sandwich	<i>Hōtereni</i>	Shortland
<i>hōia</i>	soldier	<i>Hamahona</i>	Samson
<i>hāmana, hāmene</i>	summons	<i>Hekipia, Hakipia</i>	Shakespeare
<i>hamaroka</i>	shamrock	<i>Hāmiora, Hāmuera</i>	Samuel
<i>hopi</i>	soap	<i>Herewini</i>	Selwyn
<i>herengi, hereni</i>	shilling	<i>Hakiona, Hakiana</i>	Saxon
<i>hū</i>	shoe	<i>Hāmi</i>	Sam
<i>huka</i>	sugar	<i>Hingapoa</i>	Singapore
<i>hāpati</i>	sabbath	<i>Hāmoa</i>	Samoa
<i>hikipene</i>	sixpence	<i>Hangahai</i>	Shanghai
<i>hōta</i>	shot	<i>Hātana</i>	Satan, heathen
<i>hāte</i>	shirt	<i>Huītini</i>	Sweden
<i>hekeretari</i>	secretary	<i>hīnota</i>	synod

<i>hea</i>	share	<i>hūpirimi kōti</i>	supreme court
<i>haina (-tia)</i>	to sign	<i>hiraka</i>	silk
<i>hiriwa</i>	silver	<i>hakarameta</i>	sacrament
<i>hēpara</i>	shepherd	<i>hapa</i>	supper, tea
<i>hūtu</i>	suit	<i>hoari</i>	sword
<i>hīti</i>	sheet	<i>tatana</i>	satin
<i>hēra</i>	sail	<i>hekana</i>	second
<i>hūmeke, hūmeke</i>	shoemaker	<i>hēteri</i>	sentry
<i>hikamoa</i>	sycamore	<i>hōura</i>	soda
<i>wehikē</i>	whisky	<i>tēnehi</i>	tennis
<i>pāriha</i>	parish	<i>hāpara</i>	shovel
<i>nākahī</i>	nagash, python, serpent	<i>hāmana</i>	salmon),
<i>haute</i>	shout	<i>kaporeihana</i>	corporation
<i>mōtini</i>	motion	<i>pirinihehe</i>	princess
<i>āteha</i>	assessor		

b. In a few cases /s/ becomes the Māori /t/, e.g.

Loanword	Derivation/meaning	Loanword	Derivation/meaning
<i>tote</i>	salt	<i>Tā</i>	Sir
<i>tekihana, tekiona</i>	section	<i>tāmana</i>	summons
<i>āteha</i>	assessor	<i>Tātana</i>	Sutton
<i>tera</i>	saddle	<i>tōtiti</i>	sausage

A couple of exceptions to this are: *kīpa* (spur) and *rōpere* (strawberry).

5. The English /l/ becomes a Māori /r/, e.g.

Loanword	Derivation/meaning	Loanword	Derivation/meaning
<i>repara</i>	leper, be a leper	<i>rūri</i>	ruler, length
<i>raiona</i>	lion	<i>Ruka</i>	Luke, Lucas
<i>rīhi</i>	lease	<i>Rititana</i>	Lyttleton
<i>rōia</i>	lawyer	<i>Rānana</i>	London
<i>raka</i>	lock	<i>Horomona</i>	Solomon
<i>pire</i>	bill	<i>raima</i>	lime, mortar, concrete
<i>rūtene</i>	lieutenant	<i>paraka</i>	block
<i>reimana</i>	layman	<i>rīnena</i>	linen
<i>reme</i>	lamb	<i>raihana</i>	license
<i>rare</i>	lolly, sweet	<i>ritani</i>	litany
<i>rātana</i>	lantern	<i>rāti</i>	lance, harpoon
<i>rēmana</i>	lemon	<i>riki</i>	leek, onion
<i>rērewē</i>	railway	<i>rētihi</i>	lettuce

Although unusual, there are a few exceptions to this, e.g. *waipere* (library) and *namunēra* (lemonade).

6. a. The English /d/ becomes a Māori /t/, e.g.

Loanword	Derivation/meaning	Loanword	Derivation/meaning
<i>tiuka</i>	duke	<i>Tihema</i>	December
<i>tākuta</i>	doctor	<i>Tanara</i>	Donald
<i>terei</i>	dray (two-wheeled cart)	<i>Tanītana</i>	Dunedin
<i>tina</i>	dinner, lunch	<i>Tanupi</i>	Danube
<i>tīti</i>	deed	<i>Tenemāka</i>	Denmark
<i>taramu</i>	drum	<i>Taniera</i>	Daniel, Daniels
<i>taimana</i>	diamond	<i>Tepora</i>	Deborah
<i>teputi</i>	deputy	<i>Tiuteronomi</i>	Deuteronomy
<i>tāra</i>	dollar	<i>Tati</i>	Dutch
<i>toroa</i>	drawer	<i>Teri</i>	Delhi
<i>tia</i>	deer	<i>Tiki</i>	Dick
<i>taraiwa</i>	driver	<i>toronaihi</i>	draw-knife, sickle
<i>tominiana</i>	dominion	<i>taria</i>	dahlia
<i>tikinare</i>	dictionary	<i>haratei</i>	holiday
<i>atimara</i>	admiral		

b. Although tallies of occurrences are lower, the English /d/ may also be voiced as a Māori /r/, e.g.

Loanword	Derivation/meaning	Loanword	Derivation/meaning
<i>rīhi</i>	dish, pan	<i>Rāniera</i>	Daniel, Daniels
<i>raria</i>	dahlia	<i>Rāwiri</i>	David
<i>rēwera</i>	devil	<i>Rewi</i>	Dave, Davie
<i>harirū</i>	How do you do, greet, shake hands	<i>Rēweti</i>	Davis, Davies, David
<i>rakiraki</i>	duck	<i>rīri</i>	deed
<i>hararei</i>	holiday	<i>rīkona</i>	deacon

7. a. The affricate /tʃ/ becomes the Māori /t/, and often /ti/, e.g.

Loanword	Derivation/meaning	Loanword	Derivation/meaning
<i>tere</i>	cherry	<i>Tikāto</i>	Chicago
<i>māti</i>	match	<i>Taina</i>	China
<i>tiamana</i>	chairman	<i>Tainamana</i>	Chinaman
<i>tiamupiana</i>	champion	<i>tīhi</i>	cheese
<i>tiaki</i>	cheque	<i>tumera, timera</i>	chimney

b. The English /tʃ/ may also become /h/, e.g.

Loanword	Derivation/meaning	Loanword	Derivation/meaning
<i>hāriata</i>	chariot	<i>Hāre</i>	Charles, Charlie
<i>heamana</i>	chairman	<i>Hainamana</i>	Chinaman
<i>hāhi</i>	church	<i>Haina</i>	China

8. a. The English /dʒ/ becomes /t/, and often /ti/, e.g.

Loanword	Derivation/meaning	Loanword	Derivation/meaning
<i>tianara</i>	general	<i>Teoti</i>	George
<i>kāpeti</i>	cabbage	<i>Tiapanihi</i>	Japanese
<i>tinitia pia</i>	ginger beer	<i>karāti</i>	garage
<i>tīni</i>	gin	<i>tiokarewhi</i>	geography
<i>tioke</i>	jockey	<i>piriti</i>	bridge
<i>tiati</i>	judge	<i>tiamu</i>	jam
<i>tiakete</i>	jacket	<i>tiupirī</i>	jubilee
<i>tiaka</i>	jug		

b. The English /dʒ/ may also become /h/, e.g.

Loanword	Derivation/meaning	Loanword	Derivation/meaning
<i>haki</i>	jack	<i>Hurae</i>	Jew, July
<i>haihana</i>	sergeant	<i>Hōri</i>	George
<i>hākete</i>	jacket	<i>Ihipa</i>	Egypt
<i>hūri</i>	jury	<i>Ihipiana</i>	Egyptian
<i>Hēmi</i>	James	<i>Hone, Hoani</i>	John, Johnny
<i>Hohepa</i>	Joseph	<i>Hānuere</i>	January

c. The English /dʒ/ may also become /ri/,
e.g. *kariri* (cartridge), *Hōri* (George) and *tāriana* (sergeant).

9. The English /g/ becomes the Māori /k/, e.g.

Loanword	Derivation	Loanword	Derivation
<i>kēmu</i>	game	<i>hikareti</i>	cigarette
<i>ōkena</i>	organ (music)	<i>kāwana</i>	governor
<i>karāhe, karaihe, karaehe</i>	glass, grass, class	<i>karāti</i>	grant
<i>kōura</i>	gold, goal	<i>kiki</i>	gig
<i>kāone</i>	gown	<i>kāri</i>	garden
<i>korōria</i>	glory	<i>kuihi</i>	goose
<i>karono, karona, karani</i>	gallon	<i>kēti</i>	gate
<i>karapu</i>	glove	<i>karepe</i>	grape
<i>kēhi, kāhi</i>	gas	<i>kēmu</i>	game
<i>korowha</i>	golf	<i>kāhiti</i>	gazette
<i>pirikatia</i>	brigadier	<i>kūpere, kuihipere</i>	gooseberry
<i>rekureihana</i>	regulation		

10. /v/ becomes /w/, e.g.

Loanword	Derivation/meaning	Loanword	Derivation/meaning
<i>rēwera</i>	devil	<i>Wikitōria</i>	Victoria

<i>ōriwa</i>	olive	<i>Rāwiri</i>	David
<i>paraiweti</i>	private (army)	<i>Rewi</i>	Dave
<i>taraiwa</i>	driver	<i>Rēweti</i>	Davis, Davies, David
<i>pīwa</i>	fever	<i>hiriwa</i>	silver
<i>kāwana</i>	governor	<i>winika</i>	vinegar
<i>wāriu</i>	value	<i>wānihi</i>	varnish
<i>wereweti</i>	velvet		

Exceptions: *pōti* (vote) and *parani* (verandah)

11. /θ/ and /ð/ become /t/ in Māori, e.g.

Loanword	Derivation/meaning	Loanword	Derivation/meaning
<i>Taitei, Tāite</i>	Thursday	<i>Tiopera, Tiopira</i>	Theophilus
<i>torōna</i>	throne	<i>Takerei</i>	Thackeray
<i>tiata</i>	theatre	<i>Tātana, Toatana</i>	Thornton
<i>taikiu</i>	thank you	<i>tamomita</i>	thermometer

12. The /j/ sound written in English as <y> becomes the vowel /i/ in Māori, e.g.

Loanword	Derivation	Loanword	Derivation
<i>iāri</i>	yard	<i>Ianga</i>	Young
<i>taikiu</i>	thank you	<i>Niu Ia</i>	New Year
<i>īhi</i>	yeast	<i>Niu Ioka</i>	New York
<i>iata</i>	yacht	<i>ioka</i>	yoke, York

The following table summarizes the Māori phonemes that usually substitute for the English consonants that do not exist in Māori when loanwords are created.

English consonant(s)	Māori phoneme(s)
/b/	/p/
/s, ʒ, ʃ/	/h, t/
/l/	/r/
/dʒ/	/h, t, ri/
/g/	/k/
/v/	/w/
/θ, ð/	/t/
/j/	/i/

How does Māori cater for English consonant clusters and the rule that every consonant must be followed by a vowel?

1. Because every consonant in Māori must be followed by a vowel, loanwords from English words that end in a consonant sound have a vowel added.
 - a. This terminal vowel is often the same as the penultimate vowel of the loanword, e.g.

Loanword	Derivation	Loanword	Derivation
<i>witi</i>	wheat	<i>heramana</i>	sailorman, sailor
<i>kāpene</i>	captain	<i>karaehe</i>	class, glass, grass
<i>poaka</i>	pork, pig	<i>poropiti</i>	prophet
<i>wiki</i>	week	<i>peihana</i>	basin
<i>wīhara</i>	weasel	<i>hepara</i>	shepherd
<i>merakara</i>	miracle	<i>pene</i>	pen
<i>hāta</i>	hart	<i>kīngi</i>	king
<i>hīmene</i>	hymn	<i>hōro</i>	shawl, hall
<i>parakimete</i>	blacksmith	<i>rūpapa</i>	rhubarb
<i>paraikete</i>	blanket	<i>kihi</i>	kiss
<i>takihi</i>	circus	<i>pāka</i>	box
<i>tīti</i>	deed	<i>pēne</i>	band
<i>pūtu</i>	boot	<i>kerēme</i>	claim
<i>rīhi</i>	lease	<i>rēpara</i>	leopard
<i>kānara</i>	colonel	<i>inihi</i>	inch
<i>pōraka, paraka</i>	block	<i>karahipi</i>	scholarship
<i>pātene</i>	batten	<i>tīhi</i>	cheese
<i>rīwhi</i>	relief	<i>kāta</i>	cart
<i>wūru</i>	wool	<i>hīti</i>	sheet
<i>tatana</i>	satin	<i>pākete</i>	bucket
<i>peara</i>	pearl	<i>tiamana</i>	diamond
<i>ngira</i>	needle	<i>keke</i>	cake
<i>tēpara</i>	stable, staple, table	<i>putupōro</i>	football
<i>kirikiti</i>	cricket (sport)	<i>pītiti</i>	peach
<i>āporo</i>	apple	<i>kuini</i>	quince
<i>terewhono</i>	telephone	<i>pahikara, paihikara</i>	bicycle
<i>rātana</i>	lantern	<i>atimara</i>	admiral
<i>pāremete, pāramete</i>	parliament	<i>karepe</i>	grape
<i>mīti</i>	meat	<i>miūru</i>	mule
<i>kānara</i>	candle	<i>kāpiti</i>	cabbage
<i>miraka</i>	milk	<i>uniana</i>	union
<i>wīhara</i>	whistle	<i>taraka</i>	truck
<i>iniki</i>	ink	<i>pirihimana</i>	policeman
<i>wāna</i>	swan		

b. However, there are a significant number of examples where the final vowel of the loanword is different from the penultimate vowel, e.g.

Loanword	Derivation/meaning	Loanword	Derivation/meaning
<i>parāhi</i>	brass, bronze	<i>pereti</i>	plate
<i>rūma</i>	room	<i>wīra</i>	wheel
<i>kapu</i>	cup	<i>pīkake</i>	peacock
<i>nākahī</i>	nagash, python, serpent	<i>hōpane</i>	saucepan
<i>kāreti, kāroti</i>	carrot	<i>mohikena</i>	moleskin
<i>poti</i>	boat	<i>hāwhe</i>	half

<i>pāmu</i>	farm	<i>pōti</i>	vote
<i>rēwera</i>	devil	<i>wati</i>	watch
<i>raiona</i>	lion	<i>karāti</i>	garage
<i>mira</i>	mill	<i>kaunihera</i>	council
<i>purukamu</i>	bluegum	<i>eropereina</i>	aeroplane
<i>hāmupeina</i>	champagne	<i>ōriwa</i>	olive
<i>anaterope</i>	antelope	<i>haki</i>	jack, flag
<i>kōti</i>	coach (transport)	<i>tāora</i>	towel
<i>nēra</i>	nail	<i>pihikete</i>	biscuit
<i>kanataraki</i>	contract	<i>hēra</i>	sail
<i>tāpōrena</i>	tarpaulin, raincoat	<i>perohuka</i>	bill-hook
<i>kēna</i>	can, billy	<i>rore</i>	lord
<i>paramu</i>	plum	<i>tiaki</i>	cheque
<i>rauna</i>	round	<i>paraiweti</i>	private (army)
<i>hopi</i>	soap	<i>kāpehu</i>	compass
<i>kēmeti, kēmehi</i>	chemist	<i>tāke</i>	tax
<i>panikena</i>	pannikin		

c. If the final consonant of the loanword is preceded by the diphthong /ai/ or /āi/ the final vowel is likely to be /a/, e.g.

Loanword	Derivation/meaning	Loanword	Derivation/meaning
<i>raina</i>	line	<i>taraiwa</i>	driver
<i>tāima</i>	time	<i>wāina</i>	wine, vine, grape
<i>motopaika</i>	motorbike	<i>taika</i>	tank

An exception is *paraihe* (prize).

2. When /s/ is followed by another consonant at the beginning of the English word, the sibilant is dropped and the next consonant starts the loanword, e.g.

Loanword	Derivation/meaning	Loanword	Derivation/meaning
<i>tōpere</i>	strawberry	<i>Tīpene</i>	Stephen
<i>toa</i>	store	<i>Taute</i>	Stout
<i>tari</i>	study, office	<i>Tā</i>	<i>Star</i> (newspaper)
<i>tokiāri</i>	stockyard	<i>Peina</i>	Spain
<i>piringi</i>	spring	<i>taewa</i>	Stivers, potato
<i>tiriti</i>	street	<i>Kotarana, Kotarani</i>	Scotland
<i>tima</i>	steamer, ship	<i>Waniana, Wanitana</i>	Swanson
<i>tīreti</i>	steerage	<i>Mete</i>	Smith
<i>tōne</i>	stone (weight)	<i>Pāniora, Pānioro</i>	Spaniard
<i>tarapu</i>	stirrup	<i>Wītana</i>	Sweden
<i>tēpara</i>	stable	<i>tūru</i>	stool, chair, pew, bench
<i>tāriana</i>	stallion, boar	<i>tēpara</i>	staple (fencing)
<i>tōkena</i>	stocking, sock	<i>tanapu</i>	stand up
<i>tuari</i>	steward, Stewart	<i>purutōne</i>	bluestone, sulphate of copper

<i>tāpu</i>	stop	<i>neke</i>	snake, serpent
<i>wāna</i>	swan	<i>warou</i>	swallow, welcome swallow
<i>pune, pūnu</i>	spoon	<i>karaipiture</i>	scripture
<i>karahipi</i>	scholarship	<i>karaipi</i>	scribe
<i>teihana</i>	station		

This also seems to apply to /s/ when it is not at the beginning of the English word but is followed by a consonant as the second part of the consonant cluster, e.g. *Pēti* (Best), *minita* (minister), *katoroera* (castor oil), *niupepa*, *nūpepa* (newspaper). Sometimes vowel insertion takes place instead.

3. Kearns has analysed the insertion of vowels to adapt English consonant clusters to the Māori sound system (i.e. epenthetic vowels).⁵⁰ She has demonstrated that where an English sibilant is realized as /h/, the adjacent epenthetic vowel will usually be /i/. The following are some examples from our database.

Loanword	Derivation/meaning	Loanword	Derivation/meaning
<i>kaunihera</i>	council	<i>Perehipitiriana</i>	Presbyterian
<i>takihī</i>	taxi	<i>Ahitereiria</i>	Australia
<i>tekihana</i>	section	<i>rōnihi</i>	launch
<i>wehikē</i>	whisky	<i>māhita</i>	master
<i>pirihimana</i>	policeman	<i>hōhipera</i>	hospital
		<i>Wikitōria</i>	Victoria

Exceptions to this include: *anahera* (angel) and *wuruhi* (wolf).

Ryan has pointed out that the syllables /wo, wu, who, whu/ do not seem to have been present in Māori prior to contact with European languages.⁵¹ These have become part of the language, as the following loanwords exemplify:

Loanword	Derivation	Loanword	Derivation/meaning
<i>wuruhi, wuruwhi</i>	wolf	<i>Wūnu</i>	Woon
<i>wūru</i>	wool	<i>Wūru</i>	Wood
<i>wūruheti</i>	woolshed	<i>Wopereki</i>	Warbrick
<i>whutupōro, whutupaoro</i>	football, rugby	<i>Wōkuru</i>	Vogel
<i>whūrupēke</i>	fullback	<i>whurutu</i>	fruit
<i>whonokarāwhe</i>	phonograph		

⁵⁰ K Kearns 1990, pp. 68-80.

⁵¹ J. Ryan, p.144.

KO TE METE RAUA KO KAUWHE,

Nama 239 Kuini Tiriti,

AKARANA,

A NUMAKETE HOKI.

KI NGA IWI MAORI.

E HOA MA.—I tenei tukunga atu ki a koutou, ta maua PANUI i te tuhitinga hou o a maua TAONGA mo te HOTOKE, ka whakapuakina atu ki a koutou to maua nei whakawhetai. Te take kua nui noa mai ta koutou whakawhetai ki a maua, i nga TAONGA i hokohokona, i nga wa kua pahemo ake nei; ara, i ta maua timatanga PANUI i nga koramu o TE KORIMAKO takanotia tenei wahi.

Tika tonu ta koutou whakapono ki a maua ki, i nga takiwa ka mahua ake nei, na te mea, ko ta maua i minamina ai, kia tukua atu ki a koutou nga TAONGA utu-iti, kihai ra i kitea e te tini i maua ai. Ko te take o to maua whakaputerotanga, he whakamuku kia iti ake nga moni, i nga moni i utua ai nga TAONGA. Tetahi, kaore i whakarutahi te utu mo nga Taonga e hokona ana. Ko a maua TAKAI, me a maua TAONGA, kua putaputa ki te tini o nga kalinga—whano kapi katoa nga kalinga o te Motu Whakararo. A, kua hapalaga mai te ki whakakoa o nga tini kai-

TOA kia ata kitekita e koutou nga TAONGA, kia rongo i te reo Maori ina whakapuakina. tenei ano etahi tangata kei Akarana e mea nei, ko TE KORIMAKO tana Toa. Na! ko te kupu tenei ki a koutou, kei tenei hangatia koutou i a ratou korero-huri. Ko ta maua nei TOA, kei te pito-whakarunga o

KUINI TIRITI; ko te mangangatanga kei NUMAKETE. Nga wahi o ko atu e nohoia takitahia ana i nga takiwa i roto i te tau, kei HOKIANGA, kei WHANGAREI, kei KAEU. Ko a maua ingoa kei nga whare o aua wahi epihi ana. Na ou koutou hua pono,

NA TE METE RAUA KO KAUWHE.



hoko;—mea ai ratou, me te ratou timatanga hoko ki a maua, kua kore e maua-noa i te TAIMA tae noa ki nga MONI. Ko a maua TAKAI, mentia ai ki te Kanawehi, a, tukua atu ana i te utu kore a te tangata, ki la awa, ki la awa, ki nga Rerewe Teihana i Niu Tireni e taea atu ana i Akarana. Mo te TAKAI, kaore e hoki iho te utu i te \$1 tenei kupa. Ko nga TAKAI, kaore e painga e nga kai-boko, e pai ana kia whakahokia mai. Kaore he TAKAI-TAONGA e tukua atu ana i maua mai o te utunga. Ko te moni me tuku mai, i te NOTI ra nei, i te PANE-KUINI ra nei, i te OTA POUTAPETA ra nei, i te TIARI ra nei, ki a

TE METE RAUA KO KAUWHE.

Ko nga Taonga e tonoa ana, ki te kore e tae mai nga moni, ka tikanga-kore. I nga TAONGA e tonoa ana, me whakastu marire i te ahua o nga mea e hiahia ana, me te nui, te iti, me era atu tikanga. I o koutou taenga mai ki Akarana, whai mai tenei

No te mea, kua rangona,

Na ou koutou hua pono,

TAKAI-TAONGA NAMA 10

KO "TE TAKAI KAHIMIA ATAARUA" TE INGOA O TENEI TAKAI-TAONGA.

Te Utu, \$1 2s. 6d.

- 6 iari Kahimia, pai, pango, 60 inihī te whanui
- 10 iari Kape Hangatu, Piriri Kaore ra nei
- 1 Potae Wahine, witi, pango (Whakawhetai mai te ahua o nga ripine)
- 2 Hini Wahine, pai atu te hanga
- 1 Tochi (Whakawhetai mai te mehua)
- 2 pea Tokena Wahine
- Ko te Aikihia-hiraka, pai atu, me hoatu noa.

TAKAI-TAONGA NAMA 101

KO "TE TAKAI-RANGATIRA" TE INGOA O TENEI TAKAI-TAONGA.

Te Utu, \$1 12s. 6d.

- 1 Huiti, he puro-rangatu. Kei Tarau, kouma hoki
- 1 Potae-tane, he perati agawari koreroia mai te nui
- 1 Hata ma, ko te tneara nga patene
- 1 Hata maroro, mo te mahi
- 1 pea Tokena-tane, Katoa ra nei. Wuru ra nei
- 1 potaka Kara-pakapaka
- Ko enei katoa e riro ana mo te \$1 12s. 6d. Ka tukua noatia atu te aikihia-hiraka, ahua pai.

239 Ko nga TAONGA katoa i roto i tenei tukunga he tukua atu i runga i te riranga o nga TAKAI-TAONGA. He ki ake tenei, me whakawhetai e te tangata nga mea e watarahi ana te utu, te take he pai hoki ra nga Taonga e nui ake ana te utu; a, tenei e paingia mehua tenei hanga, te TAONGA maua.

TAKAI TAONGA NAMA 102

KO "TE KORIMAKO" TE INGOA O TENEI TAKAI-TAONGA.

Te Utu, \$1 12s. 6d.

- 1 pea Parakete, ngawari, ahua pai hoki; te roa o tenei o nga Parakete, e 2 iari, me te awhi
- Ki te pai, ka rihitia nga Parakete nei ki te Roko nui whai-kara
- 10 iari Piriri kaore, kaore e mawhe i te horeinga
- 1 Tarau-mohikene, maroro
- 6 iari Parapene, he Wuru katoa
- 6 iari Kareko-ma, matetere
- Enei katoa mo nga moni, \$1 12s. 6d. Ko te Aikihia nui, hiraka, ka tukua noatia atu

TENEI ANO ENEI TAONGA.

- Tarau-mohikene, kaha, 3/11, 6/11, 7/11, 8/6
Tarau-tutu, 6/6, 8/6, 10/11
Koti Pura-ranga, 3/6, 10/6
Huiti Tane, Pura-ranga, Huiti hoki, 21/ 27/6, 30/ 40/
- Hata Tane, 1/6, 2/ 2/6, 3/6, tere atu
Kareko-ranga, ma roro, mo te Teneti, mo te Kakahu hoki, 6/ 8/ 10/ 1/ mo te iari
- Piriri Kaore, 3/ 4/ 5/ 6/ 8/ mo te iari
Koreko-wahine, 5/6, 10/6, 12/6, 15/ 19/6
Koreko mo te Koreko, 3/6 tae noa ki te 15/
- Huiti-Tamariki, 8/6, 12/6, 12/6, tae noa ki te 30/ kei te nui, te iti te tikanga
- Horo-wahine, e 3/6, 8/6, 12/6, 17/6, tae noa ki te 30/

Horo-Waikato, e 4 iari te roa he Wuru mata-

toru katoa, 15/ 30/

Kareko-ma, Kareko-kerei, e 23/ 3/ 8/ 14/ 32/ mo te iari

Kareko-hiti, e 104/ 1/ 1/2/ 1/4/ 1/8/ mo te iari

Hiti-maroro, Kareko-kerei, 1/ 1/4/ mo te iari; te rangumai, e 70 inihī, e 12 inihī

Tanera boroi, e 3/ 8/ 8/ 1/ mo te mea kotahi

Pai-utu nga mea, 8/

Parakete, mea ririhi, 2/6, 12/6

Parakete, matararahi ake, e 15/6, 18/6

Parakete, rarahi rawa, 22/6, 27/6

Parakete-wuru, pai atu; ka mau tonu i nga tau; nunui tonu, e 22/6, 30/

Parapene, he Wuru katoa, e 1/ 1/2/ 1/6, 1/8, 2/ mo te iari

Winihi-ranga, 6/ 8/ 1/1 mo te iari; ko te ahua o pai ana, ko te mau, e mau ana

Tawhi pai mo te kaono, i nga kara ahua pai, ahua rere-ro, e 8/ 10/ 1/ 1/6 mo te iari

Tawhi-kareko whakapokapaka, me era atu ahua rawe, e 10/ 14/ 1/6 mo te iari

Hipoki-moenga, mo te mea kotahi, e 3/11, 3/11 7/6, 10/11

Aikihia-pakete mo te mea kotahi e 3/ 4/ 6/

Tokena-wahine, me; mo te pea, e 3/ 6/ 8/ 1/

Tokena-wahine, whai kara, mo te pea, 3/ 1/ 1/6

Kahimia, he mea pango, he mea kara ke atu te whanui, e 40 inihī; mo te iari, e 144/ 1/6

Tera atu kotahi

Roko kara-whakawhetai, mo te mea, e 8/6, 10/6, 17/6, 21/

Himi-wahine, e 1/11, 2/11, 3/11, tae noa ki te 10/6

Potae Tane perati, he pango he kara-kerei; mo te mea kotahi, e 2/11, 3/11, 5/6, tere atu

TE METE RAUA KO KAUWHE,

Nama 239 Kuini Tiriti, Akarana,

KEI NUMAKETE HOKI.

He mea ta e HENARE PERETE, mo te rangatira o tenei aupepa, Te No. i Hotehena-tiriti, Akarana, i te 16 o nga ra o Pepuere, 1885.

Figure 8. A full-page Smith and Caughy advertisement in *Te Korimako*, February 16, 1885.

Other features of loanwords

Because of the limited number of phonemes in Māori a particular loanword may have several different derivations and meanings. An example from the database is *tīni* (see Figure 9):

Māori word	Grammatical category	Number of occurrences	Derivation	Meaning
tīni	noun	52	chain	chain
tīni	noun	4	change	change (money)
tīni	noun	2	gin	gin
tīni (-tia)	transitive verb	18	change	to change
tīni (-tia)	transitive verb	4	chain	to mark off, survey
tīni	adjective	5	tin	tinned

Figure 9. Derivations and meanings of the loanword *tīni*.

Personal names

Some patterns emerge with the transliterations of people's names (sometimes called personals). In the following lists the number of recorded occurrences in the database are given in parentheses.

- Names ending in 'son' will often end with *-hana* or *-hona* but other variations are possible, as the following examples illustrate:

Personal name	Loanwords
Atkinson	<i>Atikena</i> (3), <i>Atikinihana</i> (50), <i>Atakinihana</i> (3), <i>Atikinihana</i> (6), <i>Ākitihana</i> (1), <i>Atikina</i> (48), <i>Akihanna</i> (1)
Carson	<i>Kātene</i> (5)
Davidson	<i>Rēwitihana</i> (1)
Dawson	<i>Tōtana</i> (3), <i>Rahona</i> (3), <i>Torotana</i> (3)
Ellison	<i>Erihana</i> (40), <i>Eritana</i> (4)
Ferguson	<i>Pōkihana</i> (1), <i>Pākuhana</i> (1)
Gibson	<i>Kipihona</i> (28), <i>Rikihana</i> (12), <i>Khipene</i> (1)
Hanson	<i>Hanahona</i> (1), <i>Hanihina</i> (1), <i>Hanihona</i> (4)
Harrison	<i>Harihana</i> (2), <i>Harihona</i> (6)
Henderson	<i>Henahana</i> (1), <i>Henehana</i> (5), <i>Hanatini</i> (1), <i>Henihana</i> (3), <i>Hanihana</i> (1), <i>Anehana</i> (1), <i>Henetana</i> (1)
Hobson	<i>Hopehana</i> (10), <i>Hopihana</i> (38), <i>Hopihona</i> (52), <i>Hopiona</i> (3)
Hodgkinson	<i>Hokihora</i> (4), <i>Hohikina</i> (1), <i>Hohikihihana</i> (1)
Hutchinson	<i>Hutihana</i> (2), <i>Hatihana</i> (2)
Jackson	<i>Hakihona</i> (5), <i>Tiakitene</i> (1), <i>Tiakihana</i> (1), <i>Tiakihana</i> (8), <i>Tiekihana</i> (1), <i>Hakehana</i> (1), <i>Hakihana</i> (2)
Jameson/Jamieson	<i>Hēmihana</i> (3)
Johnston/Johnson	<i>Honetene</i> (1), <i>Honatana</i> (1), <i>Honetana</i> (1), <i>Honetone</i> (1), <i>Honitana</i> (15), <i>Honiana</i> (46), <i>Honihana</i> (12), <i>Honehana</i> (24), <i>Tionehana</i> (2), <i>Honetana</i> (3), <i>Honihona</i> (2), <i>Honahana</i> (2), <i>Hanihana</i> (10)
Mason	<i>Meihana</i> (53)

Mitchelson	<i>Mitirihana</i> (1), <i>Miterehana</i> (2), <i>Mitirihana</i> (1), <i>Miterehana</i> (1)
Morrison	<i>Morihana</i> (27)
Parkinson	<i>Pakihana</i> (1)
Paterson	<i>Patihana</i> (8), <i>Patehana</i> (3), <i>Patahona</i> (1)
Richardson	<i>Riharihana</i> (1), <i>Ritihana</i> (18), <i>Riharihona</i> (4), <i>Retitana</i> (1), <i>Rititana</i> (1), <i>Retitana</i> (1)
Robertson	<i>Ropihana</i> (41), <i>Ropitana</i> (1), <i>Ropitini</i> (2), <i>Rapatini</i> (1), <i>Rapitana</i> (1)
Rolleston	<i>Roritana</i> (6), <i>Roretana</i> (31), <i>Roritone</i> (3)
Simpson	<i>Timihana</i> (6), <i>Himihona</i> (1), <i>Himikini</i> (1)
Stephenson	<i>Tēpene</i> (1), <i>Tīwene</i> (1), <i>Tīpene</i> (1), <i>Tīpeni</i> (4)
Thompson	<i>Tamihana</i> (53), <i>Tamehana</i> (54)
Watson	<i>Watene</i> (3), <i>Watihana</i> (6)
Williamson	<i>Wiremuhanā</i> (1)
Wilson	<i>Wirihana</i> (65), <i>Wirihona</i> (3), <i>Wiriana</i> (2), <i>Wherihana</i> (1)

2. Names in English ending in ‘-ton’ usually end in *-tana*, *-tene*, *-tona*, *-tone* or *-tini* in the Māori transliteration.

Personal name	Loanwords
Ashton	<i>Ahitana</i> (23)
Barton	<i>Pātene</i> (71), <i>Pātana</i> (1), <i>Patena</i> (3)
Broughton	<i>Porotene</i> (10), <i>Paratene</i> (59), <i>Parotene</i> (1)
Burton	<i>Peretini</i> (18), <i>Paratana</i> (1), <i>Patene</i> (1)
Carrington	<i>Karingitone</i> (1), <i>Karingitana</i> (3), <i>Karitana</i> (6)
Hamilton	<i>Hamiritona</i> (1), <i>Hamiritana</i> (3), <i>Hamutini</i> (5), <i>Hamutana</i> (28), <i>Hamiratana</i> (1)
Hardington	<i>Haringatona</i> (1)
Hutton	<i>Hatene</i> (1), <i>Hutana</i> (4), <i>Hatana</i> (1)
Kingston	<i>Kīngitona</i> (1), <i>Rikitena</i> (1)
Langton	<i>Rangitone</i> (1)
Milton	<i>Miritana</i> (1), <i>Miritona</i> (1)
Morton	<i>Mōtene</i> (1)
Rolleston	<i>Roritana</i> (6), <i>Roretana</i> (31), <i>Roritone</i> (3)

3. Names in English ending in ‘-man’ end in *-mana* in the Māori transliteration.

Personal name	Loanwords
Coleman	<i>Korumana</i> (29), <i>Kouramana</i> (15), <i>Korimana</i> (1), <i>Koremana</i> (1)
Hillman	<i>Hirimana</i> (4)
Newman	<i>Nūmana</i> (45)

4. Names beginning with ‘Mc-’ or ‘Mac-’ begin with one of the following: *Mako-* (1), *Maki-* (308), *Maka-* (134), *Māka-* (74), *Miki-* (7), *Make-* (45), *Meke-* (7), *Ma-* (218), *Me-* (53) or *Meka-* (1)

However, if ‘Mc-’ or ‘Mac-’ are followed by /k/ usually *Ma-* precedes the transliteration of the remainder of the English name, e.g.

Personal name	Loanword
McColl	<i>Makoro</i>
McKinnon	<i>Makina</i>
McKaskill	<i>Makahiki</i>
Mackay	<i>Make</i>
Macguire	<i>Makoa</i>
Macarthy	<i>Makāti</i>

5. Names in English ending in ‘-house’ usually end in *-tauhi*, *-hauhi* or *-haute* in the Māori transliteration.

Personal name	Loanword(s)
Hursthouse	<i>Hatatauihi</i> (4), <i>Hātihauhi</i> (1)
Moorhouse	<i>Moahauhi</i> (2)
Whitehouse	<i>Waitehaute</i> (4)

6. Names in English ending in ‘-land’ usually end in *-rana*, *-rani*, *-rangi* or *-ranga* in the Māori transliteration.

Personal name	Loanword(s)
Holland	<i>Horana</i> (1)
Ireland	<i>Īrana</i> (1), <i>Aerana</i> (7), <i>Aerani</i> (17), <i>Airana</i> (32), <i>Airani</i> (6), <i>Aiarana</i> (11), <i>Airangi</i> (2), <i>Aearana</i> (1), <i>Airanga</i> (1), <i>Airingi</i> (1)
Kirkland	<i>Katerini</i> (1), <i>Katerani</i> (2), <i>Kakarana</i> (1)
Sutherland	<i>Hatarana</i> (10), <i>Hatarangi</i> (1)

Biblical tribal names

The large number of biblical personal names shows another interesting pattern. Many of these also have an equivalent tribal name that reflects the personal name but with an ending changed to *-i*. For example:

*Ko ngā tama a Kara, i ō rātou hapū: nā **Tepono**, ko te hapū o ngā **Teponi**; nā **Haki**, ko te hapū o ngā **Haki**; nā **Huni**, ko te hapū o ngā **Huni**.*⁵²

The sons of Gad according to their families were: of Zephon, the family of the Zephonites; of Haggi, the family of the Haggites; of Shuni, the family of the Shunites.

*Nā kei te tuhituhi a Rehumu kaitiaki ture, a Himihai kaituhituhi, rātou ko ērā atu o ō rāua hoa, ko ngā **Rinai**, ko ngā **Aparahataki**, ko ngā **Taraperi**, ko ngā **Aparahi**, ko ngā **Arakewi**, ko ngā tāngata o Papurona, ko ngā **Huhanaki**, ko ngā **Rehawi**, ko ngā **Erami**, ...*⁵³

⁵² Paipera Tapu, Tauanga 26:15. Italics, macrons and bolding added.

⁵³ Paipera Tapu, Etera 4:9.

Then wrote Rehbum the commander, Shimshai the scribe, and the rest of their associates - the Dinaites, the Apharsathchites, the Tarpelites, the Apharsites, the Archevites, the Babylonians, the Susanchites, the Dehaites, the Elamites, ...

Notice in these examples that if the personal name (or place name) ends in ‘-i’, the name is the same for the person and the tribal name. Of the 200 tribal names in the Paipera Tapu only fifteen do not end in -i. The following list is a sample from the Paipera Tapu of this feature:

English Bible personal name	Paipera Tapu personal name	English Bible tribal name	Paipera Tapu tribal name
Elon	<i>Erono</i>	Elonite	<i>Eroni</i>
Jahleel	<i>Iahareere</i>	Jahleelite	<i>Iahareeri</i>
Sered	<i>Herete</i>	Sardite	<i>Hereti</i>
Shimeath	<i>Himeata</i>	Shimeathite	<i>Himeati</i>
Gershon	<i>Kerehona</i>	Gershonite	<i>Kerehoni</i>
Heber	<i>Hepere</i>	Heberite	<i>Heperi</i>
Malchiel	<i>Marakiere</i>	Malchielite	<i>Marakieri</i>
Kohath	<i>Kohata</i>	Kohathite	<i>Kohati</i>
Shimron	<i>Himirono</i>	Shimronite	<i>Himironi</i>
Shillem	<i>Hireme</i>	Shillemite	<i>Hiremi</i>
Shuthelah	<i>Hutera</i>	Shuthelahite	<i>Huteri</i>
Becher	<i>Pekere</i>	Bachrite	<i>Pekeri</i>
Tahan	<i>Tahana</i>	Tahanite	<i>Tahani</i>
Beriah	<i>Peria</i>	Beriite	<i>Perii</i>
Jimna, Imna, Imnah	<i>Imina</i>	Jimnite	<i>Imini</i>
Benjamin	<i>Pineamine</i>	Benjamite	<i>Pineamini</i>
Dedan	<i>Rerana</i>	Dedanite	<i>Reranimi</i>
Pallu	<i>Paru</i>	Palluite	<i>Parui</i>
Israel	<i>Iharaira</i>	Israelite	<i>Iharairi</i>

Figure 9. Comparison of a sample of personal names with tribal names from the Paipera Tapu

It will be obvious that the translation of the Bible was a more deliberately planned process than the writing of the Māori language newspapers. Thus the Paipera Tapu reflects this with more systematic results and very few typographical errors. Occasionally the translators had variations for the same word, e.g. *Iokopeta* from Tauanga 32:35 (Numbers 32:35) and *Iokopeha* from Kaiwhakariterite 8:11 (Judges 8:11) for the place name Jogbehah. *Peniere* for Penuel occurs in Kenehi 32:30 (Genesis 32:30) and *Penuere* is used in the very next verse. Because of their close proximity, in this case it is likely that *Peniere* is a typographical error.

The online loanwords dictionary

Although a hard copy dictionary of the loanwords is planned, the free to access online dictionary is a sub-dictionary of the main online dictionary called *Te Aka*. Access to the database is via the historical loanwords link at <http://www.maoridictionary.co.nz>.

The dictionary contains headwords together with other information useful to learners and speakers of Māori. For each headword this includes: its part of speech; the meaning and/or explanation; the word's derivation; sources where the word occurs; an indication of its frequency of use; one or more examples of the word in a sentence, with the source of each example; and words of the same or similar meaning. Where there are several meanings of the word, these will be listed numerically, and each may have its own example.

Inconsistencies in the Māori newspapers abound. Consequently, modern orthography has been used for the Māori in the dictionary, including the marking of long vowels with macrons, in both the headwords and the example phrases and sentences. The consistent marking of long vowels of written Māori was not a practice during the 19th and first half of the 20th centuries. Double vowels were used occasionally, but only for a few words in both the Māori newspapers and the Paipera Tapu. In addition, the Paipera Tapu also uses double vowels in the Māori where they occur for names in the English Bible. An example of this is illustrated in Figure 9 above for the Bible names Jahleel and Jahleelite, which become *Iahareere* and *Iahareeri* respectively. The names of the Paipera Tapu have not been given macrons in the dictionary, unless there is certainty about the vowel lengths. Any double vowels of these Biblical names have been retained.

Some of the more common features of the Māori newspapers that have been changed in the dictionary include the following:

- Prefixes such as *tua-*, *kai-* are often written separately or with a hyphen in the Māori newspapers, but these have been changed to follow modern orthographic conventions, e.g. *kairūri* (surveyor) and *tuaono* (sixth).
- In keeping with modern orthographic conventions, tribal names are written with the tribal designation *Ngāti*, *Ngā* and *Ngāi* separately, e.g. *Ngā Puhi* where *Ngapuhi* is often used in the newspapers.
- There is, by modern conventions, an overuse of capitals in the newspapers, so capitals are removed where appropriate, e.g. *Hāmonia* is changed to *hāmonia* (harmonium).
- In the loanwords dictionary italics are used for ship names, even if they were not used in the original text.
- Glottal stops have been inserted where appropriate, e.g. 'Hawai'i' for 'Hawaii'.
- In the example sentences words that are joined together in the originals are separated if that is the modern Māori convention, e.g. *a ia* (he/she) for *aia*; *ki a* (to) for *kia*.
- Words that are written as one in modern Māori have been changed, e.g. *te kau* to *tekau* (ten); *rongo nui* to *rongonui* (famous).
- Following modern convention, an upper-case 'P' is used for Pākehā.

- Following modern convention, an upper-case ‘T’ is used for *Te* (Mr) before people’s names, e.g. *Te Pōkiha* (Mr Fox).
- Where *me he mea* (if) has been used in the newspapers it has been changed to *mehemea*.
- In example sentences from the Paipera Tapu the original punctuation has been retained, including the lack of speech marks.
- In the newspapers the English gloss for the loanwords in the Māori is sometimes given in parentheses after the loanword, usually in italics. These have been removed from the Māori example sentences and phrases.

Conclusion

In the 100-year period that the database covers, there is no doubt that borrowed vocabulary enables people to talk in Māori about things that the language traditionally had no names for, or the need to talk about. Borrowings have enriched the Māori language in the same way that borrowings have enriched English and many other languages.

In this article we have discussed the Kupu Arotau loanwords project and some of the findings. It has been shown that words borrowed into Māori adapt to not only the phonological system but also the grammatical system of Māori. As expected, a loanword is not likely to have the same connotations as the foreign word from which it has been borrowed. It may have more restricted meanings or have taken on new meanings and connotations not encompassed by the foreign word from which it is derived.

The primary outcome of the project has been the collection of a large database of loanwords from the Māori-language newspapers, the Paipera Tapu and a few other 19th century sources. This database has been converted to an historical loanwords dictionary now available free online.

The focus of the project now shifts to the collection of loanwords from the period 1952 to the present.

Sources used for data collection

Māori-language newspapers

Ko te Karere o Nui Tireni (1842-6)
The Anglo Maori Warder (1848)
The Maori Messenger. Ko te Karere Maori (1849-54)
Ko te Ao Marama. New World (1849-50)
The Maori Messenger. Te Karere Maori (1855-61)
Te Waka o te Iwi (1857)
Te Karere o Poneke (1857-8)
Te Whetu o te Tau (1858)
Te Manuhiri Tuarangi and Maori Intelligencer (1861)

Te Karere Maori or Maori Messenger (1861-3)
Ko Aotearoa or the Maori Recorder (1861-2)
Te Haeata (1859-61)
Te Hokioi o Niu Tiren e Rere atu na (1863)
Te Pihoihoi Mokemoke i runga i te Tuanui (1863)
Te Waka Maori o Ahuriri (1863-71)
Te Waka Maori o Niu Tirani (1871-9)
Nga Hua o te Mohiotanga ma nga Tangata Maori (1874)
Te Wananga (1874-8)
Te Matariki (1881)
Takitimu (1883)
Te Waka Maori o Aotearoa (1884)
Te Korimako (1882-8)
Te Korimako Hou (1889-90)
Te Hoa Maori (1885-97? 1910?)
Te Paki o Matariki (1892-1935?)
Ko te Panui o Aotearoa (1894-6)
Nga Hiiringa i te Whitu (1896)
Aotearoa (1892)
Huia Tangata Kotahi (1893-5)
Te Puke ki Hikurangi (1897-1913)
The Maori Record (1904-07)
The Jubilee. Te Tiupiri (1898-1900)
He Kupu Whakamarama (1898)
Te Pipiwharaua (1899-1913)
Te Kopara (1913-21)
Te Toa Takitini (1921-32)
Te Reo o Aotearoa (1932-3)
Te Matuhi (1903-06)
Te Mareikura (1911-13)
Te Manukura (1916-23)

Other sources

The Bible Society in New Zealand, *Ko Te Paipera Tapu*. Wellington: The Bible Society in New Zealand, 1952.
He Maramataka [haere].
 Hemi H. Popi, *Te Ora Mo Te Maori: He Pukapuka Hei Korerotanga Mo Nga Kura Maori*.
 Poneke: Kaita a Te Kawanatanga, 1896.
 Hemi H. Popi, (translated by Emiri Wei), *Te Pukapuka Kura Maori*. Poneke: Kaita a Te Kawanatanga, 1897.
Ko nga Ture o Ingarangi, 1858.

Bibliography

- Biggs, Bruce. 1966. *English-Maori Dictionary*. Wellington: A.H. & A.W. Reed.
- Benton, Richard. 1991. The History and Development of the Māori Language. In Graham McGregor & Mark Williams (eds). *Dirty Silence*. Auckland: Oxford University Press, pp. 1-18.
- Crowley, Terry. 2004. Borrowing into a Pacific languages: language enrichment or language threat? In Jan Tent & Paul Geraghty (eds). *Borrowing: a Pacific Perspective*. Canberra: Pacific Linguistics, pp 41-53.
- Curnow, Jenifer, Ngapare Hopa & Jane McRae (eds). 2002. *Rere atu, taku manu! Discovering history, language and politics in the Maori-language newspapers*. Auckland: Auckland University Press.
- Curnow, Timothy Jowan. 2001. What language features can be ‘borrowed’? In Aikhenvald, A.Y. & R.M.W. Dixon (eds). *Areal Diffusion and Genetic Inheritance: Problems in Comparative Linguistics*. Oxford: Oxford University Press, pp. 412-436.
- Duval, Terry, 1992. The French contribution to the Maori language. In John Dunmore (ed.). *The French and the Maori*. Waikanae: The Heritage Press, pp. 132-138.
- Duval, Terry, 1995. A preliminary dictionary of Maori gainwords compiled on historical principles. Unpublished PhD thesis. University of Canterbury
- Geraghty, P & Jan Trent. 2004. From lowlands to islands: Dutch loans in Polynesia. In Jan Tent & Paul Geraghty (eds). *Borrowing: a Pacific Perspective*. Canberra: Pacific Linguistics, pp. 99-143.
- Harlow, Ray, 1993. Lexical Expansion in Māori. *Journal of the Polynesian Society*. 102:99-107.
- Harlow, Ray, 2004. Borrowing and its alternatives in Māori. In Jan Tent & Paul Geraghty (eds). *Borrowing: a Pacific Perspective*. Canberra: Pacific Linguistics, pp. 145-169.
- Haugen, E. 1950. The analysis of linguistic borrowing. *Languages*. 26:210-231.
- He Muka*. 12 (3) 1999.
- Hogan, Helen M. 1994. *Renata's Journey. Ko te Haerenga o Renata*. Christchurch: Canterbury University Press.
- Kearns, Kate. 1990. A note on the glottal fricative in Maori. *Te Reo Journal of the Linguistic Society of New Zealand*. 33:65-81.
- Kōhere, Rēweti. 1903. Te reo Maori. *Te Pipiwharauoa*. 70:2-3.
- Kuiper, Koenraad. 2005. A dictionary of Maori on historical principles. *NZWords*. April, p. 11.
- Macalister, John (ed.). 2005. *A Dictionary of Maori Words in New Zealand English*. Oxford: Oxford University Press.
- Māori Language Commission. Te Taura Whiri i te Reo Māori. 1996. *Te Matatiki Contemporary Māori Words*. Auckland: Oxford University Press.

- Moorfield, John C. 2005. *Te Aka Māori-English, English-Māori Dictionary and Index*. Auckland: Pearson Education New Zealand.
- Moorfield, John C. & Lachy Paterson. 2002. Loanwords used in the Maori-language newspapers. In Jenifer Curnow, Ngapare Hopa & Jane McRae (eds). 2002. *Rere atu, taku manu! Discovering history, language and politics in the Maori-language newspapers*. Auckland: Auckland University Press, pp. 60-77.
- Mosel, Ulrike. 2004. Borrowing in Samoan. In Jan Tent & Paul Geraghty (eds). *Borrowing: a Pacific Perspective*. Canberra: Pacific Linguistics, pp. 215-232
- Mugler, France. 2004. The spice of life: borrowing and Fiji's Indian languages. In Jan Tent & Paul Geraghty (eds.) *Borrowing: a Pacific Perspective*. Canberra: Pacific Linguistics, pp. 233-252.
- Ngata, Hōri M. 1993. *English-Māori Dictionary*. Wellington: Learning Media.
- Parkinson, Phil. 2001. "Strangers in the House": the Māori language in Government and the Māori Language in Parliament 1865-1900. *The Māori Language and Its expression in New Zealand Law: Two Essays on the Use of Te Reo Māori in Government and in Parliament*. Wellington: Victoria University of Wellington Law Review, pp. 1-50.
- Ryan, J.S. 1972. The form and range of borrowings from English in Modern Maori. *Orbis*. 21:136-166.
- Schutz, Albert J. 1970. Phonological patterning of English loanwords in Tongan. In S.A. Wurm and D.C. Laycock (eds). *Pacific Linguistic Studies in Honour of Arthur Capell*. pp. 409-428.
- Schutz, Albert J. (ed.). 1978. *Fijian language studies: borrowing and pidginization*. Suva, Fiji : Museum.
- Schutz, Albert J. 1985. Accent and accent units in Maori: The evidence from English borrowings. *Journal of the Polynesian Society*. 94:1, pp. 5-26.
- Schutz, Albert J. 2004. English loanwords in Fijian. In Jan Tent & Paul Geraghty (eds) *Borrowing: a Pacific Perspective*. Canberra: Pacific Linguistics, pp. 253-294
- Sperlich, Wolfgang B. 2004. In Jan Tent & Paul Geraghty (eds). *Borrowing: a Pacific Perspective*. Canberra: Pacific Linguistics, pp. 295-306
- Tent, Jan & Paul Geraghty (eds). 2004. *Borrowing: a Pacific Perspective*. Canberra: Pacific Linguistics.
- Te Taura Whiri i te Reo Māori. 2008. *He Pātaka Kupu, te kai a te rangatira*. North Shore: Raupo.
- Tregear, Edward. 1891. *The Maori-Polynesian Comparative Dictionary*. Wellington: Lyon and Blair.
- Tūrei, Mohi. 1911. He aha tatou i kiia ai he Maori? *Te Pipiwharau*. No. 153, pp. 4-5.
- Tryon, D.T. 1970. Loanwords in Dehu pre-1920. In S.A. Wurm and D.C. Laycock (eds). *Pacific Linguistic Studies in Honour of Arthur Capell*. pp. 429-440.
- Weinreich, U. 1953. *Languages in Contact*. The Hague: Mouton.

- Whiteley, W.H. 1967. Loanwords in linguistic description: A case study from Tanzania, East Africa. In E. Rauch and C.T. Scott (eds.) *Approaches in Linguistic Methodology*. Madison WI: The University of Wisconsin Press. pp. 125-143.
- Williams, Herbert W. 1917. *A Dictionary of the Maori Language*. Fifth edition. Wellington: Government Printer.
- Williams, Herbert W., 1971. *Dictionary of the Maori Language*. Seventh edition. Wellington: GP Publications.
- Williams, William, 1844. *A Dictionary of the New Zealand Language*. First edition. Paihia.