

## **Update on Digitisation of Old Survey Records**

Report for Constituent Organisations RSNZ Meeting, Friday 8 December 2017

The LINZ digitising program is proceeding with funding from Land Information NZ (LINZ). Attention is being paid initially to the digitising of records held in Hamilton: South Auckland 30" by 30" and 20" by 20" Colour Imperial Plans (up to 1965), and all North Island Land District (North Auckland, South Auckland, Taranaki, Gisborne, Hawkes Bay and Wellington) field books (up to 1932). The digitising is being done by a digitising company NZMS, which provides very high quality images in JPEG2000 format; these are very large images, and derivative images of about 10mb each are being produced for Land on Line. The derivative images are also of high definition. An example is attached.

Field book images are very large, 300-400mb per field book for the derived images. Once digitised, the original field books for Auckland Land Districts will go to Archives Auckland, and the derived digitised versions will go on Land on Line. It appears that Archives New Zealand in Wellington are not accepting further material because they do not have the room to store it, and LINZ will therefore retain the Field Books for the lower North Island, until Archives New Zealand can accept transfers again, hopefully in a year or two.

In Christchurch, the digitising of Roll Plans (mainly the Canterbury Black Maps, but also some others) has been underway, funded collaboratively by Archives, Ngai Tahu, Environment Canterbury (ECAN), and LINZ. The digitised results are progressively being added to the Archives NZ Archway system. Digitising has ceased for the time being, having run out of funding; there is, however, still more to do.

Record Maps, Kauri Gum Reserve Maps, and Compulsory and Voluntary Applications for Auckland are now in the Auckland Archives, and should soon be accessible through Archway. The record maps are large coloured plans cut into smaller (20x20 size) and mounted on cardboard. They include map and plan references, certificate of title references and names of land owners, names of owners for Maori Land, Reserves references. The original underlying plans are from 1895 and onwards, with updates made up to 1928 at least. [It appears that Secondary Record maps show roads taken under the Public Works Act, Land or Native Lands Act; Properties as first brought under the Land Transfer Act and other details surveyed since the issue of the original Crown Grants or Certificates of Title (or production of the Primary Record Map)]. The lists will be progressively loaded into Archway as the records are processed by Archives, and they will eventually go on Land on Line.

Digitising further records, while desirable, requires very careful balancing of cost to benefits and will be subject to further resourcing decisions. Decisions on exactly which records to do and how much to do are complex, and depend on amounts, fragility, use, value and difficulty (multi-page items are hard, single plans are easier etc) and then making them available. Data storage and access are serious issues when dealing with terrabytes of data, so need to be carefully balanced.

Digitised LINZ Aerial Photographs were digitised in conjunction with Local Authorities, and can be found on the RetroLens website;

**Matters for future consideration.**

1. **Future funding.** NZIS, NZHA, and RSNZ should consider a further approach to Government to obtain further funding for digitising activities.
2. **Records to be digitised.** NZIS and NZHA need to recommend to LINZ, and include in the approach to Government for more funding, which records should receive priority. Currently these would include Survey Plans and Field Books.
3. **Iwi support.** Ngai Tahu are interested in ensuring that plans and records relating to their interests are digitised. Perhaps an approach to other Iwi for their support should be considered.
4. **Access costs to Information.** Data put into Land on Line currently costs money to access, and access is predominantly associated with Land surveying, which is a commercial activity. Research is frequently carried out where funding may not be great or else non-existent. Furthermore, until a record is examined, a researcher does not necessarily know whether the record is going to be useful, and many records might need to be gone through to find the right data. Some attention needs to be paid to ways of making the information freely available for research.

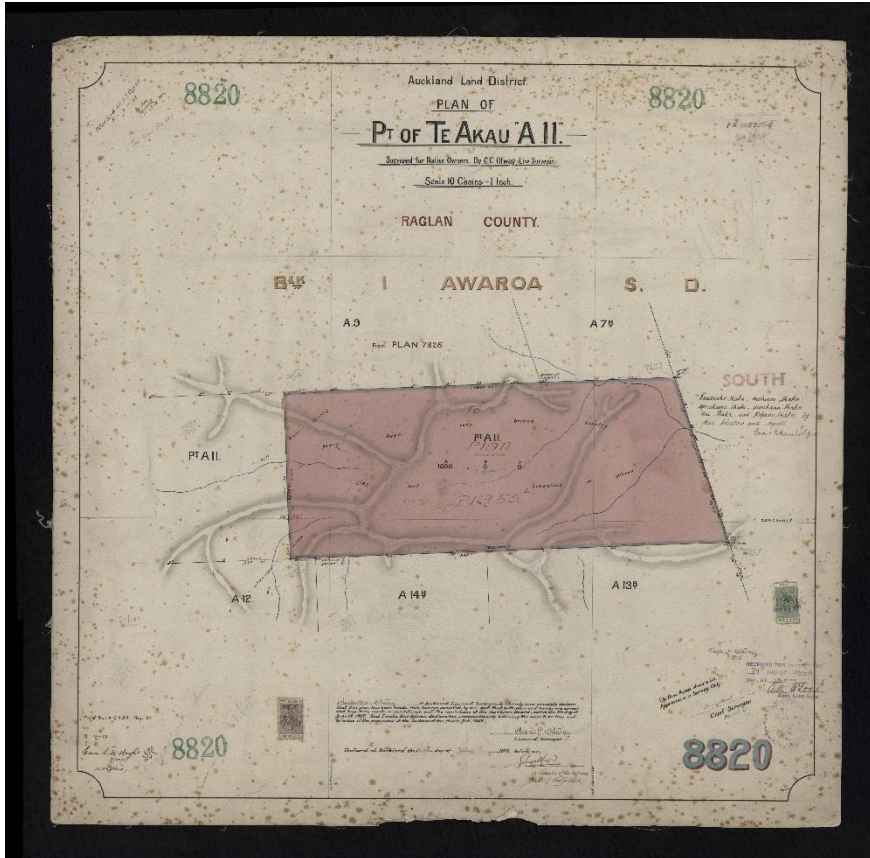
#### **Acknowledgements.**

We would like to thank Alison Midwinter, LINZ Wellington, for her assistance preparing this report.

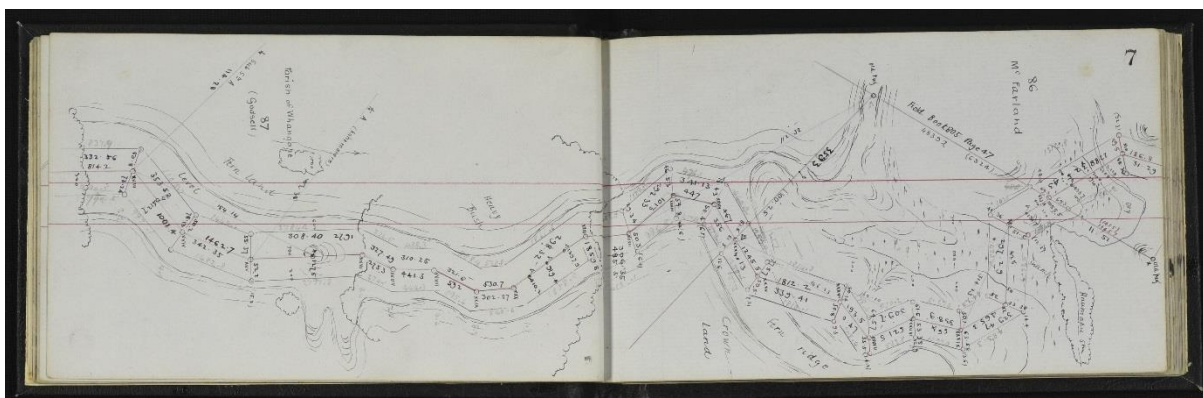
Bruce McFadgen, NZIS and Cybele Locke, NZ Historical Association.

**Figures.**

**Figure 1.** Example of a digitised Survey Plan.



**Figure 2.** Example of a digitised field book.



**Update on digitisation of Old Survey Records – Matters for future consideration**

**Outcome of CO Meeting at RSNZ 8 December 2017 re**

**Matters for future consideration outlined were:**

5. **Future funding.** NZIS, NZHA, and RSNZ should consider a further approach to Government to obtain further funding for digitising activities.
6. **Records to be digitised.** NZIS and NZHA need to recommend to LINZ, and include in the approach to Government for more funding, which records should receive priority. Currently these would include Survey Plans and Field Books.
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#### **Outcomes:**

1. I had intended to propose a motion that the Constituent Organisations and Royal Society support an approach to Government for increased funding for the digitisation of old survey records, but the RSNZ reiterated that they do not get involved in applications for funding. However, the RSNZ and COs support in principle an approach to Government for increased funding for the work.
2. Constituent Organisations that support digitisation of old survey records include: NZ Institute of Surveyors, NZ Historical Association, NZ Archaeological Association, GeoScience Society of NZ, and Geographic Society.
3. It was also suggested that the Archives Association is approached for support, and also Brad Pattison of the Victoria University Stout Centre. Brad is a former Lands and Survey staff member.
4. The central issue at present is how much funding is already expended annually, and how much additional funding is required to ensure efficient digitisation.

#### **Value of old survey records:**

1. The value of the old survey records ranges from economic, being central to the land tenure system in NZ, to environmental.
2. The evidence of field books and old survey plans includes information of a topographical, botanical, and ethnographic nature.
3. Topographic changes to the landscape over time are recorded on survey plans, and some may prove to be important for understanding and adapting to the effects of global climate change, such as the coastline changes resulting from accretion and erosion that are recorded on some survey plans.

4. The effects of earthquake uplift and subsidence are recorded on some plans and field books, and give an indication of what environmental changes can reasonably be expected from future earthquakes.
5. Botanical data includes forest boundaries, and some plans may also include the species that were growing at the date of survey.
6. Ethnographic data, including locations of tracks, gardens, whare, kainga, pa, and urupa, and the names of people listed as landowners may be recorded, and are of considerable interest to Maori, as well as being of wider historical interest.

**Main Issue:**

The earliest survey records are now almost 180 years old. Many old survey plans have been digitised, but unfortunately some are virtually unreadable, not because the originals were unreadable, but because they were digitised from microfiche or photocopies. There are some 40,000 field books of which to date, only a small number have been digitised.

Some older plans might be very worn or damaged, so that important data is missing, data which can only be retrieved from a field book.

Some records are held by National Archives, but most are housed in either Hamilton or Christchurch, and are thus at risk should a major disaster strike either place.

Previous experience is not encouraging in this respect: in the past, plans, field books, and other records have been destroyed by natural events: floods in Blenheim and Wellington; fire in Auckland; and earthquake and fire in Hawkes Bay.

There is thus a pressing need to ensure the entire old survey record collection is digitised, and to a high standard. LINZ has already made a start on the digitising, which is to a very high standard using what funds are currently available. There is, however, a pressing need to increase the funding for LINZ to continue the work at the current high standard to ensure it is completed relatively quickly.