THE PRE 1865 WAIRARAPA LAND PURCHASE SURVEYS

A PRELIMINARY ASSESSMENT

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Introduction

For the purposes of the present report, the ‘Wairarapa’ is defined as that area of land lying between the Rimutaka and Tararua Ranges and the eastern coastline of the southern North Island, and south of what is recognised as the province of Hawkes Bay. In the mid nineteenth century there was a notional split between what was considered the Wairarapa proper, ‘the valley lands’, and the seaward hills and coast, the East Coast. Hence the term Wairarapa districts, rather than district, has been employed.

Pre 1865 the Wairarapa districts were the location of the most intensive efforts by the Crown to purchase Maori lands in the southern North Island. Estimates of the total acreage secured by the Crown vary greatly, but it may be safely assumed that well over three-quarters of the Maori estate had been alienated by 1865. The conundrum facing concerned researchers is the means by which the alienated acreage, as well as the boundaries and locations of the blocks making up that acreage, can be relatively safely established. As a contribution, specialist advice has been sought on:

- The reliability of the original pre 1865 Wairarapa survey plans and field books setting out the extent of Crown purchase transactions
- An indication of how the Crown calculated the extent of its property (i.e. purchased Maori land) at c. 1865
- The likely difficulties to be overcome in reconstructing the pattern of pre 1865 purchases cartographically.

An immediate disclaimer is in order. To be fully comprehensive, an investigation of this nature would necessarily be extended, involving the careful scrutiny of as much extant documentation as possible, in particular the contemporary plan records and field books. A two-week commission permits no more than a preliminary assessment. However, a considerable volume of research material, collected over more than two decades, has been drawn upon in the preparation of the report. A number of the issues

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raised were cursorily addressed in the writer’s 1984 doctoral dissertation,\(^2\) which considered the conduct of settlement surveys in the southern North Island districts to 1876. Other related matters have been probed in the context of subsequent research projects.

The focus of the report will be the control contexts in which land purchase surveys were conducted in the Wairarapa districts to 1865, together with some discussion of how these surveys were later incorporated into composite maps. Although general historical reference points may be identified, as required, there will be no attempt to reconstruct in detail the history of Crown purchasing in the districts to 1865. Summaries have already been provided by others,\(^3\) and some familiarity with these accounts must be assumed. What these summaries generally lack is a detailed appreciation of just how surveys were conducted, or the constraints under which the surveyors operated.

It has also been concluded that, at this point, detailed discussion of survey technique might obscure rather than clarify. What must be remembered is that the Wairarapa purchase surveys were conducted in an environment of constantly changing colonial survey philosophies and operational systems. In a sense, the Wairarapa districts became a field laboratory for the testing of survey systems. These points are elaborated in earlier writings.\(^4\)

**Mapping the Wairarapa in the 1840s**

The foundation of the Wellington settlement, the nucleus from which settlement of the Wairarapa districts proceeded, is tolerably well recorded. Though initial New Zealand Company colonising attention centred on the lands immediately adjacent to

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\(^4\) B. R. Patterson. ‘The search for a survey system in the Wellington Provincial District, 1840-1876’ IN Papers delivered to *The History of Science in New Zealand* conference. February 1983 (held by Turnbull Library). A revised and documented version is included as an appendix to the writer’s 1984 PhD thesis.
Port Nicholson, it was inevitable that settler interest would soon turn to the relatively open hinterlands to the northeast. The settlement potential of the Wairarapa districts had been brought to Colonel Wakefield's notice in October 1839, and reports from early European visitors to the districts tended to bear out an image of 'available land... level, of good soil and moderately wooded, well supplied with water and in many parts well clothed with excellent grass'. The investigatory phase, once it commenced, was short, occupying less than four years. Between mid 1840 and early 1844 at least a half dozen exploratory expeditions made their various ways to the districts. Then, in May 1844, two advance parties of pastoralists set out, driving their flocks. By late 1848 there were some 33 separate pastoral 'occupations' on Maori lands. Also by that date there had been two abortive New Zealand Company inspired attempts to purchase the districts for a Church of England settlement. The pertinent question is, to what extent did these random incursions on to the Maori estate result in accurate cartographic representations of the districts?

In 1840 the lands of the southern North Island were little known to the colonisers. The only freely available representations were a few rough hydrographic charts, most based on Cook's work. With the exception of crude impressions of the central mountain spine the interior was a blank. Even written descriptions of the lands beyond the coastlines were few. The first map of the districts to so far be located is that produced by Company Assistant Surveyor C. H. Kettle in 1842. Setting out in May 1842 from the Company's survey camp at Karekare, on the lower reaches of the Manawatu River, Kettle followed the course of the river up and through the Manawatu Gorge for a week, then struck south. His trek through the Wairarapa back to Port Nicholson occupied almost a further month, he making sketches and jottings throughout the journey. Back at base, Kettle drew a rough sketch plan of his route, a copy of which was despatched to England in July 1842. No trace of the original can now be found, either in New Zealand or British repositories, but an edited (possibly stylised) version was included as an illustration to Arthur Whitehead's *A Treatise on Practical Surveying*, published in London in 1848. This plan (copy held by Turnbull

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5 Bagnall, p 27
6 C. H. Kettle. Report of an exploring expedition..., undated. NZC 110/1. 38A
7 W. Wakefield to Sec. NZC. 22 July 1842. NZC 3/2
Library) clearly reveals the deficiencies of its origins. Bagnall has pointed out the misplacement of certain pa and landscape features.

Within twelve months another, if even more limited, sketch plan was provided by the Company’s Surveyor in Charge, S. C. Brees. In February 1843 Brees made his way up the Hutt Valley and over the ranges, proceeded down the eastern side of Lake Wairarapa, then returned to Port Nicholson via the coast. His route is shown in a small plan held by the National Archives (NZC 110/1). In July of the same year Brees returned to the valley along the southern coast, following the coastline to a short distance beyond Cape Palliser. Further reports and sketches were forwarded to England in December 1843. It is fair to observe that Brees’s drawings and watercolours of the districts arising from these journeys were probably of greater long term value than his cartographic efforts. Over the following two years Assistant Surveyor H. S. Tiffen made several visits of the districts, and in early 1845 he produced what purported to be a sketch plan of the ‘Central Wairarapa’. It was little improvement on what was already available. There is some disagreement as to who actually provided the first rough sketch plans of the East Coast district. While it has been suggested that H. S. Harrison may have produced such a plan in May 1843, it is more likely that his trip with Joseph Thomas (the future Canterbury surveyor) in October 1844 yielded information. Bagnall states that sketches were provided as a result of this journey, but these have not been sighted.

The early pastoral advance into the Wairarapa produced no significant maps of the occupations or their environs, although interestingly a number of the squatters were experienced surveyors and draftsmen. A plan produced by W. Bannister purporting to detail the occupations circa 1845 (Turnbull Library), is sometimes cited, but it is likely that this was produced at a later date, and furthermore it is largely

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8 Bagnall, pp 28-32
9 S. C. Brees to W. Wakefield, 2 February 1843 and S. C. Brees to W. Wakefield, 16 February 1843. NZC 110/1
10 S. C. Brees to W. Wakefield, 1 August 1843. NZC 110/1
11 H. S. Tiffen to W. Wakefield, 17 March 1845. Enclosure to W. Wakefield to Sec NZC, 30 April 1845. NZC 3/5
12 Bagnall, pp 38-39
13 For general discussion see B. R. Patterson ‘Laagers in the wilderness: the origins of pastoralism in the southern North Island districts’. *Stout Centre Review*, 1(3), April 1991, pp. 3-14
14 See, for example, Goldsmith, p 4
impressionistic. Given the illegality of the process by which occupations were taken up, and the evanescent nature of the occupations themselves, the absence of contemporary plans showing the relative size, shape and location of individual pastoral holdings is scarcely surprising. The few extant leasehold deeds are little more illuminating, the written boundary definitions being so vague as to be near uninterpretable. Searches of the papers relating to the New Zealand Company inspired attempts to purchase the Wairarapa for the planting of a Church of England settlement have failed to reveal any plans of the lands sought, or even sketch maps of lands under negotiation. This, too, is as to be expected. The prize sought was the whole of the Wairarapa districts, save for agreed reserves, though emphasis was always placed on the ‘lands of the Ruamahanga’. Further, it is conceivable that, despite protracted negotiations, the discussions never proceeded far enough for lands to be depicted.

An inevitable conclusion, in the absence of any firm cartographic evidence to the contrary, is that to mid 1849, notwithstanding the clear mental maps of the districts that must have been in the minds of both pastoralists and Maori, there were no carefully constructed representations. As Bagnall notes, although in November 1847 Company officials in London instructed that the Wairarapa be trigonometrically surveyed and laid out in parishes, there was little understanding of what such an exercise would cost.¹⁵

**Captain Smith’s 1849 ‘sketch survey’**

Indirectly, however, the Company’s desire to acquire the Wairarapa led to the preparation of the first reasonably comprehensive sketch plan of what was termed ‘the Valley’. Notwithstanding the collapse of negotiations, in December 1848 the organisation’s principal negotiator, F. D. Bell, commissioned ‘an accurate general chart of the country comprised in the Valley…of the Ruamahanga, up to where the wooded ridges close in to the northward, as would point out its extent, character and capabilities as a site for a large settlement’.¹⁶ Bell’s choice for the work was former

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¹⁵ Bagnall, p 84
¹⁶ F. D. Bell to W. M. Smith, 14 December 1848. Enclosure to F. D. Bell to Sec NZC, 31 December 1848, NZC 3/9
Chief Surveyor to the company, Captain William Mein Smith, for the preceding four years also a pastoralist in the Wairarapa. Smith’s remuneration was to be L100, and the assignment was expected to occupy about six weeks. Explaining his decision to his distant principals, Bell indicated that past experience had shown ‘the folly of relying on estimates made merely by the eye of an explorer’.

Quite what Bell anticipated receiving is now unascertainable. His request was for a ‘sketch survey’, but one encompassing as much detail as possible within the time available on the general landscape features of the Wairarapa. The Captain was requested to lay down the position of ‘the Rimutaka Range of mountains and other hill ranges skirting the valley, together with estimates of altitude’. He was asked to set out ‘the courses of main and tributary rivers, and to estimate the extent of the two lakes’. He was also to chart ‘the position and extent of forests, the position and extent of any large swamps, stony land or other immediately unavailable parts’. Of utmost importance was an estimate of ‘the extent of grass country’. It was also considered of very great importance that he note ‘the position of native pa and stations occupied by resident settlers in the valley’. In the light of some of the uses to which Smith’s plan was later put, a concluding comment by Bell is significant: ‘It is not contemplated, nor indeed could it fairly be…that all the features…should be set down with absolute exactness’ (my italics).

The task expected to take six weeks in fact occupied over three months. The former Chief Surveyor made rapid progress at the height of the 1848-49 summer, but his efforts tailed off as Maori opposition to his sketch survey grew. Smith had been instructed to proceed with discretion, and to suspend the survey at the first hint of trouble. It was therefore not until June 1849 that he forwarded the general ‘sketch survey’, together with additional detail plans and illustrative eye sketches. While stressing that he considered the plan to be as correct as such a survey can well be made, Smith was nevertheless prepared to acknowledge its inherent deficiencies: ‘I must remind you that this plan is not the result of a trigonometrical survey as

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17 F. D. Bell to Sec NZC, 31 December 1848, NZC 3/9
18 F. D. Bell to W. M. Smith, 14 December 1848, Enclosure to F. D. Bell to Sec NZC, 31 December 1848, NZC 3/9
19 W. M. Smith to F. D. Bell, 12 January 1849, NZC 108/10
20 W. M. Smith to W. Fox, 23 June 1849, NZC 108/10
erroneously stated in one of the newspapers... but is a mere running survey or sketch from which I need hardly say too much must not be expected... No such sketch, however carefully made, is entitled to full credit, but it cannot fail to be of... use until the heavy expense of a trigonometrical survey can be afforded21.

Smith’s caution stemmed from two considerations: firstly, a concern to guard himself from later criticism; and, secondly, the need for a warning to the Company and the public not to place undue reliance on the production. In Smith’s view, the depiction of the lower portion of the valley was most reliable, this being the part with which he was personally best acquainted22. ‘Before I was engaged upon or even had thoughts of the present sketch, I had made myself acquainted with the position of all the prominent features... and of the bearings and distances one to another’. He also noted that he had previously chained several lines in the lower valley. He had somewhat less confidence in respect of the sketch of lands further to the north. For a start, ‘the hills, woods and rivers were comparatively new to me’, while it was in this area Maori had offered the most strenuous objections to the survey. He had nevertheless attempted to remedy any deficiencies ‘by all the means usually resorted to in such a case’, and, as his eye had been ‘long practised in examining country’, he considered himself ‘entitled to claim as much confidence for accuracy in respect even of this northern portion as could have been attained by any surveyors under such circumstances’.

The Surveyor’s prudent warnings as to the sketch survey’s limitations largely went unheeded. For more than a decade Smith’s 1849 plan, a copy of which is held by LINZ (SO 10468)23, was to be utilised as a base map upon which later land purchase surveys were entered. A number of LINZ plans, provisionally dated circa 1850, but which display information which can only have been added post 1853, are clearly reductions (or enlargements) of Smith’s sheets24. With the original plan not having been scientifically aligned to latitude or longitude, and being largely devoid of bearings, these additions must have been arbitrarily entered.

21 W. M. Smith to W. Fox, 20 March 1849. Enclosure to W. Fox to Sec NZC, 23 June 1849. NZC 3/10
22 Ibid
23 All subsequent plans cited with an SO prefix are held by the LINZ Wellington office
**McLean's first Crown purchases**

With the New Zealand Company's attempts to purchase Wairarapa lands having ended in failure, and with that organisation withdrawing from active colonising in 1851, it fell to the colonial government to further treat with the Maori owners. Yet, while the Wairarapa's proximity to the Wellington settlement continued to make it attractive to prospective purchasers, initially Crown purchasing attention was elsewhere. Under the supervision of Chief Land Purchase Commissioner Donald McLean, who had earlier cut his purchasing teeth on the Wanganui and Rangitikei blocks, there was a sustained assault in the early 1850s on Maori land further to the north, in the Ahuriri district. In 1851 McLean negotiated the purchase of an estimated 629,700 acres in three large blocks. Purchase of the 275,000 acre Castlepoint block in June 1853 after protracted negotiations, constituted the first breakthrough in the Wairarapa. With a breach forced, there was a torrent of purchasing in the ensuing six months. Between June 1853 and January 1854, according to Turton, well over 1.8 million Maori acres in the Wairarapa districts were alienated²⁵. Thereafter, purchasing in the districts assumed the character of an extended 'mopping up' exercise.

McLean had resolved at the outset that his best chances of beating resistance lay in bargaining for a multiplicity of blocks, rather than attempting to purchase the districts as a whole or in one or two large tracts. The tactic may have been strategically sound, but it overlooked that a vast amount of block surveying would be required. An influential earlier writer has claimed that McLean, particularly in his earlier purchasing ventures, tended to follow set procedures in the identification and delineation of block and reserve boundaries²⁶. Once negotiations were under way, with a surveyor present at all meetings, the purchase officer, together with the surveyor and tribal representatives, would walk the boundaries of the proposed purchase, noting claims for reservations and natural features which might serve as boundary markers. Then, once a price had been agreed and a deed signed, full survey

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²⁵ For example, SO 10475-6, SO 10482-3
²⁷ R. W. S. Fargher, *Donald McLean, Chief Land Purchase Agent (1846-1861) and Native Secretary (1856-1861).* M. A. Thesis. Auckland, 1947. pp 20-21
of the block boundaries and marking out of the reserves would ensue. Thus the
surveyor was a critical and constant part of the whole purchase process. Were these
procedures scrupulously followed in the Wairarapa? As evidence to be subsequently
presented suggests, it is highly unlikely. But there is an even more fundamental
question: even if the outlined procedures were fully followed, was the system of
survey adopted in connection with the Wairarapa purchases both accurate and
equitable to all parties?

In assessing the mode of survey adopted, it is informative to turn back to the
immediately proceeding Ahuriri surveys, which almost certainly provided the
prototype. Reporting to Civil Secretary Domett in July 1851, it is plain that McLean
regarded the purchase surveys as no more than an interim measure. While the
survey staff seconded to him had been instructed that it would be desirable to ‘tie the
separate surveys as far as possible together’, the emphasis was to be on ‘detached
surveys’. In sorting out the individual block boundaries, only sufficient observations
were to be taken ‘as would simplify and expedite future surveys’. The reserves
within the blocks were, where possible, to be fixed ‘to some natural object or feature
of the country’. In short, the surveys were to be prosecuted with no greater
sophistication than was deemed absolutely necessary (‘a good deal must be left
to...[the surveyor’s]... own discretion’), the principal requirement being that they be
carried through with ‘the utmost economy’. What this meant, in practice, was that
in most instances all that was attempted was a simply periphery traverse by magnetic
meridian, unchecked and unconnected by any geodetic or astronomical work. Rarely
were theodolites employed. In the excessive reliance upon compass, there seems to
have been no recognition that, beyond the regular daily and yearly changes of
magnetic declination, the instruments were liable to large accidental and local causes
of disturbance, sometimes affecting them to the extent of 15 or 20 degrees. That
this crude method of survey was, as a later critic was to observe, notoriously
...incapable of securing the delineation of even a few square miles of country with
tolerable accuracy’ was ignored. It is surely significant that the first instructions for
purchase surveys in the Wairarapa laid stress on the production of further ‘sketch

27 D. McLean to A. Domett. 30 July 1851. CS 1/2. 51/1003
28 Ibid. See also R. Park to A. Domett. 9 October 1851. NM 10/11
29 H. S. Palmer to Colonial Secretary. 5 April. 1875. AJHR. 1875. H1. p 6
plans', the involved surveyors being urged to pay more attention to assessment of the acreage, character and capabilities of the blocks under survey\textsuperscript{31}.

A few only of the contemporary block survey plans have been sighted, but it seems likely that if they could be viewed retrospectively as a totality they would comprise a curious collection. If the details afforded by Turton be accepted as indicative, some of the blocks encompassed very large acreages (four were in excess of 200,000 acres), and others were relatively small, often squatter homestead occupations. They might appositely be compared to particularly ill fitting pieces in a massive cadastral jigsaw puzzle. In theory, all of the puzzle pieces were planned to ultimately fit together. But the theory took little account of the deficiencies in manufacture, or of the fact that at the end of the first purchase phase some pieces were still missing. Moreover, the absence of any measured baseboard on which to place the puzzle pieces occasioned few worries. In the meantime, Smith's 1849 sketch plan had to serve.

Any assumption that a surveyor was an integral part of all purchase proceedings is soon disposed of. In all, Turton lists 42 Wairarapa deeds relating to transactions between 22 June 1853 and 18 January 1854\textsuperscript{32}. In only 11 instances is a surveyor listed as a witness to the agreement. This was by no means atypical. Of the 16 transactions recorded by Turton from early 1854 to March 1858, in only two instances was a surveyor party to the agreements\textsuperscript{33}. This would suggest, \textit{prima facie}, that not only were the purchase surveys undertaken in the early and mid 1850s subject to all the evils of the 'detached survey' system, but also that the majority were \textit{ex post facto} detached surveys, this undoubtedly providing further grounds for later dispute and confusion.

The available documentary evidence suggests that purchasing commenced before a surveyor was even available. It is probable that McLean relied upon the Government Survey Office at Wellington to provide the necessary personnel, as had been the case with the Ahuriri and Castlepoint purchases, but in mid 1853 that organ was already

\textsuperscript{30} T. Heale to J. C. Richmond. 2 August 1867. AJHR. 1867. A10B. p 3
\textsuperscript{31} D. McLean to C. L. Pelichet. 20 February 1852. Enclosure to D. McLean to A. Domett. 26 February 1852. CS 1/2. 52/13. See also A. Domett to R. Park. 5 May 1852. NM 10/11
\textsuperscript{32} Turton, pp 261-312
\textsuperscript{33} Ibid. pp 312-332
grossly overstretched. Certainly, the Office's head, Michael Fitzgerald, was in attendance at the Tuhitarata purchase, but there is no indication his presence in the districts was ever other than fleeting. Hence McLean's proposal in September 1853—three months after purchasing had commenced—that the services of Captain Smith be secured. He considered Smith, on the basis his 'tolerably correct sketch survey of the Wairarapa', to be singularly well equipped to execute the block and reserve surveys required, then to inscribe them accurately on a general map of the districts. When the proposal was speedily assented to, Smith was given carte blanche: 'From your own experience, local knowledge, and acquaintance with the Native tribes of this Valley, I need not trouble you with further details'. Smith's assignment was twofold. While the ageing surveyor was enjoined to give 'undivided attention to a settlement of the Native boundaries to prevent further disputes', it was also deemed 'most important that such parts of...(the Wairarapa)...as do not appear on your sketch map...should be explored, and a sketch...made'.

Smith was present at a number of, if by no means all, the purchase negotiations conducted after mid September 1853. He should therefore have been in no doubt about the boundaries agreed in those cases. With respect to purchases effected prior to that date, and subsequent purchases where he was otherwise engaged, he was totally dependent on information supplied. Before the year was out he was lamenting the vagueness of the boundary descriptions in the deeds, and, even quick scrutiny of Turton suggests, with some justice. Further, the chosen markers were often transient rather than semi permanent landscape features, for instance, standing trees, tracks, watercourses. What had been an irritation while purchasing was in progress, McLean often being too busy to offer clarifications (and Smith being reluctant to place reliance on the words of the settlers), became far more once the Chief Land Purchase Commissioner left the districts. In February 1854 Smith, frustrated, expressed himself 'quite ignorant on many important points concerning the lands...purchased by the Crown'. McLean had promised to supply him with all the details required, but had departed without doing so. The surveyor strongly suggested 'some person having

35 D. McLean to A. Domett, 2 September 1853. CS 1/8, 53/1193
36 D. McLean to W. M. Smith, 20 October 1853. AJHR, 1861; C1. p 263
37 Ibid
38 Turton. pp 270-312. See Deeds 90. 91-4. 100-1. 109-10. 112
a thorough knowledge of the Native language be sent... to clear away such difficulties as may arise from the unsettled state of the land sales'. Two months later Smith was complaining again, there being disputant groups over a claimed bush reserve: ‘one tells me that all the bush is sold on this side of the Ruamahanga, another that none is sold and that they have no intention of selling’40. Such problems ‘vexed ... (him) ... sorely’. Equally vexing were demands from the Wellington Survey Office that he take time out to lay off sections within the often still unverified boundaries of purchased blocks for resale to pastoralists and small settlers. In these circumstances, the block and reserve surveys proceeded fitfully, as and when the necessary information came to hand. It was scarcely surprising that Smith should increasingly turn to the second part of McLean’s assignment, a map of Wairarapa lands not covered by his 1849 sketch map.

In 1849 Smith had made it clear he considered a sketch survey but a preliminary step in the survey of districts. Notwithstanding his willingness to accept McLean’s contract, he held similar misgivings about too much reliance being placed on detached block surveys. He therefore resolved upon something better41. If a full trigonometrical survey was out of the question, by interpreting McLean’s brief literally a succession of minor triangulations might help impose survey order. His justification was that a little extra work at this point might facilitate the more accurate laying off of all boundaries. In pursuit of this objective, Smith and his entourage trudged over the districts for nearly three years, the leader complaining bitterly whenever he was diverted from his self-imposed mission. ‘Fancy’, he observed in mid 1854, after enforced negotiations over reserve boundaries, ‘three while days talk when I might have been sending beautiful triangles across the country’42. Smith even resented being diverted when McLean made brief return trips to the Wairarapa. From a mapping of the Wharekaka Plain (the site of his run) in 1854, Smith proceeded to map further lands in the south. A lunge across the eastern hills to the coast was followed by a full coastal traverse from Lake Ferry to Castlepoint, then by a return to triangulate the Taratahi Plain. Few maps of the operations, however, were immediately forthcoming. A reduced plan of the Wharekaka (SO 10543), delivered in

39 W. M. Smith to F. D. Bell. 18 February 1854. LS-W 2/3. 54/56
40 W. M. Smith to F. D. Bell. 5 April 1854. LS-W 2/4. 55/97

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early 1855, therefore constituted a landmark. Anxious queries about the progress of 
the block and reserve surveys were simply shrugged off. His commissioners must 
wait until a more perfect job was done. By late 1856, when Smith’s work came to an 
abrupt halt, the grand design remained grievously incomplete. Many of the 
purchased blocks, still undefined, lay outside the isolated minor triangle nets. Doubts 
remained about the boundaries of even those blocks and reserves encompassed.

No comprehensive map of the first Crown purchases has so far been located. What 
purports to be the first map of the purchases (W121, National Archives), dated 28 
December 1853, probably drawn by G. F. Swainson but signed by Michael Fitzgerald, 
is obviously an impressionistic sketch only. Even if the majority of the blocks had 
been surveyed by that date, and it is certain they had not, the scale embraced is not 
conducive to exactitude. Probably the nearest approach is a composite map of the 
Wairarapa Valley (SO 10557), generally attributed to Smith, having been compiled in 
1856, but almost certainly produced by other hands in the Wellington Survey Office.

How the detached surveys were inserted on this map can only be a matter for 
conjecture. It is also likely the base map was an extended version of Smith’s 1849 
sketch survey. A general map of the valley constructed in the previous year (SO 
10542) explicitly states that the 1849 sketch is the foundation, but that the sheet has 
been ‘improved from the late surveys’. A similarly prepared map of Bell’s 1855 run 
awards (SO 10474) demonstrates the dangers of such compilations. While the 
representation sought to make clear runholder boundaries, those boundaries too were 
to be the subject of protracted disputes.

In November 1856, with full responsibility for sale of the purchased lands having 
passed to Wellington Province, Commissioner of Crown Lands Fox wrote at length to 
Superintendent Featherston on ‘the very serious inconvenience...resulting...from the 
incomplete state of the evidence of title’. In support of his case, he advanced an 
example. A block deed in the Wellington Survey Office supposedly delineated both 
the acreage purchased and the agreed reserves. But in defining the external

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41 W. M. Smith to F. D. Bell, 5 April 1854, LS-W 2/3, 54/97
42 W. M. Smith to F. D. Bell, 15 February 1855, LS-W 2/4, 55/76
43 W. M. Smith to W. Fox, 20 October 1856, LS-W 2/5, 56/262
44 Patterson (1984), Vol 1 pp 108-9, 113-18
45 W. Fox to I. E. Featherston, 22 November 1856, WP 3/2, 56/281
boundaries in 1853 not a single compass bearing had been recorded. The reserves had not been defined at all, and three years later were considered to be undefinable. A "state of unexplained obscurity" existed with respect to many of the blocks, making it "impossible for any surveyor to delineate... (them)... on a plan, or for the government to sell the land without the greatest risk of disputes with the Natives". The surveys of the Wairarapa appeared to have been made in "a very perfunctory and incomplete manner". It was imperative that McLean's services be placed at the disposal of the Province "till such time as the various purchases already partly completed shall have been concluded, and their boundaries finally and irrevocably fixed and surveyed".

Had the General Government and McLean responded positively to this call, much trouble might have been avoided. Neither did. While McLean conceded that "the actual extent of blocks... had not been always ascertained by survey", he maintained the boundaries had always been "clearly specified in the deeds of sale". He expressed annoyance that the deeds themselves were considered unintelligible. They were, in his view, "perfectly intelligible to the Natives".

**Purchase surveys by the Native Land Purchase Department**

It was not until early 1858 that McLean made any serious attempt to address the Wairarapa block and reserve definition problems. With the exception of his brief returns to the districts in the summer of 1854-5 and in early 1856, supervision of the completion of purchase arrangements had been in the hands of G. S. Cooper, district Land Purchase Commissioner at Ahuriri. Cooper, however, had been rarely seen further south. In recognition of the emerging confusion, he had been instructed in late 1855 not to initiate any new purchases until the difficulties with the existing purchases had been dealt with. In March 1858 W. N. Searancke was installed as District Land Purchase Commissioner for the southern North Island. Searancke was allotted a quite different role to Cooper. As an experienced surveyor himself, and provided with additional survey assistance, he was expected not only to make new purchases but also to bring finality to McLean's earlier negotiations. While

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4 D. McLean to E. Stafford, 18 December 1856. Enclosure to E. Stafford to I.E. Featherston, 9 January 1857, WP 3/3, 57/51
48 For review of the operations of the Native Land Purchase Department see B. R. Patterson, 'Of hobgoblins and herring gutted apothecaries: the Native Land Purchase Department in Wellington Province. 1858-1862'. Unpublished paper. 1996. 23p.
Searancke secured little more than an additional 150,000 acres over the next four years, he was constantly employed. As he was later to recall, the greater part of his time was occupied clearing up 'the numberless claims by Natives on lands already alienated by the Crown... (and the disputes arising from)... boundaries of former purchases not having been defined on the ground...'.

The Wairarapa confusion may well have contributed to several earlier McLean decisions aimed at making purchase surveying more effective and trouble free. A first step, in 1854, had been the creation of a small dedicated survey corps attached to the Native Land Purchase Department. Then in 1856, significantly following the exchanges with the Wellington Provincial Government, detailed operational guidelines were issued to all surveyors engaged on purchase surveys. These stressed the need for the employment of experienced surveyors only, preferably with Maori language skills; the necessity for the perambulation of all boundaries in the course of purchase negotiations; the need for all reserves to be clearly marked and mapped before negotiations were concluded; and a requirement that a plan of each purchase be attached to the Deed of Sale. When Searancke and his assistants arrived in Wellington as the first permanent departmental representatives in the province, rapid remedial survey action might have been expected. Yet, in a sense, especially in respect of new purchases, their efforts only compounded existing difficulties and uncertainties.

Undoubtedly Searancke prosecuted his Wairarapa survey operations under many difficulties: growing Maori resistance to sales; uneasy relations with the provincial authorities; internal dissension. To be fair, many of these matters were beyond his control. He was more personally culpable in respect of the mode of surveying adopted. Regardless of McLean's guidelines, all that the District Commissioner considered possible was 'a rough sketch...(such)... as would enable...(him)... to form some idea of the quantity and quality of land in the different blocks offered for sale'. A more sophisticated method of survey 'would be endless trouble and work'.

49 Report by W. N. Searancke. 25 October 1861. Enclosure to W. Fox to I. E. Featherston. 5 December 1861. WP 3/9, 61/619
50 D. McLean to A. Sinclair. 19 June 1854. IA 1/134. 54/1933
51 Col. Sec. To I. E. Featherston. 16 September 1856. WP 3/2. 56/383
52 W. N. Searancke to D. McLean. 10 May 1858. McLean Papers (Turnbull). 32/565
most detailed accounts for new surveys relate to blocks purchased on other side of the central ranges. The initial surveys of the Upper Manawatu blocks comprised no more than the observation of bearings and a visual sketch from a high point in the Ruahine Ranges. There is little reason to assume that the Wairarapa purchases were treated any differently. Definition of the Maungaraki block, for instance, was accomplished by ‘a rough traverse’. The boundary descriptions in deeds negotiated by Searancke were no less vague than those earlier recorded by his superior. Reserves continued to be set aside without their size and accurate location being recorded. Well before the old arrears had been brought up, Searancke was creating new arrears. Moreover, he continued to declare purchases concluded prior to full survey. Not infrequently, promised reserve lands were unwittingly sold by the provincial authorities, they not appearing on any record map.

From the arrival of Searancke’s party, up to half the staff at any one time was engaged in bringing up the old survey arrears, in endeavouring to impose order in the longer settled Wairarapa areas. This proved to be slow and frustrating work. Making a multitude of block purchases may have been a tactical success for McLean in 1853, but the aftermath was proving costly and time consuming. As Maori resistance to further sales grew, more staff were switched to the reconciliation task. In 1860, when all negotiations for new lands were placed on hold in response to the developing Taranaki conflict, the whole of the staff was re-deployed to the arrears surveys. It may well have been intended that what passed for accurate surveys might resolve disputes, existing and incipient, but paradoxically the very process frequently gave rise to further disputes. Maori and the surveyors often had greatly varying ideas about just what had been sold, and just where the boundaries properly lay.

The arrears surveys brought to light cadastral chaos on all sides, the source of annoyance to prospective European purchasers as much as to frustrated Maori. In March 1859 private surveyor T. D. McManaway complained to Crown Lands Commissioner Fox that in the previous year he had been employed by Messrs Buck and Kemble to select 1200 acres on what had been Northwood’s run (purchased by

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53 W. N. Searancke to D. McLean, 27 September 1858, AJHR. 1861. Cl. p 278
54 Tufton, pp 332-364
55 W. N. Searancke to D. McLean, 30 November 1858, AJHR. 1861. Cl. p 284
the Crown in January 1854). He had checked twice with Searancke as to whether there were any Maori claims in the area, and had been informed there were none. When his principals had proceeded to the land but several weeks previously they had been warned they were on reserve land, and that if they persisted they would be burned out. Now Searancke and District Surveyor Tully (a provincial employee) were in agreement that the land in question was indeed reserve land. But, as with so many other claims, it was not shown on any map. Not had the reserve boundaries ever been staked. McManaway felt obliged to observe that over many years he had selected 'many thousands of acres... (elsewhere in the province)... and never had any obstacles thrown in my way, but I freely confess it is quite different in the Wairarapa. As things stand... it is nearly impossible to select with any chance of success'.

Yet, it was not just a question of instances where surveys were proven to be nonexistent. In the absence of proper survey control, of proper checking procedures, problems could also emerge where surveys had apparently been carefully carried through. At the beginning of 1855 Captain Smith had submitted his plan of the Wharekaka Plain. Being also the site of the Captain’s run, it was an area with which he was fully familiar. In February 1861 Wellington’s acting survey head, G. F. Swainson, responded to earlier queries about the position of reserve boundaries on the plain. He had long been aware, he stated, that the reserve boundaries were ‘uncertain’, and he was unsure if Smith had ever surveyed them, ‘although on all his tracings and map from the beginning of 55 a reserve is shown’. He freely admitted the reserve did not appear on the map used for selection purposes in the Wellington Land Office. He noted that he himself had drawn the selection map after purchasing had commenced in 1853, it being ‘a reduction of a map made by Captain Smith of the valley in 1849... It was the only map in existence at that time, and all that we had to guide us... As the purchases proceeded, and reserves pointed out, they were at first entered on that map’. The practice had been discontinued in the mid 1850s, presumably because it was considered the individual block plans were sufficient. Unfortunately, Captain Smith’s 1855 plan could not now be found.

56 T. D. McManaway to W. Fox, 25 March 1859, LS-W 2/8, 59/106
57 G. F. Swainson to W. Fitzherbert, 28 February 1861, LS-W 2/10, 61/185
Such conundrums, multiplied many times over, were occupying Searancke’s mind when he forwarded McLean a general report on his survey operations in July 1860. He also sent his superior a plan purporting to show ‘all the different blocks bought, the reserves made in the same for the aborigines, the lands the purchase of which has not been completed, and the lands still in the hands of the aboriginal owners’ (possibly SO 10640). The plan was a composite ‘compiled from the numerous district surveys made during the last seven years’. Searancke, however, was under no illusions: he stressed the plan had to be considered ‘still very deficient in many parts’. The deficiencies could only be made good ‘by making a complete trigonometrical survey of the whole country between Castle Point to the North, the Ranges on the West and the Coast on the East and South, and by the completion of the surveys of Reserves in connection with the trigonometrical survey’. In a separate communication Searancke also conveyed that Assistant Surveyor Malcolm Fraser had made significant progress on a more detailed map of the valley purchase. When this was complete it was envisaged that an equally comprehensive representation of the East Coast blocks and reserves could be launched.

It was clearly Searancke’s intention that he would personally supervise both the completion of Fraser’s maps and the prosecution of the projected trigonometrical survey. He was to be disappointed. With purchasing in the province suspended, and with the Wellington based unit under political attack, it was resolved to withdraw at least temporarily most of the NLPD personnel from the southern North Island districts. When Searancke himself took ship for Auckland in February 1861 only one officer, Fraser, remained. About Fraser’s continuing employment the departing District Commissioner had been adamant. There was still much rectification which Fraser alone could complete and attempt to connect with earlier work. For more than twelve further months Fraser soldiered on. Later in 1861 his valley map was produced (probably W22 National Archives). Whether or not he made much progress on his East Coast work before the termination of his employment in May 1862 is unclear. A plan of the ‘Wairarapa Native Purchases’ (SO 10753), tentatively dated

58 W. N. Searancke to D. McLean, 28 July 1860, AJHR, 1861, C1, pp 293-4
59 W. N. Searancke to D. McLean, 18 July 1860, McLean Papers (Turnbull), 32/565
60 W. Fox to M. Fraser, 24 March 1862. Enclosure to W. Fitzherbert to I. E. Featherston. 29 March 1862. WP. 3/10. 62/169
1865 and attributed to Fraser, may incorporate some of this material. Almost certainly the date is incorrect.

**The Provincial Government takes over**

With the effective removal of the Native Land Purchase Department, the Wellington Provincial Government assumed responsibility for the purchase of Maori lands. In April 1862 Superintendent Featherston was appointed a Land Purchase Commissioner. While the public spotlight always tended to play on Featherston's promised extensive programme of new purchases, the local administration also inherited the task of bringing order to the earlier purchase surveys. Despite much puffery, in neither sphere were the provincial authorities particularly successful, and in the Wairarapa they were least successful of all. In the remainder of the 1860s only eight small additional Wairarapa blocks, totalling little more than 40,000 acres, were secured. As the decade drew to its close, the past surveys were still being described as 'a fruitful source of difficulties'.

Immediately prior to the handover of responsibility McLean visited the Wairarapa to conclude some unfinished purchasing business. The four small blocks then purchased were surveyed and mapped by Fraser prior to his departure, and there is every indication the surveys were executed with relative care. Following the transfer, responsibility for related surveys was entrusted to G. F. Swainson, who was designated 'Surveyor of Native Reserves'. Though this was nominally a General Government appointment, Swainson was, nevertheless, required to work closely with the Provincial Government. Indeed, in January 1864 his services were indefinitely seconded to the provincial authorities. On the face of it, Swainson had much to offer. Firstly as a General Government official, then as a provincial officer from 1856, he had been intimately involved in the earlier purchase surveys. In the Wellington Survey office he had been responsible for the insertion of block and reserve surveys on the record maps. For a short period in the early 1860s he had actually headed the provincial surveys. What was not so readily obvious was that Swainson had personal

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61 W. Fox to J. E. Featherston. 7 April 1862. WP 3/10. 62/189
62 G. F. Swainson to W. Fitzherbert, 4 February 1862. LS-W 2/11. 62/50
frailties, manifested in a chronic drinking problem, which were to lead to his dismissal in 1868.

These frailties were not evident in surveys executed by Swainson in connection with land purchases. Examination of the eight Wairarapa deeds suggests that, while all the inherent defects of detached surveys remained, what was done at least met the official requirements of the time. The attachment of measured plans to the deeds further suggests that the boundaries had been perambulated and agreed prior to the conclusion of negotiations. Where relevant, reserves were clearly identified on the plans. Swainson's efforts to bring up the survey arrears were less happy. It is possible the burden was beyond both his constitution and capabilities. Within twelve months he was bemoaning the constant problems encountered in bringing the past surveys up to scratch. He excused his apparent lack of progress on the frequent requirement he be arbitrator in boundary disputes. He seems to have formulated no grand plan, probably no plan at all, to bring up the survey arrears. Instead he busied himself in tinkering. In July 1862, for example, he reported to the Crown Lands Commissioner that he had spent several months drastically amending the boundaries of the Ahiaruhe and Wharekaka blocks to ensure they more readily conformed to natural features. Whether or not this was at the behest of the occupiers, or whether Maori were involved, is not stated. Throughout this period Swainson was in regular correspondence with McLean, and it was possibly to bolster the long serving officer that in 1864 G. S. Cooper spent some months endeavouring to help unravel some of the cadastral knots.

The major bright spot in the early 1860s was significant progression towards a reliable base map of the southern North Island districts. The need for such a map had long been evident, and much of the summary data to provide an accurate outline had been acquired by 1860. Captain Stokes and Drury of the Admiralty had provided meticulous hydrographic surveys of much of the western coastline by 1855. By the same date Captain Smith had executed his coastal traverses from Castlepoint to Cape

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64 G. F. Swainson to W. Fitzherbert, 2 June 1863, LS-W 2/12, 63/337. See also G. F. Swainson to I. E. Featherston, 3 September 1864, WP 3/16, 64/825
66 D. McLean to I. E. Featherston, 23 July 1863, WP 3/12, 63/334
67 New Zealand Spectator and Cooks Strait Guardian, 7 September 1864
Palliser, and from Cape Palliser to Lake Onoke. Later in the 1850s H. S. Tiffen as Chief Surveyor at Ahuriri, surveyed the eastern coast from Napier south, ultimately joining with Smith’s work. ‘Small gaps, particularly that around the Wellington settlement itself, were subsequently closed by Survey Office staff. Completed in 1862, the ‘Map of the Province of Wellington’ (SO 10654) sought only to establish the broad location of major geographical features. There was no attempt to insert detailed cadastral information. For that to be possible a comprehensive triangulation of the landmass was still needed.

**State of surveys in 1865**

Creation of the Native Land Court in 1865 brought a new complexion to the purchase of Maori lands. With the Native Lands Act 1862 the colonial authorities had opened the door to direct purchase by European settlers from Maori. The Native Lands Act 1865 put this policy on a practical footing. With it now being possible for prospective individual purchasers to hire private surveyors to delineate blocks they wished placed before the Court, further major survey problems loomed. Unless these contract surveys were conducted under rigorous rules, were preferably supervised, they would add further confusion to an already chaotic cadastral situation. The appointed head of the Court, Chief Judge F. D. Fenton, attempted to offset some of these difficulties by promising the formation of a new supervisory body, the Inspectorate of Surveys, but as he was well aware this did little in the short term to remedy the existing survey deficiencies. That would have to be achieved in conjunction with those already allocated responsibility for improvement.

Fenton lost little time in making his views known to Wellington’s officials. In October 1865 he drew Superintendent Featherston’s attention to ‘a matter which left unattended...will be the cause of much confusion...hereafter’. Already the surveys of parcels of land being brought before the Court were ‘as a rule entirely unconnected with any previous survey’ and were ‘not fixed by any known point’. Sometimes the parcels were very small and ‘as far as anything appears on the plans might be in any

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69 F. D. Fenton to I. E. Featherston. 27 October 1865. WP 3/18. 65/751
part of the colony'. As it was already known that many of the earlier purchase surveys remained unreliable, this was simply adding faults to faults. In these circumstances it seemed well nigh impossible that an accurate map of the province, or of its districts, one showing the true size and shape of particular blocks and parcels, and their relative location one to another, could be readily compiled. Insofar as surveys for the Court were concerned, he could take a stance, and proposed to do so. New regulations for the survey of Maori lands were already being prepared. It was the past surveys that presented the less readily solvable problem. Fenton therefore sought the Wellington Provincial Government's co-operation in seeking some solution.

With the issue being caught in a stand off between the General and Provincial Governments, already twelve months elapsed before Fenton's remarks were commented upon by Wellington's new Chief Surveyor, Henry Jackson. In broad terms, Jackson concurred: the Maori land surveys, both past and present, were gravely deficient. They had been, and continued to be, essentially 'detached operations based on no general system, and consequently incapable of combination either with themselves or the organised surveys of the Province'. In order to compile accurate general maps it was imperative all of the surveys be connected by a comprehensive triangulation, all necessary corrections and amendments being made in the process. As Jackson observed, the superimposition of a regulatory control network would greatly facilitate the certification of any future Maori land surveys. Whereas the Chief Surveyor could presently only certify, following cursory examination, that plans 'appeared to be executed in a workmanlike manner', triangulation would permit close checking. Jackson further indicated his willingness to assist, but also made it plain that considerable costs were involved. With the Court's operations being a national responsibility, related expenditure should not be a charge on the province. This question was still to be resolved when a decision to initiate a full trigonometrical survey of Wellington Province was endorsed.

70 H. Jackson. Memorandum on the Native land surveys. undated. Enclosure to W. Fitzherbert to I. E. Featherston, 16 August 1866, WP 3/19, 66/375. See also H. Jackson to W. Fitzherbert, 1 October 1866, LS-W 2/16, 66/507
By this time an Inspector of Surveys, Theophilus Heale, had been appointed. Upon taking up office, Heale set about closely scrutinising the purchase surveys throughout the North Island. While no direct comments by Heale on the Wairarapa surveys have been discovered — Heale’s letterbooks for this period are missing, as are key Native Department documents — his general comments on the state of the purchase surveys are wholly pertinent. In his view, the inherent inadequacy of simple boundary traverses had been greatly exacerbated by almost complete lack of supervision, and by a determination to have surveys executed at the cheapest possible rate. Presciently, Heale also lamented the inadequacy of the base maps hitherto employed for the plotting of the detached surveys. Such maps had generally not been projected, and therefore it was impossible to determine relative positions with any accuracy: ‘estates which actually abut on each other... (can be)... placed on these maps miles apart.’

The ‘old system of surveys’ had been makeshift, and could only serve temporarily: ‘it continually happens that pieces of land abut on opposite sides to two or more old surveys, and the interstice is either too large or too small; and as we are wholly unaware of the real direction of the error, it is impossible to rectify it’. Heale echoed Jackson’s solution. Only a full trigonometrical survey would clear away the problems. But whereas Jackson envisaged incorporation of the purchase surveys within the Wellington triangulation, Heale favoured extension of his northern nets, specifically planned to facilitate the survey of Maori lands.

**Triangulating the Wairarapa**

Without question, the cadastral disorder which Jackson sought to make good was not simply the product of deficient Maori land purchase surveys. The initial confusion over boundaries and acreages had been greatly added to by the subsequent haphazard apportionment of presumed purchased blocks for settler use. By the mid 1860s the state of the provincial surveys has become a major issue. From the settler viewpoint, boundary crudities, which had been acceptable when bridgeheads were being forced, had become far less satisfactory once security of tenure became the call. Pressure for

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72 See annual reports published AJHR 1867-1876
73 T. Heale to J. C. Richmond. 2 August 1867. AJHR. 1867. A10B. p 3
74 For overview of the Wellington triangulation, see Patterson (1983). pp 40-55
a full trigonometrical survey had been building from the late 1850s, and with the appointment of Jackson to the provincial survey staff in 1862 the vehicle to carry it through was afforded. Well versed in the necessary techniques, a veteran of the ‘Great Trigonometrical Survey of India’, Jackson proposed that the whole of the province be brought within major and minor triangulation nets. With these in place future surveys would be conducted by working from ‘whole to part’, rather than from ‘part to whole’.

It was fitting, in view of the long-term survey problems, that the Wairarapa districts should be chosen as the first testing ground for the new system. In May 1866 Jackson gave notice of his intention of prosecuting ‘a large triangulation’ from Lake Wairarapa to the vicinity of Masterton in the coming summer. This would ‘connect effectively the various detached surveys’. The Wairarapa Valley triangulation would eventually link with a planned East Coast triangulation, to be started in the following year. In the meantime the existing plans in the Wellington Survey Office were scrutinised, and a start was made on the selection of prominent sites for trig stations. When the work got underway in January 1867, the Chief Surveyor instructed his delegate, Alex Dundas, himself a most competent surveyor, to complete the governing surveys ‘as expeditiously as consistent with the accuracy to be desired’. Proceeding from a baseline measured on the plain to the southeast of the lake, the connecting triangles were pushed northwards at a healthy rate. By the end of the year a further baseline, primarily for verification, had been measured on the Opaki Plain, and preparations were in hand to extend the triangles to the bushlands north of Masterton. By this point the East Cape triangulation was also in hand. Over the next twelve months the valley and coast nets were tied together. By March 1869 Jackson was able to report to his superiors that comprehensive triangulation nets now ‘extended over the greater portion of the purchased lands of the Crown in these districts’. A diagram of the encompassing nets was subsequently prepared and published (SO 11021).

75 H. Jackson to W. Fitzherbert, 19 May 1866, WP 3/19, 66/171
76 H. Jackson to W. Fitzherbert, 31 January 1867, LS-W 2/16, 67/58; also H. Jackson to W. Fitzherbert, 20 February 1867, LS-W 2/16, 67/109
77 H. Jackson to I. E. Featherston, 7 January 1868, WP 3/23, 68/11
In his early 1866 response to Fenton’s comments Jackson had at least implied that the earlier purchase surveys would not be incorporated within the governing nets to be surveyed, certainly not without substantial subsidies being paid by the General Government. It is likely that threat was always a bluff, for the accurate representation of lands sold to settlers was of limited value if uncertainty remained as to whether the lands onsold had actually been acquired by the Crown. The reality was reflected in Jackson’s instructions to his survey parties to effect all such corrections to prior surveys as were deemed necessary. These were to be then reported to the Survey Office for the amendment of records plans. Within six months, however, the Chief Surveyor was complaining about the huge amount of additional work correction of the purchase surveys entailed. The earlier reserve surveys, in particular, had been found to be so insufficient that in most cases complete resurveys were necessary. A number of block boundaries were still undefined. Even where they had been defined, blunders in detail were numerous and large. It was not uncommon to find, owing to gross errors in the original surveys, that the shape of blocks had changed radically, or that they were ‘altogether in the wrong place’. Beyond the work in the field, an enormous amount of office work was also required, the corrected or resurveyed blocks and parcels having frequently to be humoured and twisted to ensure the pieces fitted.

Checking of the early Maori land surveys, as well as approval of new plans for Native Land Court hearings, continued against a backdrop of bickering into the 1870s. Though Heale approved of the way in which Wellington’s surveys were being conducted, and made no bones about this publicly, he nevertheless objected to Jackson’s January 1868 appointment as his deputy in Wellington Province. He continued to argue that any correction work should be under his direct control. He also objected to the continuing claims for reimbursement. Writing direct to the Native Minister in 1869, Heale praised Jackson’s triangulation, conceded that the Native Land Court surveys were being ‘compared with the Provincial surveys with some

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78 H. Jackson to J. G. Holdsworth. 13 March 1869. Enclosure to J. G. Holdsworth to I. E. Featherston. 13 March 1869, WP 3/24. 69/100
79 H. Jackson to W. Fitzherbert. 1 October 1866. LS-W 2/16. 66/507
80 H. Jackson to W. Fitzherbert. 20 May 1867. LS-W 2/17. 67/243
care', and that the cadastral records were now being 'generally kept in fair order'. But he also noted a major omission: "the complete and invariable compilation of every survey on a general record map...is essential, and that any payment to the Provincial Survey Department ought to be conditional on such a compilation, the property of the General Government, being maintained'. Such a map, or maps, might have been compiled by Jackson, but if so copies had not been forwarded to the Inspector's office.

The 1871 composite

A composite plan of Wellington Province showing 'the blocks of land over which the native title has been extinguished', the record map so long demanded by Heale, was forwarded to the Inspector of Surveys in Auckland in mid 1871. Several versions of the plan are known to exist (e.g. W111, National Archives; SO 10943). It had been built up from the multiplicity of block survey plans, old and new, held by the Wellington Survey Office. It was not the first such composite to be constructed, and was assuredly not the last. There are indications that related plans covering specific districts had either already been constructed by 1871, or were in the course of construction. It is the fact that much reliance seems subsequently to have been placed on the production that necessitates comment. The plan has apparently been used, for example, as a cadastral base for the Tribunal's 1996 Rangahaua Whanui series report on the Wairarapa. Its author notes major discrepancies between the estimated block acreages listed in Turton and a digitised estimate of the acreages founded on the 1871 composite (W111). The obvious question that arises is, is this reliance well placed?

In attempting even a partial answer, several considerations have to be taken into account. Firstly, there can be no certainty that the boundaries suggested on the 1871 plan are in strict conformity with the boundaries agreed in the purchase negotiations. Hence there can be no assurance that the acreages derived from the digitising exercise bear much relation to what the purchasers claimed to have acquired or the sellers thought they had sold. The likelihood of errors in the original surveys was obviously

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82 T. Heale to J. C. Richmond. 9 June 1869. AJHR. 1869. D20, pp 6-10
83 J. G. Holdsworth to W. Fitzherbert. 28 July 1871. WP 3/27. 71/312
84 Goldsmith. pp 22-3
considerable. Secondly, in the absence of further detailed research, there is no way of knowing the extent to which block sizes and shapes changed in the course of the survey 'corrections' in the later 1860s. At least one contemporary observer admitted that the changes could be so considerable that the results amounted almost to 'falsifications'. Thirdly, and perhaps most importantly, it is highly likely that present day researchers have mistaken the purposes for which such plans were constructed. There is strong evidence that neither Jackson (the plan's creator) nor Heale (the recipient) ever envisaged the 1871 composite would be employed as a 'true' record map. Though variously described as a 'record map' and a 'general plan', what was provided might more properly be regarded as an index plan. Its principal purposes were to provide an instant holistic impression of the extent of lands alienated, and at the same time to provide signposts to more detailed plan records and other survey data held. In a sense, the plan was little more than a finding aid. Heale well recognised this. He knew that much detail would be lost when the block (and district?) plans were reduced. Consider his 1871 words on the construction of record/index plans: 'microscopic accuracy is neither attainable nor desirable'\textsuperscript{85}. There can never have been any intention that such plans be used for boundary or acreage verifications.

It is likely, moreover, that when the 1871 composite was constructed rationalisation of the Wellington surveys was still far from complete. It was for this reason that Jackson had resisted attempts by Heale to pressure him into producing such a plan earlier. Even in the following year (1872) the former was warning that many of the early surveys were still 'found to collate imperfectly'\textsuperscript{86}. Admittedly, in the same report Jackson also stated the he now considered the surveys of the eastern districts to be as near correct as they could be got, but what that meant remains unclear. Reviewing the purchase surveys colony-wide in 1875, Major H. S. Palmer, an experienced Ordnance Survey officer, concluded they had been carried through 'at frightful cost to the Natives' and generally 'in a vague and slovenly style'\textsuperscript{87}. Despite Heale's best efforts (and in the case of Wellington Province, Jackson's) a host of difficulties remained. His further conclusions have a warning ring: 'Many of the plans are deficient in

\textsuperscript{85} T. Heale to Registrar General of Lands. 19 December 1871. Inspector of Survey Letterbooks. Book 7 (notes in writer's possession)

\textsuperscript{86} 'Report of Chief Surveyor on progress of surveys. 16 April 1872'. Enclosure to Appendix F. Acts and Proceedings. Wellington Provincial Council. 1872

\textsuperscript{87} H. S. Palmer to Colonial Secretary. 5 April 1875. AJHR. 1875, H1. p 6
information, and the field books are missing. The... (written)... descriptions... are so loose they could hardly be appealed to to establish boundaries; in respect of these, possession, and oral evidence of original marks on the ground must be the practical proofs.  

**Conclusion**

In the light of the evidence presented in the body of the report, it is appropriate to now revert to the three questions initially posed:

1. **How reliable are the original pre 1865 Wairarapa survey plans and field books setting out the extent of Crown purchase transactions?**

   As should be now crystal clear, these records—insofar as they even exist—are notoriously unreliable. Critical data is often missing, constructional errors can lead to false impressions, and the stated acreages are generally little more than rough ‘guesstimates’. At the same time, their ability to shed light should not be lightly dismissed. Frequently the plans constitute the principal, often the only, extant record of purchaser intentions. The lesson is that they must be utilised with extreme care, with full recognition of their limitations. In uninformed hands they might properly be considered dangerous documents.

2. **How did the Crown calculate the extent of Wairarapa lands purchased at about 1865?**

   An apparently flippant answer—‘by guess and by God’—is, regrettably, not too far from the mark. To accurately calculate the extent of lands purchased it was imperative that all purchased blocks be carefully measured. Yet it has been demonstrated that prior to comprehensive triangulation of the districts, between 1866-69, few were. Until at least the 1860s there was a tendency to opt for the quick eye sketch, with perhaps a few observed bearings, or for incomplete boundary traverses. A further qualifier, however, is in order.

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88 Ibid. p 7
Allowing for extremely generous margins of error, it should not be overlooked that a number of the surveyors involved were remarkably skilled assessors of the extent of country. It was thus possible for the Crown to have a broad, if by no means precise, impression of the extent of the purchases.

3. What are the likely difficulties to be overcome in reconstructing the pattern of pre 1865 purchases cartographically?

A credible cartographic reconstruction of pre 1865 purchasing, while certainly not impossible, is likely to be an extremely difficult and protracted assignment. In the writer's view, it must be based on careful study of the contemporary records: plans, field books, and files. The post 1865 resurveys and rectifications, while resolving some immediate practical problems, almost certainly created further distortions, which almost equally certainly have been carried through into modern cadastral records. To simply project back from the modern records, then, would provide few enlightening answers. Block boundaries which are generally accepted today may be a far cry from those in the minds of mid nineteenth century purchasers and/or sellers.

Any satisfactory reconstruction will necessarily involve extended searches both in the plan records and in a number of archives groups. While the writer's own researches have centred more on the documentation of settlement surveys, it is likely important material will be located in the Maori land plans held by the LINZ district office and in the cartographic collections of the National Archives. It should also be noted that additional graphic information is frequently to be found attached to contemporary files. Beyond standard sources, such as the MA files, research should be undertaken in such groups as the archives of the Wellington Provincial Government and those of the Commissioner of Crown Lands, Wellington.

How relevant information should ultimately be pieced together, and then be presented graphically, is a matter for further consideration. Expert technical advice will be required.