NEW ZEALAND
ARCHAEOLOGICAL
ASSOCIATION

ARCHAEOLOGY IN NEW ZEALAND

NEW ZEALAND'S SETTLEMENT DATE – THE LAST WORD? (OR AT LEAST THE LATEST)

GARRY LAW

At the 2014 NZAA conference in Christchurch a poll was taken asking about the participants' views of the date of the earliest settlement of New Zealand by the ancestors of the Maori. The voting form had some instructions asking for a single AD date, not ranges or limits. The intention to hold a poll was deliberately not on the programme or pre-announced so it was pretty much an instant vox pop.

The forms were distributed at an opportunity in a papers session and then collected within a few minutes of distribution. One hundred forms were sent into the room which was about the number of people present. Fifty three forms were returned.

It was the 60th anniversary conference of the Association and the motivation was at least partly nostalgic, as the poll had been taken on three prior occasions at NZAA conferences, managed on the first two occasions by Tony Walton and on the third by Nigel Prickett. That this poll had a nostalgic element was acknowledged in introducing the poll. The past polls have all been reported on (Walton 1988, 1984; Prickett 2002). At the third, taken in 2002, participants were also asked if they accepted the 'early rat' contention. As this seems to have passed from serious consideration it was not repeated here, and no participants thought it necessary to comment.

Only two of the votes were disallowed – one gave a range rather than a date – though it was consistent with the most popular range of the other voters. The other gave a day and time in AD 5 and was taken as facetious.

The distribution of the 51 accepted votes is shown in Figure 1.

Compared to the earliest two polls, which were bimodal, we have perhaps finally confirmed a unimodal distribution, as in 2002, though this does have a fairly long early tail. The mode has moved again and to a more recent date, but not moved as radically as in the past.

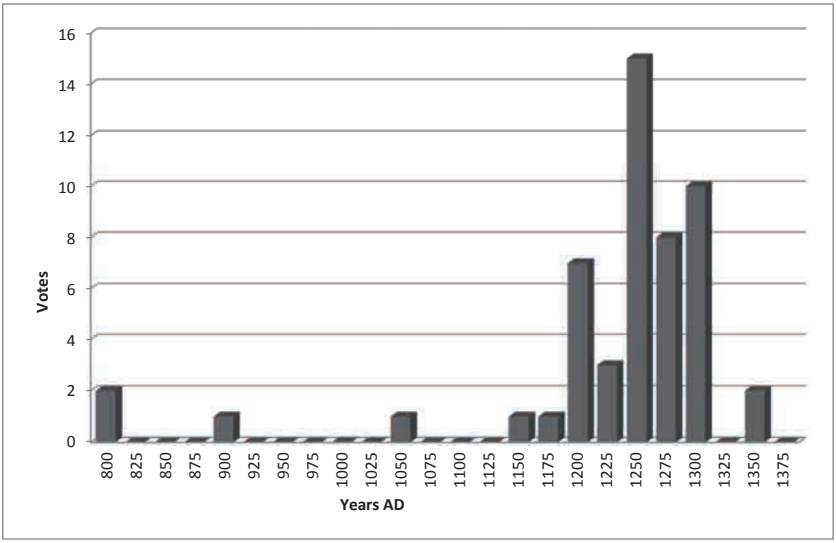

Figure 1. Poll date distribution with 25 year bins so, for instance, the results in the range AD 800–824 are plotted as AD 800.

Year of poll	Modal date of settlement (AD)	Loss of settlement date years, per year between polls
1988	800	–
1994	1000	33
2002	1150	19
2014	1250	8

Table 1. Modal date of settlement by year of poll.

Year of poll	12th C	13th C	14th C
1988	5	0	0
1994	28	11	0
2002	21	24	14
2014	4	66	24

Table 2. Percentage of votes by year of poll.

What has been happening is the collapse of support for anything earlier than the 13th century by, as Nigel Prickett put it, ”reluctant converts join-

ing the party."

Nigel Prickett (2002, 2003) has provided a commentary on the influences that might have swayed the earlier polls. In brief the major effects were likely to be Doug Sutton's proposal of the possibility of an early settlement model (Sutton 1987) in a paper which inspired the first poll. In the 2002 poll, the arguments current then for early rats, now effectively dismissed as a dating problem rather than reality, may have had some influence. In that poll however many participants managed to treat the two arrivals (rats and permanent settlers) as separate, believing in early rats but allowing for later ancestral human arrival, so perhaps that discursion was not as influential then as might at first be thought.

What then might have been the influences in this poll? Sutton and his co-authors (Sutton et al. 2008) were still persisting then with the possibility of a long chronology. The application of chronometric hygiene, the selection of shorter lived sample materials and recent C14 dates from eastern Polynesia have had a dramatic effect on the dates that are regarded as legitimate, shortening the period in which settlement originating there can be seen as likely (e.g. most recently Wilmshurst et al. 2010). Chronometric hygiene has been actively disinfecting New Zealand as well, though its application started earlier than the 2002 poll. It too has allowed no early dates to survive.

There are only slight suggestions of disturbance to vegetation by people, as revealed by pollen, before the Kaharoa eruption and before the 640 BP Rangitoto eruption and, if accepted as such, the disturbance was not long before either eruption. This may well have been influential on those polled. The very precise dating of the Kaharoa eruption, through the C14 technique of wiggle matching, has heightened attention to its ash as a dating horizon, as the ash is spread over no small part of the North Island. Earlier occupation evidence has now long been sought under this ash but with slight result (Higham et al 2000; Newnham et al 1998; Lowe et al 2002; Horrocks et al 2005).

Further, the C14 dating of rat gnawed seeds has been part of the evidence used to debunk the early rat interpretation and might be seen as supporting a late human settlement date. However If we could in the past happily have rats' arrival and people's settlement as other than coeval then perhaps the reverse order of people before rats might be considered?

Popular accounts of Maori history are now commonly giving the 13th century as the date of arrival so possibly these too had some influence.

Two voters gave the central date of the Kaharoa eruption date as their vote, with a precision of one year, perhaps taken by the unprovable speculation that a voyager followed the ash trail of the eruption, from somewhere in

Eastern Polynesia to its source here. The presence of a rat gnawed seed within the Kaharoa ash in one occurrence might suggest otherwise.

A surprising number of votes in this poll were for a date not ending in zero, or some having some other obvious rounding. Having encouraged voters to be as precise as they wanted it may be a little churlish to then comment on it, but perhaps the scientist's distinction between precision and accuracy might need some reinforcement in university teaching.

What of those that did not vote? Perhaps they considered it beyond contention, or such a vote too nostalgia ridden, or declined not having enough time for reflection, or maybe they thought more properly that settlement is best looked at as a process rather than an event and declined to be locked into such a simple view.

Thanks to those that participated, and Nigel Prickett for comments.

References

Higham, T.F.G., A.G. Hogg, D.J. Lowe, J. Palmer, P. Reimer, and I. Nairn 2000. Precise wigglematch dating of the Kaharoa tephara. *Geological Society of New Zealand Miscellaneous Publications*, 108: 74.

Horrocks, M., P. Augustinus, Y. Deng, P. Shane; and S. Andersson 2005. Holocene vegetation, environment, and tephra recorded from Lake Pupuke, Auckland, New Zealand. *New Zealand Journal of Geology and Geophysics*, 48: 85–94.

Lowe, D.J., R.M. Newnham and J.D. McCraw 2002: Volcanism and early Maori society in New Zealand. In R. Torrence and J. Gratan (eds) *Natural Disasters and Cultural Change*, 126–161. Routledge, London.

Nairn, I.A.,S. Self, J.W. Cole, G.S. Leonard and C. Scutter 2001. Distribution, stratigraphy, and history of proximal deposits from the C. AD 1305 Kaharoa eruptive episode at Tarawera volcano, New Zealand. *New Zealand Journal of Geology and Geophysics*, 44: 467–484.

Newnham, R.M., D.J. Lowe and G.N.A. Wigley 1998. Late Holocene palynology and palaeovegetation of tephra-bearing mires at Papamoa and Waihi Beach, Western Bay of Plenty, North Island, New Zealand. *Journal of the Royal Society of New Zealand*, 25(2): 283–300.

Prickett, N. 2002. Early settlement date and early rats: an opinion poll. *Archaeology in New Zealand*, 45(4): 288–292.

Prickett, N. 2003. Changing views and changing programmes in New Zealand archaeology. In C. Sand (ed.) *Pacific Archaeology: Assessments and Prospects*, 377–383. Les cahiers de l'Archéologie en Nouvelle-Calédonie, 15. Musée de Nouvelle-Calédonie, Nouméa.

Sutton D.G. 1987. Paradigmatic shift in Polynesian prehistory: Implications for New Zealand. *New Zealand Journal of Archaeology*, 9: 135–155.

Sutton D. G., J.R. Flenley, L. Xun, A. Todd,K. Butler and P.I. Chester 2008. The timing of the human discovery and colonization of New Zealand. Environmental

Variability and Human Adaptation in the Pacific Rim and the Sustainability of the Islands. *Quaternary International*, 184(1): 109–121.

Walton A. 1988. The date of settlement of New Zealand: a poll. *Archaeology in New Zealand*, 31: 77–79.

Walton A. 1994. The date of settlement of New Zealand: a second opinion poll. *Archaeology in New Zealand*, 37: 95–96.

Wilmshurst, J.M., A.J. Anderson, T.F.G Higham, T.H. Worthy 2008. Dating the late prehistoric dispersal of Polynesians to New Zealand using the commensal Pacific rat. *Proceedings of the National Academy of Sciences*, 105(22): 7676–7680.

Wilmshurst, J M., T.L. Hunt, C.P. Lipo, A.J. Anderson 2011. High-precision radiocarbon dating shows recent and rapid initial human colonization of East Polynesia. *Proceedings of the National Academy of Sciences*, 108(5): 1815–1820.