



NEW ZEALAND
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NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION NEWSLETTER



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RADIOCARBON AGES FROM WIRI (N42/24)

Agnes Sullivan

Five samples of small diameter charcoal from an excavated site on Wiri Mt., Manurewa, South Auckland, collected in January 1974, were sent to the Institute of Nuclear Sciences, Gracefield, Wellington, N.Z., which returned the following results.

	^{14}C age w.r.t. old $T_{1/2}$ (5568 years)	^{14}C age w.r.t. new $T_{1/2}$ (5730 \pm 40 yrs)	^{14}C age w.r.t. new $T_{1/2}$ corrected for secular effect
NZ 1909 *	740 \pm 200 yrs. B.P.	760 \pm 200 yrs.B.P.	720 \pm 200 yrs. B.P.
NZ 1887	540 \pm 70 " "	560 \pm 80 " "	580 \pm 80 " "
NZ 1888	730 \pm 60 " "	750 \pm 70 " "	710 \pm 70 " "
NZ 1889	300 \pm 90 " "	310 \pm 90 " "	390 \pm 90 " "
NZ 1890	440 \pm 80 " "	450 \pm 80 " "	460 \pm 100 " "

* re-run; first run contaminated with radon

The site, sub-numbered as N42/24-5, was a surviving part of the lower slope of a former terraced volcanic cone pa, and comprised the upper end of a down slope scoria wall bordering a garden plot, with a small cut and fill terrace just above. Four areas were opened on the site, E and F on the wall and AB and GH on the terrace; samples were submitted from three areas, AB, F and GH. In each excavated area three zones of deposits were recognised, and appeared comparable between areas: these were -

1. Deposits, including occupation layers, predating terrace construction.
2. Deposits, including occupation layers, associated with terrace.
3. Modern topsoil.

Within these deposits, the stratigraphic position of radiocarbon samples in layers was:

Sample	Area	Zone/layer	
NZ 1909	F	1c	Finely divided charcoal in darkish soil, below layer 1d.
NZ 1887	F	1d (2)	Charcoal layer in dark yellow brown soil, below base of downhill scoria wall.
NZ 1888	AB	1d (S)	Charcoal in shell lens in dark yellow brown soil.
NZ 1889	GH	2 (i)	Charcoal lining of fire-pit cut into terrace.
NZ 1890	GH	2d	Disseminated charcoal from upper occupation layer of terrace.

Overall, the sequence of chronological ages of samples showed agreement with relative ages inferred from stratigraphic position. All samples from zone 1 were older than all samples from zone 2, and there was a perceptible interval between zone 2 and the present. Within each zone, however, cases of apparent age inversion were presented. Firstly, in area GH, layer 2 (i) was stratigraphically, but not chronologically below layer 2d; the two representing separate but probably quite closely sequential occupations. The second inversion occurred between areas AB and F, where by extrapolation layer AB 1d (S) appeared stratigraphically somewhat higher than layer F 1d (2), but was reported chronologically older. If it is regarded as permissible to read off at one standard deviation the discrepant ages within each zone from the new half life with secular correction, then in zone 1, NZ 1887 and 1888 will preserve the chronological order indicated by the stratigraphy and also the sequence required between NZ 1909 and NZ 1887; and in zone 2, NZ 1889 and NZ 1890 are also brought into line with the stratigraphy, in a sequence of older to younger.