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SEX AND FUNERIAL OFFERINGS AT WAIRAU BAR:

A RE-EVALUATION

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Dr Phil Houghton of the Anatomy Department, Otago Medical School has recently completed and published a detailed analysis of the skeletal remains from Wairau Bar (1975). This study is long overdue and the report is a most welcome addition to the scant literature on the physical anthropology of early populations in New Zealand. It documents one of the best known skeletal series from an important archaeological site, and firmly establishes this community as a vigorous but essentially short-lived population (mean age at death = 27.9 years). It is hoped that the report will encourage similar work in other areas of New Zealand, so that comparisons may be made to assess the varying success of different economic adaptations by tropical Polynesian settlers to the New Zealand temperate landmass.

Houghton employed rigorous techniques such as linear discriminant functions for establishing the basic factual data such as sex and stature (Houghton and de Souza, 1975; Houghton, et al., 1975), and his results are unquestionably more reliable than those originally established by Duff (1956).

A comparison of Houghton's results with those of Duff reveal important areas of disagreement; and in particular, these challenge the widely held view that only males of fairly high rank were buried with grave goods in prehistoric New Zealand. The origin of this view is difficult to document, but may well derive largely from Duff's published observations of these very important burials at Wairau Bar itself. He states for instance:

"Thus at Wairau they (moa eggs) were buried exclusively in cases where the other offerings suggested some superiority of rank of the deceased, as far as can be established, with adult males". (Duff, 1956:34),

and again:

"It is generally not difficult in excavating to distinguish between the carefully placed bones of a male of rank, with his burial offerings, including the moa egg water-bottle, and the trussed bones of a woman or a young person of no particular rank, bundled without ceremony into the smallest possible grave". (Duff, 1956:58).

Houghton's analysis points to important errors in Duff's records regarding burial sex, and this calls into question that males exclusively were associated with certain grave goods. The basic facts are set out here, in Tables 1 to 4, from which it can be seen that Houghton has established that at least ten female burials were found with votive offerings. Duff identified eight of these burials as male, and did not mention the sex of the remaining two (See Table 2). Again, contrary to Duff's comments that moa egg water-bottles were found only with males (1956:34), they were present with three females, viz: Burial 1 (*vide* Duff, 1942; 1956:32), Burial 30 (Duff, 1956:64), and Burial 31 (*ibid.*:66). The comment that moa eggs occurred only with adults (*ibid.*:34) is challenged by Duff's own records, because Burial 32 was a child (*ibid.*:66), and was found with moa egg remains (*ibid.*:33). Other offerings found in female graves included a necklace made from moa bone, and another made from human bone, a whale tooth pendant necklace with ivory reels (Anderson, 1940), argillite adzes of Duff Types 1A and 2A, and a nephrite 2A adze. Clearly, there is no simple correlation between sex and grave goods at Wairau Bar, although it may well be the case that male graves tend to be more elaborate. In passing, it might be mentioned that votive offerings are found with other prehistoric female burials in New Zealand; for example, those in Palliser Bay (Leach, 1976: 150), and Tiwai Point (Leach and Sutton, 1972).

The Wairau burials are the largest series available which may be used to assess whether there is any overall numerical tendency for more males than females to be buried with offerings. A simple statistical test is set out in Table 5, from which it will be seen that at the 95% confidence level, the observed difference in proportion exceeds the standard error of the difference in the case of Duff's figures, but not using those of Houghton. This shows that were Duff's records of sex correct, his overall conclusions would have been statistically valid. However, Houghton's sexing must be considered the more reliable, and it is therefore concluded that the proportion of males buried with grave goods is not greater than that of females.

TABLE 1
MALES AT WAIRAU BAR

With Grave Goods (17)

Burial No.	Sex, Houghton (1975)	Sex, Duff (1956)	Grave Goods, Duff (1956)
2	Male (n.d.)	Male (32)	32, App. 4.
3	Male (238)	Male (32)	32, App. 4.
4	Male (239)	Male (32)	32, App. 4.
5	Male (239)	Male (32)	32, App. 4.
6	Male (239)	Male (32)	32, App. 4.
12	Male (240)	Male (49)	49, App. 4.
14	Male (240)	Male (51)	33, 51, App. 4.
15	Male (240)	not given	53, App. 4.
20	Male (240)	not given	33, App. 4.
21	?male (240)	not given	App. 4.
25	Male (241)	Male (62)	64, App. 4.
27	Male (241)	Female (62)	62
28	Male (241)	Male (62)	64, App. 4.
29A	Male (241)	Male (62)	64, App. 4.
33	Male (242)	? sex (66)	33
35	Male (242)	Male (66)	33
36	Male (242)	Male (66)	33

Without Grave Goods (3)

19	Male (240)	Male (55)	53
24	Male (241)	? sex (62)	not mentioned
40	Male (242)	not given	not mentioned

TABLE 2

FEMALES AT WAIRAU BAR

With Grave Goods (10)

Burial No.	Sex, Houghton (1975)	Sex, Duff (1956)	Grave Goods, Duff (1956)
1	Female (238)	Male (32)	32
9	Female (239)	Male (47)	47, App. 4.
16A	Female (240)	not given (53)	53
16B	Female (240)	not given (53)	53
22A	Female (241)	Male (62)	64, App. 4.
22B	Female (241)	Male (62)	64, App. 4.
26	Female (241)	juv. male (62)	62, App. 4.
29B	Female (241)	Male (62)	64, App. 4.
30	Female (242)	Male (66)	64, 66
31	Female (242)	Male (66)	33, 66

Without Grave Goods (6)

11A	Female (239)	? sex (47)	not mentioned
11B	Female (239)	? sex (47)	not mentioned
13	Female (240)	juvenile (49)	51
17	Female (240)	juvenile (53)	not mentioned
18	Female (240)	Female (53)	not mentioned
37	Female (242)	not given	not mentioned

TABLE 4

SUMMARY OF SEX AND GRAVE GOODS

	Houghton	Duff
Males with grave goods	17	21
Males without grave goods	<u>3</u>	<u>2</u>
<u>Total:</u>	20	23
=====		
Females with grave goods	10	1
Females without grave goods	<u>6</u>	<u>2</u>
<u>Total:</u>	16	3
=====		
? sex with grave goods	3	8
? sex without grave goods	<u>3</u>	<u>8</u>
<u>Total:</u>	6	16
=====		
<u>Grand Total:</u>	42	42
=====		
Proportion of males with grave goods	85.0%	91.3%
Proportion of females with grave goods	62.5%	33.3%

TABLE 3

BURIALS OF UNKNOWN SEX AT WAIRAU BAR

With Grave Goods (3)

Burial No.	Sex, Houghton (1975)	Sex, Duff (1956)	Grave Goods, Duff (1956)
7	Not seen	Male (32)	32, App. 4.
32	Not seen	Juvenile (64)	33
34	Not seen	? sex	66

Without Grave Goods (3)

8	Not seen	Female (47)	47
10	Not seen	Juvenile (47)	Not mentioned
23	Not seen	Male (62)	Not mentioned

TABLE 5

STATISTICAL ANALYSIS

	Houghton	Duff
m = number of males	20	23
n = number of females	16	3
N = total	36	26
p = percentage of males with grave goods	85.0%	91.3%
q = percentage of females with grave goods	62.5%	33.3%
p-q = observed difference	22.5%	58.0%
t = students t(p=.05, N degrees of freedom)	2.030	2.056
SE = Standard error of difference	29.9%	46.4%

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