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UNIVERSITY OF OXFORD
RADIOCARBON
ACCELERATOR UNIT

Mr Richard Allen
Research Laboratory for Archaeology and the History of Art
Dyson Perrins Building
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7th Aug, 2019

Our ref: **C14/5204**

Dear Richard

The following radiocarbon measurements have been made on samples from this project.

OxA	Sample	Material (species)	δ^{13}C	Date
Easter Island, Chile				
OxA-38492	D013865	bone (Rattus exulans)	-14.56	238 ± 20
	The d13C value for this sample suggests the strong possibility of a marine reservoir effect. It was paired with a d15N value of 11.8 per mille, also supporting this. A correction will be required when calibrating the result.			
OxA-38493	D013867	bone (Rattus exulans)	-17.55	608 ± 20
	The d13C value for this sample suggests the possibility of a marine reservoir effect. The d15N value of 13.2 per mille, also supports this. A correction will be required when calibrating the result.			
OxA-38707	D013901	bone (Rattus exulans)	-14.40	292 ± 19

The dates are uncalibrated in radiocarbon years BP (Before Present - AD 1950) using the half life of 5568 years. Isotopic fractionation has been corrected for using the measured δ^{13}C values measured on the AMS. The quoted δ^{13}C values are measured independently on a stable isotope mass spectrometer (to ±0.3 per mil relative to VPDB). For details of the chemical pretreatment, target preparation and AMS measurement see Bronk Ramsey et al., 2004, *Radiocarbon* **46** (1) 17-24, and Brock et al., 2010, *Radiocarbon* **52** (1): 103-112. The attached calibration plots, showing the calendar age ranges, have been generated using the Oxcal computer program (v4.3) of C. Bronk Ramsey, using the 'IntCal13' dataset (*Radiocarbon* **55** (4), 2013).

As you may know we publish all dates measured at Oxford in a datelist which appears in the journal *Archaeometry*. When you have had the chance to consider the implications of the results I wonder if you would be kind enough to send your brief comments to me.

Yours sincerely

Emma Henderson