**SUPLEMENTARY MATERIALS**

**THE MARINE RESERVOIR EFFECT: A CASE STUDY OF ARCHAEOLOGICAL SITES AT GUANABARA BAY, RIO DE JANEIRO, BRAZIL**

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**Radiocarbon age uncertainty calculation**

Radiocarbon ages were calculated as follows:

Were:

And I0 = Mean decay corrected measured IAEA 14C reference materials counting rate (cpm/gcarbon) (10.72 (0.18) cpm/gcarbon (n=9))

Due to the low uncertainty related to the Δ13C measurements (0.05‰), only the counting and system calibration errors were considered.

Therefore, the age uncertainty calculation was:

And

RBG = 1.0 cpm

Tc = 1440 minutes

**Reservoir effect calculation**

The reservoir effect was calculated based on the mean shells and charcoal radiocarbon ages for each sampling site. For example:

For Sernambetiba site, the local marine reservoir age was calculated pairing shell and charcoal fragment samples, obtaining a value of (256±37) 14C yr. The ΔR, and its associated uncertainty, were calculated applying (500±60) yr as RGlobal Av.