**Late Pre-Contact Construction and Use of an ‘Archaic’ Shrine at the Pālehua Complex (Honouliuli District, O‘ahu Island, Hawai‘i)**

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**SUPPORTING INFORMATION**

*OxCal scripts used to produce Bayesian radiocarbon models reported in text.*

**Shrine Unit A, Model 1**

Plot()

 {

 Sequence("Shrine Unit A")

 {

 Boundary("Start Shrine");

 Phase("Features 1&2")

 {

 R\_Date("UCIAMS-203609 Fea2", 240, 15);

 R\_Date("UCIAMS-203608 Fea2", 220, 15);

 R\_Date("UCIAMS-203610 Fea2", 195, 15);

 R\_Date("UCIAMS-203606 Fea1", 235, 15);

 R\_Date("UCIAMS-203607 Fea1", 185, 15);

 };

 Boundary("Transition Features/LII");

 Phase("Layer II")

 {

 R\_Date("UCIAMS-203605 LII", 220, 15);

 R\_Date("UCIAMS-203604 LII", 210, 15);

 R\_Date("UCIAMS-203602 LII", 200, 15);

 R\_Date("UCIAMS-203603 LII", 180, 15);

 };

 Boundary("End Shrine");

 };

 };

**Shrine Unit A, Model 2**

Plot()

 {

 Sequence("Shrine Unit A")

 {

 Boundary("Start Shrine");

 Phase("Features 1&2")

 {

 R\_Date("UCIAMS-203609 Fea2", 240, 15);

 R\_Date("UCIAMS-203608 Fea2", 220, 15);

 R\_Date("UCIAMS-203606 Fea1", 235, 15);

 };

 Boundary("Transition Features/LII");

 Phase("Layer II")

 {

 R\_Date("UCIAMS-203605 LII", 220, 15);

 R\_Date("UCIAMS-203604 LII", 210, 15);

 R\_Date("UCIAMS-203602 LII", 200, 15);

 };

 Boundary("End Shrine");

 };

 };

**Enclosure Model 1**

Plot()

 {

 Sequence("Enclosure Old")

 {

 Boundary("Start Enclosure");

 Phase("Layer IV")

 {

 R\_Date("Beta-377882 LIV", 410, 30);

 };

 Boundary("Transition LIV/LIII");

 Phase("Layer III")

 {

 R\_Date("Beta-326899 LIII", 170, 30);

 R\_Date("Beta-32901 Pav", 320, 30);

 R\_Date("Beta-32900 Pav", 270, 30);

 R\_Date("Beta-371023 Pav", 220, 30);

 };

 Boundary("Transition LIII/LII");

 Phase("LII")

 {

 R\_Date("Beta-326898 LII", 50, 30);

 };

 Boundary("End Enclosure");

 };

 };

**Enclosure Model 2**

Plot()

 {

Sequence("Palehua Enclosure")

{

Boundary("Start Enclosure");

Phase("Layer IV")

{

R\_Date("Beta-377882 LIV", 410, 30);

};

Boundary(“Transition Layer IV/Fea1”);

Phase(“Feature 1”)

{

 R\_Date("UCIAMS-203614 Fea1", 195, 15);

 R\_Date("UCIAMS-203615 Fea1", 150, 15);

};

Boundary("Feature/Layer II Transition");

Phase("Layer II")

{

 R\_Date("UCIAMS-203612 LII", 195, 15);

 R\_Date("UCIAMS-203611 LII", 165, 15);

 R\_Date("UCIAMS-203613 LII", 160, 15);

};

Boundary("End");

};

 };

**Reconstructing previous model by Gill et al. (2015) in OxCal**

*(Described but not reported in text due to extremely low agreement indices)*

Plot()

 {

 Sequence("Enclosure Old")

 {

 Boundary("Start Enclosure");

 Phase("Layer IV")

 {

 R\_Date("Beta-377882 LIV", 410, 30);

 };

 Boundary("Transition LIV/LIII");

 Phase("Layer III")

 {

 R\_Date("Beta-326899 LIII", 170, 30);

 };

 Boundary("Transition LIII/Pavement");

 Phase("Pavement")

 {

 R\_Date("Beta-32901 Pav", 320, 30);

 R\_Date("Beta-32900 Pav", 270, 30);

 R\_Date("Beta-371023 Pav", 220, 30);

 };

 Boundary("Transition Pavement/LII");

 Phase("LII")

 {

 R\_Date("Beta-326898 LII", 50, 30);

 };

 Boundary("End Enclosure");

 };

 };