Supplemental Text 1. OxCal code for Bayesian model of dates from Iruhito*.*

Plot()

{

Curve("IntCal20","IntCal20.14c");

Curve("SHCal20","SHCal20.14c");

Mix\_Curve("Mixed","IntCal20","SHCal20",U(0,100));

Sequence("Iruhito Sequence")

{

Boundary("MF Start");

KDE\_Plot("Ribera 1–2")

{

Sequence("Ribera 1–2 Sequence")

{

R\_Date("AA75520, U4.2, Feature 8, earliest occupation surface",2493,35);

R\_Date("AA75519, U4.2, Feature 7, occupation surface",2458,34);

};

};

Boundary("MF End");

Interval("Gap between Ribera 2 and and 3");

Boundary("ILF Start");

KDE\_Plot("Ribera 3–4")

{

Sequence()

{

R\_Date("D-AMS005618, U4.17, 417.24, earliest occupation surface above sterile in 4.17",2171,25);

R\_Date("D-AMS005619, U4.15, 415.20, thin midden associated with Ribera 4 limestone wall",2135,25);

};

};

KDE\_Plot("Ribera 5")

{

R\_Date("D-AMS005617, U4.12, 412.9, deposition associated with Ribera 5 adobe wall",2075,27);

R\_Date("D-AMS005621, U4.15, 415.9, fill over occupation surface associated with Ribera 5",2049,29);

R\_Date("D-AMS005616, U4.15, 415.15, hearth feature",2043,29);

R\_Date("AA75518, U4.2, Feature 3, final Ribera occupation surface, fragmentary adobe wall",2004,40);

};

Boundary("ILF End");

Interval("Gap between ILF and Post-LF");

Boundary("Start Post LF ");

KDE\_Plot("Post-LF")

{

Sequence("Sector 5 Sequence")

{

R\_Date("AA110492, U5.1, Level 13, earliest occupation in Sector 5 Monticulo",1372,27);

Date("First Tiwanaku redwares");

R\_Date("AA75516, U5.1, Feature 9, midden between levels 8 and 9",1278,33);

R\_Date("AA75517, U5.1, Feature 8, floor between levels 7 and 8",1231,33);

};

};

Boundary("End Post-LF");

};

};