**Progress towards a Byzantine-Medieval Historic Buildings Tree-Ring Chronology**

**from Cyprus using dendrochronology and radiocarbon**

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**Supplementary Material:** OxCal runfiles and alternative graphic presentations of the wiggle-match results

***OxCal runfile for Figure 2:***

Options()

{

Resolution=1;

Curve="intcal20.14c";

};

Plot()

{

D\_Sequence ("PAF-6 + KPAN-3 for BCPM")

{

Date("BCPM RY943 start CSZ and BCPM");

Gap(25);

Date("BCPM RY968 start PAF");

Gap(38);

R\_Combine("PAF-6+KPAN-3 RY1004-1008 @1006")

{

R\_Date("GrM-16750 RY1004-1008 @1006",620,20);

R\_Date("GrM-16752 RY1004-1008 @1006",588,19);

};

Gap(72);

R\_Combine("PAF-6+KPAN-3 RY1076-1080 @1078")

{

R\_Date("GrM-16751 RY1076-1080 @1078",515,19);

R\_Date("GrM-16828 RY1076-1080 @1078",535,20);

};

Gap(11);

Date("RY 1089");

Gap(9);

R\_Date("GrM-19053 KPAN RY1096-1100 @1098",448,19);

Gap(50);

R\_Date("GrM-19054 KPAN RY1146-1150 @1148",367,19);

Gap(58);

Date("BCPM RY1206");

};

};

Diagram

Description automatically generated

Alternative presentation of the wiggle-match results from Figure 2 in the main text. Hollow histograms show the non-modelled probability; smaller dark histograms show the modelled probability – the upper and lower lines under these indicate respectively the 68.3% hpd and 95.4% hpd modelled ranges. A values are the OxCal Agreement indices for each element in the model which should be >60.

***OxCal runfile for Figure 3a:***

Options()

{

Resolution=1;

Curve="intcal20.14c";

};

Plot()

{

D\_Sequence ("TIMT2+3+17+70 RY976-1113")

{

Date("First Extant Ring RY976");

Gap(32);

R\_Date ("VERA-6356 TIMT-2 Rings 1006-1010 @1008",817,35);

Gap (35);

R\_Date ("VERA-6357 TIMT-2 Rings 1041-1045 @1043",799,38);

Gap (24);

R\_Date ("VERA-6358 TIMT-2 Rings 1064-1068 @1067",739,34);

Gap (46);

Date ("Last Extant Ring RY1113");

};

};

Diagram

Description automatically generated

Alternative presentation of the wiggle-match results from Figure 3a in the main text. Hollow histograms show the non-modelled probability; smaller dark histograms show the modelled probability – the upper and lower lines under these indicate respectively the 68.3% hpd and 95.4% hpd modelled ranges. A values are the OxCal Agreement indices which should be >60.

***OxCal runfile for Figure 3c:***

Options()

{

Resolution=1;

Curve="intcal20.14c";

};

Plot()

{

D\_Sequence ("TIMT5")

{

R\_Date ("VERA-6359 TIMT-5 Rings 1001-1005 @1003",549,35);

Gap (50);

R\_Date ("VERA-6360 TIMT-5 Rings 1051-1055 @1053",394,34);

Gap (49);

R\_Date ("VERA-6361 TIMT-5 Rings 1100-1104 @1102",321,38);

Gap (29);

Date ("Date Last Extant Tree Ring RY1131");

};

};

Diagram

Description automatically generated with medium confidence

Alternative presentation of the wiggle-match results from Figure 3c in the main text. Hollow histograms show the non-modelled probability; smaller dark histograms show the modelled probability – the upper and lower lines under these indicate respectively the 68.3% hpd and 95.4% hpd modelled ranges. A values are the OxCal Agreement indices which should be >60.

***OxCal runfile for Figure 3e:***

Options()

{

Curve("IntCal20","intcal20.14c");

Resolution=1;

};

Plot()

{

D\_Sequence("TIMT-10A + 20")

{

Date("TIMT RY1001");

Gap(15);

R\_Date("GrM-27164 TIMT-10A RY1015-1017 @1016",1188,24);

Gap(26);

R\_Date("GrM-27165 TIMT-10A RY1041-1043 @1042",1135,18);

Gap(87);

R\_Date("GrM-27166 TIMT-10A RY1128-1130 @1129",1087,18);

Gap(209);

Date("TIMT RY1338");

};

};

Diagram

Description automatically generated

Alternative presentation of the wiggle-match results from Figure 3e in the main text. Hollow histograms show the non-modelled probability; smaller dark histograms show the modelled probability – the upper and lower lines under these indicate respectively the 68.3% hpd and 95.4% hpd modelled ranges. A values are the OxCal Agreement indices which should be >60.

***OxCal runfile for Figure 4:***

Options()

{

Resolution=1;

Curve="intcal20.14c";

};

Plot()

{

D\_Sequence ()

{

R\_Date ("VERA-6353 TIMT-1 Rings 1001-1005 @1003",1166,35);

Gap (51);

R\_Date ("VERA-6354 TIMT-1 Rings 1052-1056 @1054",1156,36);

Gap (93);

R\_Date ("VERA-6355 TIMT-1 Rings 1145-1149 @1147",1095,38);

Gap (16);

Date("Last Ring RY1163");

};

};

Diagram, timeline

Description automatically generated

Alternative presentation of the wiggle-match results from Figure 4 in the main text. Hollow histograms show the non-modelled probability; smaller dark histograms show the modelled probability – the upper and lower lines under these indicate respectively the 68.3% hpd and 95.4% hpd modelled ranges. A values are the OxCal Agreement indices which should be >60.

***OxCal runfile for Figure 5b:***

Options()

{

Resolution=1;

Curve="intcal20.14c";

};

Plot()

{

D\_Sequence ("PAF-6 + KPAN-3 for BCPM and GPAN P. nigra at crossdate")

{

R\_Date("GrM-26362 GPAN-13c 1271-1274 crossdate @930.5",750,20)

{

color="red";

};

Gap(12.5);

Date("BCPM RY943 start CSZ and BCPM");

Gap(25);

Date("BCPM RY968 start PAF");

Gap(38);

R\_Combine("PAF-6+KPAN-3 RY1004-1008 @1006")

{

R\_Date("GrM-16750 RY1004-1008 @1006",620,20);

R\_Date("GrM-16752 RY1004-1008 @1006",588,19);

};

Gap(42);

R\_Combine("GPAN 1388-1392 crossdate @1048")

{

color="red";

R\_Date("GrM-26294 GPAN-13c 1388-1392 crossdate @1048",618,19);

R\_Date("GrM 26299 GPAN-9c 1388-1392 crossdate @1048 i",605,20);

};

Gap(30);

R\_Combine("PAF-6+KPAN-3 RY1076-1080 @1078")

{

R\_Date("GrM-16751 RY1076-1080 @1078",515,19);

R\_Date("GrM-16828 RY1076-1080 @1078",535,20);

};

Gap(11);

Date("RY 1089");

Gap(9);

R\_Date("GrM-19053 KPAN RY1096-1100 @1098",448,19);

Gap(7.5);

R\_Date("GrM-26300 GPAN-9c 1445-1450 crossdate @1105.5",441,18)

{

color="red";

};

Gap(42.5);

R\_Date("GrM-19054 KPAN RY1146-1150 @1148",367,19);

Gap(58);

Date("BCPM RY1206");

};

};

Chart, schematic

Description automatically generated

Alternative presentation of the wiggle-match results from Figure 5b in the main text. Hollow histograms show the non-modelled probability; smaller dark histograms show the modelled probability – the upper and lower lines under these indicate respectively the 68.3% hpd and 95.4% hpd modelled ranges. A values are the OxCal Agreement indices which should be >60.