

Supplemental Text 2. Description of Alternative Bayesian Models and Results.

Averbuch (40DV60; alternative)

An alternative Bayesian model was created for Averbuch by slightly modifying the primary model described in Cobb et alia (2015) and Supplemental Text 1.

Specifically, charcoal outlier modeling was not used, otherwise the model is identical to the primary model described in Supplemental Text 1.

The algorithm used for this alternative model can be directly derived from the model structure shown in Supplemental Text 4. The model shows good overall agreement ($A_{\text{model}}=103.7$) between the radiocarbon dates and the alternative model assumptions.

The alternative model estimates that the earliest activity on the site began in *cal AD 1235–1380 (95% probability)*, and probably in *cal AD 1255–1375 (68% probability)*.

The alternative model estimates that palisade construction began in *cal AD 1285–1395 (95% probability)*, and probably in *cal AD 1330–1395 (68% probability)*.

Palisade modifications and repair are estimated to have continued for the next *40–165 years (95% probability)*, and probably for *45–110 years (68% probability)*. Palisade modifications and repair are estimated to have ended in *cal AD 1430–1495 (95% probability)*, and probably in *cal AD 1440–1465 (68% probability)*. Activity on the site is estimated to have ended in *cal AD 1430–1495 (95% probability)*, probably in *cal AD 1440–1465 (68% probability)*, spanning *60–240 years (95% probability)*, probably for *70–210 years (68% probability)*.

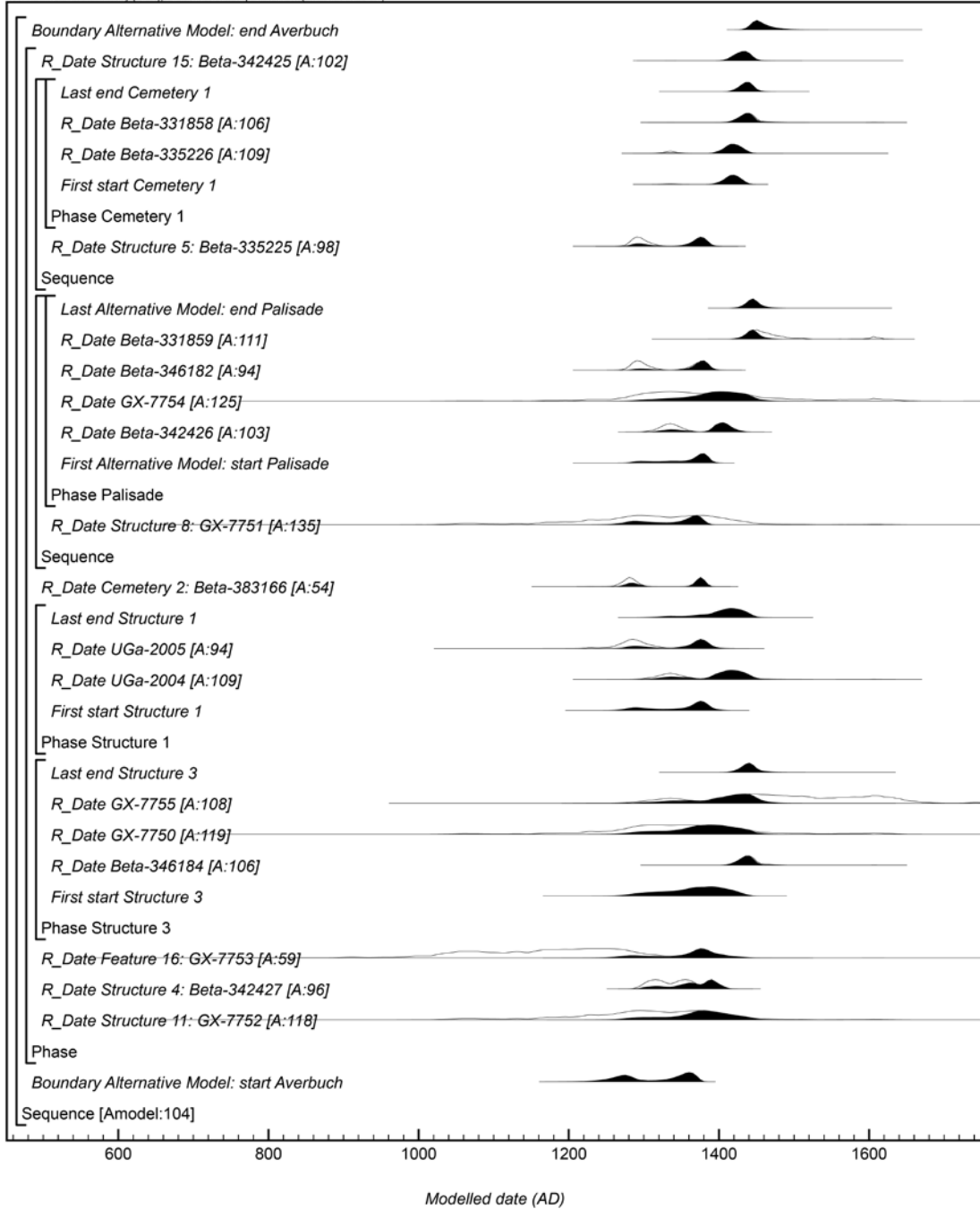


Figure S6. Results and structure of the alternative chronological model for Averbuch. The brackets and keywords define the model structure. The format is as described in Figure S1.

Brentwood Library (40WM210; alternative)

An alternative Bayesian model was created for Brentwood Library by slightly modifying the primary model described in Supplemental Text 1. Specifically, charcoal outlier modeling was not used, otherwise the model is identical to the primary model described in Supplemental Text 1.

The algorithm used for this alternative model can be directly derived from the model structure shown in Supplemental Text 4. The model shows good overall agreement ($A_{\text{model}}=103.6$) between the radiocarbon dates and the alternative model assumptions. The alternative model estimates that the earliest activity on the site began in *cal AD 1235–1405 (95% probability)*, and probably in *cal AD 1275–1370 (68% probability)*. The alternative model estimates that palisade construction began in *cal AD 1295–1420 (95% probability)*, and probably in *cal AD 1330–1410 (68% probability)*. Palisade modifications and repair are estimated to have continued for the next *30–190 years (95% probability)*, and probably for *50–140 years (68% probability)*. Palisade modifications and repair are estimated to have ended in *cal AD 1435–1515 (95% probability)*, and probably in *cal AD 1445–1480 (68% probability)*. Activity on the site is estimated to have ended in *cal AD 1440–1580 (95% probability)*, probably in *cal AD 1450–1505 (68% probability)*, spanning *50–310 years (95% probability)*, probably for *95–225 years (68% probability)*.

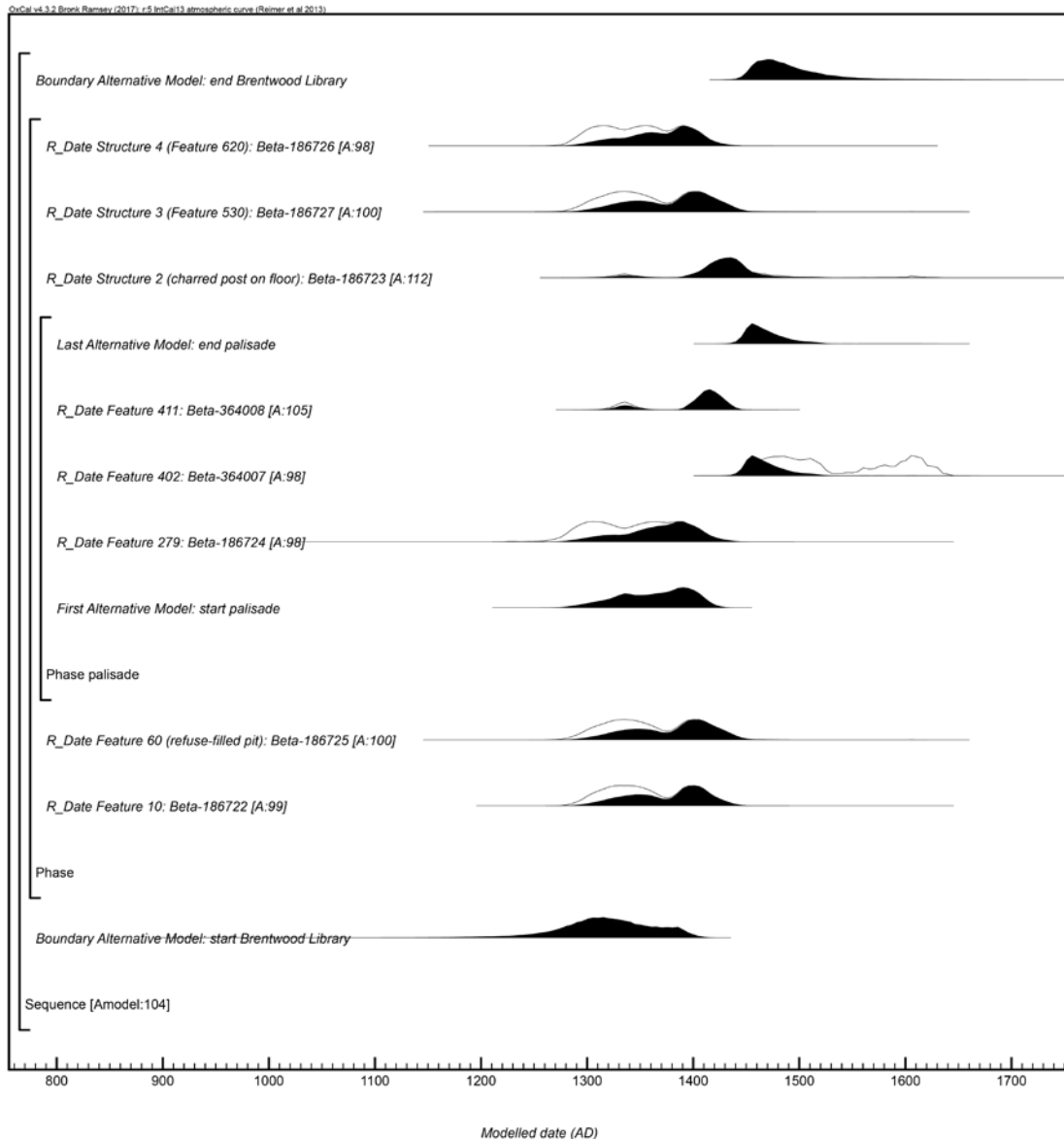


Figure S7. Results and structure of the alternative chronological model for Brentwood Library. The brackets and keywords define the model structure. The format is as described in Figure S1.

East Nashville Mounds (40DV4; alternative)

An alternative Bayesian model was created for East Nashville Mounds by slightly modifying the primary model described in Supplemental Text 1. Specifically, charcoal outlier modeling was not used, otherwise the model is identical to the

primary model described in Supplemental Text 1.

The algorithm used for this alternative model can be directly derived from the model structure shown in Supplemental Text 4. The model shows good overall agreement ($A_{\text{model}}=91.4$) between the radiocarbon dates and the alternative model assumptions. The alternative model estimates that the earliest activity on the site began in *cal AD 1105–1390 (95% probability)*, and probably in *cal AD 1170–1275 (68% probability)*. Activity on the site is estimated to have ended in *cal AD 1420–1565 (95% probability)*, probably in *cal AD 1445–1505 (68% probability)*, spanning *25–435 years (95% probability)*, probably for *185–330 years (68% probability)*.

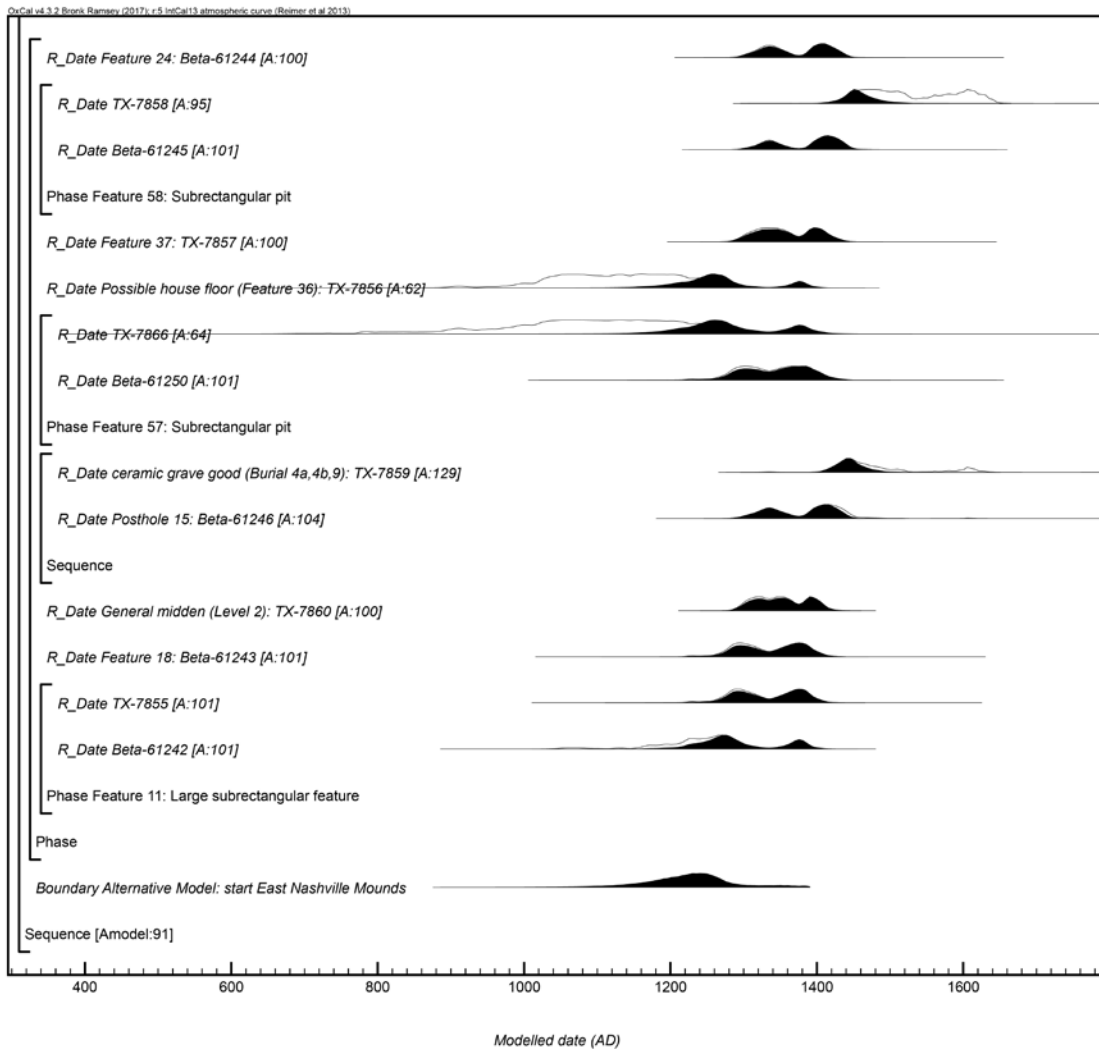


Figure S8. Results and structure of the alternative chronological model for East Nashville Mounds. The brackets and keywords define the model structure. The format is as described in Figure S1.

Rutherford-Kizer (40SU15; alternative)

An alternative Bayesian model was created for Rutherford-Kizer by slightly modifying the primary model described in Supplemental Text 1. Specifically, charcoal outlier modeling was not used, otherwise the model is identical to the primary model described in Supplemental Text 1.

The algorithm used for this alternative model can be directly derived from the model structure shown in Supplemental Text 4. The model shows good overall agreement ($A_{\text{model}}=69.2$) between the radiocarbon dates and the alternative model assumptions. The alternative model estimates that the earliest activity on the site began in *cal AD 1075–1265 (95% probability)*, and probably in *cal AD 1135–1255 (68% probability)*. The alternative model estimates that palisade construction began in *cal AD 1165–1305 (95% probability)*, and probably in *cal AD 1220–1285 (68% probability)*. Palisade modifications and repair are estimated to have continued for the next *55–245 years (95% probability)*, and probably for *115–210 years (68% probability)*. Palisade modifications and repair are estimated to have ended in *cal AD 1345–1495 (95% probability)*, and probably in *cal AD 1400–1460 (68% probability)*. Activity on the site is estimated to have ended in *cal AD 1345–1495 (95% probability)*, probably in *cal AD 1400–1460 (68% probability)*, spanning *85–310 years (95% probability)*, probably for *175–315 years (68% probability)*.

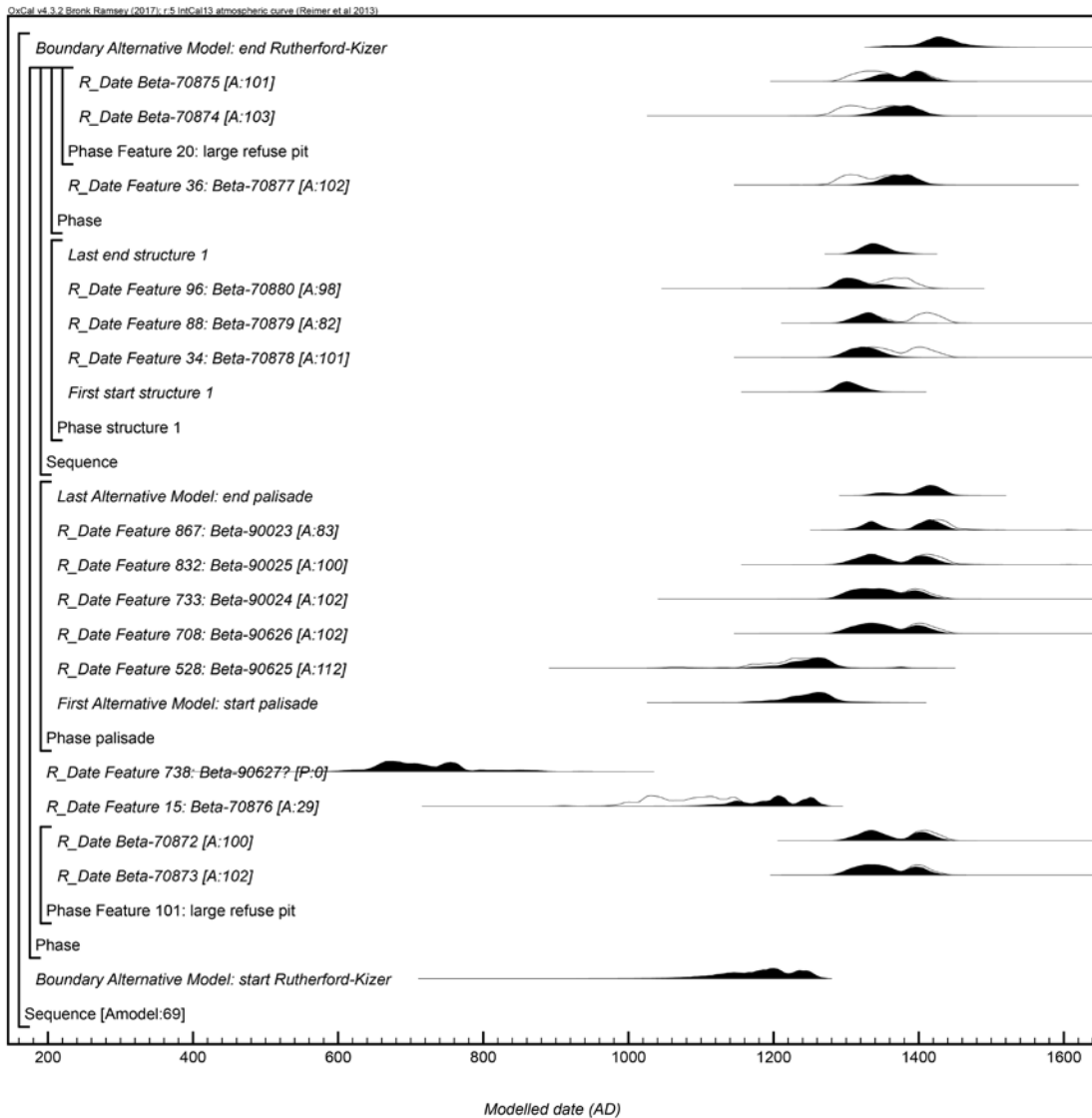


Figure S9. Results and structure of the alternative chronological model for Rutherford-Kizer. The brackets and keywords define the model structure. The format is as described in Figure S1.

Sellars (40W11; alternative)

An alternative Bayesian model was created for Sellars by slightly modifying the primary model described in Supplemental Text 1. Specifically, charcoal outlier modeling was not used, otherwise the model is identical to the primary model

described in Supplemental Text 1.

The algorithm used for this alternative model can be directly derived from the model structure shown in Supplemental Text 4. The model shows good overall agreement ($A_{\text{model}}=92$) between the radiocarbon dates and the alternative model assumptions.

The alternative model estimates that the earliest activity on the site began in *cal AD 915–1290 (95% probability)*, and probably in *cal AD 1095–1255 (68% probability)*.

The alternative model estimates that palisade construction began in *cal AD 1045–1310 (95% probability)*, and probably in *cal AD 1170–1275 (68% probability)*.

Palisade modifications and repair are estimated to have continued for the next *35–375 years (95% probability)*, and probably for *85–265 years (68% probability)*. Palisade modifications and repair are estimated to have ended in *cal AD 1315–1445 (95% probability)*, and probably in *cal AD 1325–1435 (68% probability)*. Activity on the site is estimated to have ended in *cal AD 1320–1585 (95% probability)*, probably in *cal AD 1335–1495 (68% probability)*, spanning *45–620 years (95% probability)*, probably for *165–410 years (68% probability)*.

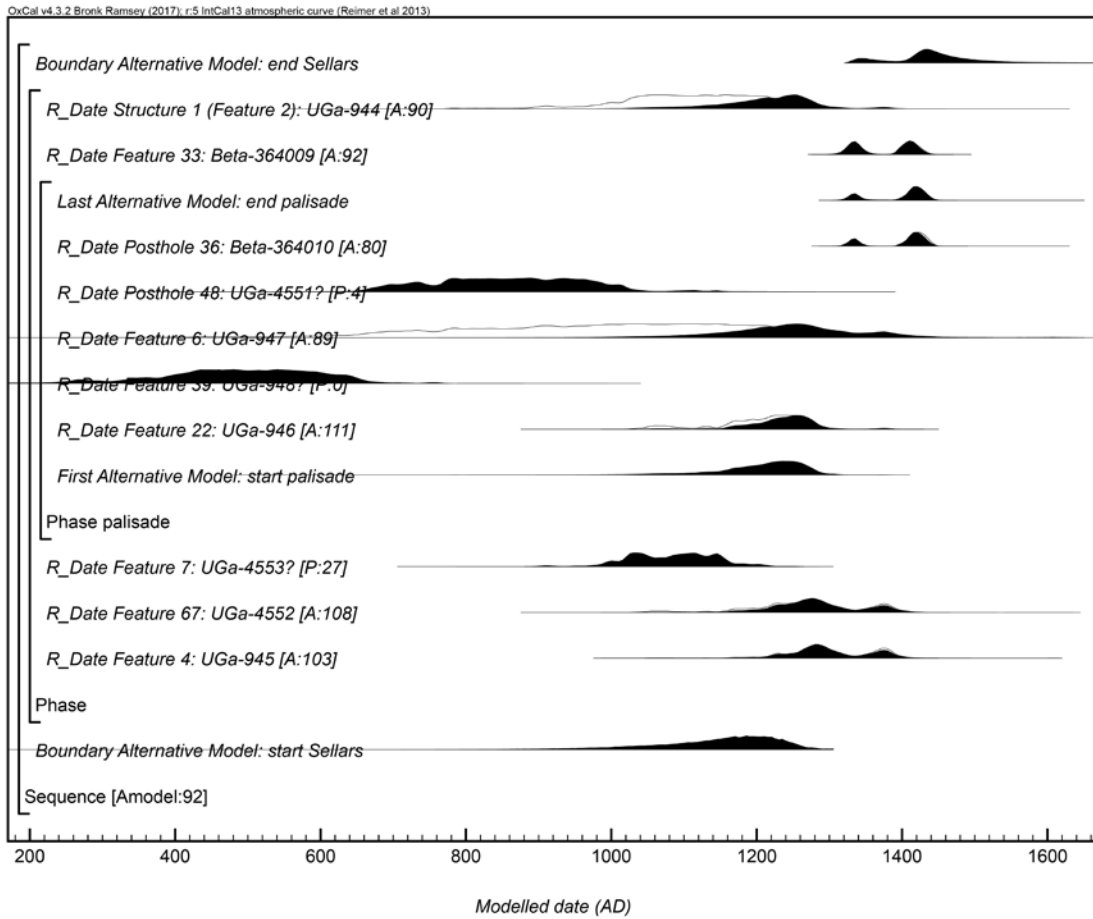


Figure S10. Results and structure of the alternative chronological model for Sellars.

The brackets and keywords define the model structure. The format is as described in

Figure S1.