

[Supplementary material]

Rethinking time, culture and socioeconomic organisation in Bronze Age Transylvania

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Table S1. Radiocarbon dates associated with the Wietenberg and Noua Cultures in Transylvania.

Sample ID	Site	Site type	Context	Material	Cultural affiliation	Date (BP)	$\delta^{13}\text{C}^1$	Citation
OS-100530	Geoagiu de Sus- <i>Fântâna Mare</i>	Settlement	Unit 3 Level 5	Charcoal	Wietenberg A	3610±25	-26.73	Quinn 2017
UGAMS-18994	Peșelca- <i>Cascadă</i>	Settlement	Unit 1 Level 6	Animal bone collagen	Wietenberg B	3570±25	-20.50	Quinn 2017
AA-103616	Sebeș- <i>Între Răstoace</i>	Cemetery	Burial 34	Human bone carbonate	Wietenberg B	3562±42	-23.7	Bălan <i>et al.</i> 2017
OS-107622	Stremț- <i>Fabrica de Alcool</i>	Settlement	Unit 3 Level 6	Charcoal	Wietenberg A	3560±30	-24.94	Quinn 2017
OS-107553	Stremț- <i>Fabrica de Alcool</i>	Settlement	Unit 3 Level 4	Charcoal	Wietenberg C	3560±25	-24.17	Quinn 2017
AA-103615	Sebeș- <i>Între Răstoace</i>	Cemetery	Burial 32	Human bone carbonate	Wietenberg B	3555±41	-23	Bălan <i>et al.</i> 2017
Hd-28203	Rotbav- <i>La Parut</i>	Settlement	Level 2		Wietenberg B	3547±24		Dietrich 2014
AA-103614	Sebeș- <i>Între Răstoace</i>	Cemetery	Burial 25	Human bone carbonate	Wietenberg B	3533±41	-24.2	Bălan <i>et al.</i> 2017
OS-113605	Peșelca- <i>Cascadă</i>	Settlement	Unit 1 Level 7	Charcoal	Wietenberg B	3530±20	-25.44	Quinn 2017
AA-103618	Sebeș- <i>Între Răstoace</i>	Cemetery	Burial 43	Human bone carbonate	Wietenberg B	3520±41	-19.3	Bălan <i>et al.</i> 2017
OS-107621	Stremț- <i>Fabrica de Alcool</i>	Settlement	Unit 3 Level 5	Charcoal	Wietenberg C	3520±30	-24.52	Quinn 2017
AA-103613	Sebeș- <i>Între Răstoace</i>	Cemetery	Burial 17	Human bone carbonate	Wietenberg B	3517±41	-21.9	Bălan <i>et al.</i> 2017
Bln-5626	Oarța de Sus- <i>Ghiile Botii</i>	Settlement	Pit 22	Charcoal	Wietenberg B	3507±37		Kacsó 2004
AA-103620	Sebeș- <i>Între Răstoace</i>	Cemetery	Burial 45	Human bone carbonate	Wietenberg B	3501±40	-20.4	Bălan <i>et al.</i> 2017
AA-103619	Sebeș- <i>Între Răstoace</i>	Cemetery	Burial 44	Human bone carbonate	Wietenberg B	3495±40	-19.8	Bălan <i>et al.</i> 2017
Hd-29143	Alba Iulia- <i>Recea/ Monolit</i>	Settlement		Charcoal	Wietenberg A	3492±23		New ⁴
OS-107620	Stremț- <i>Fabrica de Alcool</i>	Settlement	Unit 3 Level 5	Charcoal	Wietenberg C	3480±30	-24.94	Quinn 2017
OS-107554	Geoagiu de Sus- <i>Viile Satului</i>	Settlement	Unit 3 Level 7	Charcoal	Wietenberg C/D	3470±25	-25.41	Ciugudean & Quinn 2015
OS-108311	Micești- <i>Cigaș</i>	Settlement	Complex 7	Human bone collagen	Wietenberg D ^{*2}	3460±25	-19.92	Bălan & Quinn 2014
AA-103610	Sibișeni- <i>Deaspura Satului</i>	Settlement	Burial 4	Human bone carbonate	Wietenberg C	3454±46	-23.00	Ciugudean & Quinn 2015
Hd-29515	Alba Iulia- <i>Recea/ Monolit</i>	Settlement		Charcoal	Wietenberg C	3448±21		Ciugudean & Quinn 2015
AA-103611	Sebeș- <i>Între Răstoace</i>	Cemetery	Burial 2	Human bone carbonate	Wietenberg B	3445±41	-20.3	Bălan <i>et al.</i> 2017
UGAMS-12286	Pauleni- <i>Ciuc</i>	Settlement	PAC-25		Wietenberg B	3440±25		Whitlow <i>et al.</i> 2013
AA-103617	Sebeș- <i>Între Răstoace</i>	Cemetery	Burial 36	Human bone carbonate	Wietenberg B	3425±41	-22.1	Bălan <i>et al.</i> 2017
RoAMS 16-07	Luduș- <i>Fabrica de Cănepă</i>	Settlement	Complex 22	Animal bone collagen	Wietenberg C	3422±36		Berecki 2016
VOI 2	Voivodeni- <i>La Scoală</i>	Cemetery	Skeleton 5	Animal bone collagen	Wietenberg C	3412±42		Németh 2015

VOI 3	Voivodeni– <i>La Scoală</i>	Cemetery	Skeleton 4	Animal bone collagen	Wietenberg C	3407±38		Németh 2015
OS-108811	Micești- <i>Cigaș</i>	Settlement	Complex 11	Human bone collagen	Wietenberg D ^{*2}	3390±25	-20.31	Bălan & Quinn 2014
OS-107666	Geoagiu de Sus- <i>Viile Satului</i>	Settlement	Unit 3 Level 6	Charcoal	Wietenberg C/D	3370±45	-28.18	Ciugudean & Quinn 2015
RoAMS 16-03	Luduș- <i>Fabrica de Cânepă</i>	Settlement	Complex 5	Animal bone collagen	Wietenberg C	3346±73		Berecki 2016
RoAMS 16-06	Luduș- <i>Fabrica de Cânepă</i>	Settlement	Near Complex 22	Animal bone collagen	Wietenberg	3346±73		Berecki 2016
RoAMS 16-08	Luduș- <i>Fabrica de Cânepă</i>	Settlement	Complex 22	Animal bone collagen	Wietenberg C	3345±78		Berecki 2016
VOI 1	Voivodeni– <i>La Scoală</i>	Cemetery	Skeleton 1	Animal bone collagen	Wietenberg C	3337±38		Németh 2015
BIn-4622	Sighișoara- <i>Cartierul Viilor</i>	Settlement	Complex 254	Charcoal	Wietenberg C ^{*3}	3330±30		Popa & Boroffka 1996
OS-113646	Pețelca- <i>Cascadă</i>	Settlement	Unit 1 Level 3	Charcoal	Wietenberg C	3330±30	-25.40	Quinn 2017
DeA-5021	Gligorești- <i>Holoame</i>	Settlement		Animal bone collagen	Wietenberg/ Noua	3298±38		Gogâltan 2015
Ly-9190	Oarța de Sus- <i>Ghiile Botii</i>	Settlement	Pit 22	Carbonized seed	Wietenberg B	3265±30		Kacsó 2004
OS-107555	Geoagiu de Sus- <i>Viile Satului</i>	Settlement	Unit 3 Level 9	Charcoal	Wietenberg C/D	3260±35	-27.2	Ciugudean & Quinn 2015
DeA-5096	Vlaha- <i>Pad</i>	Settlement	Complex 1209		Wietenberg/ Noua	3249±30		Gogâltan 2015
DeA-5152	Vlaha- <i>Pad</i>	Settlement	Complex 0384		Wietenberg/ Noua	3236±41		Gogâltan 2015
Hd-28276	Rotbav- <i>La Parut</i>	Settlement	Level 4	Animal bone collagen	Noua	3196±30		Dietrich 2014
Hd-27967	Rotbav- <i>La Parut</i>	Settlement	Level 3	Animal bone collagen	Wietenberg C	3195±19		Dietrich 2014
RoAMS 16-04	Luduș- <i>Fabrica de Cânepă</i>	Settlement	Complex 6	Animal bone collagen	Wietenberg D	3186±73		Berecki 2016
Hd-27989	Rotbav- <i>La Parut</i>	Settlement	Level 3	Animal bone collagen	Wietenberg C	3174±16		Dietrich 2014
OS-113647	Pețelca- <i>Cascadă</i>	Settlement	Unit 2 Level 5	Charcoal	Wietenberg C	3170±20	-26.01	Quinn 2017
RoAMS 16-05	Luduș- <i>Fabrica de Cânepă</i>	Settlement	Surface	Animal bone collagen	Wietenberg	3147±66		Berecki 2016
OS-100527	Geoagiu de Sus- <i>Fântâna Mare</i>	Settlement	Unit 3 Level 2	Charcoal	Wietenberg C	3130±20	-26.25	Ciugudean & Quinn 2015
UGAMS-18993	Pețelca- <i>Cascadă</i>	Settlement	Unit 1 Level 5	Animal bone collagen	Wietenberg B	3110±25	-20.80	Quinn 2017
OS-100529	Geoagiu de Sus- <i>Fântâna Mare</i>	Settlement	Unit 3 Level 4	Charcoal	Wietenberg C	3100±25	-26.01	Ciugudean & Quinn 2015
Hd-27972	Rotbav- <i>La Parut</i>	Settlement	Level 4	Animal bone collagen	Noua	3085±23		Dietrich 2014
OS-113542	Teiuș- <i>Fântâna Viilor</i>	Settlement	Unit 1 Level 2	Charcoal	Noua?	3080±20	-28.22	Ciugudean & Quinn 2015
OS-100528	Geoagiu de Sus- <i>Fântâna Mare</i>	Settlement	Unit 3 Level 3	Charcoal	Wietenberg C	3070±25		Ciugudean & Quinn 2015
Hd-29163	Alba Iulia- <i>Bazin Olimpic</i>	Settlement	Pit 2	Animal bone collagen	Noua?	3062±21		Ciugudean & Quinn 2015

OS-108807	Mediaș-Valea Viilor	Cemetery		Human bone collagen	Noua	3060±25	-16.82	Ciugudean & Quinn 2015
OS-113602	Pețelca-Cascadă	Settlement	Unit 1 Level 5	Charcoal	Wietenberg B	3050±20	-24.67	Quinn 2017
Beta-317259	Florești-Polus	Cemetery	P. 22	Human bone collagen	Noua	3050±30		Rotea <i>et al.</i> 2014
Hd-28321	Rotbav-La Parut	Settlement	Level 5	Animal bone collagen	Noua	2994±19		Dietrich 2014

¹ = Directly measured.

² = The affiliation has been questioned, and may be Wietenberg C (G. Bălan *pers. comm.*).

³ = Recent re-evaluation has determined that there were no Noua elements, contra previous publications (N. Boroffka *pers. comm.*).

⁴ = Previously unpublished date.

OSM 2. Wietenberg all phases.

Log

OxCal v4.3.2 Bronk Ramsey (2017); r:5

IntCal13 atmospheric curve (Reimer *et al.* 2013)

Warning! Duplicate names - Duration

Warning! Duplicate names - Duration

Warning! Duplicate names - Duration

Start of Start Wietenberg Start()

Period of Start Wietenberg Transition()

End of Start Wietenberg End()

(Boundary Start Wietenberg

Start Wietenberg Boundary()

) Boundary Start Wietenberg

Start of Wietenberg A First()

End of Wietenberg A Last()

OS-100530 R_Date(3610,25)

68.2% probability

2020BC (22.8%) 1993BC

1983BC (45.4%) 1935BC

95.4% probability

2031BC (95.4%) 1897BC

OS-107622 R_Date(3560,35)

68.2% probability

1959BC (61.5%) 1878BC

1839BC (4.4%) 1828BC

1792BC (2.3%) 1785BC

95.4% probability

2021BC (5.3%) 1992BC

1983BC (70.3%) 1865BC

1850BC (19.8%) 1773BC

Hd-29143 R_Date(3492,23)

68.2% probability

1878BC (13.3%) 1861BC

1853BC (10.7%) 1839BC

1829BC (44.2%) 1771BC
95.4% probability
1886BC (95.4%) 1747BC
Duration Span()
(Phase Wietenberg A
Wietenberg A Phase()
) Phase Wietenberg A
Start of Wietenberg B First()
End of Wietenberg B Last()
UGAMS-18994 R_Date(3570,25)
68.2% probability
1946BC (68.2%) 1889BC
95.4% probability
2017BC (4.4%) 1995BC
1981BC (87.8%) 1877BC
1841BC (2.2%) 1825BC
1793BC (1.0%) 1784BC
AA-103616 R_Date(3562,42)
68.2% probability
2007BC (1.0%) 2004BC
1975BC (58.4%) 1877BC
1840BC (5.3%) 1826BC
1794BC (3.5%) 1784BC
95.4% probability
2026BC (95.4%) 1771BC
Hd-28203 R_Date(3547,24)
68.2% probability
1937BC (63.4%) 1879BC
1838BC (4.8%) 1830BC
95.4% probability
1954BC (69.5%) 1867BC
1848BC (25.9%) 1774BC
OS-113605 R_Date(3530,20)
68.2% probability

1904BC (30.4%) 1875BC

1842BC (22.1%) 1819BC

1798BC (15.7%) 1780BC

95.4% probability

1931BC (44.3%) 1862BC

1852BC (51.1%) 1772BC

AA-103613 R_Date(3517,41)

68.2% probability

1897BC (20.0%) 1860BC

1854BC (48.2%) 1771BC

95.4% probability

1950BC (94.3%) 1741BC

1710BC (1.1%) 1700BC

Bln-5626 R_Date(3507,37)

68.2% probability

1887BC (15.8%) 1861BC

1853BC (52.4%) 1772BC

95.4% probability

1931BC (94.3%) 1742BC

1709BC (1.1%) 1701BC

UGAMS-12286 R_Date(3440,25)

68.2% probability

1860BC (3.2%) 1854BC

1771BC (65.0%) 1692BC

95.4% probability

1877BC (14.0%) 1840BC

1823BC (6.0%) 1796BC

1783BC (75.5%) 1683BC

AA-103617 R_Date(3425,41)

68.2% probability

1861BC (3.2%) 1853BC

1772BC (65.0%) 1664BC

95.4% probability

1878BC (11.4%) 1838BC

1829BC (7.4%) 1792BC

1785BC (76.6%) 1629BC

Ly-9190 R_Date(3265,30)

68.2% probability

1608BC (21.0%) 1582BC

1561BC (47.2%) 1503BC

95.4% probability

1619BC (90.8%) 1495BC

1478BC (4.6%) 1458BC

UGAMS-18993 R_Date(3110,25)

68.2% probability

1421BC (39.3%) 1385BC

1340BC (28.9%) 1311BC

95.4% probability

1435BC (95.4%) 1297BC

OS-113602 R_Date(3050,20)

68.2% probability

1380BC (32.0%) 1343BC

1306BC (36.2%) 1266BC

95.4% probability

1396BC (91.2%) 1257BC

1251BC (4.2%) 1231BC

Duration Span()

(Phase Wietenberg B

Wietenberg B Phase()

) Phase Wietenberg B

Start of Wietenberg C First()

End of Wietenberg C Last()

OS-107621 R_Date(3520,30)

68.2% probability

1895BC (18.1%) 1869BC

1847BC (50.1%) 1775BC

95.4% probability

1929BC (95.4%) 1753BC

OS-107620 R_Date(3480,30)

68.2% probability

1877BC (26.6%) 1841BC

1822BC (19.4%) 1795BC

1782BC (22.2%) 1752BC

95.4% probability

1888BC (90.9%) 1737BC

1715BC (4.5%) 1697BC

OS-107554 R_Date(3470,25)

68.2% probability

1876BC (25.4%) 1842BC

1820BC (14.9%) 1797BC

1781BC (28.0%) 1745BC

95.4% probability

1882BC (89.2%) 1738BC

1714BC (6.2%) 1697BC

AA-103610 R_Date(3454,46)

68.2% probability

1877BC (17.2%) 1841BC

1821BC (10.8%) 1796BC

1782BC (26.4%) 1731BC

1721BC (13.8%) 1693BC

95.4% probability

1891BC (94.8%) 1658BC

1651BC (0.6%) 1645BC

Hd-29515 R_Date(3448,21)

68.2% probability

1865BC (10.4%) 1850BC

1773BC (37.1%) 1736BC

1716BC (20.8%) 1695BC

95.4% probability

1876BC (17.8%) 1841BC

1821BC (7.0%) 1797BC

1782BC (70.6%) 1689BC

RoAMS 16-07 R_Date(3422,36)

68.2% probability

1765BC (68.2%) 1665BC

95.4% probability

1876BC (8.9%) 1841BC

1821BC (4.1%) 1797BC

1782BC (82.4%) 1629BC

VOI 2 R_Date(3412,42)

68.2% probability

1755BC (68.2%) 1642BC

95.4% probability

1877BC (7.6%) 1841BC

1822BC (3.9%) 1796BC

1782BC (83.9%) 1619BC

VOI 3 R_Date(3407,38)

68.2% probability

1748BC (66.9%) 1658BC

1648BC (1.3%) 1646BC

95.4% probability

1874BC (5.0%) 1843BC

1815BC (1.7%) 1800BC

1779BC (88.7%) 1617BC

OS-107666 R_Date(3370,45)

68.2% probability

1738BC (12.3%) 1715BC

1696BC (55.9%) 1616BC

95.4% probability

1767BC (95.4%) 1530BC

RoAMS 16-03 R_Date(3346,73)

68.2% probability

1736BC (6.3%) 1716BC

1695BC (61.9%) 1531BC

95.4% probability

1876BC (3.0%) 1841BC

1820BC (1.6%) 1797BC

1781BC (88.6%) 1492BC

1483BC (2.3%) 1452BC

RoAMS 16-08 R_Date(3345,78)

68.2% probability

1737BC (6.7%) 1715BC

1695BC (61.5%) 1530BC

95.4% probability

1876BC (3.3%) 1841BC

1821BC (1.9%) 1796BC

1782BC (90.1%) 1451BC

VOI 1 R_Date(3337,38)

68.2% probability

1684BC (52.8%) 1607BC

1583BC (13.0%) 1559BC

1553BC (2.4%) 1548BC

95.4% probability

1736BC (3.9%) 1716BC

1695BC (91.5%) 1521BC

OS-113646 R_Date(3330,30)

68.2% probability

1661BC (45.9%) 1607BC

1583BC (22.3%) 1546BC

95.4% probability

1689BC (95.4%) 1528BC

Bln-4622 R_Date(3330,51)

68.2% probability

1682BC (3.0%) 1675BC

1666BC (37.5%) 1598BC

1587BC (27.7%) 1533BC

95.4% probability

1742BC (6.2%) 1709BC

1701BC (89.2%) 1501BC

OS-107555 R_Date(3260,25)

68.2% probability

1607BC (19.6%) 1583BC

1559BC (3.6%) 1553BC

1546BC (45.0%) 1501BC

95.4% probability

1614BC (91.3%) 1496BC

1476BC (4.1%) 1460BC

Hd-27967 R_Date(3195,19)

68.2% probability

1497BC (37.3%) 1473BC

1463BC (30.9%) 1442BC

95.4% probability

1501BC (95.4%) 1430BC

Hd-27989 R_Date(3174,16)

68.2% probability

1493BC (17.2%) 1481BC

1454BC (51.0%) 1427BC

95.4% probability

1497BC (95.4%) 1416BC

OS-113647 R_Date(3170,20)

68.2% probability

1492BC (13.6%) 1482BC

1454BC (54.6%) 1421BC

95.4% probability

1497BC (95.4%) 1413BC

OS-100527 R_Date(3130,20)

68.2% probability

1432BC (68.2%) 1396BC

95.4% probability

1447BC (79.3%) 1380BC

1341BC (16.1%) 1309BC

OS-100529 R_Date(3100,25)

68.2% probability

1414BC (32.6%) 1381BC

1343BC (35.6%) 1307BC
95.4% probability
1428BC (95.4%) 1293BC
OS-100528 R_Date(3070,25)
68.2% probability
1391BC (18.9%) 1368BC
1362BC (22.3%) 1336BC
1323BC (27.1%) 1291BC
95.4% probability
1409BC (95.4%) 1265BC
Duration Span()
(Phase Wietenberg C
Wietenberg C Phase()
) Phase Wietenberg C
Start of Wietenberg D First()
End of Wietenberg D Last()
OS-107554 R_Date(3470,25)
68.2% probability
1876BC (25.4%) 1842BC
1820BC (14.9%) 1797BC
1781BC (28.0%) 1745BC
95.4% probability
1882BC (89.2%) 1738BC
1714BC (6.2%) 1697BC
OS-108311 R_Date(3460,25)
68.2% probability
1872BC (20.9%) 1845BC
1813BC (6.6%) 1802BC
1777BC (32.6%) 1741BC
1711BC (8.0%) 1700BC
95.4% probability
1880BC (82.2%) 1732BC
1721BC (13.2%) 1693BC
OS-108811 R_Date(3390,25)

68.2% probability

1736BC (20.5%) 1716BC

1695BC (42.2%) 1658BC

1652BC (5.4%) 1645BC

95.4% probability

1745BC (95.4%) 1627BC

OS-107666 R_Date(3370,45)

68.2% probability

1738BC (12.3%) 1715BC

1696BC (55.9%) 1616BC

95.4% probability

1767BC (95.4%) 1530BC

OS-107555 R_Date(3260,25)

68.2% probability

1607BC (19.6%) 1583BC

1559BC (3.6%) 1553BC

1546BC (45.0%) 1501BC

95.4% probability

1614BC (91.3%) 1496BC

1476BC (4.1%) 1460BC

RoAMS 16-04 R_Date(3186,73)

68.2% probability

1599BC (3.2%) 1586BC

1534BC (61.6%) 1391BC

1337BC (3.4%) 1323BC

95.4% probability

1626BC (95.4%) 1277BC

Duration Span()

(Phase Wietenberg D

Wietenberg D Phase()

) Phase Wietenberg D

RoAMS 16-06 R_Date(3470,25)

68.2% probability

1876BC (25.4%) 1842BC

1820BC (14.9%) 1797BC

1781BC (28.0%) 1745BC

95.4% probability

1882BC (89.2%) 1738BC

1714BC (6.2%) 1697BC

RoAMS 16-05 R_Date(3460,25)

68.2% probability

1872BC (20.9%) 1845BC

1813BC (6.6%) 1802BC

1777BC (32.6%) 1741BC

1711BC (8.0%) 1700BC

95.4% probability

1880BC (82.2%) 1732BC

1721BC (13.2%) 1693BC

DeA-5021 R_Date(3298,38)

68.2% probability

1619BC (68.2%) 1529BC

95.4% probability

1682BC (1.0%) 1673BC

1666BC (94.4%) 1498BC

DeA-5096 R_Date(3249,30)

68.2% probability

1606BC (14.8%) 1583BC

1558BC (2.0%) 1554BC

1545BC (42.8%) 1496BC

1476BC (8.7%) 1460BC

95.4% probability

1612BC (79.7%) 1490BC

1485BC (15.7%) 1451BC

DeA-5152 R_Date(3236,41)

68.2% probability

1600BC (7.6%) 1586BC

1534BC (60.6%) 1447BC

95.4% probability

1612BC (95.4%) 1433BC
 (Phase Wietenberg
 Wietenberg Phase()
) Phase Wietenberg
 Start of End Wietenberg Start()
 Period of End Wietenberg Transition()
 End of End Wietenberg End()
 (Boundary End Wietenberg
 End Wietenberg Boundary()
) Boundary End Wietenberg
 Sum Wietenberg Sum()
 (Sequence
 Sequence()
) Sequence
 Posterior
 (MCMC(30000)
 Overall agreement 99.5%
 Dynamic agreement 99.8%
 Start Wietenberg Posterior
 68.2% probability
 1966BC (68.2%) 1903BC
 95.4% probability
 2004BC (95.4%) 1865BC
 Start of Start Wietenberg Posterior
 68.2% probability
 2017BC (68.2%) 1933BC
 95.4% probability
 2086BC (95.4%) 1911BC
 Period of Start Wietenberg Posterior
 68.2% probability
 0 (68.2%) 140
 95.4% probability
 0 (95.4%) 303
 End of Start Wietenberg Posterior

68.2% probability

1957BC (68.2%) 1842BC

95.4% probability

1990BC (95.4%) 1730BC

Start of Wietenberg A Posterior

68.2% probability

1958BC (68.2%) 1905BC

95.4% probability

2004BC (1.4%) 1996BC

1988BC (94.0%) 1888BC

End of Wietenberg A Posterior

68.2% probability

1843BC (68.2%) 1763BC

95.4% probability

1883BC (95.4%) 1748BC

OS-100530 Posterior

68.2% probability

1955BC (68.2%) 1899BC

95.4% probability

1987BC (95.4%) 1885BC

Agreement 79.9%

OS-107622 Posterior

68.2% probability

1941BC (52.8%) 1877BC

1841BC (9.1%) 1823BC

1795BC (6.3%) 1782BC

95.4% probability

1961BC (64.2%) 1861BC

1855BC (31.2%) 1771BC

Agreement 101.2%

Hd-29143 Posterior

68.2% probability

1877BC (10.1%) 1864BC

1852BC (10.1%) 1839BC

1829BC (48.0%) 1770BC
95.4% probability
1886BC (95.4%) 1747BC
Agreement 100.0%

Duration Posterior
68.2% probability
80 (68.2%) 176
95.4% probability
35 (95.4%) 218

Start of Wietenberg B Posterior
68.2% probability
1942BC (68.2%) 1901BC
95.4% probability
1974BC (95.4%) 1882BC

End of Wietenberg B Posterior
68.2% probability
1391BC (68.2%) 1331BC
95.4% probability
1401BC (95.4%) 1277BC

UGAMS-18994 Posterior
68.2% probability
1936BC (68.2%) 1887BC
95.4% probability
1966BC (87.9%) 1876BC
1843BC (4.8%) 1820BC
1797BC (2.7%) 1781BC
Agreement 104.7%

AA-103616 Posterior
68.2% probability
1940BC (48.4%) 1877BC
1841BC (11.1%) 1821BC
1797BC (8.7%) 1781BC
95.4% probability
1964BC (95.4%) 1762BC

Agreement 101.5%

Hd-28203 Posterior

68.2% probability

1926BC (54.2%) 1878BC

1839BC (9.3%) 1826BC

1792BC (4.7%) 1785BC

95.4% probability

1945BC (63.0%) 1868BC

1848BC (32.4%) 1775BC

Agreement 98.7%

OS-113605 Posterior

68.2% probability

1901BC (25.8%) 1875BC

1843BC (24.6%) 1816BC

1799BC (17.8%) 1779BC

95.4% probability

1926BC (39.7%) 1861BC

1853BC (55.7%) 1771BC

Agreement 99.6%

AA-103613 Posterior

68.2% probability

1892BC (15.6%) 1865BC

1851BC (52.6%) 1771BC

95.4% probability

1936BC (95.1%) 1742BC

1707BC (0.3%) 1705BC

Agreement 103.7%

Bln-5626 Posterior

68.2% probability

1885BC (12.4%) 1865BC

1852BC (55.8%) 1771BC

95.4% probability

1921BC (94.3%) 1741BC

1710BC (1.1%) 1701BC

Agreement 102.3%

UGAMS-12286 Posterior

68.2% probability

1771BC (68.2%) 1692BC

95.4% probability

1877BC (12.9%) 1840BC

1824BC (6.1%) 1795BC

1784BC (76.4%) 1682BC

Agreement 99.9%

AA-103617 Posterior

68.2% probability

1859BC (2.2%) 1853BC

1772BC (66.0%) 1663BC

95.4% probability

1877BC (10.7%) 1838BC

1828BC (7.2%) 1792BC

1786BC (77.4%) 1630BC

Agreement 100.5%

Ly-9190 Posterior

68.2% probability

1608BC (22.5%) 1581BC

1560BC (45.7%) 1504BC

95.4% probability

1621BC (91.6%) 1494BC

1477BC (3.8%) 1458BC

Agreement 99.9%

UGAMS-18993 Posterior

68.2% probability

1428BC (68.2%) 1381BC

95.4% probability

1438BC (73.9%) 1367BC

1361BC (21.5%) 1306BC

Agreement 103.1%

OS-113602 Posterior

68.2% probability

1391BC (68.2%) 1343BC

95.4% probability

1406BC (80.1%) 1334BC

1323BC (15.3%) 1276BC

Agreement 98.0%

Duration Posterior

68.2% probability

527 (68.2%) 605

95.4% probability

504 (95.4%) 661

Start of Wietenberg C Posterior

68.2% probability

1893BC (68.2%) 1843BC

95.4% probability

1926BC (95.4%) 1803BC

End of Wietenberg C Posterior

68.2% probability

1396BC (29.6%) 1367BC

1360BC (38.6%) 1316BC

95.4% probability

1406BC (95.4%) 1291BC

OS-107621 Posterior

68.2% probability

1891BC (14.5%) 1871BC

1846BC (53.7%) 1775BC

95.4% probability

1920BC (95.4%) 1753BC

Agreement 101.8%

OS-107620 Posterior

68.2% probability

1874BC (23.0%) 1841BC

1824BC (21.5%) 1792BC

1784BC (23.7%) 1751BC

95.4% probability

1888BC (90.8%) 1737BC

1715BC (4.6%) 1697BC

Agreement 99.8%

OS-107554 Posterior

68.2% probability

1874BC (23.2%) 1842BC

1821BC (15.7%) 1796BC

1782BC (29.4%) 1744BC

95.4% probability

1882BC (89.0%) 1737BC

1715BC (6.4%) 1697BC

Agreement 99.3%

AA-103610 Posterior

68.2% probability

1874BC (15.3%) 1842BC

1821BC (11.1%) 1796BC

1782BC (27.9%) 1730BC

1721BC (13.9%) 1693BC

95.4% probability

1889BC (95.4%) 1657BC

Agreement 100.3%

Hd-29515 Posterior

68.2% probability

1862BC (7.6%) 1851BC

1773BC (39.0%) 1736BC

1716BC (21.7%) 1695BC

95.4% probability

1876BC (16.6%) 1841BC

1822BC (7.1%) 1796BC

1782BC (71.7%) 1689BC

Agreement 99.3%

RoAMS 16-07 Posterior

68.2% probability

1765BC (68.2%) 1666BC

95.4% probability

1875BC (8.1%) 1841BC

1822BC (4.2%) 1796BC

1782BC (83.1%) 1629BC

Agreement 100.6%

VOI 2 Posterior

68.2% probability

1755BC (68.2%) 1644BC

95.4% probability

1876BC (7.1%) 1840BC

1824BC (4.2%) 1794BC

1783BC (84.1%) 1618BC

Agreement 100.3%

VOI 3 Posterior

68.2% probability

1749BC (68.2%) 1658BC

95.4% probability

1872BC (4.5%) 1844BC

1815BC (1.5%) 1800BC

1778BC (89.4%) 1618BC

Agreement 100.5%

OS-107666 Posterior

68.2% probability

1738BC (12.7%) 1714BC

1696BC (55.5%) 1617BC

95.4% probability

1766BC (95.4%) 1531BC

Agreement 100.4%

RoAMS 16-03 Posterior

68.2% probability

1736BC (6.9%) 1716BC

1695BC (42.2%) 1596BC

1589BC (19.1%) 1534BC

95.4% probability

1874BC (2.8%) 1842BC

1819BC (1.6%) 1796BC

1781BC (89.7%) 1494BC

1478BC (1.4%) 1458BC

Agreement 100.7%

RoAMS 16-08 Posterior

68.2% probability

1737BC (7.5%) 1714BC

1697BC (60.7%) 1533BC

95.4% probability

1874BC (3.2%) 1841BC

1822BC (2.1%) 1795BC

1783BC (88.1%) 1493BC

1481BC (1.9%) 1456BC

Agreement 100.9%

VOI 1 Posterior

68.2% probability

1685BC (55.5%) 1606BC

1583BC (12.7%) 1559BC

95.4% probability

1736BC (4.1%) 1716BC

1695BC (91.3%) 1524BC

Agreement 99.9%

OS-113646 Posterior

68.2% probability

1662BC (48.0%) 1605BC

1583BC (20.2%) 1548BC

95.4% probability

1690BC (95.4%) 1528BC

Agreement 99.7%

Bln-4622 Posterior

68.2% probability

1682BC (3.3%) 1675BC

1666BC (38.9%) 1600BC

1586BC (26.0%) 1535BC

95.4% probability

1742BC (6.5%) 1709BC

1701BC (88.9%) 1503BC

Agreement 100.1%

OS-107555 Posterior

68.2% probability

1607BC (21.9%) 1582BC

1558BC (2.3%) 1554BC

1546BC (44.0%) 1502BC

95.4% probability

1615BC (92.3%) 1495BC

1475BC (3.1%) 1461BC

Agreement 99.0%

Hd-27967 Posterior

68.2% probability

1497BC (40.0%) 1472BC

1463BC (28.2%) 1444BC

95.4% probability

1502BC (95.4%) 1431BC

Agreement 99.8%

Hd-27989 Posterior

68.2% probability

1493BC (19.2%) 1480BC

1455BC (49.0%) 1427BC

95.4% probability

1497BC (95.4%) 1418BC

Agreement 98.3%

OS-113647 Posterior

68.2% probability

1493BC (16.4%) 1480BC

1454BC (51.8%) 1422BC

95.4% probability

1497BC (95.4%) 1415BC
 Agreement 98.5%
 OS-100527 Posterior
 68.2% probability
 1432BC (68.2%) 1399BC
 95.4% probability
 1451BC (89.3%) 1378BC
 1341BC (6.1%) 1319BC
 Agreement 106.6%
 OS-100529 Posterior
 68.2% probability
 1422BC (60.7%) 1375BC
 1338BC (7.5%) 1327BC
 95.4% probability
 1431BC (95.4%) 1306BC
 Agreement 100.5%
 OS-100528 Posterior
 68.2% probability
 1406BC (68.2%) 1341BC
 95.4% probability
 1416BC (95.4%) 1291BC
 Agreement 100.2%
 Duration Posterior
 68.2% probability
 472 (68.2%) 557
 95.4% probability
 433 (95.4%) 603
 Start of Wietenberg D Posterior
 68.2% probability
 1878BC (43.8%) 1840BC
 1821BC (15.2%) 1800BC
 1776BC (9.2%) 1762BC
 95.4% probability
 1883BC (95.4%) 1747BC

End of Wietenberg D Posterior

68.2% probability

1531BC (68.2%) 1421BC

95.4% probability

1601BC (93.8%) 1371BC

1341BC (1.6%) 1324BC

OS-107554 Posterior

68.2% probability

1875BC (23.6%) 1842BC

1820BC (15.3%) 1796BC

1782BC (29.3%) 1744BC

95.4% probability

1882BC (89.0%) 1737BC

1715BC (6.4%) 1697BC

Agreement 99.4%

OS-108311 Posterior

68.2% probability

1871BC (19.2%) 1845BC

1813BC (6.8%) 1802BC

1778BC (33.8%) 1740BC

1712BC (8.5%) 1699BC

95.4% probability

1879BC (82.1%) 1732BC

1721BC (13.3%) 1693BC

Agreement 99.3%

OS-108811 Posterior

68.2% probability

1736BC (20.8%) 1715BC

1695BC (43.0%) 1657BC

1651BC (4.4%) 1646BC

95.4% probability

1745BC (95.4%) 1627BC

Agreement 99.6%

OS-107666 Posterior

68.2% probability

1737BC (12.5%) 1714BC

1697BC (55.7%) 1618BC

95.4% probability

1766BC (95.4%) 1531BC

Agreement 100.4%

OS-107555 Posterior

68.2% probability

1607BC (21.7%) 1583BC

1557BC (2.0%) 1554BC

1546BC (44.5%) 1501BC

95.4% probability

1615BC (92.3%) 1495BC

1475BC (3.1%) 1461BC

Agreement 99.2%

RoAMS 16-04 Posterior

68.2% probability

1602BC (5.2%) 1586BC

1534BC (63.0%) 1407BC

95.4% probability

1631BC (95.4%) 1321BC

Agreement 105.3%

Duration Posterior

68.2% probability

275 (68.2%) 421

95.4% probability

200 (95.4%) 497

RoAMS 16-06 Posterior

68.2% probability

1875BC (23.6%) 1842BC

1821BC (15.4%) 1796BC

1782BC (29.2%) 1744BC

95.4% probability

1882BC (89.1%) 1737BC

1715BC (6.3%) 1697BC

Agreement 99.4%

RoAMS 16-05 Posterior

68.2% probability

1871BC (19.1%) 1845BC

1814BC (7.6%) 1801BC

1778BC (33.3%) 1740BC

1712BC (8.2%) 1699BC

95.4% probability

1879BC (82.2%) 1732BC

1721BC (13.2%) 1693BC

Agreement 99.2%

DeA-5021 Posterior

68.2% probability

1620BC (68.2%) 1530BC

95.4% probability

1681BC (0.8%) 1674BC

1667BC (94.6%) 1499BC

Agreement 99.9%

DeA-5096 Posterior

68.2% probability

1606BC (16.8%) 1583BC

1558BC (1.6%) 1555BC

1545BC (45.7%) 1496BC

1472BC (4.1%) 1465BC

95.4% probability

1613BC (95.4%) 1451BC

Agreement 99.2%

DeA-5152 Posterior

68.2% probability

1603BC (10.1%) 1585BC

1535BC (58.1%) 1450BC

95.4% probability

1614BC (95.4%) 1435BC

Agreement 99.1%

End Wietenberg Posterior

68.2% probability

1433BC (68.2%) 1309BC

95.4% probability

1531BC (95.4%) 1280BC

Start of End Wietenberg Posterior

68.2% probability

1597BC (68.2%) 1312BC

95.4% probability

1822BC (95.4%) 1293BC

Period of End Wietenberg Posterior

68.2% probability

0 (66.6%) 314

320 (0.9%) 327

335 (0.7%) 341

95.4% probability

0 (95.4%) 603

End of End Wietenberg Posterior

68.2% probability

1349BC (68.2%) 1227BC

95.4% probability

1379BC (95.4%) 1147BC

Sum Wietenberg Posterior

) MCMC(960000)

Text

Start of Start Wietenberg

Period of Start Wietenberg

End of Start Wietenberg

Start Wietenberg

Start of Wietenberg A

End of Wietenberg A

OS-100530 -2018 -1933.5 -2029 -1895.5

OS-107622	-1957.5	-1783.5	-2019	-1771.5
Hd-29143	-1876.5	-1769.5	-1884.5	-1745.5

Duration

Wietenberg A

Start of Wietenberg B

End of Wietenberg B

UGAMS-18994	-1944	-1887.5	-2015.5	-1782
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AA-103616	-2005.5	-1782	-2024	-1769.5
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Hd-28203	-1935.5	-1828.5	-1952	-1772.5
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OS-113605	-1902	-1778.5	-1929.5	-1770
-----------	-------	---------	---------	-------

AA-103613	-1895	-1769.5	-1948.5	-1698.5
-----------	-------	---------	---------	---------

Bln-5626	-1885.5	-1770	-1929.5	-1699.5
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UGAMS-12286	-1858	-1690	-1875	-1681.5
-------------	-------	-------	-------	---------

AA-103617	-1859.5	-1662	-1876.5	-1627
-----------	---------	-------	---------	-------

Ly-9190	-1606	-1501.5	-1617.5	-1456
---------	-------	---------	---------	-------

UGAMS-18993	-1419	-1309	-1433	-1295
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OS-113602	-1378	-1264.5	-1394	-1229.5
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Duration

Wietenberg B

Start of Wietenberg C

End of Wietenberg C

OS-107621	-1893	-1773.5	-1927	-1751
-----------	-------	---------	-------	-------

OS-107620	-1875	-1750	-1886.5	-1695
-----------	-------	-------	---------	-------

OS-107554	-1874.5	-1743	-1880	-1695.5
-----------	---------	-------	-------	---------

AA-103610	-1875	-1691	-1889	-1643.5
-----------	-------	-------	-------	---------

Hd-29515	-1863	-1693.5	-1874.5	-1687.5
----------	-------	---------	---------	---------

RoAMS 16-07-	1763.5	-1663.5	-1874.5	-1627
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VOI 2	-1753	-1640.5	-1875	-1617
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VOI 3	-1746.5	-1644	-1872	-1615.5
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OS-107666	-1736	-1614.5	-1765	-1528
-----------	-------	---------	-------	-------

RoAMS 16-03-	1734	-1529.5	-1874.5	-1450.5
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RoAMS 16-08-	1735	-1528	-1874.5	-1449
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VOI 1	-1682.5	-1546	-1734.5	-1519.5
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OS-113646	-1659.5	-1544	-1687.5	-1526
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Bln-4622	-1680	-1531	-1740.5	-1499.5	
OS-107555	-1605	-1499	-1612.5	-1458	
Hd-27967	-1495	-1440	-1499.5	-1428.5	
Hd-27989	-1491	-1425	-1495	-1414.5	
OS-113647	-1490.5		-1419	-1495.5	-1411.5
OS-100527	-1430.5		-1394	-1445.5	-1307.5
OS-100529	-1412	-1305	-1426	-1291.5	
OS-100528	-1389.5		-1289.5	-1407.5	-1263.5

Duration

Wietenberg C

Start of Wietenberg D

End of Wietenberg D

OS-107554	-1874.5		-1743	-1880	-1695.5
OS-108311	-1870	-1698	-1878.5	-1691	
OS-108811	-1734.5		-1643.5	-1743.5	-1625
OS-107666	-1736	-1614.5		-1765	-1528
OS-107555	-1605	-1499	-1612.5	-1458	
RoAMS 16-04-1597.5			-1321	-1624.5	-1275.5

Duration

Wietenberg D

RoAMS 16-06-1874.5			-1743	-1880	-1695.5
RoAMS 16-05-1870	-1698		-1878.5	-1691	
DeA-5021	-1617.5		-1527.5	-1680.5	-1496.5
DeA-5096	-1604.5		-1458	-1610	-1449
DeA-5152	-1598.5		-1445	-1610.5	-1431.5

Wietenberg

Start of End Wietenberg

Period of End Wietenberg

End of End Wietenberg

End Wietenberg

Sum Wietenberg

Sequence()

@Start Wietenberg	-1964	-1901.5		-2002	-1863.5
@Start of Start Wietenberg		-2015.5		-1931.5	-2084.5
					-1909

@Period of Start Wietenberg 0	139.5	0	302.5	
@End of Start Wietenberg	-1955.5	-1840.5	-1988.5	-1728.5
@Start of Wietenberg A	-1956	-1903	-2002.5	-1886
@End of Wietenberg A	-1841.5	-1761.5	-1881	-1746
@OS-100530	-1953.5	-1897	-1985	-1883.5
@OS-107622	-1939.5	-1780.5	-1959.5	-1769
@Hd-29143	-1875.5	-1768.5	-1884.5	-1745.5
@Duration	79.5	175.5	34.5	218
@Start of Wietenberg B	-1940	-1899.5	-1972.5	-1880
@End of Wietenberg B	-1389.5	-1329.5	-1399	-1275
@UGAMS-18994	-1934.5	-1885	-1964.5	-1779
@AA-103616	-1938.5	-1779	-1962.5	-1760.5
@Hd-28203	-1924.5	-1783	-1943	-1773
@OS-113605	-1899	-1777.5	-1924	-1769.5
@AA-103613	-1890	-1769.5	-1934	-1703
@Bln-5626	-1883.5	-1769	-1919.5	-1699.5
@UGAMS-12286	-1769.5	-1690	-1875	-1680.5
@AA-103617	-1857.5	-1661	-1875.5	-1628
@Ly-9190	-1606	-1502.5	-1619	-1456.5
@UGAMS-18993	-1426.5	-1379	-1436	-1304.5
@OS-113602	-1389.5	-1341	-1404.5	-1274
@Duration	526.5	605	504	661
@Start of Wietenberg C	-1891.5	-1841.5	-1924.5	-1801.5
@End of Wietenberg C	-1394	-1314.5	-1404.5	-1289.5
@OS-107621	-1889.5	-1773.5	-1918.5	-1751.5
@OS-107620	-1872.5	-1749	-1886	-1695
@OS-107554	-1872.5	-1742.5	-1880.5	-1695
@AA-103610	-1872	-1691.5	-1887.5	-1655.5
@Hd-29515	-1860.5	-1693.5	-1874	-1687
@RoAMS 16-07	-1763	-1664	-1873.5	-1627.5
@VOI 2	-1753	-1642.5	-1874	-1616.5
@VOI 3	-1747	-1656	-1870.5	-1616
@OS-107666	-1736	-1615.5	-1764	-1529
@RoAMS 16-03	-1734.5	-1532.5	-1872	-1456.5

@RoAMS 16-08	-1735.5	-1531	-1872.5	-1454
@VOI 1	-1683	-1557.5	-1734.5	-1522.5
@OS-113646	-1660.5	-1546	-1688	-1526
@Bln-4622	-1680	-1533.5	-1740.5	-1501
@OS-107555	-1605	-1500	-1613.5	-1459
@Hd-27967	-1495	-1442	-1500.5	-1429.5
@Hd-27989	-1491.5	-1425	-1495	-1416
@OS-113647	-1491	-1420.5	-1495	-1413
@OS-100527	-1430	-1397.5	-1449	-1317
@OS-100529	-1420	-1325.5	-1429.5	-1304.5
@OS-100528	-1404.5	-1339.5	-1414	-1289
@Duration	471.5	557	432.5	602.5
@Start of Wietenberg D	-1876.5	-1760.5	-1881	-1745.5
@End of Wietenberg D	-1529.5	-1419.5	-1599	-1322
@OS-107554	-1873	-1742.5	-1880.5	-1695
@OS-108311	-1869.5	-1697.5	-1877.5	-1691
@OS-108811	-1734.5	-1644	-1743.5	-1625.5
@OS-107666	-1735.5	-1616	-1764.5	-1529.5
@OS-107555	-1605.5	-1499.5	-1613.5	-1459
@RoAMS 16-04	-1600.5	-1405	-1629.5	-1319
@Duration	275	421	199.5	496.5
@RoAMS 16-06	-1873	-1742.5	-1880.5	-1695
@RoAMS 16-05	-1869.5	-1697.5	-1877.5	-1691
@DeA-5021	-1618	-1528.5	-1679	-1497
@DeA-5096	-1604.5	-1463	-1611.5	-1449.5
@DeA-5152	-1601	-1448.5	-1612	-1433
@End Wietenberg	-1431.5	-1307	-1529.5	-1278.5
@Start of End Wietenberg	-1595	-1310.5	-1820	-1291
@Period of End Wietenberg	0	341	0	602.5
@End of End Wietenberg	-1347.5	-1225.5	-1377	-1145
@Sum Wietenberg				

OSM 3. Wietenberg no phases.

Log

OxCal v4.3.2 Bronk Ramsey (2017); r:5

IntCal13 atmospheric curve (Reimer *et al.* 2013)

Start of Start Wietenberg Start()

Period of Start Wietenberg Transition()

End of Start Wietenberg End()

(Boundary Start Wietenberg

Start Wietenberg Boundary()

) Boundary Start Wietenberg

Start of Wietenberg First()

End of Wietenberg Last()

OS-100530 R_Date(3610,25)

68.2% probability

2020BC (22.8%) 1993BC

1983BC (45.4%) 1935BC

95.4% probability

2031BC (95.4%) 1897BC

UGAMS-18994 R_Date(3570,25)

68.2% probability

1946BC (68.2%) 1889BC

95.4% probability

2017BC (4.4%) 1995BC

1981BC (87.8%) 1877BC

1841BC (2.2%) 1825BC

1793BC (1.0%) 1784BC

AA-103616 R_Date(3562,42)

68.2% probability

2007BC (1.0%) 2004BC

1975BC (58.4%) 1877BC

1840BC (5.3%) 1826BC

1794BC (3.5%) 1784BC

95.4% probability

2026BC (95.4%) 1771BC

OS-107622 R_Date(3560,35)

68.2% probability

1959BC (61.5%) 1878BC

1839BC (4.4%) 1828BC

1792BC (2.3%) 1785BC

95.4% probability

2021BC (5.3%) 1992BC

1983BC (70.3%) 1865BC

1850BC (19.8%) 1773BC

Hd-28203 R_Date(3547,24)

68.2% probability

1937BC (63.4%) 1879BC

1838BC (4.8%) 1830BC

95.4% probability

1954BC (69.5%) 1867BC

1848BC (25.9%) 1774BC

OS-113605 R_Date(3530,20)

68.2% probability

1904BC (30.4%) 1875BC

1842BC (22.1%) 1819BC

1798BC (15.7%) 1780BC

95.4% probability

1931BC (44.3%) 1862BC

1852BC (51.1%) 1772BC

OS-107621 R_Date(3520,30)

68.2% probability

1895BC (18.1%) 1869BC

1847BC (50.1%) 1775BC

95.4% probability

1929BC (95.4%) 1753BC

AA-103613 R_Date(3517,41)

68.2% probability

1897BC (20.0%) 1860BC

1854BC (48.2%) 1771BC

95.4% probability

1950BC (94.3%) 1741BC
1710BC (1.1%) 1700BC
Bln-5626 R_Date(3507,37)
68.2% probability
1887BC (15.8%) 1861BC
1853BC (52.4%) 1772BC
95.4% probability
1931BC (94.3%) 1742BC
1709BC (1.1%) 1701BC
Hd-29143 R_Date(3492,23)
68.2% probability
1878BC (13.3%) 1861BC
1853BC (10.7%) 1839BC
1829BC (44.2%) 1771BC
95.4% probability
1886BC (95.4%) 1747BC
OS-107620 R_Date(3480,30)
68.2% probability
1877BC (26.6%) 1841BC
1822BC (19.4%) 1795BC
1782BC (22.2%) 1752BC
95.4% probability
1888BC (90.9%) 1737BC
1715BC (4.5%) 1697BC
OS-107554 R_Date(3470,25)
68.2% probability
1876BC (25.4%) 1842BC
1820BC (14.9%) 1797BC
1781BC (28.0%) 1745BC
95.4% probability
1882BC (89.2%) 1738BC
1714BC (6.2%) 1697BC
OS-108311 R_Date(3460,25)
68.2% probability

1872BC (20.9%) 1845BC

1813BC (6.6%) 1802BC

1777BC (32.6%) 1741BC

1711BC (8.0%) 1700BC

95.4% probability

1880BC (82.2%) 1732BC

1721BC (13.2%) 1693BC

AA-103610 R_Date(3454,46)

68.2% probability

1877BC (17.2%) 1841BC

1821BC (10.8%) 1796BC

1782BC (26.4%) 1731BC

1721BC (13.8%) 1693BC

95.4% probability

1891BC (94.8%) 1658BC

1651BC (0.6%) 1645BC

Hd-29515 R_Date(3448,21)

68.2% probability

1865BC (10.4%) 1850BC

1773BC (37.1%) 1736BC

1716BC (20.8%) 1695BC

95.4% probability

1876BC (17.8%) 1841BC

1821BC (7.0%) 1797BC

1782BC (70.6%) 1689BC

UGAMS-12286 R_Date(3440,25)

68.2% probability

1860BC (3.2%) 1854BC

1771BC (65.0%) 1692BC

95.4% probability

1877BC (14.0%) 1840BC

1823BC (6.0%) 1796BC

1783BC (75.5%) 1683BC

AA-103617 R_Date(3425,41)

68.2% probability

1861BC (3.2%) 1853BC

1772BC (65.0%) 1664BC

95.4% probability

1878BC (11.4%) 1838BC

1829BC (7.4%) 1792BC

1785BC (76.6%) 1629BC

RoAMS 16-07 R_Date(3422,36)

68.2% probability

1765BC (68.2%) 1665BC

95.4% probability

1876BC (8.9%) 1841BC

1821BC (4.1%) 1797BC

1782BC (82.4%) 1629BC

VOI 2 R_Date(3412,42)

68.2% probability

1755BC (68.2%) 1642BC

95.4% probability

1877BC (7.6%) 1841BC

1822BC (3.9%) 1796BC

1782BC (83.9%) 1619BC

VOI 3 R_Date(3407,38)

68.2% probability

1748BC (66.9%) 1658BC

1648BC (1.3%) 1646BC

95.4% probability

1874BC (5.0%) 1843BC

1815BC (1.7%) 1800BC

1779BC (88.7%) 1617BC

OS-108811 R_Date(3390,25)

68.2% probability

1736BC (20.5%) 1716BC

1695BC (42.2%) 1658BC

1652BC (5.4%) 1645BC

95.4% probability

1745BC (95.4%) 1627BC

OS-107666 R_Date(3370,45)

68.2% probability

1738BC (12.3%) 1715BC

1696BC (55.9%) 1616BC

95.4% probability

1767BC (95.4%) 1530BC

RoAMS 16-03 R_Date(3346,73)

68.2% probability

1736BC (6.3%) 1716BC

1695BC (61.9%) 1531BC

95.4% probability

1876BC (3.0%) 1841BC

1820BC (1.6%) 1797BC

1781BC (88.6%) 1492BC

1483BC (2.3%) 1452BC

RoAMS 16-08 R_Date(3345,78)

68.2% probability

1737BC (6.7%) 1715BC

1695BC (61.5%) 1530BC

95.4% probability

1876BC (3.3%) 1841BC

1821BC (1.9%) 1796BC

1782BC (90.1%) 1451BC

VOI 1 R_Date(3337,38)

68.2% probability

1684BC (52.8%) 1607BC

1583BC (13.0%) 1559BC

1553BC (2.4%) 1548BC

95.4% probability

1736BC (3.9%) 1716BC

1695BC (91.5%) 1521BC

Ly-9190 R_Date(3265,30)

68.2% probability

1608BC (21.0%) 1582BC

1561BC (47.2%) 1503BC

95.4% probability

1619BC (90.8%) 1495BC

1478BC (4.6%) 1458BC

Bln-4622 R_Date(3330,51)

68.2% probability

1682BC (3.0%) 1675BC

1666BC (37.5%) 1598BC

1587BC (27.7%) 1533BC

95.4% probability

1742BC (6.2%) 1709BC

1701BC (89.2%) 1501BC

OS-113646 R_Date(3330,30)

68.2% probability

1661BC (45.9%) 1607BC

1583BC (22.3%) 1546BC

95.4% probability

1689BC (95.4%) 1528BC

OS-107555 R_Date(3260,25)

68.2% probability

1607BC (19.6%) 1583BC

1559BC (3.6%) 1553BC

1546BC (45.0%) 1501BC

95.4% probability

1614BC (91.3%) 1496BC

1476BC (4.1%) 1460BC

Hd-27967 R_Date(3195,19)

68.2% probability

1497BC (37.3%) 1473BC

1463BC (30.9%) 1442BC

95.4% probability

1501BC (95.4%) 1430BC

RoAMS 16-04 R_Date(3186,73)

68.2% probability

1599BC (3.2%) 1586BC

1534BC (61.6%) 1391BC

1337BC (3.4%) 1323BC

95.4% probability

1626BC (95.4%) 1277BC

Hd-27989 R_Date(3174,16)

68.2% probability

1493BC (17.2%) 1481BC

1454BC (51.0%) 1427BC

95.4% probability

1497BC (95.4%) 1416BC

OS-113647 R_Date(3170,20)

68.2% probability

1492BC (13.6%) 1482BC

1454BC (54.6%) 1421BC

95.4% probability

1497BC (95.4%) 1413BC

OS-100527 R_Date(3130,20)

68.2% probability

1432BC (68.2%) 1396BC

95.4% probability

1447BC (79.3%) 1380BC

1341BC (16.1%) 1309BC

UGAMS-18993 R_Date(3110,25)

68.2% probability

1421BC (39.3%) 1385BC

1340BC (28.9%) 1311BC

95.4% probability

1435BC (95.4%) 1297BC

OS-100529 R_Date(3100,25)

68.2% probability

1414BC (32.6%) 1381BC

1343BC (35.6%) 1307BC
 95.4% probability
 1428BC (95.4%) 1293BC
 OS-100528 R_Date(3070,25)
 68.2% probability
 1391BC (18.9%) 1368BC
 1362BC (22.3%) 1336BC
 1323BC (27.1%) 1291BC
 95.4% probability
 1409BC (95.4%) 1265BC
 OS-113602 R_Date(3050,20)
 68.2% probability
 1380BC (32.0%) 1343BC
 1306BC (36.2%) 1266BC
 95.4% probability
 1396BC (91.2%) 1257BC
 1251BC (4.2%) 1231BC
 RoAMS 16-06 R_Date(3470,25)
 68.2% probability
 1876BC (25.4%) 1842BC
 1820BC (14.9%) 1797BC
 1781BC (28.0%) 1745BC
 95.4% probability
 1882BC (89.2%) 1738BC
 1714BC (6.2%) 1697BC
 RoAMS 16-05 R_Date(3460,25)
 68.2% probability
 1872BC (20.9%) 1845BC
 1813BC (6.6%) 1802BC
 1777BC (32.6%) 1741BC
 1711BC (8.0%) 1700BC
 95.4% probability
 1880BC (82.2%) 1732BC
 1721BC (13.2%) 1693BC

DeA-5021 R_Date(3298,38)

68.2% probability

1619BC (68.2%) 1529BC

95.4% probability

1682BC (1.0%) 1673BC

1666BC (94.4%) 1498BC

DeA-5096 R_Date(3249,30)

68.2% probability

1606BC (14.8%) 1583BC

1558BC (2.0%) 1554BC

1545BC (42.8%) 1496BC

1476BC (8.7%) 1460BC

95.4% probability

1612BC (79.7%) 1490BC

1485BC (15.7%) 1451BC

DeA-5152 R_Date(3236,41)

68.2% probability

1600BC (7.6%) 1586BC

1534BC (60.6%) 1447BC

95.4% probability

1612BC (95.4%) 1433BC

(Phase Wietenberg

Wietenberg Phase()

) Phase Wietenberg

Start of End Wietenberg Start()

Period of End Wietenberg Transition()

End of End Wietenberg End()

(Boundary End Wietenberg

End Wietenberg Boundary()

) Boundary End Wietenberg

Sum Wietenberg Sum()

(Sequence

Sequence()

) Sequence

Posterior

(MCMC(30000)

Overall agreement 100.3%

Dynamic agreement 101.0%

Start Wietenberg Posterior

68.2% probability

1971BC (68.2%) 1906BC

95.4% probability

2011BC (95.4%) 1866BC

Start of Start Wietenberg Posterior

68.2% probability

2020BC (68.2%) 1935BC

95.4% probability

2097BC (95.4%) 1912BC

Period of Start Wietenberg Posterior

68.2% probability

0 (68.2%) 138

95.4% probability

0 (95.4%) 309

End of Start Wietenberg Posterior

68.2% probability

1961BC (68.2%) 1845BC

95.4% probability

1997BC (95.4%) 1731BC

Start of Wietenberg Posterior

68.2% probability

1964BC (68.2%) 1916BC

95.4% probability

2009BC (3.7%) 1993BC

1988BC (91.7%) 1898BC

End of Wietenberg Posterior

68.2% probability

1375BC (68.2%) 1305BC

95.4% probability

1390BC (95.4%) 1272BC
OS-100530 Posterior
68.2% probability
1956BC (68.2%) 1901BC
95.4% probability
2004BC (1.3%) 1996BC
1987BC (94.1%) 1886BC
Agreement 82.0%
UGAMS-18994 Posterior
68.2% probability
1937BC (68.2%) 1887BC
95.4% probability
1969BC (88.4%) 1876BC
1843BC (4.5%) 1820BC
1796BC (2.5%) 1781BC
Agreement 105.1%
AA-103616 Posterior
68.2% probability
1941BC (49.8%) 1877BC
1841BC (10.4%) 1822BC
1797BC (8.0%) 1781BC
95.4% probability
1967BC (95.4%) 1765BC
Agreement 102.1%
OS-107622 Posterior
68.2% probability
1941BC (56.0%) 1878BC
1839BC (7.1%) 1826BC
1794BC (5.1%) 1784BC
95.4% probability
1963BC (65.5%) 1861BC
1854BC (29.9%) 1771BC
Agreement 102.1%
Hd-28203 Posterior

68.2% probability

1927BC (54.6%) 1878BC

1839BC (8.6%) 1827BC

1793BC (5.0%) 1785BC

95.4% probability

1945BC (63.8%) 1869BC

1848BC (31.6%) 1774BC

Agreement 99.2%

OS-113605 Posterior

68.2% probability

1901BC (26.1%) 1875BC

1843BC (24.2%) 1816BC

1799BC (17.9%) 1779BC

95.4% probability

1926BC (40.1%) 1861BC

1854BC (55.3%) 1771BC

Agreement 99.5%

OS-107621 Posterior

68.2% probability

1892BC (14.7%) 1871BC

1846BC (53.5%) 1775BC

95.4% probability

1921BC (95.4%) 1753BC

Agreement 101.7%

AA-103613 Posterior

68.2% probability

1893BC (16.4%) 1864BC

1851BC (51.8%) 1771BC

95.4% probability

1937BC (95.1%) 1743BC

1707BC (0.3%) 1705BC

Agreement 103.4%

Bln-5626 Posterior

68.2% probability

1885BC (12.8%) 1864BC
1852BC (55.4%) 1770BC
95.4% probability
1922BC (94.3%) 1742BC
1709BC (1.1%) 1701BC
Agreement 102.1%
Hd-29143 Posterior
68.2% probability
1877BC (9.9%) 1864BC
1852BC (10.3%) 1839BC
1829BC (48.0%) 1770BC
95.4% probability
1886BC (95.4%) 1747BC
Agreement 100.0%
OS-107620 Posterior
68.2% probability
1875BC (23.6%) 1841BC
1824BC (21.0%) 1793BC
1784BC (23.6%) 1751BC
95.4% probability
1888BC (90.9%) 1737BC
1715BC (4.5%) 1697BC
Agreement 99.8%
OS-107554 Posterior
68.2% probability
1875BC (23.5%) 1842BC
1821BC (15.3%) 1796BC
1782BC (29.3%) 1744BC
95.4% probability
1882BC (89.1%) 1737BC
1715BC (6.3%) 1697BC
Agreement 99.4%
OS-108311 Posterior
68.2% probability

1871BC (19.3%) 1845BC

1813BC (7.1%) 1801BC

1778BC (33.8%) 1740BC

1711BC (8.0%) 1699BC

95.4% probability

1880BC (82.3%) 1732BC

1721BC (13.1%) 1693BC

Agreement 99.2%

AA-103610 Posterior

68.2% probability

1874BC (15.3%) 1842BC

1820BC (10.3%) 1797BC

1782BC (27.9%) 1730BC

1722BC (14.7%) 1693BC

95.4% probability

1889BC (95.4%) 1658BC

Agreement 100.5%

Hd-29515 Posterior

68.2% probability

1862BC (7.7%) 1851BC

1773BC (39.0%) 1736BC

1716BC (21.5%) 1695BC

95.4% probability

1876BC (16.7%) 1841BC

1822BC (7.1%) 1796BC

1782BC (71.6%) 1689BC

Agreement 99.1%

UGAMS-12286 Posterior

68.2% probability

1771BC (68.2%) 1692BC

95.4% probability

1877BC (13.0%) 1839BC

1826BC (6.3%) 1794BC

1784BC (76.1%) 1682BC

Agreement 99.9%

AA-103617 Posterior

68.2% probability

1859BC (2.0%) 1853BC

1773BC (66.2%) 1663BC

95.4% probability

1877BC (10.7%) 1838BC

1827BC (7.1%) 1792BC

1786BC (77.6%) 1630BC

Agreement 100.5%

RoAMS 16-07 Posterior

68.2% probability

1764BC (68.2%) 1666BC

95.4% probability

1876BC (8.3%) 1841BC

1821BC (4.3%) 1795BC

1782BC (82.9%) 1629BC

Agreement 100.5%

VOI 2 Posterior

68.2% probability

1754BC (68.2%) 1645BC

95.4% probability

1876BC (7.1%) 1840BC

1823BC (4.0%) 1795BC

1783BC (84.3%) 1619BC

Agreement 100.6%

VOI 3 Posterior

68.2% probability

1749BC (68.2%) 1657BC

95.4% probability

1873BC (4.7%) 1843BC

1816BC (1.7%) 1800BC

1779BC (89.0%) 1617BC

Agreement 100.2%

OS-108811 Posterior

68.2% probability

1736BC (19.9%) 1716BC

1696BC (48.3%) 1646BC

95.4% probability

1745BC (95.4%) 1627BC

Agreement 99.4%

OS-107666 Posterior

68.2% probability

1738BC (12.6%) 1714BC

1697BC (55.6%) 1617BC

95.4% probability

1766BC (95.4%) 1531BC

Agreement 100.3%

RoAMS 16-03 Posterior

68.2% probability

1737BC (7.1%) 1716BC

1696BC (42.1%) 1596BC

1589BC (19.0%) 1533BC

95.4% probability

1875BC (2.8%) 1841BC

1821BC (1.7%) 1796BC

1781BC (89.3%) 1493BC

1479BC (1.6%) 1456BC

Agreement 100.6%

RoAMS 16-08 Posterior

68.2% probability

1737BC (7.5%) 1714BC

1697BC (60.7%) 1532BC

95.4% probability

1876BC (3.4%) 1840BC

1823BC (2.3%) 1794BC

1783BC (87.7%) 1492BC

1481BC (2.0%) 1455BC

Agreement 100.9%

VOI 1 Posterior

68.2% probability

1685BC (55.4%) 1606BC

1583BC (12.8%) 1559BC

95.4% probability

1737BC (4.1%) 1716BC

1695BC (91.3%) 1526BC

Agreement 100.0%

Ly-9190 Posterior

68.2% probability

1608BC (22.1%) 1582BC

1560BC (46.1%) 1504BC

95.4% probability

1621BC (91.7%) 1494BC

1477BC (3.7%) 1459BC

Agreement 99.9%

Bln-4622 Posterior

68.2% probability

1682BC (2.3%) 1677BC

1667BC (39.7%) 1599BC

1587BC (26.1%) 1536BC

95.4% probability

1743BC (6.6%) 1709BC

1701BC (88.8%) 1502BC

Agreement 100.0%

OS-113646 Posterior

68.2% probability

1662BC (47.9%) 1605BC

1583BC (20.3%) 1548BC

95.4% probability

1689BC (95.4%) 1528BC

Agreement 99.7%

OS-107555 Posterior

68.2% probability

1607BC (21.1%) 1583BC

1558BC (2.6%) 1554BC

1546BC (44.5%) 1501BC

95.4% probability

1615BC (92.2%) 1495BC

1475BC (3.2%) 1461BC

Agreement 99.3%

Hd-27967 Posterior

68.2% probability

1497BC (39.9%) 1472BC

1463BC (28.3%) 1444BC

95.4% probability

1502BC (95.4%) 1431BC

Agreement 99.8%

RoAMS 16-04 Posterior

68.2% probability

1601BC (4.6%) 1586BC

1533BC (63.6%) 1405BC

95.4% probability

1630BC (95.4%) 1319BC

Agreement 105.3%

Hd-27989 Posterior

68.2% probability

1493BC (18.7%) 1480BC

1454BC (49.5%) 1427BC

95.4% probability

1497BC (95.4%) 1418BC

Agreement 98.3%

OS-113647 Posterior

68.2% probability

1493BC (15.9%) 1481BC

1454BC (52.3%) 1422BC

95.4% probability

1497BC (95.4%) 1414BC
Agreement 98.7%

OS-100527 Posterior
68.2% probability
1432BC (68.2%) 1400BC
95.4% probability
1451BC (89.0%) 1378BC
1341BC (6.4%) 1318BC
Agreement 106.7%

UGAMS-18993 Posterior
68.2% probability
1428BC (66.1%) 1381BC
1333BC (2.1%) 1330BC
95.4% probability
1437BC (73.2%) 1367BC
1361BC (22.2%) 1306BC
Agreement 103.1%

OS-100529 Posterior
68.2% probability
1421BC (58.7%) 1376BC
1340BC (9.5%) 1326BC
95.4% probability
1431BC (95.4%) 1306BC
Agreement 100.5%

OS-100528 Posterior
68.2% probability
1405BC (68.2%) 1341BC
95.4% probability
1416BC (95.4%) 1289BC
Agreement 100.4%

OS-113602 Posterior
68.2% probability
1392BC (68.2%) 1342BC
95.4% probability

1406BC (78.6%) 1333BC

1324BC (16.8%) 1272BC

Agreement 98.1%

RoAMS 16-06 Posterior

68.2% probability

1875BC (23.6%) 1842BC

1821BC (15.4%) 1796BC

1782BC (29.2%) 1744BC

95.4% probability

1882BC (89.1%) 1737BC

1715BC (6.3%) 1697BC

Agreement 99.4%

RoAMS 16-05 Posterior

68.2% probability

1871BC (19.3%) 1845BC

1813BC (7.2%) 1801BC

1778BC (33.4%) 1740BC

1712BC (8.2%) 1699BC

95.4% probability

1879BC (82.2%) 1732BC

1721BC (13.2%) 1693BC

Agreement 99.2%

DeA-5021 Posterior

68.2% probability

1620BC (68.2%) 1530BC

95.4% probability

1678BC (0.3%) 1675BC

1667BC (95.1%) 1499BC

Agreement 99.9%

DeA-5096 Posterior

68.2% probability

1606BC (16.6%) 1583BC

1557BC (1.3%) 1555BC

1545BC (45.4%) 1496BC

1473BC (4.9%) 1464BC
 95.4% probability
 1613BC (95.4%) 1451BC
 Agreement 99.3%
 DeA-5152 Posterior
 68.2% probability
 1602BC (9.7%) 1585BC
 1535BC (58.5%) 1450BC
 95.4% probability
 1613BC (95.4%) 1435BC
 Agreement 99.1%
 End Wietenberg Posterior
 68.2% probability
 1424BC (68.2%) 1300BC
 95.4% probability
 1536BC (95.4%) 1272BC
 Start of End Wietenberg Posterior
 68.2% probability
 1713BC (0.7%) 1708BC
 1584BC (67.5%) 1303BC
 95.4% probability
 1828BC (95.4%) 1286BC
 Period of End Wietenberg Posterior
 68.2% probability
 0 (66.4%) 310
 321 (0.4%) 325
 338 (1.1%) 353
 461 (0.3%) 464
 95.4% probability
 0 (95.4%) 617
 End of End Wietenberg Posterior
 68.2% probability
 1349BC (68.2%) 1224BC
 95.4% probability

1380BC (95.4%) 1138BC
 Sum Wietenberg Posterior
) MCMC(960000)

Text

Start of Start Wietenberg
 Period of Start Wietenberg
 End of Start Wietenberg
 Start Wietenberg
 Start of Wietenberg
 End of Wietenberg

OS-100530	-2018	-1933.5	-2029	-1895.5	
UGAMS-18994		-1944	-1887.5	-2015.5	-1782
AA-103616	-2005.5		-1782	-2024	-1769.5
OS-107622	-1957.5		-1783.5	-2019	-1771.5
Hd-28203	-1935.5		-1828.5	-1952	-1772.5
OS-113605	-1902	-1778.5	-1929.5		-1770
OS-107621	-1893	-1773.5	-1927	-1751	
AA-103613	-1895	-1769.5	-1948.5		-1698.5
Bln-5626	-1885.5		-1770	-1929.5	-1699.5
Hd-29143	-1876.5		-1769.5	-1884.5	-1745.5
OS-107620	-1875	-1750	-1886.5	-1695	
OS-107554	-1874.5		-1743	-1880	-1695.5
OS-108311	-1870	-1698	-1878.5	-1691	
AA-103610	-1875	-1691	-1889	-1643.5	
Hd-29515	-1863	-1693.5	-1874.5		-1687.5
UGAMS-12286		-1858	-1690	-1875	-1681.5
AA-103617	-1859.5		-1662	-1876.5	-1627
RoAMS 16-07	-1763.5		-1663.5	-1874.5	-1627
VOI 2	-1753	-1640.5	-1875	-1617	
VOI 3	-1746.5	-1644	-1872	-1615.5	
OS-108811	-1734.5		-1643.5	-1743.5	-1625
OS-107666	-1736	-1614.5	-1765	-1528	

RoAMS 16-03-1734	-1529.5		-1874.5		-1450.5
RoAMS 16-08-1735	-1528		-1874.5		-1449
VOI 1	-1682.5		-1546	-1734.5	-1519.5
Ly-9190	-1606	-1501.5		-1617.5	-1456
Bln-4622	-1680	-1531	-1740.5		-1499.5
OS-113646	-1659.5		-1544	-1687.5	-1526
OS-107555	-1605	-1499	-1612.5		-1458
Hd-27967	-1495	-1440	-1499.5		-1428.5
RoAMS 16-04-1597.5			-1321	-1624.5	-1275.5
Hd-27989	-1491	-1425	-1495	-1414.5	
OS-113647	-1490.5		-1419	-1495.5	-1411.5
OS-100527	-1430.5		-1394	-1445.5	-1307.5
UGAMS-18993		-1419	-1309	-1433	-1295
OS-100529	-1412	-1305	-1426	-1291.5	
OS-100528	-1389.5		-1289.5	-1407.5	-1263.5
OS-113602	-1378	-1264.5		-1394	-1229.5
RoAMS 16-06-1874.5			-1743	-1880	-1695.5
RoAMS 16-05-1870	-1698	-1878.5		-1691	
DeA-5021	-1617.5		-1527.5	-1680.5	-1496.5
DeA-5096	-1604.5		-1458	-1610	-1449
DeA-5152	-1598.5		-1445	-1610.5	-1431.5
Wietenberg					
Start of End Wietenberg					
Period of End Wietenberg					
End of End Wietenberg					
End Wietenberg					
Sum Wietenberg					
Sequence()					
@Start Wietenberg	-1969	-1904.5		-2009.5	-1864.5
@Start of Start Wietenberg		-2018.5		-1933.5	-2095.5
@Period of Start Wietenberg	0	138	0	309	
@End of Start Wietenberg		-1959.5		-1843.5	-1995
@Start of Wietenberg	-1962.5		-1914	-2007.5	-1896
@End of Wietenberg	-1373.5		-1303	-1388.5	-1270

@OS-100530 -1954.5 -1899.5 -2002 -1884.5
 @UGAMS-18994 -1935 -1885.5 -1967 -1779
 @AA-103616 -1939.5 -1779.5 -1965.5 -1763
 @OS-107622 -1939.5 -1782 -1961.5 -1769.5
 @Hd-28203 -1925.5 -1783 -1943.5 -1772.5
 @OS-113605 -1899.5 -1777 -1924.5 -1769.5
 @OS-107621 -1890 -1773.5 -1919 -1751.5
 @AA-103613 -1891 -1769.5 -1935 -1703
 @Bln-5626 -1883.5 -1768.5 -1920 -1699.5
 @Hd-29143 -1875 -1768.5 -1884.5 -1745
 @OS-107620 -1873.5 -1749 -1886 -1695
 @OS-107554 -1873.5 -1742.5 -1880.5 -1695
 @OS-108311 -1869 -1697.5 -1878 -1691
 @AA-103610 -1872 -1691 -1887 -1656.5
 @Hd-29515 -1860.5 -1693.5 -1874 -1687.5
 @UGAMS-12286 -1769.5 -1690 -1875 -1680
 @AA-103617 -1857 -1661 -1875.5 -1628
 @RoAMS 16-07 -1762 -1664.5 -1874 -1627
 @VOI 2 -1752.5 -1643 -1874 -1617
 @VOI 3 -1747 -1655 -1871.5 -1615.5
 @OS-108811 -1734.5 -1644 -1743.5 -1625.5
 @OS-107666 -1736 -1615.5 -1764.5 -1529
 @RoAMS 16-03 -1735 -1531.5 -1873 -1454.5
 @RoAMS 16-08 -1735.5 -1530.5 -1874.5 -1453.5
 @VOI 1 -1683.5 -1557 -1735 -1524
 @Ly-9190 -1606 -1502.5 -1619 -1457
 @Bln-4622 -1680 -1534 -1741 -1500.5
 @OS-113646 -1660.5 -1546 -1687.5 -1526
 @OS-107555 -1605 -1499.5 -1613.5 -1459
 @Hd-27967 -1495.5 -1442 -1500 -1429.5
 @RoAMS 16-04 -1599.5 -1403.5 -1628.5 -1317
 @Hd-27989 -1491.5 -1425 -1495 -1416
 @OS-113647 -1491 -1420.5 -1495 -1412.5
 @OS-100527 -1430 -1398 -1449 -1316.5

@UGAMS-18993	-1426.5	-1328.5	-1435.5	-1304.5
@OS-100529	-1419.5	-1324.5	-1429	-1304.5
@OS-100528	-1403.5	-1339.5	-1414	-1287.5
@OS-113602	-1390	-1340.5	-1404.5	-1270.5
@RoAMS 16-06	-1873	-1742.5	-1880	-1695
@RoAMS 16-05	-1869.5	-1697.5	-1877.5	-1691
@DeA-5021	-1618	-1528.5	-1676.5	-1497.5
@DeA-5096	-1604.5	-1462	-1611	-1449.5
@DeA-5152	-1600.5	-1448	-1611.5	-1433
@End Wietenberg	-1422.5	-1298	-1534.5	-1270.5
@Start of End Wietenberg	-1711.5	-1301	-1826.5	-1284.5
@Period of End Wietenberg	0	464	0	617
@End of End Wietenberg	-1347	-1222	-1378	-1136
@Sum Wietenberg				

OSM 4. Noua model.

Log

OxCal v4.3.2 Bronk Ramsey (2017); r:5

IntCal13 atmospheric curve (Reimer *et al.* 2013)

Start Noua Boundary()

DeA-5021 R_Date(3298,38)

68.2% probability

1619BC (68.2%) 1529BC

95.4% probability

1682BC (1.0%) 1673BC

1666BC (94.4%) 1498BC

DeA-5096 R_Date(3249,30)

68.2% probability

1606BC (14.8%) 1583BC

1558BC (2.0%) 1554BC

1545BC (42.8%) 1496BC

1476BC (8.7%) 1460BC

95.4% probability

1612BC (79.7%) 1490BC
1485BC (15.7%) 1451BC
DeA-5152 R_Date(3236,41)
68.2% probability
1600BC (7.6%) 1586BC
1534BC (60.6%) 1447BC
95.4% probability
1612BC (95.4%) 1433BC
Hd-28276 R_Date(3196,30)
68.2% probability
1497BC (68.2%) 1441BC
95.4% probability
1518BC (95.4%) 1415BC
Hd-27972 R_Date(3085,23)
68.2% probability
1405BC (24.7%) 1375BC
1351BC (43.5%) 1303BC
95.4% probability
1415BC (95.4%) 1282BC
OS-113542 R_Date(3080,20)
68.2% probability
1397BC (19.7%) 1374BC
1356BC (48.5%) 1302BC
95.4% probability
1411BC (95.4%) 1284BC
Hd-29163 R_Date(3062,21)
68.2% probability
1385BC (40.3%) 1340BC
1317BC (27.9%) 1285BC
95.4% probability
1403BC (95.4%) 1263BC
OS-108807 R_Date(3060,25)
68.2% probability
1386BC (38.7%) 1339BC

1318BC (29.5%) 1281BC
 95.4% probability
 1407BC (94.8%) 1260BC
 1239BC (0.6%) 1236BC
 Beta-317259 R_Date(3050,30)
 68.2% probability
 1385BC (31.5%) 1340BC
 1316BC (36.7%) 1263BC
 95.4% probability
 1401BC (95.4%) 1226BC
 Hd-28321 R_Date(2994,19)
 68.2% probability
 1264BC (68.2%) 1208BC
 95.4% probability
 1284BC (88.6%) 1157BC
 1146BC (6.8%) 1128BC
 (Phase Noua
 Noua Phase()
) Phase Noua
 End Noua Boundary()
 Sum Noua Sum()
 (Sequence
 Sequence()
) Sequence
 i : Using logs - function probability low
 Posterior
 (MCMC(30000)
 Overall agreement 99.1%
 Dynamic agreement 98.9%
 Start Noua Posterior
 68.2% probability
 1619BC (68.2%) 1521BC
 95.4% probability
 1706BC (95.4%) 1484BC

DeA-5021 Posterior

68.2% probability

1573BC (68.2%) 1501BC

95.4% probability

1621BC (88.2%) 1493BC

1482BC (7.2%) 1452BC

Agreement 91.8%

DeA-5096 Posterior

68.2% probability

1541BC (50.1%) 1493BC

1480BC (18.1%) 1455BC

95.4% probability

1601BC (5.9%) 1578BC

1570BC (89.5%) 1441BC

Agreement 103.5%

DeA-5152 Posterior

68.2% probability

1530BC (68.2%) 1448BC

95.4% probability

1600BC (95.4%) 1426BC

Agreement 106.4%

Hd-28276 Posterior

68.2% probability

1497BC (68.2%) 1442BC

95.4% probability

1514BC (95.4%) 1415BC

Agreement 100.7%

Hd-27972 Posterior

68.2% probability

1405BC (25.4%) 1375BC

1351BC (42.8%) 1304BC

95.4% probability

1415BC (95.4%) 1284BC

Agreement 100.1%

OS-113542 Posterior

68.2% probability

1398BC (20.7%) 1375BC

1355BC (47.5%) 1303BC

95.4% probability

1411BC (95.4%) 1285BC

Agreement 99.9%

Hd-29163 Posterior

68.2% probability

1387BC (43.2%) 1339BC

1316BC (25.0%) 1286BC

95.4% probability

1400BC (95.4%) 1265BC

Agreement 100.7%

OS-108807 Posterior

68.2% probability

1388BC (41.4%) 1339BC

1318BC (26.8%) 1283BC

95.4% probability

1407BC (95.4%) 1261BC

Agreement 101.4%

Beta-317259 Posterior

68.2% probability

1387BC (36.3%) 1340BC

1311BC (31.9%) 1266BC

95.4% probability

1403BC (95.4%) 1235BC

Agreement 102.7%

Hd-28321 Posterior

68.2% probability

1277BC (68.2%) 1221BC

95.4% probability

1376BC (10.1%) 1353BC

1298BC (85.3%) 1196BC

Agreement 91.0%

End Noua Posterior

68.2% probability

1267BC (68.2%) 1181BC

95.4% probability

1347BC (95.4%) 1110BC

Sum Noua Posterior

) MCMC(480000)

Text

Start Noua

DeA-5021 -1617.5 -1527.5 -1680.5 -1496.5

DeA-5096 -1604.5 -1458 -1610 -1449

DeA-5152 -1598.5 -1445 -1610.5 -1431.5

Hd-28276 -1495.5 -1439.5 -1516.5 -1413

Hd-27972 -1403 -1301 -1413.5 -1280.5

OS-113542 -1395.5 -1300 -1409 -1282

Hd-29163 -1383.5 -1283 -1401.5 -1261

OS-108807 -1384.5 -1279.5 -1405 -1234

Beta-317259 -1383.5 -1261.5 -1399.5 -1224

Hd-28321 -1262.5 -1206 -1282.5 -1126

Noua

End Noua

Sum Noua

Sequence()

@Start Noua -1617 -1519.5 -1704.5 -1482

@DeA-5021 -1571 -1499.5 -1619.5 -1450.5

@DeA-5096 -1539.5 -1453 -1599.5 -1439.5

@DeA-5152 -1528 -1446 -1598.5 -1424.5

@Hd-28276 -1495 -1440.5 -1512.5 -1413.5

@Hd-27972 -1403 -1302 -1413.5 -1282.5

@OS-113542 -1396 -1301 -1409 -1283.5

@Hd-29163 -1385 -1284.5 -1398.5 -1263.5

@OS-108807 -1386 -1281 -1405 -1259.5

@Beta-317259	-1385	-1264.5	-1401.5	-1233.5
@Hd-28321	-1275	-1219.5	-1374.5	-1194.5
@End Noua	-1265.5	-1179.5	-1345	-1108
@Sum Noua				

OSM 5: Noua only model

Log

OxCal v4.3.2 Bronk Ramsey (2017); r:5

IntCal13 atmospheric curve (Reimer *et al.* 2013)

Start Noua Boundary()

Hd-28276 R_Date(3196,30)

68.2% probability

1497BC (68.2%) 1441BC

95.4% probability

1518BC (95.4%) 1415BC

Hd-27972 R_Date(3085,23)

68.2% probability

1405BC (24.7%) 1375BC

1351BC (43.5%) 1303BC

95.4% probability

1415BC (95.4%) 1282BC

OS-113542 R_Date(3080,20)

68.2% probability

1397BC (19.7%) 1374BC

1356BC (48.5%) 1302BC

95.4% probability

1411BC (95.4%) 1284BC

Hd-29163 R_Date(3062,21)

68.2% probability

1385BC (40.3%) 1340BC

1317BC (27.9%) 1285BC

95.4% probability

1403BC (95.4%) 1263BC

OS-108807 R_Date(3060,25)

68.2% probability

1386BC (38.7%) 1339BC

1318BC (29.5%) 1281BC

95.4% probability

1407BC (94.8%) 1260BC

1239BC (0.6%) 1236BC

Beta-317259 R_Date(3050,30)

68.2% probability

1385BC (31.5%) 1340BC

1316BC (36.7%) 1263BC

95.4% probability

1401BC (95.4%) 1226BC

Hd-28321 R_Date(2994,19)

68.2% probability

1264BC (68.2%) 1208BC

95.4% probability

1284BC (88.6%) 1157BC

1146BC (6.8%) 1128BC

(Phase Noua

Noua Phase()

) Phase Noua

End Noua Boundary()

Sum Noua Sum()

(Sequence

Sequence()

) Sequence

i : Using logs - function probability low

Posterior

(MCMC(30000)

Overall agreement 92.0%

Dynamic agreement 92.1%

Start Noua Posterior

68.2% probability

1516BC (68.2%) 1427BC
95.4% probability
1625BC (94.2%) 1390BC
1378BC (1.1%) 1358BC
1353BC (0.1%) 1350BC
Hd-28276 Posterior
68.2% probability
1468BC (68.2%) 1416BC
95.4% probability
1505BC (93.1%) 1399BC
1336BC (2.3%) 1324BC
Agreement 85.7%
Hd-27972 Posterior
68.2% probability
1404BC (24.6%) 1376BC
1351BC (43.6%) 1304BC
95.4% probability
1415BC (95.4%) 1283BC
Agreement 100.0%
OS-113542 Posterior
68.2% probability
1397BC (20.2%) 1374BC
1355BC (48.0%) 1302BC
95.4% probability
1411BC (95.4%) 1285BC
Agreement 99.9%
Hd-29163 Posterior
68.2% probability
1386BC (43.0%) 1339BC
1317BC (25.2%) 1287BC
95.4% probability
1401BC (95.4%) 1265BC
Agreement 100.8%
OS-108807 Posterior

68.2% probability

1388BC (41.8%) 1339BC

1317BC (26.4%) 1283BC

95.4% probability

1406BC (95.4%) 1261BC

Agreement 101.4%

Beta-317259 Posterior

68.2% probability

1387BC (36.7%) 1340BC

1311BC (31.5%) 1266BC

95.4% probability

1402BC (95.4%) 1235BC

Agreement 102.5%

Hd-28321 Posterior

68.2% probability

1274BC (68.2%) 1220BC

95.4% probability

1377BC (11.4%) 1351BC

1299BC (84.0%) 1194BC

Agreement 89.5%

End Noua Posterior

68.2% probability

1272BC (68.2%) 1176BC

95.4% probability

1361BC (95.4%) 1087BC

Sum Noua Posterior

) MCMC(480000)

Text

Start Noua

Hd-28276 -1495.5 -1439.5 -1516.5 -1413

Hd-27972 -1403 -1301 -1413.5 -1280.5

OS-113542 -1395.5 -1300 -1409 -1282

Hd-29163 -1383.5 -1283 -1401.5 -1261

OS-108807	-1384.5	-1279.5	-1405	-1234
Beta-317259	-1383.5	-1261.5	-1399.5	-1224
Hd-28321	-1262.5	-1206	-1282.5	-1126
Noua				
End Noua				
Sum Noua				
Sequence()				
@Start Noua	-1514.5	-1425	-1623	-1348.5
@Hd-28276	-1466.5	-1414.5	-1503	-1322
@Hd-27972	-1402	-1302	-1413.5	-1281.5
@OS-113542	-1395.5	-1300.5	-1409	-1283
@Hd-29163	-1384.5	-1285	-1399	-1263.5
@OS-108807	-1386	-1281.5	-1404.5	-1259.5
@Beta-317259	-1385	-1264.5	-1400.5	-1233
@Hd-28321	-1272	-1218.5	-1375.5	-1192.5
@End Noua	-1270	-1174	-1359.5	-1085.5
@Sum Noua				

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