
RADIOCARBON DATING RESULTS FOR THE HONEY BEE ARCHAEOLOGICAL PROJECT

*Darden Hood
Beta Analytic Inc.*

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<<http://www.archaeologysouthwest.org/ap48>>.



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Darden Hood
President

Ronald Hatfield
Christopher Patrick
Deputy Directors

February 23, 2010

Dr. William H. Doelle/Henry D. Wallace
Desert Archaeology, Incorporated
3975 North Tucson Boulevard
Tucson, AZ 85716
USA

RE: Radiocarbon Dating Results For Samples 315-268-1, 361-5846-1, 497-6848-1, 588-7273-1, 603-5196-1, 635-4756-1, 787-1005-1, 874-1598-1, 938-7744-1, 938-7753-1, 1196-4500-1, 1321-4165-1, 1325-5143-1, 2015-8712-1, 4015-9160-1, 5006-10027-1, 5016-10182-1, 5017-10092-1, 5026-10313-1, 5030-10468-1, 5030-10484-1, 5030-10484-2, 5087-10715-1, 5089-10986-1, 5093-12185-1, 5192-11243-1, 5296-11809-1, 5296-11937-1, 5495-12245-1

Dear Dr. Doelle and Mr. Wallace:

Enclosed are the radiocarbon dating results for 29 samples recently sent to us. They each provided plenty of carbon for accurate measurements and all the analyses proceeded normally. As usual, the method of analysis is listed on the report with the results and calibration data is provided where applicable.

Note that four of the samples do not have a Measured Radiocarbon Age and 13C/12C Ratio reported. This is because the sample was too small to do a separate 13C/12C ratio and AMS analysis. The only available 13C/12C ratio available to calculate a Conventional Radiocarbon Age was that determined on a small aliquot of graphite. Although this ratio corrects to the appropriate Conventional Radiocarbon Age, it is not reported since it includes laboratory chemical and detector induced fractionation.

As always, no students or intern researchers who would necessarily be distracted with other obligations and priorities were used in the analyses. We analyzed them with the combined attention of our entire professional staff.

If you have specific questions about the analyses, please contact us. We are always available to answer your questions.

The cost of analysis was previously invoiced. As always, if you have any questions or would like to discuss the results, don't hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Darden Hood". Below the signature, the text "Digital signature on file" is printed in a smaller font.



BETA ANALYTIC INC.

DR. M.A. TAMERS and MR. D.G. HOOD

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REPORT OF RADIOCARBON DATING ANALYSES

Dr. William H. Doelle

Report Date: 2/23/2010

Desert Archaeology, Incorporated

Material Received: 1/19/2010

Sample Data	Measured Radiocarbon Age	13C/12C Ratio	Conventional Radiocarbon Age(*)
Beta - 272879 SAMPLE : 315-268-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 770 to 980 (Cal BP 1180 to 970)	1140 +/- 40 BP	-23.3 o/oo	1170 +/- 40 BP
Beta - 272880 SAMPLE : 361-5846-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 1160 to 1270 (Cal BP 790 to 680)	580 +/- 40 BP	-10.4 o/oo	820 +/- 40 BP
Beta - 272881 SAMPLE : 497-6848-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 1040 to 1260 (Cal BP 910 to 700)	640 +/- 40 BP	-10.7 o/oo	870 +/- 40 BP
Beta - 272882 SAMPLE : 588-7273-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (seed): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 1000 to 1160 (Cal BP 950 to 790) COMMENT: the original sample was too small for a 13C/12C ratio measurement. However, a ratio including both natural and laboratory effects was measured during the 14C detection to derive a Conventional Radiocarbon Age, suitable for applicable calendar calibration.	NA	NA	970 +/- 40 BP

Dates are reported as RCYBP (radiocarbon years before present, "present" = AD 1950). By international convention, the modern reference standard was 95% the 14C activity of the National Institute of Standards and Technology (NIST) Oxalic Acid (SRM 4990C) and calculated using the Libby 14C half-life (5568 years). Quoted errors represent 1 relative standard deviation statistics (68% probability) counting errors based on the combined measurements of the sample, background, and modern reference standards. Measured 13C/12C ratios (delta 13C) were calculated relative to the PDB-1 standard.

The Conventional Radiocarbon Age represents the Measured Radiocarbon Age corrected for isotopic fractionation, calculated using the delta 13C. On rare occasion where the Conventional Radiocarbon Age was calculated using an assumed delta 13C, the ratio and the Conventional Radiocarbon Age will be followed by "a". The Conventional Radiocarbon Age is not calendar calibrated. When available, the Calendar Calibrated result is calculated from the Conventional Radiocarbon Age and is listed as the "Two Sigma Calibrated Result" for each sample.



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Report Date: 2/23/2010

Sample Data	Measured Radiocarbon Age	$^{13}\text{C}/^{12}\text{C}$ Ratio	Conventional Radiocarbon Age(*)
Beta - 272883 SAMPLE : 603-5196-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (maize): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 1020 to 1210 (Cal BP 930 to 740) COMMENT: the original sample was too small for a $^{13}\text{C}/^{12}\text{C}$ ratio measurement. However, a ratio including both natural and laboratory effects was measured during the ^{14}C detection to derive a Conventional Radiocarbon Age, suitable for applicable calendar calibration.	NA	NA	920 +/- 40 BP
Beta - 272884 SAMPLE : 635-4756-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 1160 to 1270 (Cal BP 800 to 680)	800 +/- 40 BP	-23.1 o/oo	830 +/- 40 BP
Beta - 272885 SAMPLE : 787-1005-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 660 to 780 (Cal BP 1290 to 1160)	1260 +/- 40 BP	-23.0 o/oo	1290 +/- 40 BP
Beta - 272886 SAMPLE : 874-1598-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 1020 to 1210 (Cal BP 930 to 740)	940 +/- 40 BP	-25.7 o/oo	930 +/- 40 BP

Dates are reported as RCYBP (radiocarbon years before present, "present" = AD 1950). By international convention, the modern reference standard was 95% the ^{14}C activity of the National Institute of Standards and Technology (NIST) Oxalic Acid (SRM 4990C) and calculated using the Libby ^{14}C half-life (5568 years). Quoted errors represent 1 relative standard deviation statistics (68% probability) counting errors based on the combined measurements of the sample, background, and modern reference standards. Measured $^{13}\text{C}/^{12}\text{C}$ ratios (delta ^{13}C) were calculated relative to the PDB-1 standard.

The Conventional Radiocarbon Age represents the Measured Radiocarbon Age corrected for isotopic fractionation, calculated using the delta ^{13}C . On rare occasion where the Conventional Radiocarbon Age was calculated using an assumed delta ^{13}C , the ratio and the Conventional Radiocarbon Age will be followed by "a". The Conventional Radiocarbon Age is not calendar calibrated. When available, the Calendar Calibrated result is calculated from the Conventional Radiocarbon Age and is listed as the "Two Sigma Calibrated Result" for each sample.


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Report Date: 2/23/2010

Sample Data	Measured Radiocarbon Age	13C/12C Ratio	Conventional Radiocarbon Age(*)
Beta - 272887 SAMPLE : 938-7744-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (wood): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 1050 to 1090 (Cal BP 900 to 860) AND Cal AD 1130 to 1140 (Cal BP 820 to 810) Cal AD 1140 to 1260 (Cal BP 810 to 690)	NA	NA	850 +/- 40 BP
COMMENT: the original sample was too small for a 13C/12C ratio measurement. However, a ratio including both natural and laboratory effects was measured during the 14C detection to derive a Conventional Radiocarbon Age, suitable for applicable calendar calibration.			
Beta - 272888 SAMPLE : 938-7753-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (seed): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 1040 to 1100 (Cal BP 910 to 850) AND Cal AD 1120 to 1260 (Cal BP 830 to 690)	820 +/- 40 BP	-22.8 o/oo	860 +/- 40 BP
Beta - 272890 SAMPLE : 1196-4500-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 980 to 1160 (Cal BP 960 to 800)	960 +/- 40 BP	-23.0 o/oo	990 +/- 40 BP
Beta - 272891 SAMPLE : 1321-4165-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 670 to 890 (Cal BP 1280 to 1060)	1230 +/- 40 BP	-24.5 o/oo	1240 +/- 40 BP

Dates are reported as RCYBP (radiocarbon years before present, "present" = AD 1950). By international convention, the modern reference standard was 95% the 14C activity of the National Institute of Standards and Technology (NIST) Oxalic Acid (SRM 4990C) and calculated using the Libby 14C half-life (5568 years). Quoted errors represent 1 relative standard deviation statistics (68% probability) counting errors based on the combined measurements of the sample, background, and modern reference standards. Measured 13C/12C ratios (delta 13C) were calculated relative to the PDB-1 standard.

The Conventional Radiocarbon Age represents the Measured Radiocarbon Age corrected for isotopic fractionation, calculated using the delta 13C. On rare occasion where the Conventional Radiocarbon Age was calculated using an assumed delta 13C, the ratio and the Conventional Radiocarbon Age will be followed by "a". The Conventional Radiocarbon Age is not calendar calibrated. When available, the Calendar Calibrated result is calculated from the Conventional Radiocarbon Age and is listed as the "Two Sigma Calibrated Result" for each sample.


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Report Date: 2/23/2010

Sample Data	Measured Radiocarbon Age	$\delta^{13}\text{C}/\text{C}$ Ratio	Conventional Radiocarbon Age(*)
Beta - 272896 SAMPLE : 5016-10182-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 580 to 670 (Cal BP 1370 to 1280)	1170 +/- 40 BP	-10.5 o/oo	1410 +/- 40 BP
Beta - 272897 SAMPLE : 5017-10092-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 660 to 880 (Cal BP 1280 to 1070) COMMENT: the original sample was too small for a $\delta^{13}\text{C}/\text{C}$ ratio measurement. However, a ratio including both natural and laboratory effects was measured during the ^{14}C detection to derive a Conventional Radiocarbon Age, suitable for applicable calendar calibration.	NA	NA	1260 +/- 40 BP
Beta - 272898 SAMPLE : 5026-10313-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 1020 to 1210 (Cal BP 930 to 740)	690 +/- 40 BP	-11.0 o/oo	920 +/- 40 BP
Beta - 272899 SAMPLE : 5030-10468-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 650 to 770 (Cal BP 1300 to 1180)	1280 +/- 40 BP	-22.6 o/oo	1320 +/- 40 BP

Dates are reported as RCYBP (radiocarbon years before present, "present" = AD 1950). By international convention, the modern reference standard was 95% the ^{14}C activity of the National Institute of Standards and Technology (NIST) Oxalic Acid (SRM 4990C) and calculated using the Libby ^{14}C half-life (5568 years). Quoted errors represent 1 relative standard deviation statistics (68% probability) counting errors based on the combined measurements of the sample, background, and modern reference standards. Measured $\delta^{13}\text{C}/\text{C}$ ratios (delta 13C) were calculated relative to the PDB-1 standard.

The Conventional Radiocarbon Age represents the Measured Radiocarbon Age corrected for isotopic fractionation, calculated using the delta 13C. On rare occasion where the Conventional Radiocarbon Age was calculated using an assumed delta 13C, the ratio and the Conventional Radiocarbon Age will be followed by **. The Conventional Radiocarbon Age is not calendar calibrated. When available, the Calendar Calibrated result is calculated from the Conventional Radiocarbon Age and is listed as the "Two Sigma Calibrated Result" for each sample.



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Sample Data	Measured Radiocarbon Age	13C/12C Ratio	Conventional Radiocarbon Age(*)
Beta - 272896 SAMPLE : 5016-10182-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 580 to 670 (Cal BP 1370 to 1280)	1170 +/- 40 BP	-10.5 o/oo	1410 +/- 40 BP
Beta - 272897 SAMPLE : 5017-10092-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 660 to 880 (Cal BP 1280 to 1070) COMMENT: the original sample was too small for a 13C/12C ratio measurement. However, a ratio including both natural and laboratory effects was measured during the 14C detection to derive a Conventional Radiocarbon Age, suitable for applicable calendar calibration.	NA	NA	1260 +/- 40 BP
Beta - 272898 SAMPLE : 5026-10313-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 1020 to 1210 (Cal BP 930 to 740)	690 +/- 40 BP	-11.0 o/oo	920 +/- 40 BP
Beta - 272899 SAMPLE : 5030-10468-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 650 to 770 (Cal BP 1300 to 1180)	1280 +/- 40 BP	-22.6 o/oo	1320 +/- 40 BP

Dates are reported as RCYBP (radiocarbon years before present, "present" = AD 1950). By international convention, the modern reference standard was 95% the 14C activity of the National Institute of Standards and Technology (NIST) Oxalic Acid (SRM 4990C) and calculated using the Libby 14C half-life (5568 years). Quoted errors represent 1 relative standard deviation statistics (68% probability) counting errors based on the combined measurements of the sample, background, and modern reference standards. Measured 13C/12C ratios (delta 13C) were calculated relative to the PDB-1 standard.

The Conventional Radiocarbon Age represents the Measured Radiocarbon Age corrected for isotopic fractionation, calculated using the delta 13C. On rare occasion where the Conventional Radiocarbon Age was calculated using an assumed delta 13C, the ratio and the Conventional Radiocarbon Age will be followed by "a". The Conventional Radiocarbon Age is not calendar calibrated. When available, the Calendar Calibrated result is calculated from the Conventional Radiocarbon Age and is listed as the "Two Sigma Calibrated Result" for each sample.


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Dr. William H. Doelle

Report Date: 2/23/2010

Sample Data	Measured Radiocarbon Age	$\delta^{13}\text{C}/\text{C}$ Ratio	Conventional Radiocarbon Age(*)
Beta - 272900 SAMPLE : 5030-10484-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 1020 to 1210 (Cal BP 930 to 740)	860 +/- 40 BP	-21.1 ‰	920 +/- 40 BP
Beta - 272901 SAMPLE : 5030-10484-2 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 650 to 780 (Cal BP 1300 to 1170)	1270 +/- 40 BP	-22.3 ‰	1310 +/- 40 BP
Beta - 272902 SAMPLE : 5087-10715-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 660 to 880 (Cal BP 1280 to 1070)	1230 +/- 40 BP	-23.2 ‰	1260 +/- 40 BP
Beta - 272903 SAMPLE : 5089-10986-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 1050 to 1090 (Cal BP 900 to 860) AND Cal AD 1130 to 1140 (Cal BP 820 to 810) Cal AD 1140 to 1260 (Cal BP 810 to 690)	610 +/- 40 BP	-10.5 ‰	850 +/- 40 BP

Dates are reported as RCYBP (radiocarbon years before present, "present" = AD 1950). By international convention, the modern reference standard was 95% the ^{14}C activity of the National Institute of Standards and Technology (NIST) Oxalic Acid (SRM 4990C) and calculated using the Libby ^{14}C half-life (5568 years). Quoted errors represent 1 relative standard deviation statistics (68% probability) counting errors based on the combined measurements of the sample, background, and modern reference standards. Measured $\delta^{13}\text{C}/\text{C}$ ratios (delta 13C) were calculated relative to the PDB-1 standard.

The Conventional Radiocarbon Age represents the Measured Radiocarbon Age corrected for isotopic fractionation, calculated using the delta 13C. On rare occasion where the Conventional Radiocarbon Age was calculated using an assumed delta 13C, the ratio and the Conventional Radiocarbon Age will be followed by **. The Conventional Radiocarbon Age is not calendar calibrated. When available, the Calendar Calibrated result is calculated from the Conventional Radiocarbon Age and is listed as the "Two Sigma Calibrated Result" for each sample.



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Report Date: 2/23/2010

Sample Data	Measured Radiocarbon Age	13C/12C Ratio	Conventional Radiocarbon Age(*)
Beta - 272904 SAMPLE : 5093-12185-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 650 to 770 (Cal BP 1300 to 1180)	1100 +/- 40 BP	-11.4 o/oo	1320 +/- 40 BP
Beta - 272905 SAMPLE : 5192-11243-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 680 to 890 (Cal BP 1270 to 1060)	980 +/- 40 BP	-10.2 o/oo	1220 +/- 40 BP
Beta - 272906 SAMPLE : 5296-11809-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 610 to 680 (Cal BP 1340 to 1270)	1390 +/- 40 BP	-25.5 o/oo	1380 +/- 40 BP
Beta - 272907 SAMPLE : 5296-11937-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 650 to 780 (Cal BP 1300 to 1170)	1090 +/- 40 BP	-11.7 o/oo	1310 +/- 40 BP

Dates are reported as RCYBP (radiocarbon years before present, "present" = AD 1950). By international convention, the modern reference standard was 95% the 14C activity of the National Institute of Standards and Technology (NIST) Oxalic Acid (SRM 4990C) and calculated using the Libby 14C half-life (5568 years). Quoted errors represent 1 relative standard deviation statistics (68% probability) counting errors based on the combined measurements of the sample, background, and modern reference standards. Measured 13C/12C ratios (delta 13C) were calculated relative to the PDB-1 standard.

The Conventional Radiocarbon Age represents the Measured Radiocarbon Age corrected for isotopic fractionation, calculated using the delta 13C. On rare occasion where the Conventional Radiocarbon Age was calculated using an assumed delta 13C, the ratio and the Conventional Radiocarbon Age will be followed by "a". The Conventional Radiocarbon Age is not calendar calibrated. When available, the Calendar Calibrated result is calculated from the Conventional Radiocarbon Age and is listed as the "Two Sigma Calibrated Result" for each sample.


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Sample Data	Measured Radiocarbon Age	$^{13}\text{C}/^{12}\text{C}$ Ratio	Conventional Radiocarbon Age(*)
Beta - 272908 SAMPLE : 5495-12245-1 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 660 to 810 (Cal BP 1290 to 1140)	1050 +/- 40 BP	-10.9 o/oo	1280 +/- 40 BP

Dates are reported as RCYBP (radiocarbon years before present, "present" = AD 1950). By international convention, the modern reference standard was 95% the ^{14}C activity of the National Institute of Standards and Technology (NIST) Oxalic Acid (SRM 4990C) and calculated using the Libby ^{14}C half-life (5568 years). Quoted errors represent 1 relative standard deviation statistics (68% probability) counting errors based on the combined measurements of the sample, background, and modern reference standards. Measured $^{13}\text{C}/^{12}\text{C}$ ratios (delta ^{13}C) were calculated relative to the PDB-1 standard.

The Conventional Radiocarbon Age represents the Measured Radiocarbon Age corrected for isotopic fractionation, calculated using the delta ^{13}C . On rare occasion where the Conventional Radiocarbon Age was calculated using an assumed delta ^{13}C , the ratio and the Conventional Radiocarbon Age will be followed by "a". The Conventional Radiocarbon Age is not calendar calibrated. When available, the Calendar Calibrated result is calculated from the Conventional Radiocarbon Age and is listed as the "Two Sigma Calibrated Result" for each sample.

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-23.3:lab. mult=1)

Laboratory number: Beta-272879

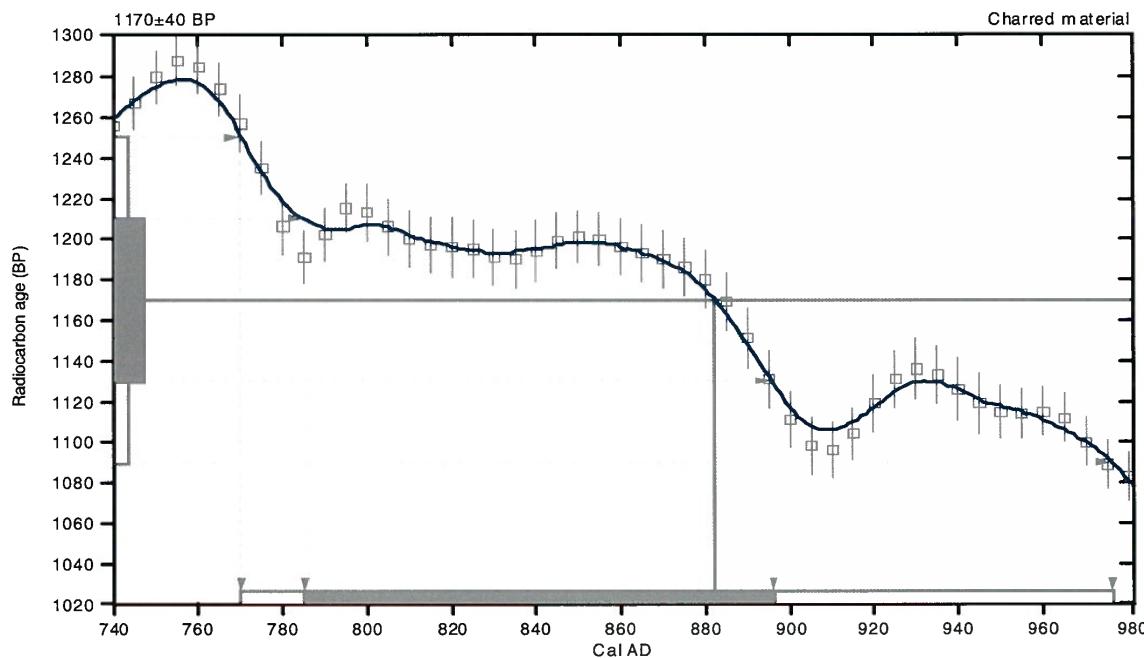
Conventional radiocarbon age: 1170 ± 40 BP

2 Sigma calibrated result: Cal AD 770 to 980 (Cal BP 1180 to 970)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 880 (Cal BP 1070)

1 Sigma calibrated result: Cal AD 780 to 900 (Cal BP 1160 to 1050)
(68% probability)



References:

- Database used*
INTCAL04
- Calibration Database*
INTCAL04 Radiocarbon Age Calibration
IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).
- Mathematics*
A Simplified Approach to Calibrating C14 Dates
Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2), p317-322

Beta Analytic Radiocarbon Dating Laboratory

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-10.4:lab. mult=1)

Laboratory number: Beta-272880

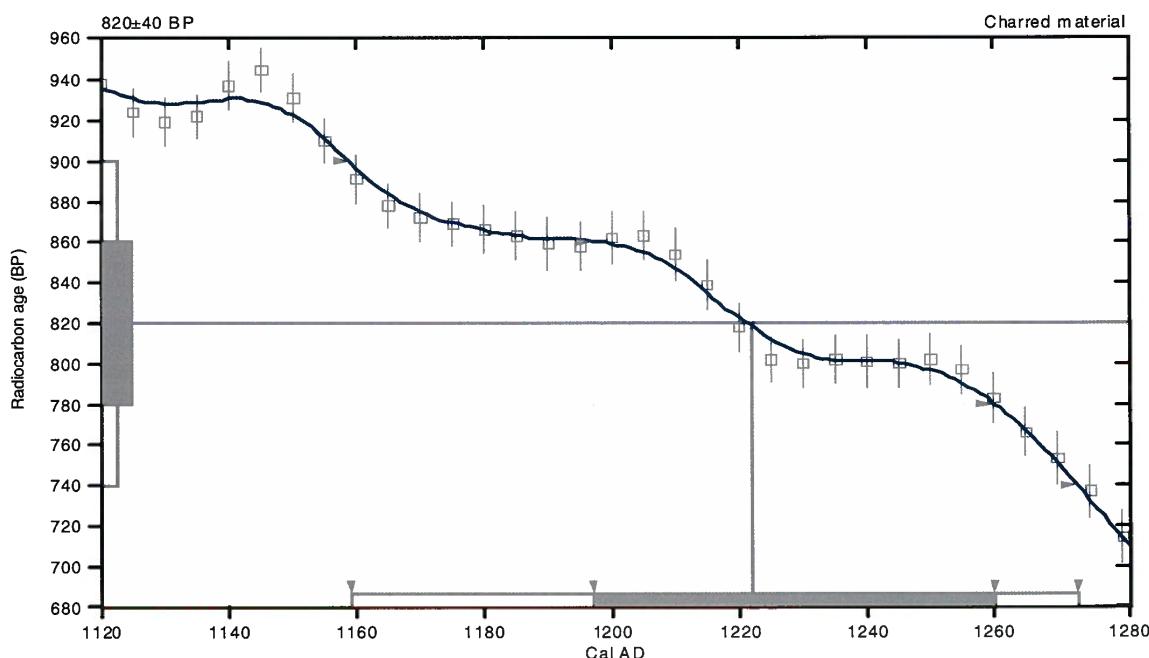
Conventional radiocarbon age: 820±40 BP

2 Sigma calibrated result: Cal AD 1160 to 1270 (Cal BP 790 to 680)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 1220 (Cal BP 730)

1 Sigma calibrated result: Cal AD 1200 to 1260 (Cal BP 750 to 690)
(68% probability)



References:

- Database used
INTCAL04
Calibration Database
INTCAL04 Radiocarbon Age Calibration
IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).
Mathematics
A Simplified Approach to Calibrating C14 Dates
Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2), p317-322

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-10.7:lab. mult=1)

Laboratory number: Beta-272881

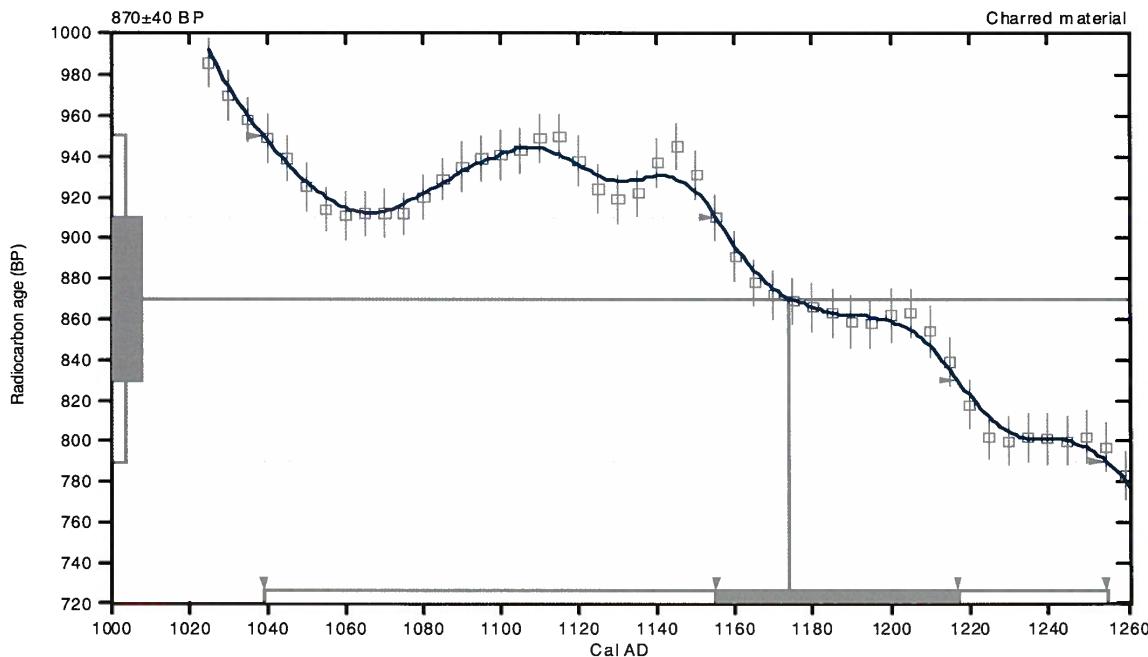
Conventional radiocarbon age: 870 ± 40 BP

2 Sigma calibrated result: Cal AD 1040 to 1260 (Cal BP 910 to 700)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 1170 (Cal BP 780)

1 Sigma calibrated result: Cal AD 1160 to 1220 (Cal BP 800 to 730)
(68% probability)



References:

Database used

INTCAL04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

A Simplified Approach to Calibrating C14 Dates

Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2), p317-322

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=N/A:lab. mult=1)

Laboratory number: Beta-272882

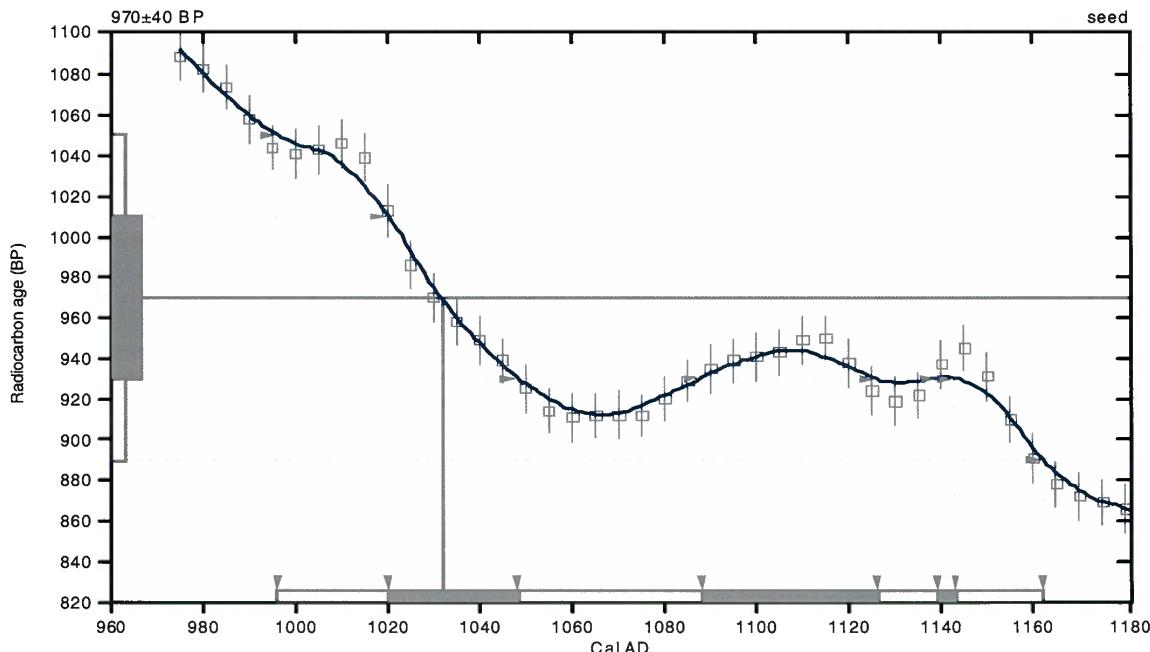
Conventional radiocarbon age: 970 ± 40 BP

2 Sigma calibrated result: Cal AD 1000 to 1160 (Cal BP 950 to 790)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 1030 (Cal BP 920)

1 Sigma calibrated results: Cal AD 1020 to 1050 (Cal BP 930 to 900) and
(68% probability) Cal AD 1090 to 1130 (Cal BP 860 to 820) and
Cal AD 1140 to 1140 (Cal BP 810 to 810)



References:

Database used

INTCAL04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=N/A:lab. mult=1)

Laboratory number: Beta-272883

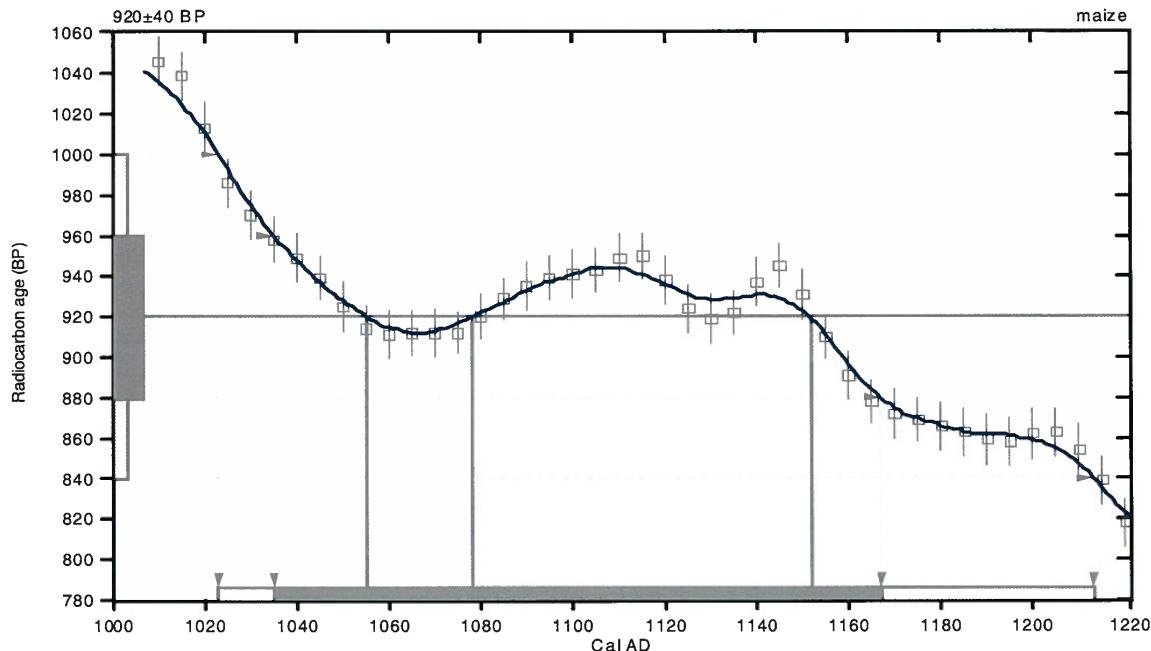
Conventional radiocarbon age: 920±40 BP

2 Sigma calibrated result: Cal AD 1020 to 1210 (Cal BP 930 to 740)
(95% probability)

Intercept data

Intercepts of radiocarbon age
with calibration curve: Cal AD 1060 (Cal BP 900) and
Cal AD 1080 (Cal BP 870) and
Cal AD 1150 (Cal BP 800)

1 Sigma calibrated result: Cal AD 1040 to 1170 (Cal BP 920 to 780)
(68% probability)



References:

Database used

INTCAL04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-23.1:lab. mult=1)

Laboratory number: Beta-272884

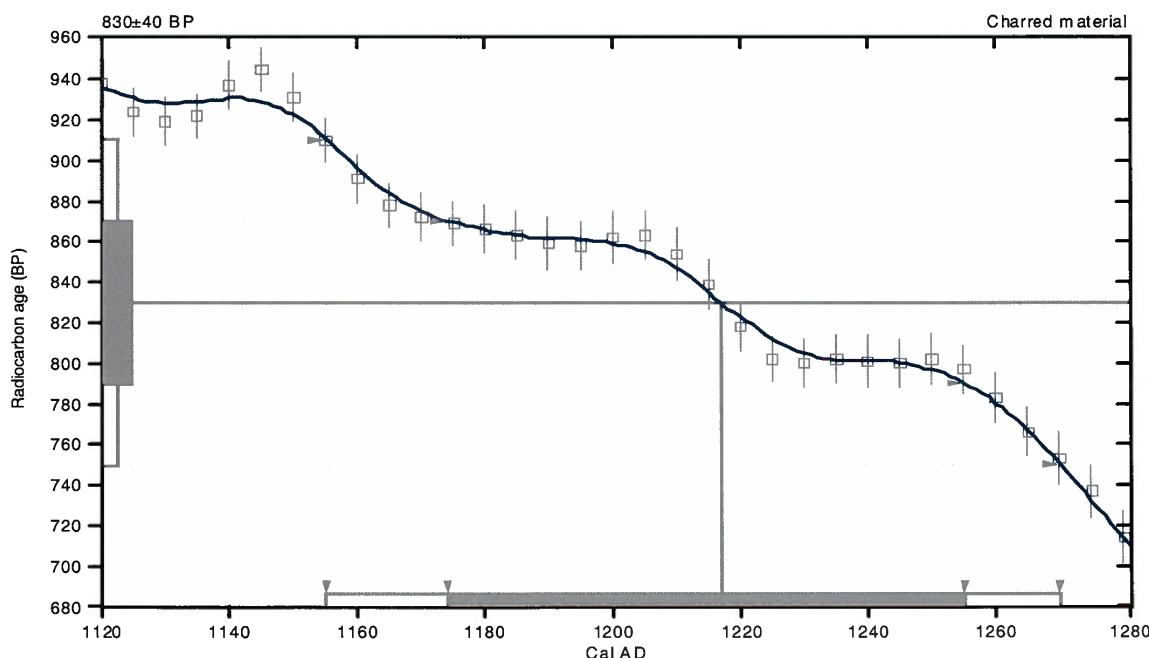
Conventional radiocarbon age: 830 ± 40 BP

2 Sigma calibrated result: Cal AD 1160 to 1270 (Cal BP 800 to 680)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 1220 (Cal BP 730)

1 Sigma calibrated result: Cal AD 1170 to 1260 (Cal BP 780 to 700)
(68% probability)



References:

- Database used*
INTCAL04
- Calibration Database*
INTCAL04 Radiocarbon Age Calibration
IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).
- Mathematics*
A Simplified Approach to Calibrating C14 Dates
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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-23:lab. mult=1)

Laboratory number: Beta-272885

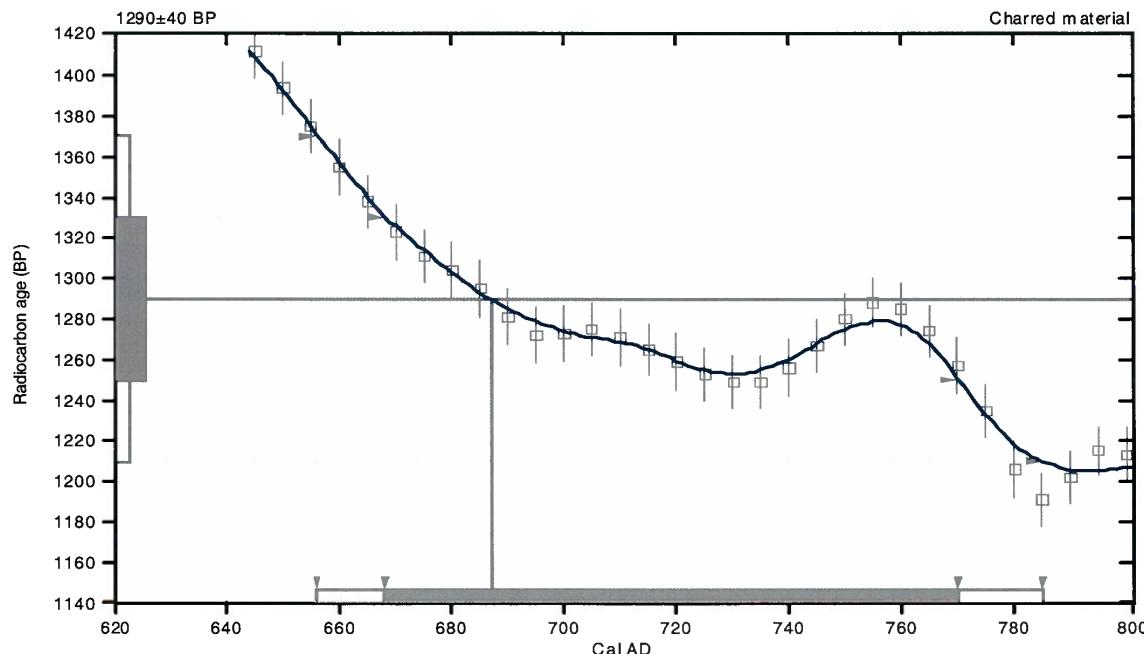
Conventional radiocarbon age: 1290 ± 40 BP

2 Sigma calibrated result: Cal AD 660 to 780 (Cal BP 1290 to 1160)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 690 (Cal BP 1260)

1 Sigma calibrated result: Cal AD 670 to 770 (Cal BP 1280 to 1180)
(68% probability)



References:

- Database used*
INTCAL04
- Calibration Database*
INTCAL04 Radiocarbon Age Calibration
IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).
- Mathematics*
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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-25.7:lab. mult=1)

Laboratory number: Beta-272886

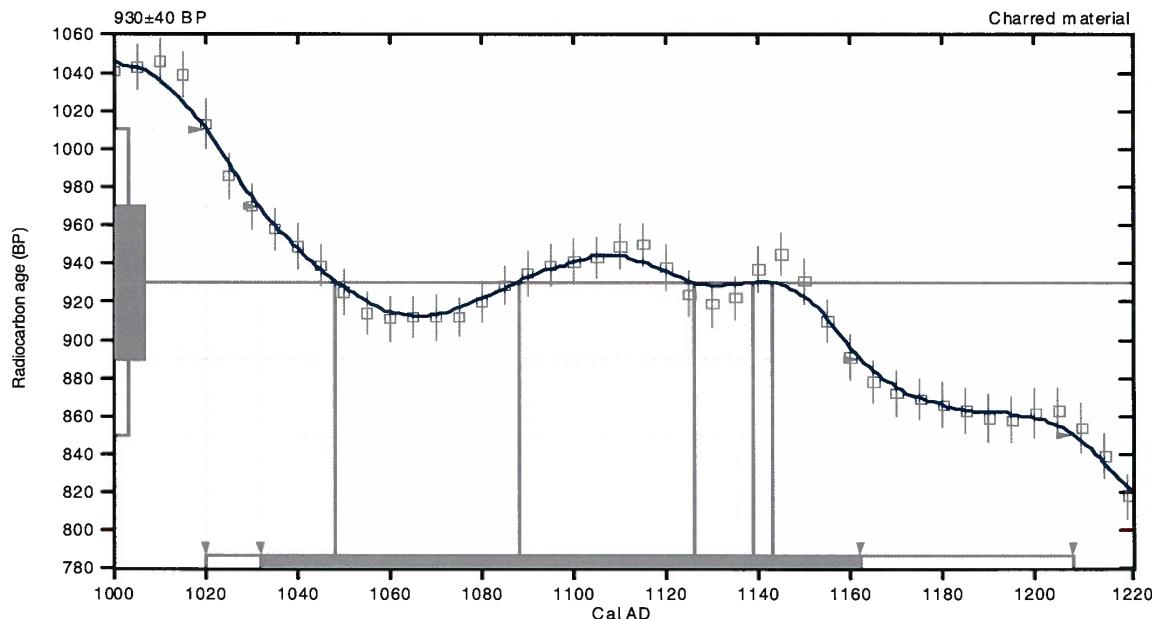
Conventional radiocarbon age: 930±40 BP

2 Sigma calibrated result: Cal AD 1020 to 1210 (Cal BP 930 to 740)
(95% probability)

Intercept data

Intercepts of radiocarbon age with calibration curve: Cal AD 1050 (Cal BP 900) and
Cal AD 1090 (Cal BP 860) and
Cal AD 1130 (Cal BP 820) and
Cal AD 1140 (Cal BP 810) and
Cal AD 1140 (Cal BP 810)

1 Sigma calibrated result: Cal AD 1030 to 1160 (Cal BP 920 to 790)
(68% probability)



References:

Database used

INTCAL04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=N/A:lab. mult=1)

Laboratory number: Beta-272887

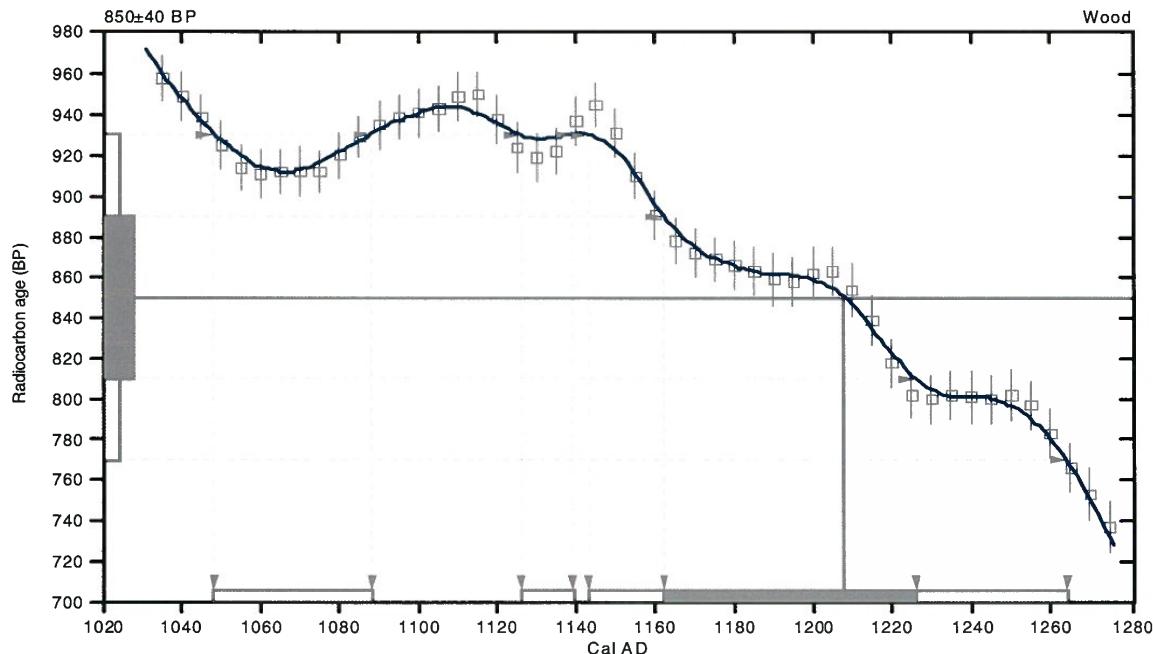
Conventional radiocarbon age: 850 ± 40 BP

2 Sigma calibrated results:
 (95% probability) Cal AD 1050 to 1090 (Cal BP 900 to 860) and
 Cal AD 1130 to 1140 (Cal BP 820 to 810) and
 Cal AD 1140 to 1260 (Cal BP 810 to 690)

Intercept data

Intercept of radiocarbon age
 with calibration curve: Cal AD 1210 (Cal BP 740)

1 Sigma calibrated result:
 (68% probability) Cal AD 1160 to 1230 (Cal BP 790 to 720)



References:

- Database used*
INTCAL04
- Calibration Database*
INTCAL04 Radiocarbon Age Calibration
IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).
- Mathematics*
A Simplified Approach to Calibrating C14 Dates
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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-22.8:lab. mult=1)

Laboratory number: Beta-272888

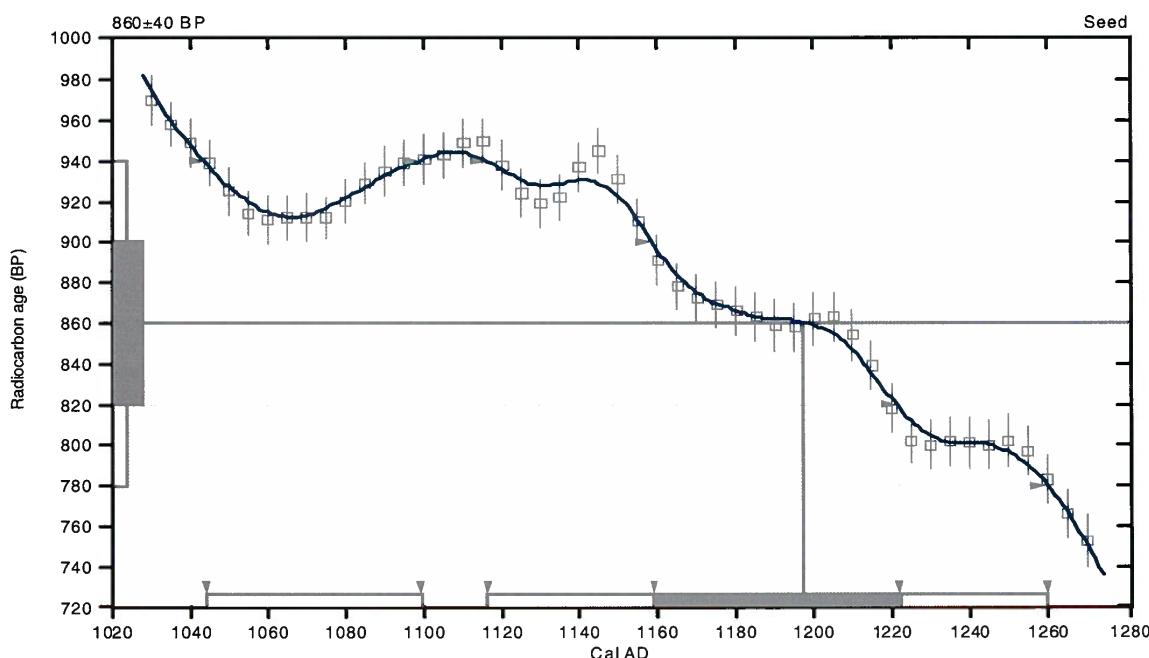
Conventional radiocarbon age: 860±40 BP

2 Sigma calibrated results: Cal AD 1040 to 1100 (Cal BP 910 to 850) and
(95% probability) Cal AD 1120 to 1260 (Cal BP 830 to 690)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 1200 (Cal BP 750)

1 Sigma calibrated result: Cal AD 1160 to 1220 (Cal BP 790 to 730)
(68% probability)



References:

Database used

INTCAL04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

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A Simplified Approach to Calibrating C14 Dates

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-23:lab. mult=1)

Laboratory number: Beta-272890

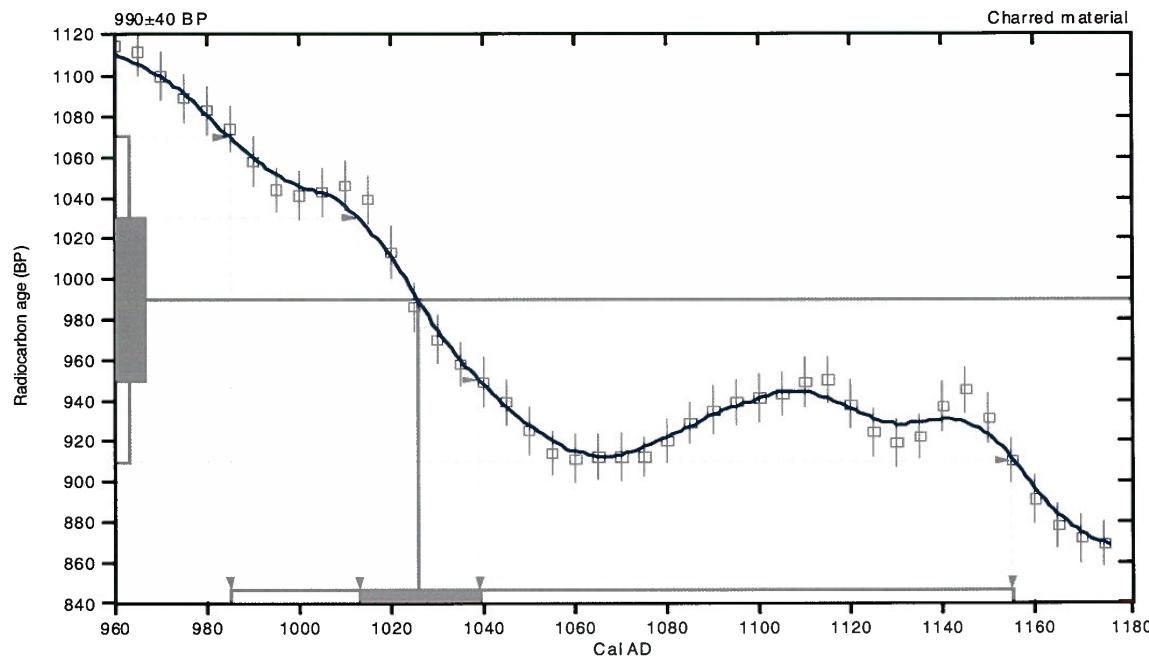
Conventional radiocarbon age: 990 ± 40 BP

2 Sigma calibrated result: Cal AD 980 to 1160 (Cal BP 960 to 800)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 1030 (Cal BP 920)

1 Sigma calibrated result: Cal AD 1010 to 1040 (Cal BP 940 to 910)
(68% probability)



References:

- Database used
INTCAL04
Calibration Database
INTCAL04 Radiocarbon Age Calibration
IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).
Mathematics
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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-24.5:lab. mult=1)

Laboratory number: Beta-272891

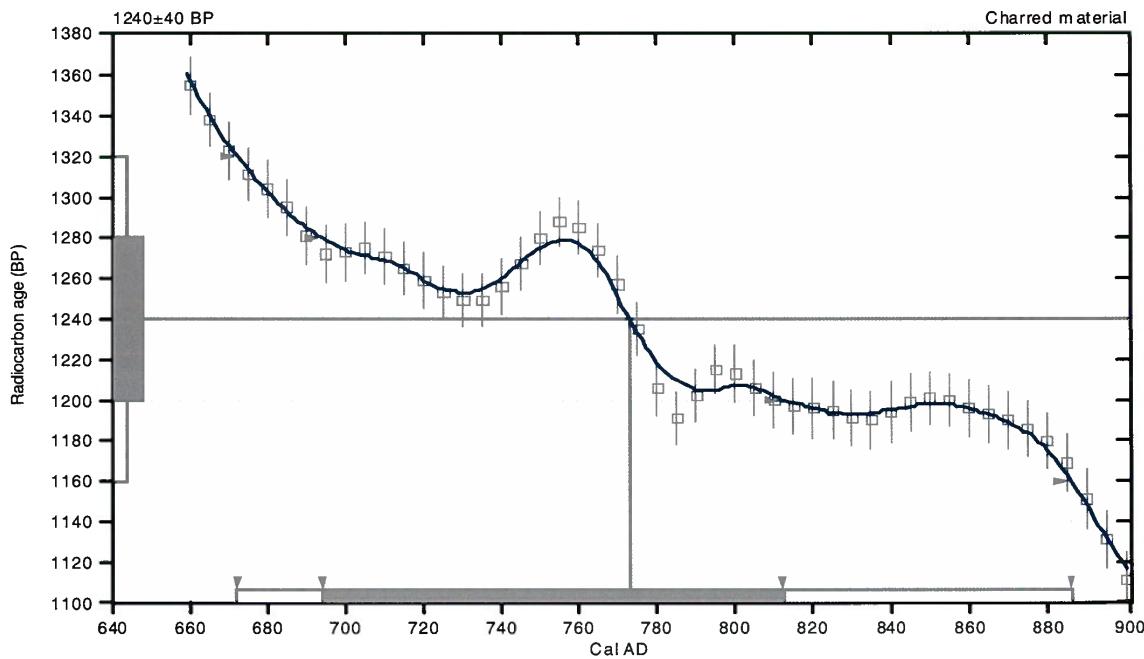
Conventional radiocarbon age: 1240 ± 40 BP

2 Sigma calibrated result: Cal AD 670 to 890 (Cal BP 1280 to 1060)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 770 (Cal BP 1180)

1 Sigma calibrated result: Cal AD 690 to 810 (Cal BP 1260 to 1140)
(68% probability)



References:

Database used

INTCAL04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

A Simplified Approach to Calibrating C14 Dates

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-8.8:lab. mult=1)

Laboratory number: Beta-272892

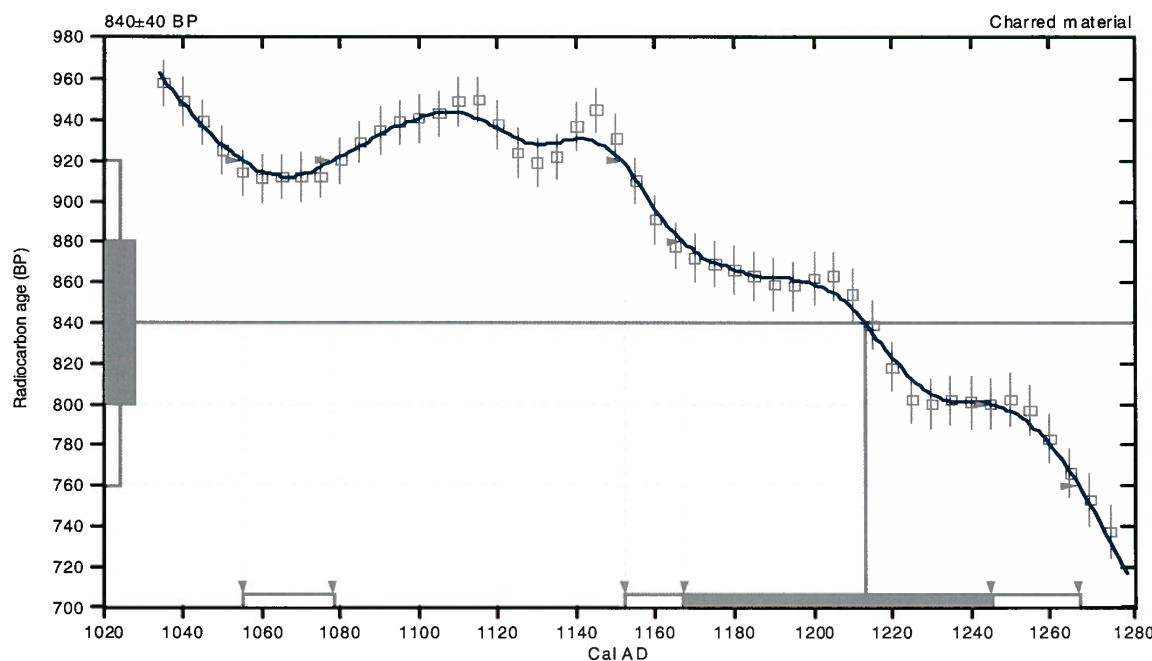
Conventional radiocarbon age: 840 ± 40 BP

2 Sigma calibrated results: Cal AD 1060 to 1080 (Cal BP 900 to 870) and
(95% probability) Cal AD 1150 to 1270 (Cal BP 800 to 680)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 1210 (Cal BP 740)

1 Sigma calibrated result: Cal AD 1170 to 1240 (Cal BP 780 to 700)
(68% probability)



References:

Database used

INTCAL04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

A Simplified Approach to Calibrating C14 Dates

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-12.9:lab. mult=1)

Laboratory number: Beta-272893

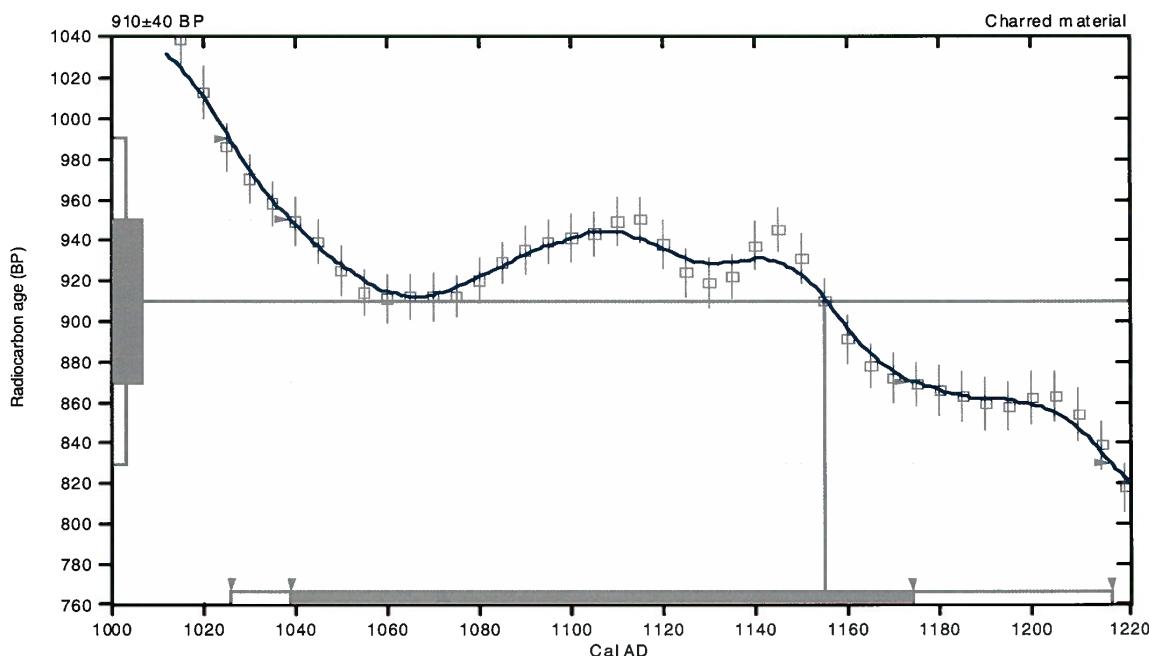
Conventional radiocarbon age: 910 ± 40 BP

2 Sigma calibrated result: Cal AD 1030 to 1220 (Cal BP 920 to 730)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 1160 (Cal BP 800)

1 Sigma calibrated result: Cal AD 1040 to 1170 (Cal BP 910 to 780)
(68% probability)



References:

- Database used*
INTCAL04
- Calibration Database*
INTCAL04 Radiocarbon Age Calibration
IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).
- Mathematics*
A Simplified Approach to Calibrating C14 Dates
Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2), p317-322

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-11.3:lab. mult=1)

Laboratory number: Beta-272894

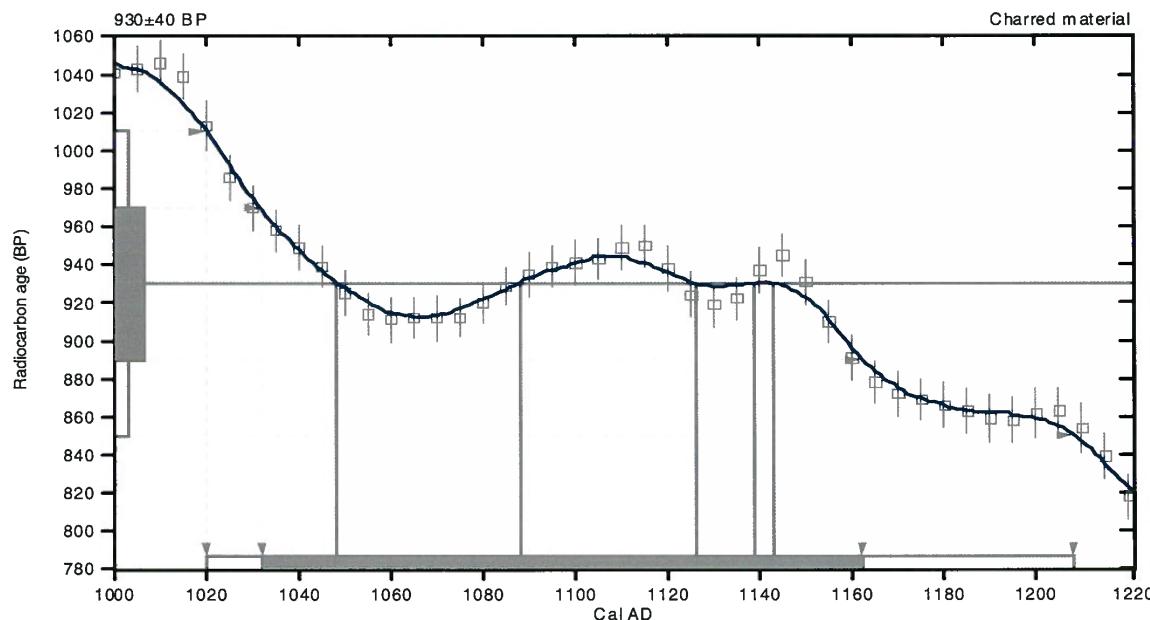
Conventional radiocarbon age: 930 ± 40 BP

2 Sigma calibrated result: Cal AD 1020 to 1210 (Cal BP 930 to 740)
(95% probability)

Intercept data

Intercepts of radiocarbon age
with calibration curve: Cal AD 1050 (Cal BP 900) and
Cal AD 1090 (Cal BP 860) and
Cal AD 1130 (Cal BP 820) and
Cal AD 1140 (Cal BP 810) and
Cal AD 1140 (Cal BP 810)

1 Sigma calibrated result: Cal AD 1030 to 1160 (Cal BP 920 to 790)
(68% probability)



References:

- Database used*
INTCAL04
- Calibration Database*
INTCAL04 Radiocarbon Age Calibration
IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).
- Mathematics*
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Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2), p317-322

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-23.4:lab. mult=1)

Laboratory number: Beta-272895

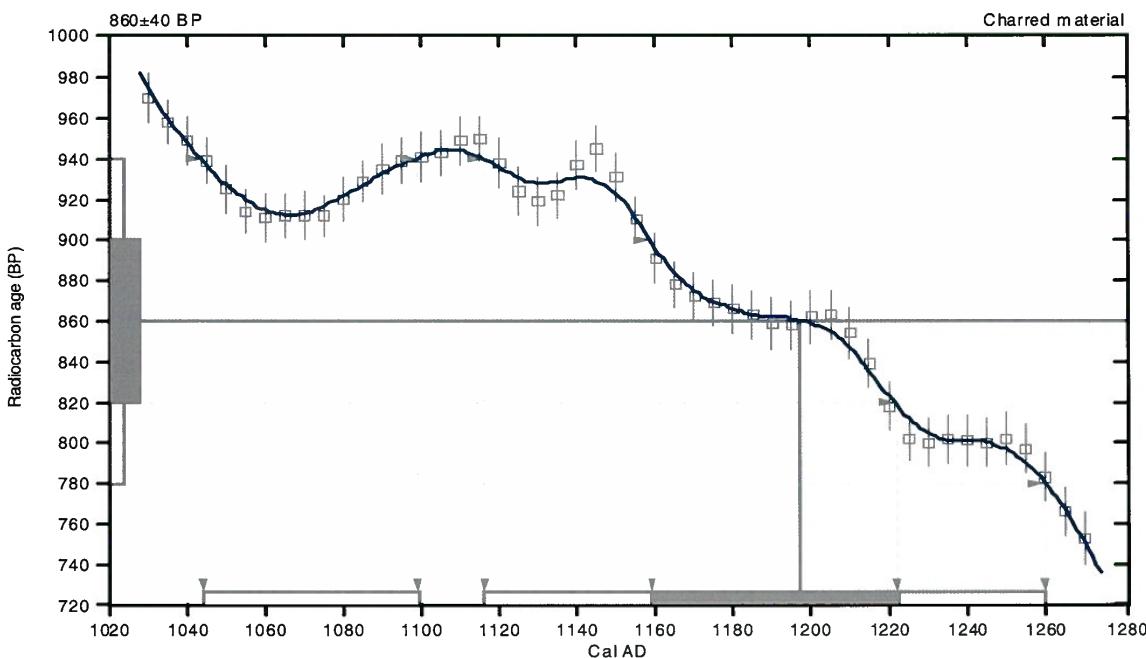
Conventional radiocarbon age: 860 ± 40 BP

2 Sigma calibrated results: Cal AD 1040 to 1100 (Cal BP 910 to 850) and
(95% probability) Cal AD 1120 to 1260 (Cal BP 830 to 690)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 1200 (Cal BP 750)

1 Sigma calibrated result: Cal AD 1160 to 1220 (Cal BP 790 to 730)
(68% probability)



References:

- Database used*
INTCAL04
- Calibration Database*
INTCAL04 Radiocarbon Age Calibration
IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).
- Mathematics*
A Simplified Approach to Calibrating C14 Dates
Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2), p317-322

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-10.5 :lab. mult=1)

Laboratory number: Beta-272896

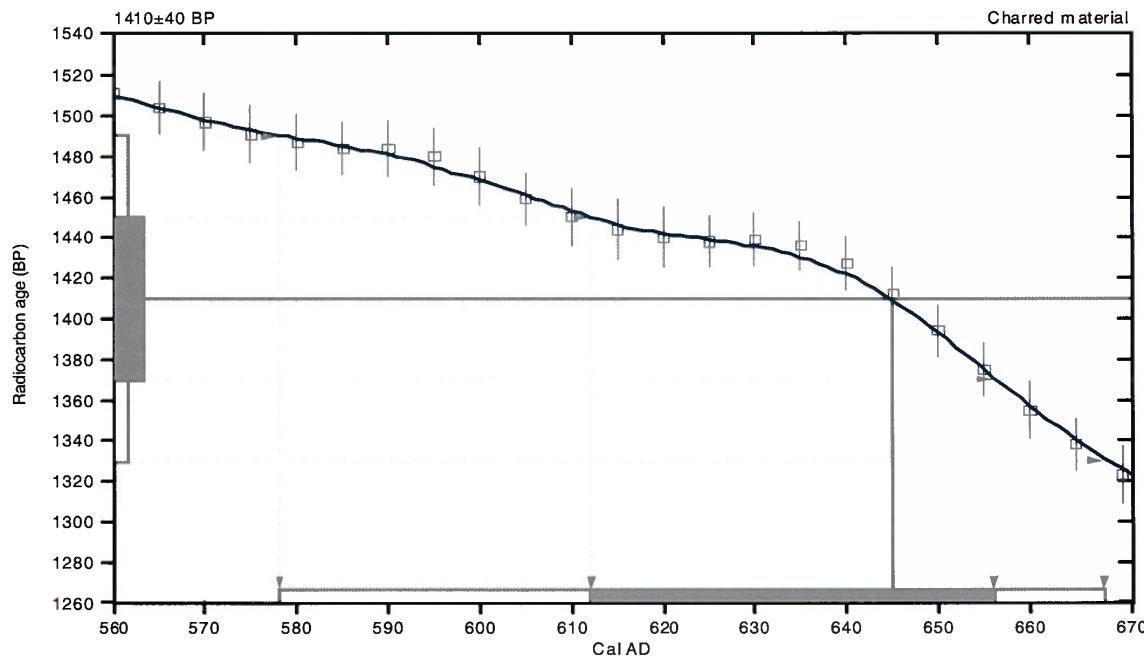
Conventional radiocarbon age: 1410 ± 40 BP

2 Sigma calibrated result: Cal AD 580 to 670 (Cal BP 1370 to 1280)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 640 (Cal BP 1300)

1 Sigma calibrated result: Cal AD 610 to 660 (Cal BP 1340 to 1290)
(68% probability)



References:

- Database used*
INTCAL04
- Calibration Database*
INTCAL04 Radiocarbon Age Calibration
IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).
- Mathematics*
A Simplified Approach to Calibrating C14 Dates
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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=N/A:lab. mult=1)

Laboratory number: Beta-272897

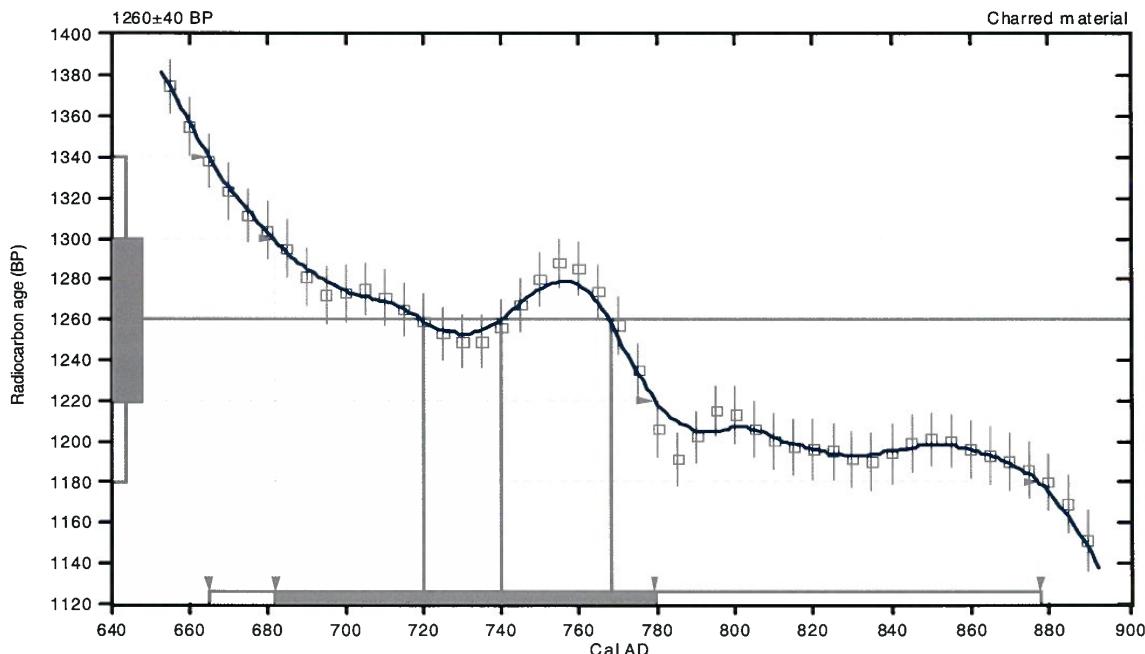
Conventional radiocarbon age: 1260 ± 40 BP

2 Sigma calibrated result: Cal AD 660 to 880 (Cal BP 1280 to 1070)
(95% probability)

Intercept data

Intercepts of radiocarbon age with calibration curve: Cal AD 720 (Cal BP 1230) and
Cal AD 740 (Cal BP 1210) and
Cal AD 770 (Cal BP 1180)

1 Sigma calibrated result: Cal AD 680 to 780 (Cal BP 1270 to 1170)
(68% probability)



References:

- Database used*
INTCAL04
- Calibration Database*
INTCAL04 Radiocarbon Age Calibration
IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).
- Mathematics*
A Simplified Approach to Calibrating C14 Dates
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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-11:lab. mult=1)

Laboratory number: Beta-272898

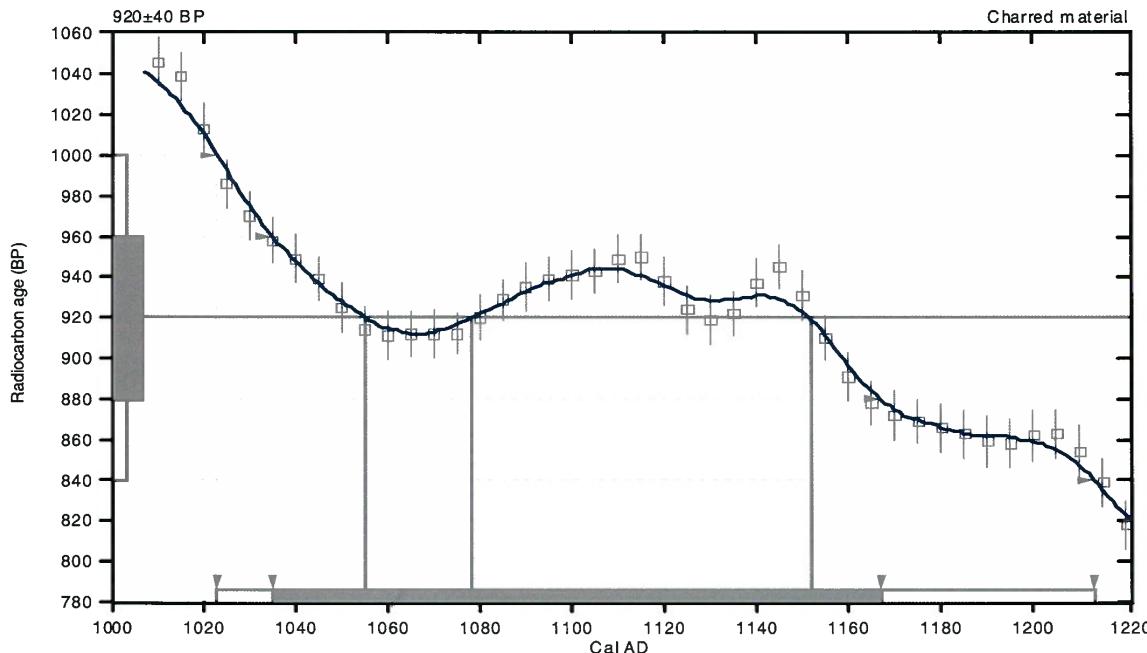
Conventional radiocarbon age: 920 ± 40 BP

2 Sigma calibrated result: Cal AD 1020 to 1210 (Cal BP 930 to 740)
(95% probability)

Intercept data

Intercepts of radiocarbon age
with calibration curve: Cal AD 1060 (Cal BP 900) and
Cal AD 1080 (Cal BP 870) and
Cal AD 1150 (Cal BP 800)

1 Sigma calibrated result: Cal AD 1040 to 1170 (Cal BP 920 to 780)
(68% probability)



References:

- Database used*
INTCAL04
- Calibration Database*
INTCAL04 Radiocarbon Age Calibration
IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).
- Mathematics*
A Simplified Approach to Calibrating C14 Dates
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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-22.6:lab. mult=1)

Laboratory number: Beta-272899

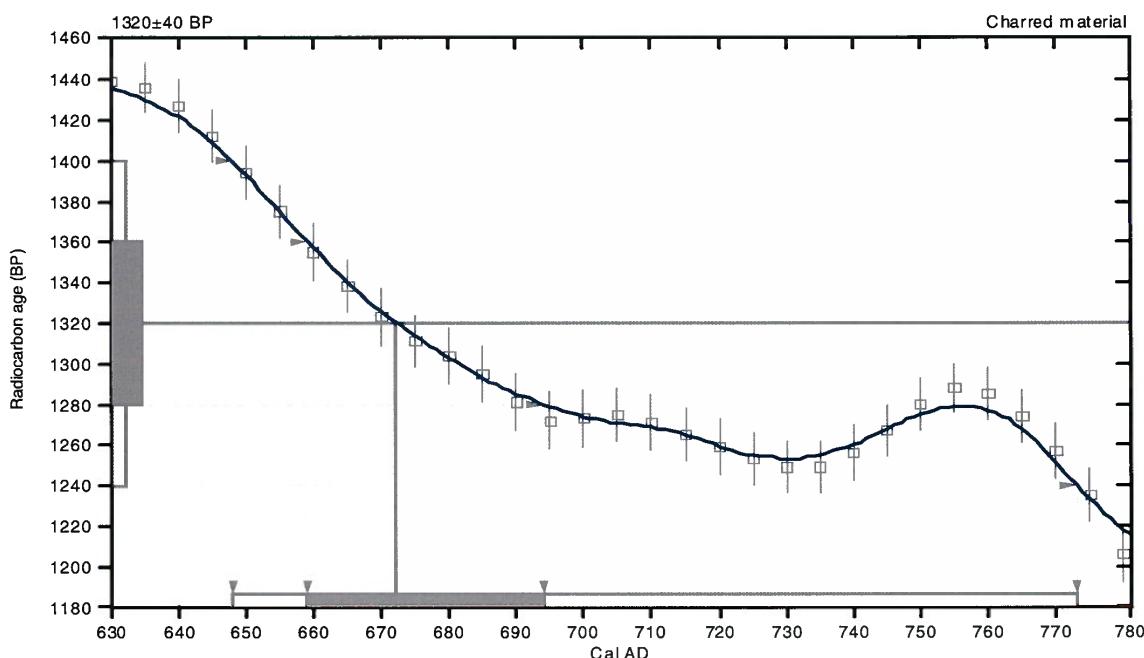
Conventional radiocarbon age: 1320 ± 40 BP

2 Sigma calibrated result: Cal AD 650 to 770 (Cal BP 1300 to 1180)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 670 (Cal BP 1280)

1 Sigma calibrated result: Cal AD 660 to 690 (Cal BP 1290 to 1260)
(68% probability)



References:

Database used

INTCAL04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-21.1:lab. mult=1)

Laboratory number: Beta-272900

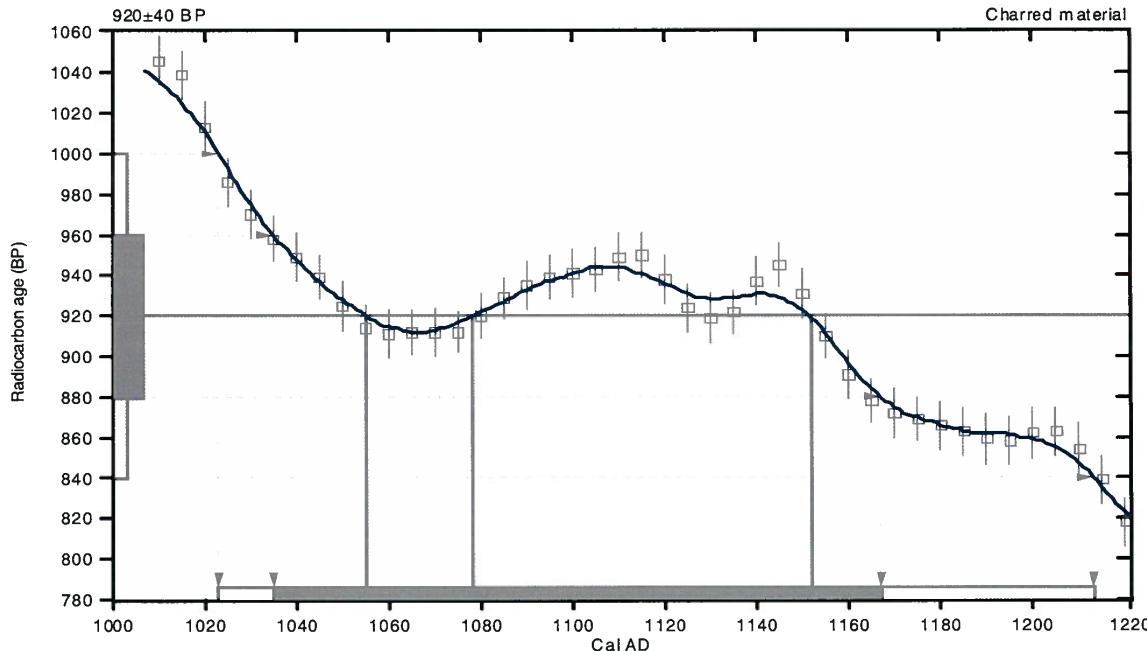
Conventional radiocarbon age: 920 ± 40 BP

2 Sigma calibrated result: Cal AD 1020 to 1210 (Cal BP 930 to 740)
(95% probability)

Intercept data

Intercepts of radiocarbon age
with calibration curve: Cal AD 1060 (Cal BP 900) and
Cal AD 1080 (Cal BP 870) and
Cal AD 1150 (Cal BP 800)

1 Sigma calibrated result: Cal AD 1040 to 1170 (Cal BP 920 to 780)
(68% probability)



References:

- Database used*
INTCAL04
- Calibration Database*
INTCAL04 Radiocarbon Age Calibration
IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).
- Mathematics*
A Simplified Approach to Calibrating C14 Dates
Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2), p317-322

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-22.3:lab. mult=1)

Laboratory number: Beta-272901

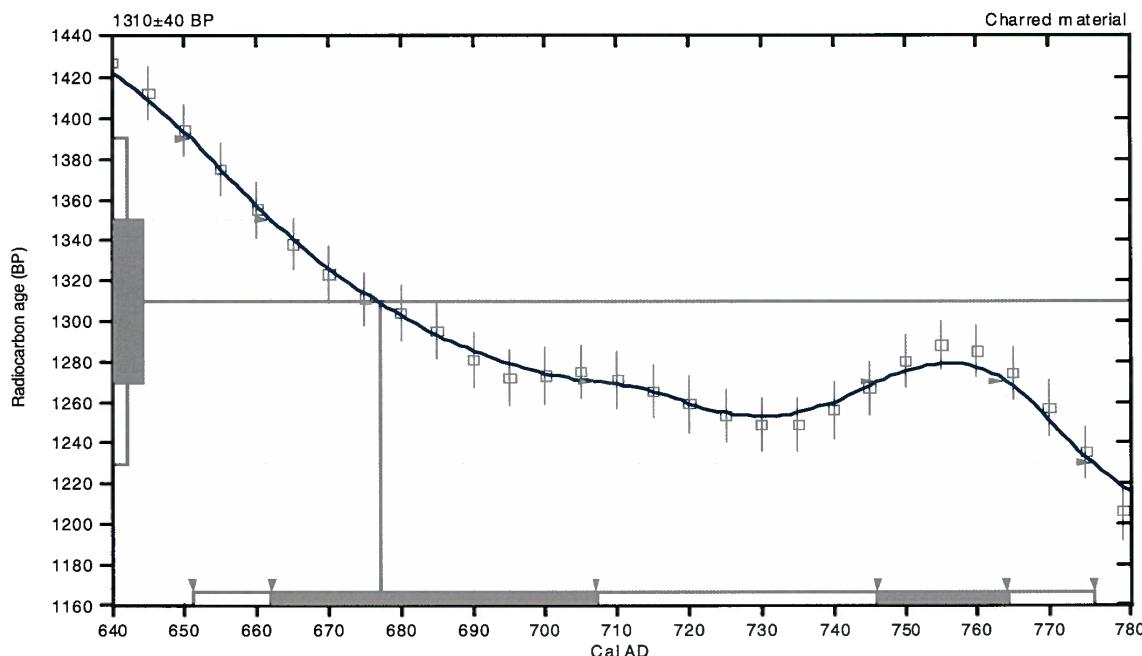
Conventional radiocarbon age: 1310 ± 40 BP

2 Sigma calibrated result: Cal AD 650 to 780 (Cal BP 1300 to 1170)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 680 (Cal BP 1270)

1 Sigma calibrated results: Cal AD 660 to 710 (Cal BP 1290 to 1240) and
(68% probability) Cal AD 750 to 760 (Cal BP 1200 to 1190)



References:

Database used

INTCAL04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

A Simplified Approach to Calibrating C14 Dates

Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2), p317-322

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-23.2:lab. mult=1)

Laboratory number: Beta-272902

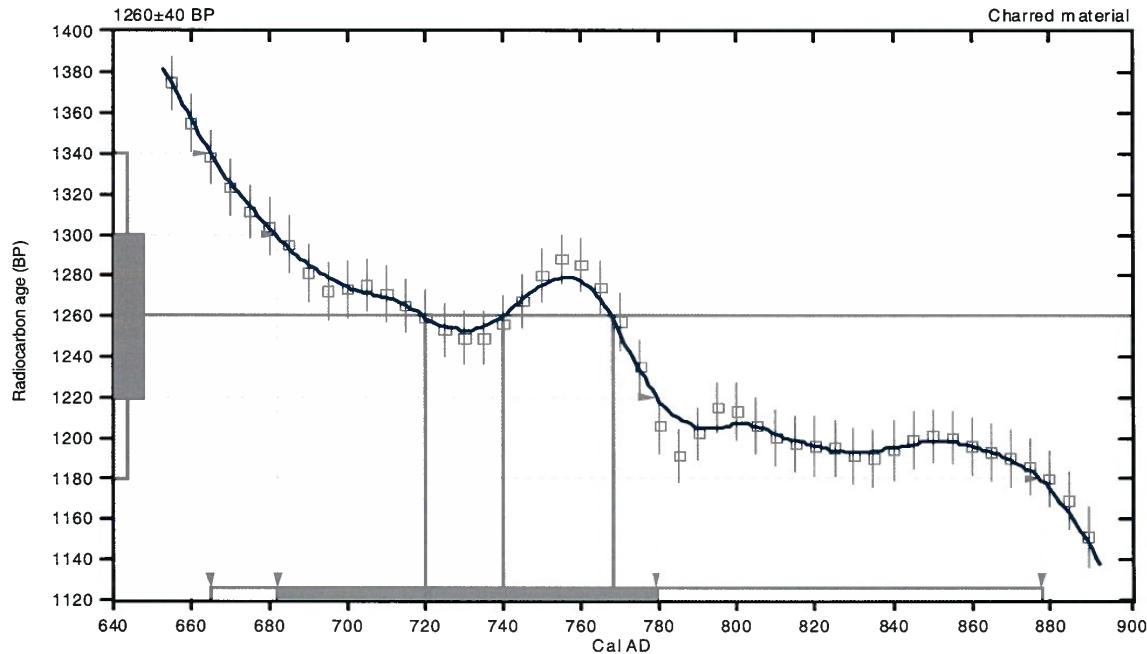
Conventional radiocarbon age: 1260±40 BP

2 Sigma calibrated result: Cal AD 660 to 880 (Cal BP 1280 to 1070)
(95% probability)

Intercept data

Intercepts of radiocarbon age
with calibration curve: Cal AD 720 (Cal BP 1230) and
Cal AD 740 (Cal BP 1210) and
Cal AD 770 (Cal BP 1180)

1 Sigma calibrated result: Cal AD 680 to 780 (Cal BP 1270 to 1170)
(68% probability)



References:

Database used

INTCAL04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

A Simplified Approach to Calibrating C14 Dates

Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2), p317-322

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-10.5:lab. mult=1)

Laboratory number: Beta-272903

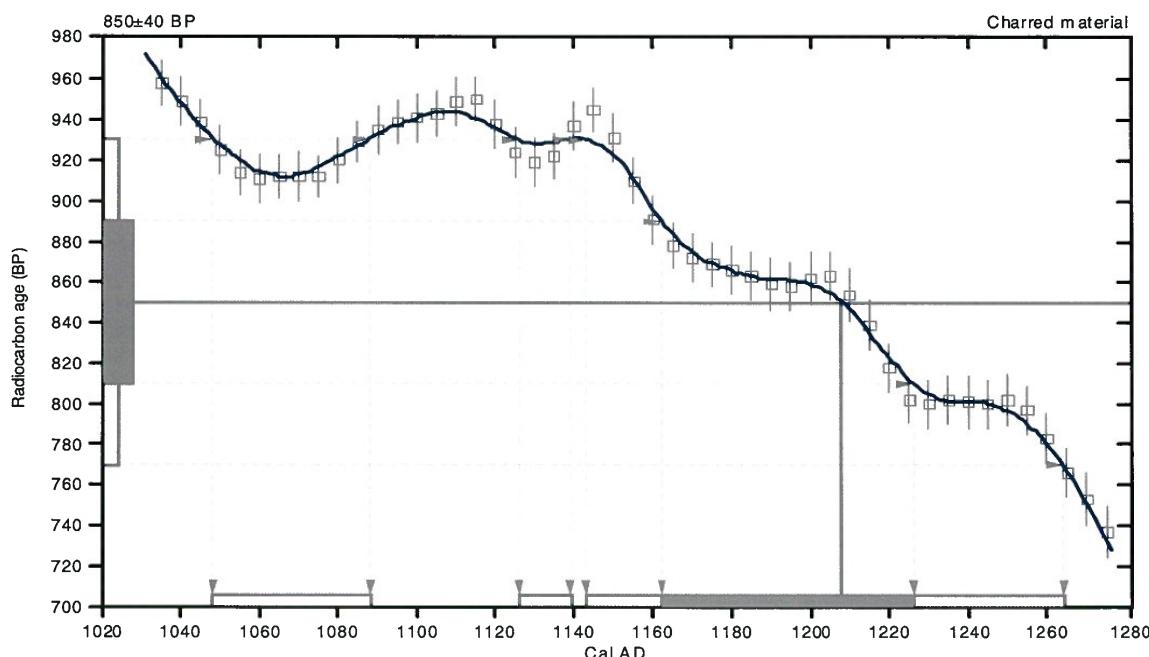
Conventional radiocarbon age: 850 ± 40 BP

2 Sigma calibrated results:
(95% probability)
Cal AD 1050 to 1090 (Cal BP 900 to 860) and
Cal AD 1130 to 1140 (Cal BP 820 to 810) and
Cal AD 1140 to 1260 (Cal BP 810 to 690)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 1210 (Cal BP 740)

1 Sigma calibrated result:
(68% probability)
Cal AD 1160 to 1230 (Cal BP 790 to 720)



References:

- Database used*
INTCAL04
- Calibration Database*
INTCAL04 Radiocarbon Age Calibration
IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).
- Mathematics*
A Simplified Approach to Calibrating C14 Dates
Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2), p317-322

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-11.4:lab. mult=1)

Laboratory number: Beta-272904

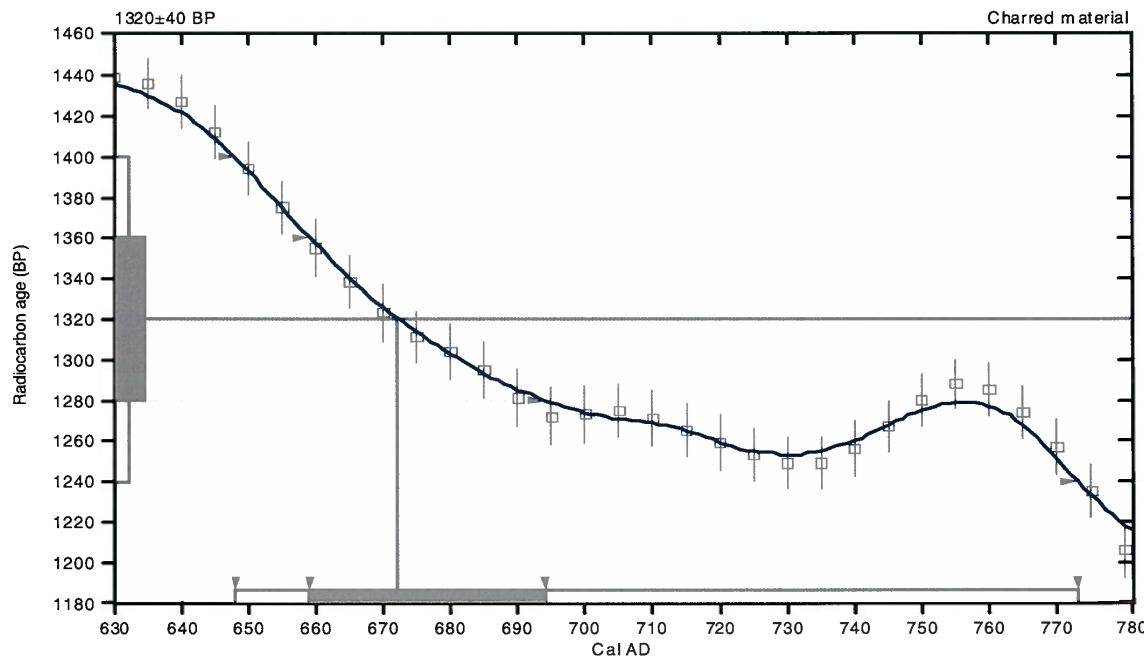
Conventional radiocarbon age: 1320 ± 40 BP

2 Sigma calibrated result: Cal AD 650 to 770 (Cal BP 1300 to 1180)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 670 (Cal BP 1280)

1 Sigma calibrated result: Cal AD 660 to 690 (Cal BP 1290 to 1260)
(68% probability)



References:

- Database used*
INTCAL04
- Calibration Database*
INTCAL04 Radiocarbon Age Calibration
IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).
- Mathematics*
A Simplified Approach to Calibrating C14 Dates
Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2), p317-322

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-10.2:lab. mult=1)

Laboratory number: Beta-272905

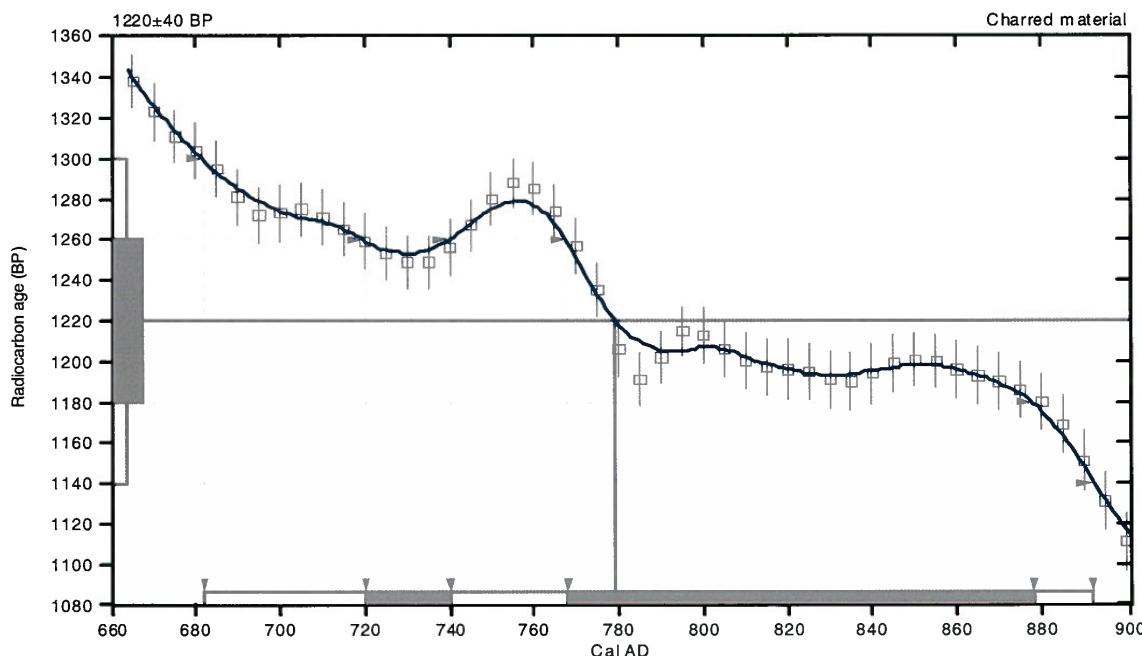
Conventional radiocarbon age: 1220 ± 40 BP

2 Sigma calibrated result: Cal AD 680 to 890 (Cal BP 1270 to 1060)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 780 (Cal BP 1170)

1 Sigma calibrated results: Cal AD 720 to 740 (Cal BP 1230 to 1210) and
(68% probability) Cal AD 770 to 880 (Cal BP 1180 to 1070)



References:

Database used

INTCAL04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

A Simplified Approach to Calibrating C14 Dates

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-25.5:lab. mult=1)

Laboratory number: Beta-272906

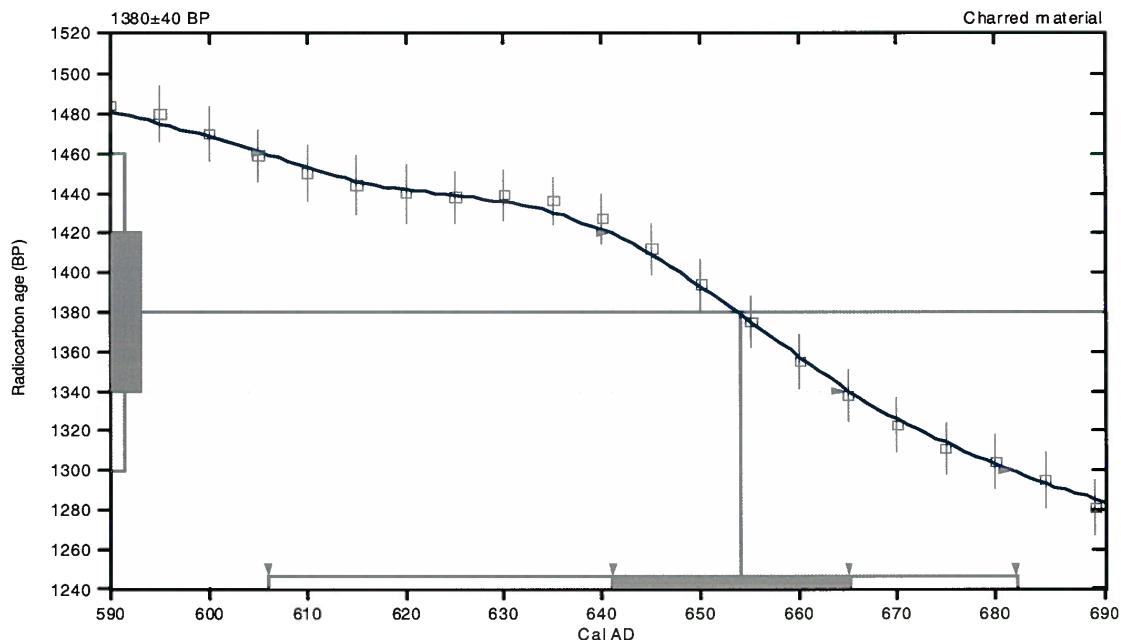
Conventional radiocarbon age: 1380 ± 40 BP

2 Sigma calibrated result: Cal AD 610 to 680 (Cal BP 1340 to 1270)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 650 (Cal BP 1300)

1 Sigma calibrated result: Cal AD 640 to 660 (Cal BP 1310 to 1280)
(68% probability)



References:

- Database used
INTCAL04
Calibration Database
INTCAL04 Radiocarbon Age Calibration
IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).
Mathematics
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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-11.7:lab. mult=1)

Laboratory number: Beta-272907

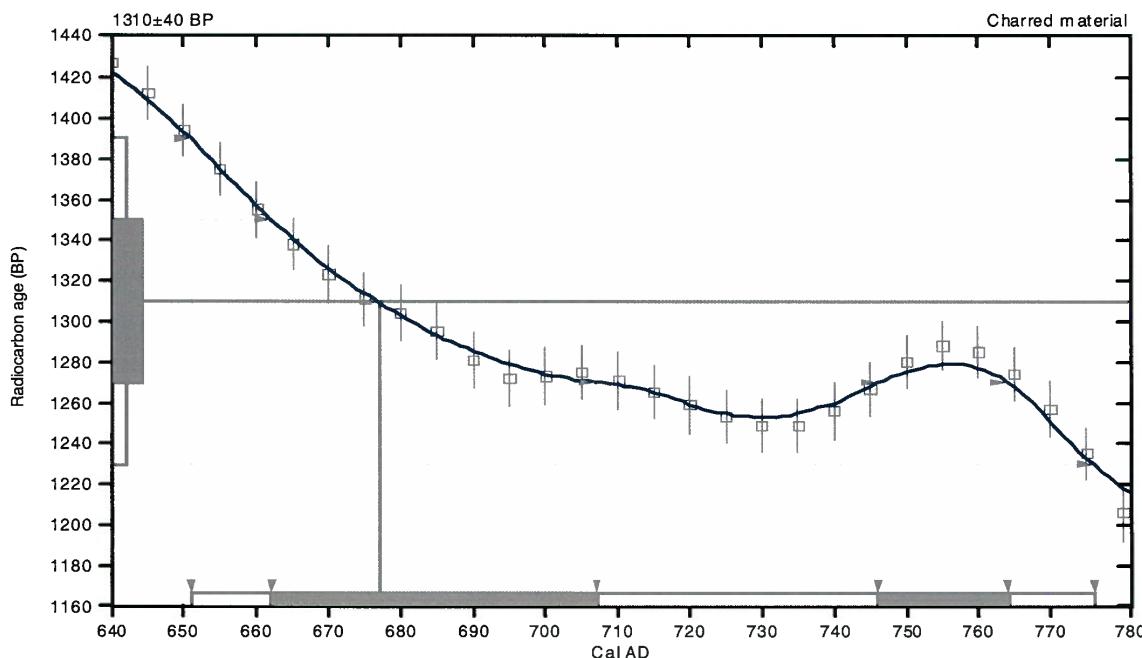
Conventional radiocarbon age: 1310 ± 40 BP

2 Sigma calibrated result: Cal AD 650 to 780 (Cal BP 1300 to 1170)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 680 (Cal BP 1270)

1 Sigma calibrated results: Cal AD 660 to 710 (Cal BP 1290 to 1240) and
(68% probability) Cal AD 750 to 760 (Cal BP 1200 to 1190)



References:

- Database used
INTCAL04
Calibration Database
INTCAL04 Radiocarbon Age Calibration
IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).
Mathematics
A Simplified Approach to Calibrating C14 Dates
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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-10.9 :lab. mult=1)

Laboratory number: Beta-272908

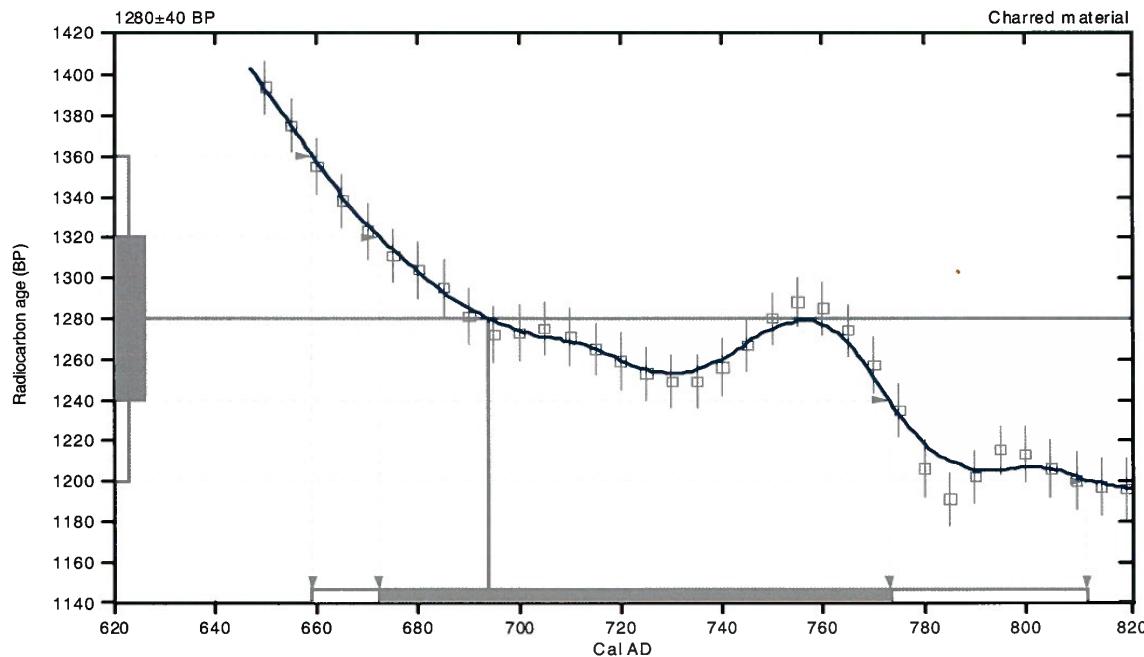
Conventional radiocarbon age: 1280 ± 40 BP

2 Sigma calibrated result: Cal AD 660 to 810 (Cal BP 1290 to 1140)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 690 (Cal BP 1260)

1 Sigma calibrated result: Cal AD 670 to 770 (Cal BP 1280 to 1180)
(68% probability)



References:

- Database used*
INTCAL04
- Calibration Database*
INTCAL04 Radiocarbon Age Calibration
IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).
- Mathematics*
A Simplified Approach to Calibrating C14 Dates
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