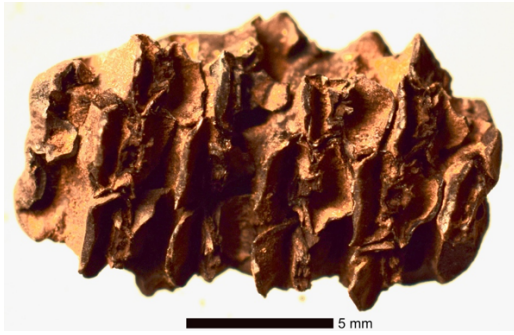


Supplement 1. Images and data on dated maize
Accelerator Mass Spectrometry Dates of Meadowcroft Rockshelter Maize Remains
John P. Hart and James M. Adovasio

This file provides images and other data for the specimens for which samples were submitted to the W. M. Keck Carbon Cycle Accelerator Mass Spectrometry Laboratory (KCCAMS) at the University of California-Irvine for isotope-ratio measurement and AMS dating. The specified row number for each specimen was determined by Cutler and Blake as reported in Adovasio and Johnson (1981).

FS-811.3 (1)



Provenience: Unit 21L12N, Stratum IV, 10-20 cm.

Rows: 16

Original weight: 0.15260 g

Sample weight: 0.01882 g

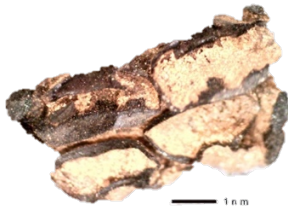
UCIAMS No. 248506

$\delta^{13}\text{C}$ (‰): -10.6 ± 0.1

FMC: 0.9875 ± 0.0018

^{14}C age (BP): 100 ± 15

FS-811.3 (2)



Cob fragment separate from Sample 1

Provenience: Unit 21L12N, Stratum IV, 10-20 cm.

Rows: Cutler and Blake did not include this specimen in their analysis.

Original weight: 0.01947 g

Sample weight: 0.00578 g

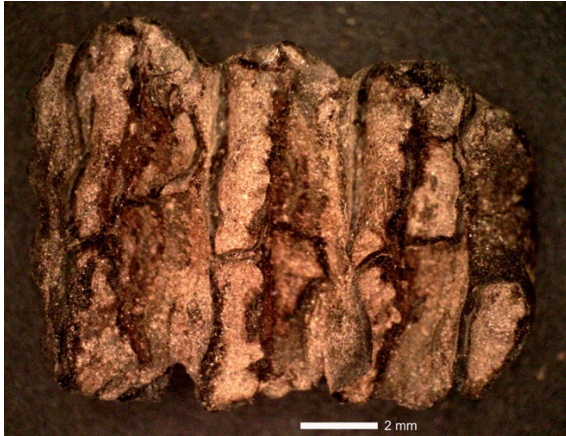
UCIAMS No.: 248507

$\delta^{13}\text{C}$ (‰): -10.5 ± 0.1

FMC: 0.9862 ± 0.0018

^{14}C age (BP): 110 ± 15

FS-790.3



Provenience: Unit 23L8N, Stratum V, 0-10 cm.

Rows: 10

Original weight: 0.25883 g

Sample weight: 0.01163 g

UCIAMS No.:248513

$\delta^{13}\text{C}$ (‰): -9.4 ± 0.1

FMC: 0.9861 ± 0.0016

^{14}C age (BP): 115 ± 15

FS-790.5.1 (1)



Provenience: Unit 23L8N, Stratum V, 0-10 cm

Rows: 14?

Original weight: 0.57085 g

Sample weight: 0.01028 g

$\delta^{13}\text{C}$ (‰): -10.4 ± 0.1

FMC: 0.9857 ± 0.0017

^{14}C age (BP): 115 ± 15

FS-790.5.1 (2)



Cob fragment separate from Sample 1.

Provenience: Unit 23L8N, Stratum V, 0-10 cm

Rows: Cutler and Blake did not include this specimen in their analysis.

Original weight: 0.18435 g

Sample weight: 0.01833 g

UCIAMS No. 248508

$\delta^{13}\text{C}$ (‰): -8.9 ± 0.1

FMC: 0.9855 ± 0.0018

^{14}C age (BP): 120 ± 15

FS-790.5 (2.1)



Provenience: Unit 23L8N, Stratum V, 0-10 cm

Rows: 12?

Original weight: 1.19325 g

Sample weight: 0.02748 g

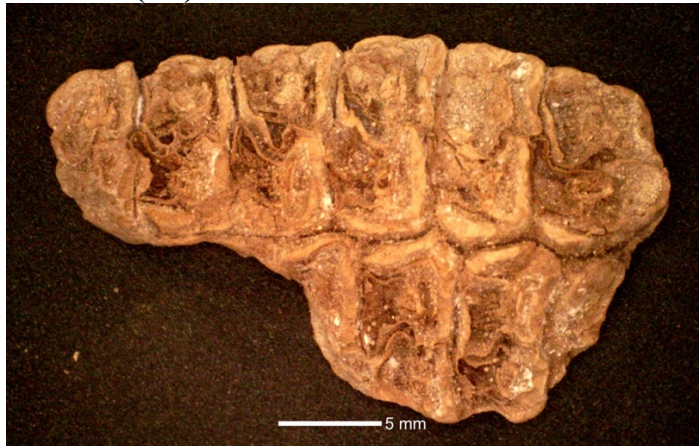
UCIAMS No.: 248510

$\delta^{13}\text{C}$ (‰): -8.4 ± 0.1

FMC: 0.9910 ± 0.0018

^{14}C age (BP): 75 ± 15

FS-790.5 (2.2)



Provenience: Unit 23L8N, Stratum V, 0-10 cm

Rows: 12

Original weight: 0.34382 g

Sample weight: 0.02754 g

UCIAMS No. 248511

$\delta^{13}\text{C}$ (‰): -10.8 ± 0.1

FMC: 0.9848 ± 0.0019

^{14}C age (BP): 125 ± 20

FS-790.5 (3.1)



Provenience: Unit 23L8N, Stratum V, 0-10 cm

Rows: 12

Original weight: 3.22352 g

Sample weight: 0.01940 g

UCIAMS No.: 248512

$\delta^{13}\text{C}$ (‰): -9.4 ± 0.1

FMC: 0.9887 ± 0.0018

^{14}C age (BP): 90 ± 15

FS-269.8 (1)



Provenience: Unit 22L9, Stratum VII, 0-10 cm

Rows: 12

Original weight: 0.52478 g

Sample weight: 0.01200 g

UCIAMS No. 248515

$\delta^{13}\text{C}$ (‰): -8.9 ± 0.1

FMC: 0.9855 ± 0.0018

^{14}C age (BP): 115 ± 15

FS-269.8 (2)



Provenience: Unit 22L9, Stratum VII, 0-10 cm

Rows: 10

Original weight: 0.08821 g

Sample weight: 0.01123 g

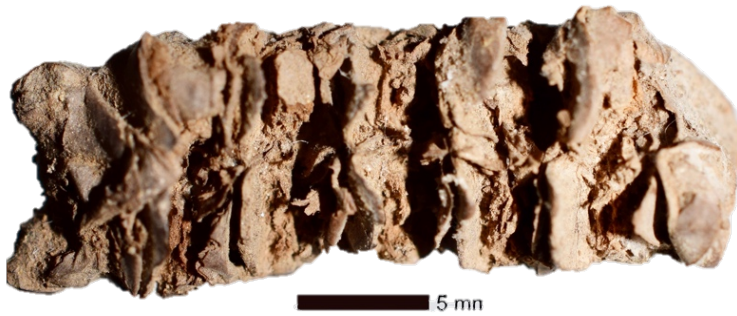
UCIAMS No: 248516

$\delta^{13}\text{C}$ (‰): --

FMC: 0.9856 ± 0.0017

^{14}C age (BP): 115 ± 15

FS-183.3



Provenience: Unit 21L11, Stratum IX, 0-10 cm

Rows: 16

Original weight: 0.96325 g

Sample weight: 0.01248 g

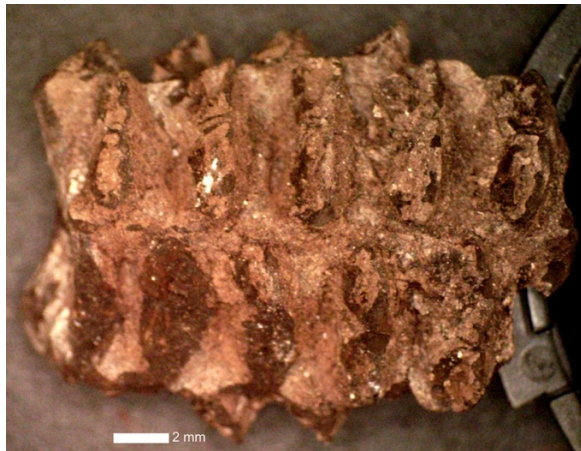
UCIAMS No.:248514

$\delta^{13}\text{C}$ (‰): -8.4 ± 0.1

FMC: 0.9866 ± 0.0018

^{14}C age (BP): 110 ± 15

FS-1811.1



Provenience: Unit 18L11E, Stratum IX, 0-10 cm

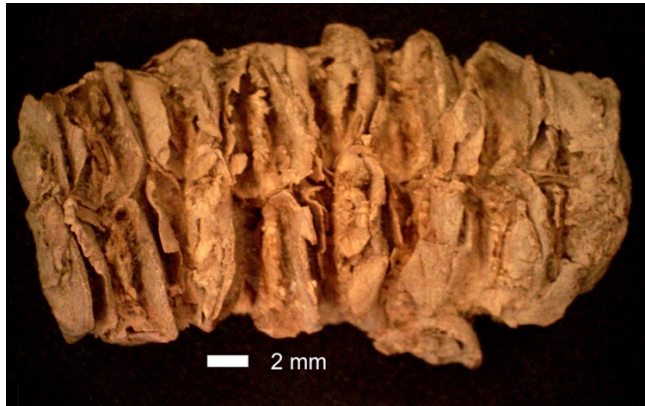
Rows: 12

Original weight: 0.61791 g

Sample weight: 0.00921 g

Sample too small for analysis

FS-750



Provenience: Unit 22L12S, Stratum XI, 0-10 cm

Rows: 8

Original weight: 0.94117 g

Sample weight: 0.01102 g

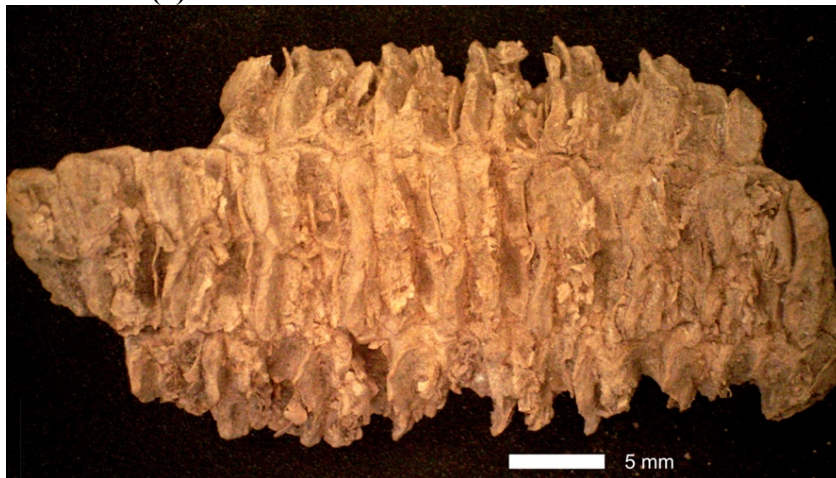
UCIAMS No: 248517

$\delta^{13}\text{C}$ (‰): -9.8 ± 0.1

FMC: 0.9850 ± 0.0017

^{14}C age (BP): 120 ± 15

FS-130.10 (1)



Provenience: Unit 23L9, Stratum XI, lower portions

Rows: 12

Original weight: 0.70733 g

Sample weight: 0.01118 g

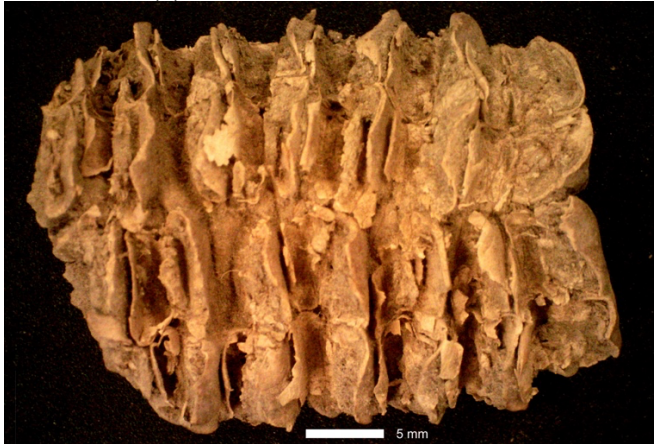
UCIAMS No.: 248518

$\delta^{13}\text{C}$ (‰): --

FMC: 0.9754 ± 0.0015

^{14}C age (BP): 200 ± 15

FS-130.10 (2)



Provenience: Unit 23L9, Stratum XI, lower portions

Rows: 8

Original weight: 1.90560 g

Sample weight: 0.02088 g

UCIAMS No.: 248519

$\delta^{13}\text{C}$ (‰): -9.1 ± 0.1

FMC: 0.9869 ± 0.0017

^{14}C age (BP): 105 ± 15

FS-160.12



Provenience: Unit 21L11, Stratum XI-IX, profile slump

Rows: 12

Original weight: 0.80682 g

Sample weight: 0.02158 g

UCIAMS No.: 248520

$\delta^{13}\text{C}$ (‰): -9.2 ± 0.1

FMC: 0.9931 ± 0.0020

^{14}C age (BP): 135 ± 20

FS-130.26 (1)



1 cm

Provenience: Unit 22L11, Stratum XI, lower mix

Rows: 12

Original weight: 7.51225 g

Sample weight: 0.06439 g

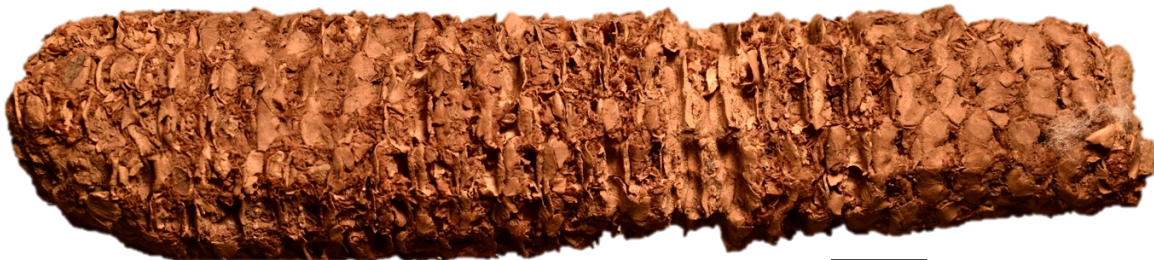
UCIAMS No. 248521

$\delta^{13}\text{C}$ (‰): -9.5 ± 0.1

FMC: 0.9905 ± 0.0016

^{14}C age (BP): 75 ± 15

FS-130.26 (2)



1 cm

Provenience: Unit 22L11, Stratum XI, lower mix

Rows: 16

Original weight: 17.03459 g

Sample weight: 0.02609 g

UCIAMS No.: 248522

$\delta^{13}\text{C}$ (‰): -9.6 ± 0.1

FMC: 0.9897 ± 0.0017

^{14}C age (BP): 85 ± 15

Supplement 2

Accelerator Mass Spectrometry Dates of Meadowcroft Rockshelter Maize Remainsby

John P. Hart and James M. Adovasio

OxCal runfile for Meadowcroft maize dates uniform Phase model.

```
Plot()
{
  Sequence()
  {
    Boundary("Start Meadowcroft");
    Phase("Meadowcroft")
    {
      R_Date("248506", 100, 15);
      R_Date("248507", 110, 15);
      R_Date("248508", 115, 15);
      R_Date("248509", 120, 15);
      R_Date("248510", 75, 15);
      R_Date("248511", 125, 20);
      R_Date("248512", 90, 15);
      R_Date("248513", 115, 15);
      R_Date("248514", 110, 15);
      R_Date("248515", 115, 15);
      R_Date("248516", 115, 15);
      R_Date("248517", 120, 15);
      R_Date("248518", 200, 15);
      R_Date("248519", 105, 15);
      R_Date("248520", 135, 20);
      R_Date("248521", 75, 20);
      R_Date("248522", 85, 15);
      Date("Date Estimate");
    };
    Boundary("End Meadowcroft");
  };
};
```

Supplement 3

Accelerator Mass Spectrometry Dates of Meadowcroft Rockshelter Maize Remains by John P. Hart and James M.

Adovasio

Results of Meadowcroft maize date OxCal uniform Phase model.

Sequence	Unmodelled (BC/AD)			Modelled (BC/AD)			Modelled (BC/AD)			Indices Amodel 88.9 Aoverall 89.6 %		
	from	to	%	from	to	%	from	to	%			
Start Meadowcroft Boundary							1690 1770	1700 1818	4.78484 63.484109	1670 1754 1842	1712 1835 1892	14.032509 72.033754 9.38371
Meadowcroft Phase												
248506	1698	1722	23.304741	1694	1726	26.720582	1710	1713	1.247694	1700	1722	9.849235
R_Date(100,15)	1814	1835	20.882155	1811	1917	68.729391	1811	1840	35.462237	1810	1915	85.600739
	1884	1910	24.082054				1878	1912	31.559017			
248507	1696	1724	21.534654	1693	1727	24.423882	1811	1857	40.949417	1699	1723	9.289499
R_Date(110,15)	1813	1839	19.226506	1810	1919	71.026091	1876	1912	27.319532	1808	1918	86.160475
	1878	1915	27.507789									
248508	1695	1711	11.344845	1691	1728	23.400185	1810	1894	65.67506	1696	1726	10.01884
R_Date(115,15)	1718	1725	4.691697	1809	1921	72.049789	1907	1911	2.593889	1807	1920	85.431134
	1813	1822	6.484182									
	1832	1893	37.905584									
	1905	1916	7.842641									
248509	1693	1706	8.717144	1687	1730	23.074748	1809	1825	14.964324	1694	1727	9.43358
R_Date(120,15)	1720	1726	4.106944	1806	1925	72.375226	1830	1891	53.304625	1806	1922	86.016394
	1811	1817	3.930177									
	1833	1891	43.415451									
	1907	1918	8.099232									

248510	1707	1720	19.941276	1696	1725	30.092367	1815	1834	37.972037	1698	1724	12.017907
R_Date(75,15)	1819	1833	21.338587	1811	1839	29.102603	1890	1907	30.296913	1811	1852	44.122868
	1892	1907	26.989085	1877	1915	36.255003				1877	1914	39.309199
248511	1690	1705	9.269018	1683	1736	24.643629	1807	1891	68.268949	1693	1729	10.048918
R_Date(125,20)	1720	1728	4.850354	1802	1936	70.806344				1802	1925	85.401056
	1808	1817	5.263747									
	1833	1891	39.37573									
	1907	1922	9.5101									
248512	1701	1721	23.758482	1695	1725	28.919754	1813	1837	37.877158	1698	1723	11.158684
R_Date(90,15)	1816	1833	21.462469	1811	1862	31.549096	1885	1909	30.391791	1810	1915	84.29129
	1890	1908	23.047998	1868	1917	34.981124						
248513	1695	1711	11.344845	1691	1728	23.400185	1810	1894	65.696697	1696	1726	10.136896
R_Date(115,15)	1718	1725	4.691697	1809	1921	72.049789	1907	1911	2.572253	1807	1920	85.313078
	1813	1822	6.484182									
	1832	1893	37.905584									
	1905	1916	7.842641									
248514	1696	1724	21.534654	1693	1727	24.423882	1811	1855	40.59182	1699	1723	9.292821
R_Date(110,15)	1813	1839	19.226506	1810	1919	71.026091	1876	1912	27.677129	1808	1918	86.157153
	1878	1915	27.507789									
248515	1695	1711	11.344845	1691	1728	23.400185	1810	1894	65.697786	1696	1726	10.14142
R_Date(115,15)	1718	1725	4.691697	1809	1921	72.049789	1907	1911	2.571163	1806	1920	85.308553
	1813	1822	6.484182									
	1832	1893	37.905584									
	1905	1916	7.842641									
248516	1695	1711	11.344845	1691	1728	23.400185	1810	1894	65.675465	1696	1726	10.033602
R_Date(115,15)	1718	1725	4.691697	1809	1921	72.049789	1907	1911	2.593485	1807	1920	85.416371
	1813	1822	6.484182									
	1832	1893	37.905584									
	1905	1916	7.842641									

248517	1693	1706	8.717144	1687	1730	23.074748	1809	1891	68.268949	1694	1727	9.429304
R_Date(120,15)	1720	1726	4.106944	1806	1925	72.375226				1806	1922	86.020669
	1811	1817	3.930177									
	1833	1891	43.415451									
	1907	1918	8.099232									
248518	1661	1676	19.849478	1656	1684	26.836699	1781	1809	54.99076	1675	1693	4.424902
R_Date(200,15)	1743	1751	7.457231	1736	1804	61.286625	1925	1934	7.723787	1725	1748	6.422363
	1765	1799	40.96224	1930	...	7.32665	1940	1948	5.554402	1765	1814	63.650725
										1839	1842	0.337853
										1916	1948	20.61413
248519	1698	1723	22.543627	1694	1726	25.475151	1811	1851	38.95638	1701	1721	8.894004
R_Date(105,15)	1814	1836	20.011736	1811	1918	69.974822	1877	1912	29.312569	1810	1916	86.555969
	1881	1911	25.713586									
248520	1684	1700	9.175591	1677	1743	25.797185	1803	1820	15.088187	1688	1711	5.550094
R_Date(135,20)	1721	1735	7.228974	1751	1765	3.668821	1832	1889	47.323454	1717	1733	4.376371
	1803	1815	6.342478	1799	1942	65.983968	1910	1921	5.857308	1798	1930	85.523508
	1833	1890	33.434961									
	1908	1929	12.086945									
248521	1702	1721	22.599102	1695	1725	28.668844	1813	1836	37.869255	1699	1723	11.121273
R_Date(75,20)	1816	1834	21.772659	1811	1862	31.363129	1886	1909	30.399694	1810	1915	84.328701
	1890	1908	23.897188	1867	1917	35.418						
248522	1704	1721	21.587347	1695	1725	29.669092	1814	1835	37.815252	1698	1723	11.611303
R_Date(85,15)	1817	1833	22.117256	1811	1855	30.376965	1887	1908	30.453697	1811	1860	45.984009
	1891	1908	24.564346	1869	1871	0.410498				1876	1915	37.854662
				1876	1917	34.993419						
Date Estimate							1800	1904	68.268949	1686	1735	10.809779
										1780	1940	84.640194
End Meadowcroft Boundary							1730	1733	1.753293	1717	1743	9.261695
							1838	1842	2.055005	1828	1960	86.188279
							1894	1952	64.460652			