

Table S2. Sites with evidence for early rice use and cultivation

Site	Province	Local Script	Culture	C14 Material	Code	Date	Error	Date	Cal. Start	Cal. Finish	Median	Calibrated	Comments	Crops	Cultivation Tools	References
<b>LOWER YANGTZE</b>																
Shangshan	Zhejiang	上山	Shangshan	Charcoal pottery temper	BA02236	9610	160	9610±160 BP	9399	8492	8945.5	9399-8492 cal. BC	Charcoal dates from the site often appear younger in date, raising the question of clay contamination in pottery dates (Zuo et al. 2017). This date appears considerably earlier and has been dismissed.	Rice remains in pottery. Status is still regarded as unclear as to whether it is wild, or in the early stages of domestication/cultivation	No definitive cultivation tools have been identified. But the site is not waterlogged	Jiang and Liu (2006); Pan (2011); Long and Taylor (2015); Zheng and Jiang (2007); Zuo et al. (2017)
Shangshan	Zhejiang	上山	Shangshan	Charcoal pottery temper	BA02235	8740	110	8740±110 BP	8205	7589	7897	8205-7589 cal. BC	As above. Date dismissed.	As above	As above	Jiang and Liu (2006); Pan (2011); Long and Taylor (2015); Zheng and Jiang (2007)
Shangshan	Zhejiang	上山	Shangshan	Charcoal pottery temper	BA02237	8620	160	8620±160 BP	8223	7358	7790.5	8223-7358 cal. BC	As above. Date dismissed.	As above	As above	Jiang and Liu (2006); Pan (2011); Long and Taylor (2015); Zheng and Jiang (2007)
Shangshan	Zhejiang	上山	Shangshan	Pottery temper	BA06126	8855	40	8855±40 BP	8215	7816	8015.5	8215-7816 cal. BC	As above. Date dismissed.	As above	As above	Pan (2011); Long and Taylor (2015); Zheng and Jiang (2007)
Shangshan	Zhejiang	上山	Shangshan	Charcoal	BA06137	8180	35	8180±35 BP	7306	7074	7190	7306-7074 cal. BC	This date on charcoal is considerably younger than those on pottery, and questions the reliability of dates obtained from pottery temper.	As above	As above	Pan (2011); Long and Taylor (2015); Zheng and Jiang (2007)
Shangshan	Zhejiang	上山	Shangshan	Charcoal (pottery temper)	BA02238	8050	110	8050±110 BP	7315	6659	6987	7315-6659 cal. BC	This date is broadly contemporary with charcoal date above.	As above	As above	Jiang and Liu (2006); Pan (2011); Long and Taylor (2015); Zheng and Jiang (2007)
Shangshan	Zhejiang	上山	Shangshan	Phytoliths	Beta-434204	8280	40	8280±40 BP	7468	7185	7326.5	7468-7185 cal. BC	Date from top of Layer 8. More consistent with charcoal dates.	As above	As above	Zuo et al. (2017)
Shangshan	Zhejiang	上山	Shangshan	Phytoliths	Beta-434203	7280	40	7280±40 BP	6226	6063	6144.5	6226-6063 cal. BC	Date from top of layer 5. Generally younger than other dates.	As above	As above	Zuo et al. (2017)
Huixi	Zhejiang	湖西	Shangshan	Charcoal	BA30136	7740	30	7740±30 BP	6641	6492	6566.5	6641-6492 cal. BC	Dates for Shangshan Culture from this site on short-lived material are significantly later than the Shangshan pottery dates above. Dates possibly mark start of rice cultivation.	Domesticated spikelet types account for 78.7%. But the criteria used do not follow that outlined by Fuller et al. (2009), so direct comparison is unclear.	Not recorded	Zheng et al. (2016)
Huixi	Zhejiang	湖西	Shangshan	Charcoal	BA30138	7730	30	7730±30 BP	6632	6482	6557	6632-6482 cal. BC	As above	As above	Not recorded	Zheng et al. (2016)
Huixi	Zhejiang	湖西	Shangshan	Charcoal	BA30140	7650	30	7650±30 BP	6497	6421	6459	6497-6421 cal. BC	As above	As above	Not recorded	Zheng et al. (2016)
Huixi	Zhejiang	湖西	Shangshan	Charcoal	BA30141	7630	30	7630±30 BP	6564	6429	6496.5	6564-6429 cal. BC	As above	As above	Not recorded	Zheng et al. (2016)
Huixi	Zhejiang	湖西	Shangshan	Charcoal	BA30139	7915	45	7915±45 BP	7029	6653	6841	7029-6653 cal. BC	This date is from the lowest part of a sequence but not statistically contemporary with dates only marginally above or other dates from the site. As such it should be regarded with caution.	As above	Not recorded	Zheng et al. (2016)
Huixi	Zhejiang	湖西	Shangshan	Phytoliths	Beta-406654	7680	30	7680±30 BP	6591	6463	6527	6591-6463 cal. BC	Date is broadly contemporary with other dates from the site.	As above	Not recorded	Zuo et al. (2016); Zuo et al. (2017)
Huixi	Zhejiang	湖西	Shangshan	Plant remains	Beta-407469	7820	30	7820±30 BP	6736	6592	6664	6736-6592 cal. BC	While broadly contemporary this date is a little older than all but one other date from the site.	As above	Not recorded	Zuo et al. (2016); Zuo et al. (2017)
Huixi	Zhejiang	湖西	Shangshan	Phytoliths	Beta-434202	7310	40	7310±40 BP	6237	6072	6154.5	6237-6072 cal. BC	Dates are generally consistent	As above	Not recorded	Zuo et al. (2017)
Huixi	Zhejiang	湖西	Shangshan	Phytoliths	Beta-434811	7180	40	7180±40 BP	6203	5985	6094	6203-5985 cal. BC	Dates are generally consistent	As above	Not recorded	Zuo et al. (2017)
Huixi	Zhejiang	湖西	Shangshan	Charcoal	Beta-438412	6710	40	6710±40 BP	5710	5558	5634	5710-5558 cal. BC	Date appears too young	As above	Not recorded	Zuo et al. (2017)
Huixi	Zhejiang	湖西	Shangshan	Phytoliths	Beta-434199	7530	30	7530±30 BP	6457	6272	6364.5	6457-6272 cal. BC	Dates are generally consistent	As above	Not recorded	Zuo et al. (2017)
Huixi	Zhejiang	湖西	Shangshan	Charcoal	Beta-434197	7660	40	7660±40 BP	6591	6444	6517.5	6591-6444 cal. BC	Dates are generally consistent	As above	Not recorded	Zuo et al. (2017)
Huixi	Zhejiang	湖西	Shangshan	Charcoal	Beta-358085	7570	50	7570±50 BP	6507	6263	6385	6507-6263 cal. BC	Dates are generally consistent	As above	Not recorded	Zuo et al. (2017)
Huixi	Zhejiang	湖西	Shangshan	Charcoal	Beta-358084	7690	40	7690±40 BP	6604	6456	6530	6604-6456 cal. BC	Dates are generally consistent	As above	Not recorded	Zuo et al. (2017)
Huixi	Zhejiang	湖西	Shangshan	Charcoal	Beta-434200	7870	40	7870±40 BP	7004	6604	6804	7004-6604 cal. BC	Dates are generally consistent	As above	Not recorded	Zuo et al. (2017)
Huixi	Zhejiang	湖西	Shangshan	Phytoliths	Beta-434195	7790	40	7790±40 BP	6688	6506	6597	6688-6506 cal. BC	Dates are generally consistent	As above	Not recorded	Zuo et al. (2017)
Huixi	Zhejiang	湖西	Shangshan	Rice	No information	-	-	-	7350	6450	6900	7350-6450 cal. BC	Date is estimated from Shangshan Culture dates from Huixi and Shangshan and unpublished C14 dates reported at 7000 BC.	Remains of rice rachises, charred grains and phytoliths, early cultivation?	Not recorded	Zuo et al. (2017)
Huixi	Zhejiang	湖西	Shangshan	Phytoliths	Beta-438410	8130	40	8130±40 BP	7297	7047	7172	7297-7047 cal. BC	Date from lower strata. Appears consistent and reliable.	As above	As above	Zuo et al. (2017)
Huixi	Zhejiang	湖西	Shangshan	Phytoliths	Beta-438409	8040	30	8040±30 BP	7073	6829	6951	7073-6829 cal. BC	Date from upper strata. Appears consistent and reliable.	As above	As above	Zuo et al. (2017)
Huixi	Zhejiang	湖西	Shangshan	Charcoal	Beta-363178	7810	40	7810±40 BP	6750	6510	6630	6750-6510 cal. BC	Date appears slightly young	As above	As above	Zuo et al. (2017)
Huixi	Zhejiang	湖西	Shangshan	Charcoal	Beta-363179	8110	40	8110±40 BP	7206	7066	7136	7206-7066 cal. BC	Date is generally consistent	As above	As above	Zuo et al. (2017)
Huixi	Zhejiang	湖西	Shangshan	nutshell	Beta-363180	8050	40	8050±40 BP	7129	6823	6976	7129-6823 cal. BC	Date is consistent	As above	As above	Zuo et al. (2017)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	Est. date/ Unclear if C14 available	-	-	-	-	7000	6000	6500	7000-6000 cal. BC	As with Huixi there is a suggestion that the dates of Shangshan Culture are younger than many of the dates from Shanshan site.	Rice grains, phytoliths and husks within pottery paste tempers as seen also at Shangshan.	Not recorded	Zhang et al. (2005); Zheng and Jiang (2007); Liu and Chen (2012, 67)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	acorns	HL91001	7076	155	7076±155 BP	6250	5660	5955	6250-5660 cal. BC	Date on short lived species suggest earliest deposits date from around 6000 to 5500 BC.	Rice grains appear to be within the very early stages of domestication; Zheng et al (2007) overestimate domesticates by including immature.	The site has a few tools including wooden hoes and animal bone scapular	Long and Taylor (2015); Pan (2011); See Shelach-Lavi (2015; Figure 78)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	acorns	BA9906	6800	170	6800±170 BP	6040	5380	5710	6040-5380 cal. BC	As above	As above	As above	Long and Taylor (2015); Pan (2011)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	Leaf	GZ1315	6783	32	6783±32 BP	5730	5630	5680	5730-5630 cal. BC	As above	As above	As above	Long and Taylor (2015); Pan (2011)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	Wood-Cane	KZ13173	6991	50	6991±50 BP	5990	5750	5870	5990-5750 cal. BC	Dates broadly consistent suggesting occupation between 6000-5500 BC	As above	As above	Long and Taylor (2015); Pan (2011)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	Wood-Cane	BK2003006	7070	155	7070±155 BP	6250	5650	5950	6250-5650 cal. BC	As above	As above	As above	Long and Taylor (2015); Pan (2011)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	wood	BK2003007	7055	90	7055±90 BP	6080	5730	5905	6080-5730 cal. BC	As above	As above	As above	Long and Taylor (2015); Pan (2011)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	wood	BA08367	6515	40	6515±40 BP	5480	5130	5305	5480-5130 cal. BC	As above	As above	As above	Shu et al. (2010)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	wood	BA08366	6715	40	6715±40 BP	5720	5550	5635	5720-5550 cal. BC	As above	As above	As above	Shu et al. (2010)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	wood	BA08365	6925	45	6925±45 BP	5970	5720	5845	5970-5720 cal. BC	As above	As above	As above	Shu et al. (2010)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	wood	KZ13172	6919	46	6919±46 BP	5970	5710	5840	5970-5710 cal. BC	As above	As above	As above	Long and Taylor (2015); Pan (2011)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	wood	KZ13174	6886	65	6886±65 BP	5970	5640	5805	5970-5640 cal. BC	As above	As above	As above	Long and Taylor (2015); Pan (2011)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	wood	BK200108	6615	110	6615±110 BP	5730	5360	5545	5730-5360 cal. BC	As above	As above	As above	Long and Taylor (2015); Pan (2011)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	wood	BK200165	6585	90	6585±90 BP	5670	5360	5515	5670-5360 cal. BC	As above	As above	As above	Long and Taylor (2015); Pan (2011)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	wood	HL91023	6500	176	6500±176 BP	5750	5050	5400	5750-5050 cal. BC	As above	As above	As above	Long and Taylor (2015); Pan (2011)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	wood	BK200167	6450	90	6450±90 BP	5610	5220	5415	5610-5220 cal. BC	As above	As above	As above	Long and Taylor (2015); Pan (2011)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	wood	BK200170	6375	120	6375±120 BP	5610	5050	5330	5610-5050 cal. BC	As above	As above	As above	Long and Taylor (2015); Pan (2011)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	wood	BK200169	6180	90	6180±90 BP	5330	4850	5090	5330-4850 cal. BC	Date appears younger	As above	As above	Long and Taylor (2015); Pan (2011)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	reed	BK00004	6200	100	6200±100 BP	5400	4850	5125	5400-4850 cal. BC	Converted from 5730 to 5568 half-life. The site appears earlier than Tianluoshan and probably Hemudu.	Rice spikelet bases with minority domesticated; Zheng et al 1999 (table 7(2); Zheng et al. 2007; Xie et al. 2015 were recorded.	Four fragments of bone scapula spades	Long and Taylor (2015); Pan (2011)
Kuohuangshan	Zhejiang	小黄山	Shangshan/Kuohuangshan	reed	ZK860	6080	130	6080±130 BP	5350	4700	5025	5350-4700 cal. BC	As above	As above	As above	Long and Taylor (2015); Pan (2011)
Hemudu	Zhejiang	河姆渡	Hemudu	Twig, acorn	BK78104	6130	170	6130±170 BP	5470	4700	5085	5470-4700 cal. BC	While date appears older, large error margin brings it in line with other dates	Rice grains. Assumed to be similar in stage of domestication process to Tianluoshan below.	Has bone spades and hoes	Zhejiang Province Institute (2003); Pan (2011)
Hemudu	Zhejiang	河姆渡	Hemudu	Acorn	PIV0047	6080	130	6080±130 BP	5320	4710	5015	5320-4710 cal. BC	Dates generally in line with Fuller et al. (2011). Only dates on short lived material are included here.	As above	As above	Zhejiang Province Institute (2003); Pan (2011)
Hemudu	Zhejiang	河姆渡	Hemudu	Rice husks	BK78114	6060	100	6060±100 BP	5230	4720	4975	5230-4720 cal. BC	As above	As above	As above	Zhejiang Province Institute (2003); Pan (2011)
Hemudu	Zhejiang	河姆渡	Hemudu	Rice husks	ZK0263	5890	120	5890±120 BP	5060	4460	4760	5060-4460 cal. BC	As above	As above	As above	Zhejiang Province Institute (2003); Pan (2011)
Hemudu	Zhejiang	河姆渡	Hemudu	Wooden pole	BK78111	5880	100	5880±100 BP	5000	4500	4750	5000-4500 cal. BC	As above	As above	As above	Zhejiang Province Institute (2003); Pan (2011)
Hemudu	Zhejiang	河姆渡	Hemudu	Twig, grass	BK78103	5740	90	5740±90 BP	4790	4370	4580	4790-4370 cal. BC	Dates generally in line with Wu et al. (2011). Only dates on short lived material are included here.	As above	As above	Zhejiang Province Institute (2003); Pan (2011)
Hemudu	Zhejiang	河姆渡	Hemudu	Foxnut	BA06594	5990	40	5990±40 BP	5000	4780	4890	5000-4780 cal. BC	Dates in line with previous. But 3 newer charcoal dates (not included) were notably early and demonstrate the old charcoal effect	As above	As above	Zhejiang Province Institute (2003); Wu et al. 2011
Hemudu	Zhejiang	河姆渡	Hemudu	Water chestnut	BA06593	5985	40	5985±40 BP	5000	4780	4890	5000-4780 cal. BC	As above	As above	As above	Zhejiang Province Institute (2003); Wu et al. 2011
Hemudu	Zhejiang	河姆渡	Hemudu	Water chestnut	BA06592	5840	40	5840±40 BP	4800	4580	4690	4800-4580 cal. BC	As above	As above	As above	Zhejiang Province Institute (2003); Wu et al. 2011
Hemudu	Zhejiang	河姆渡	Hemudu	Rice	BA06595	5720	40	5720±40 BP	4770	4530	4650	4770-4530 cal. BC	As above	As above	As above	Zhejiang Province Institute (2003); Wu et al. 2011
Hemudu	Zhejiang	河姆渡	Hemudu	Acorn	BA06596	5300	40	5300±40 BP	4260	3990	4125	4260-3990 cal. BC	Date appears too young.	As above	As above	Zhejiang Province Institute (2003); Wu et al. 2011
Hemudu	Zhejiang	河姆渡	Hemudu	wood	BK75057	6130	100	6130±100 BP	5350	4800	5075	5350-4800 cal. BC	Date appears slightly older	As above	As above	Zhejiang Province Institute (2003)
Hemudu	Zhejiang	河姆渡	Hemudu	wood	BK78101	5890	100	5890±100 BP	5010	4500	4755	5010-4500 cal. BC	Dates in line with other dates	As above	As above	Zhejiang Province Institute (2003)
Hemudu	Zhejiang	河姆渡	Hemudu	wood	BK78102	5870	100	5870±100 BP	4990	4490	4740	4990-4490 cal. BC	Dates in line with other dates	As above	As above	Zhejiang Province Institute (2003)
Hemudu	Zhejiang	河姆渡	Hemudu	Indifferent	BK78109	6080	200	6080±200 BP	5500	4500	5000	5500-4500 cal. BC	Date appears slightly older	As above	As above	Zhejiang Province Institute (2003)
Hemudu	Zhejiang	河姆渡	Hemudu	wood	BK78115	5770	85	5770±85 BP	4830	4440	4635	4830-4440 cal. BC	Dates in line with other dates	As above	As above	Zhejiang Province Institute (2003)
Hemudu	Zhejiang	河姆渡	Hemudu	wood	BK78116	6050	85	6050±85 BP	5220	4740	4980	5220-4740 cal. BC	Date appears slightly older	As above	As above	Zhejiang Province Institute (2003)
Hemudu	Zhejiang	河姆渡	Hemudu	wood	ZK 059											

Site	Province	Local Script	Culture	C14 Material	Code	Date	Error	Date	Cal. Start	Cal. Finish	Median	Calibrated	Comments	Crops	Cultivation Tools	References
Tianluoshan	Zhejiang	田螺山	Hemudu	Euryale ferox seed	BA06594	5990	40	5990±40 BP	5000	4780	4890	5000-4780 cal. BC	As above	As above	As above	Fuller et al. (2009)
<b>LOWER YANGTZE (continued)</b>																
Tianluoshan	Zhejiang	田螺山	Hemudu	Troglodytes nut	BA06592	5840	40	5840±40 BP	4800	4580	4690	4800-4580 cal. BC	As above	As above	As above	Fuller et al. (2009)
Tianluoshan	Zhejiang	田螺山	Hemudu	chard rice grain	BA06595	5790	40	5790±40 BP	4730	4530	4630	4730-4530 cal. BC	As above	As above	As above	Fuller et al. (2009)
Tianluoshan	Zhejiang	田螺山	Hemudu	acorn	BA06596	5300	40	5300±40 BP	4260	3990	4125	4260-3990 cal. BC	Later level.	Possibly more domesticated rice, but few plant remains	As above	Fuller et al. (2009)
Tianluoshan	Zhejiang	田螺山	Hemudu	wood	BK2004028	5081	66	5081±66 BP	3990	3700	3845	3990-3700 cal. BC	Later level.	As above	As above	Fuller et al. (2009)
Tianluoshan	Zhejiang	田螺山	Hemudu	wood	BK2004030	6949	73	6949±73 BP	5990	5710	5850	5990-5710 cal. BC	Old wood from lowest occupation. Dismissed	As above	As above	Sun Guoping, pers. comm.
Tianluoshan	Zhejiang	田螺山	Hemudu	wood	BK2004027	6711	60	6711±60 BP	5760	5470	5615	5760-5470 cal. BC	Old wood from lowest occupation. Dismissed	As above	As above	Sun Guoping, pers. comm.
Caoxieshan	Jiangsu	草鞋山	Majiabang	Rice grain	BA08905	5005	35	5005±35 BP	3950	3700	3825	3950-3700 cal. BC	Domesticated type rachis account for between 60-80% of the assemblage	Rice grains and spikelet bases. Rice appears near fully domesticated	A single scapula spade	Fuller et al. (unpublished); Fuller and Qin (2009); Fuller et al. (2014); Xie (2014); Xie et al. (2015); Ding et al. (2011)
Caoxieshan	Jiangsu	草鞋山	Majiabang	Rice grain frag.	BA08906	5060	35	5060±35 BP	3960	3770	3865	3960-3770 cal. BC	As above	As above	As above	Fuller et al. (unpublished); Fuller and Qin (2009)
Caoxieshan	Jiangsu	草鞋山	Majiabang	wood charcoal	BA08907	5115	35	5115±35 BP	3990	3730	3860	3990-3730 cal. BC	As above	As above	As above	Fuller et al. (unpublished); Fuller and Qin (2009)
Caoxieshan	Jiangsu	草鞋山	Majiabang	wood charcoal	ZK-4001	5460	115	5460±115 BP	4540	4000	4270	4540-4000 cal. BC	Date demonstrates problems of old wood when dating charcoal. Date dismissed.	As above	As above	Wasano (1995); Fuller et al. (unpublished)
Caoxieshan	Jiangsu	草鞋山	Majiabang	wood charcoal	ZK-6002	5210	105	5210±105 BP	4330	3760	4055	4330-3760 cal. BC	As above	As above	As above	Wasano (1995); Fuller et al. (unpublished)
Caoxieshan	Jiangsu	草鞋山	Majiabang	wood charcoal	BK76022	5220	110	5220±110 BP	4330	3790	4060	4330-3790 cal. BC	As above	As above	As above	Wasano (1995); Fuller et al. (unpublished)
Yangliu	Jiangsu	杨林	Majiabang	Rice grain	BA131756	5340	30	5340±30 BP	4320	4050	4185	4320-4050 cal. BC	Broadly contemporary with Caoxieshan also of Majiabang Culture	Rice dominated seed assemblage; also phytoliths	Not recorded	Qiu et al. (2016)
Yangliu	Jiangsu	杨林	Majiabang	Rice grain	BA131757	5265	45	5265±45 BP	4240	3980	4110	4240-3980 cal. BC	As above	As above	As above	Qiu et al. (2016)
<b>HUAI RIVER VALLEY</b>																
Shunshanji	Jiangsu	顺山集	Shunshanji	charred rice	not reported	7640	30	7640±30 BP	6570	6430	6500	6570-6430 cal. BC	The site lies in the NW of Jiangsu in the middle to lower Huai Valley. It is assumed that the dates are based 5568 half-life making it contemporary with Shangshan Culture at Huxi.	Rice grains and phytoliths	No identified cultivation tools	Nanjing Museum and Jiangsu Province Institute (2016)
Shunshanji	Jiangsu	顺山集	Shunshanji	charred rice	not reported	7660	30	7660±30 BP	6590	6450	6520	6590-6450 cal. BC	As above	As above	As above	Nanjing Museum and Jiangsu Province Institute (2016)
Shunshanji	Jiangsu	顺山集	Shunshanji	charred rice	not reported	7640	30	7640±30 BP	6570	6430	6500	6570-6430 cal. BC	As above	As above	As above	Nanjing Museum and Jiangsu Province Institute (2016)
Shunshanji	Jiangsu	顺山集	Shunshanji	charred rice	not reported	7460	30	7460±30 BP	6410	6240	6325	6410-6240 cal. BC	As above	As above	As above	Nanjing Museum and Jiangsu Province Institute (2016)
Shunshanji	Jiangsu	顺山集	Shunshanji	charcoal	not reported	7350	40	7350±40 BP	6360	6070	6215	6360-6070 cal. BC	As above	As above	As above	Nanjing Museum and Jiangsu Province Institute (2016)
Shunshanji	Jiangsu	顺山集	Shunshanji	charred rice	not reported	7035	35	7035±35 BP	6000	5840	5920	6000-5840 cal. BC	As above	As above	As above	Nanjing Museum and Jiangsu Province Institute (2016)
Shunshanji	Jiangsu	顺山集	Shunshanji	charred rice	not reported	7427	31	7427±31 BP	6390	6230	6310	6390-6230 cal. BC	As above	As above	As above	Nanjing Museum and Jiangsu Province Institute (2016)
Shunshanji	Jiangsu	顺山集	Shunshanji	charcoal	not reported	7237	35	7237±35 BP	6210	6020	6115	6210-6020 cal. BC	As above	As above	As above	Nanjing Museum and Jiangsu Province Institute (2016)
Shunshanji	Jiangsu	顺山集	Shunshanji	charcoal	not reported	6870	30	6870±30 BP	5840	5670	5755	5840-5670 cal. BC	As above	As above	As above	Nanjing Museum and Jiangsu Province Institute (2016)
Shunshanji	Jiangsu	顺山集	Shunshanji	charred rice	not reported	7470	40	7470±40 BP	6430	6240	6335	6430-6240 cal. BC	As above	As above	As above	Nanjing Museum and Jiangsu Province Institute (2016)
Shunshanji	Jiangsu	顺山集	Shunshanji	charred rice	not reported	7325	40	7325±40 BP	6260	6060	6160	6260-6060 cal. BC	As above	As above	As above	Nanjing Museum and Jiangsu Province Institute (2016)
Shuangdun	Anhui	双墩村	Shuangdun	charcoal	not available				5380	5050	5215	5380-5050 cal. BC	Date is quoted as 7330 to 7000 years old, the site has been radiocarbon dated. The site is in the middle Huai Valley.	Stone spades are mentioned in the text, but not in the lithics section and are not drawn.	Imprints of rice grains	Kan and Zhou (2007)
Kiaosungang	Anhui	小孙岗	Shuangdun	charred grapes	Beta-388143	6200	30	6200±30 BP	5290	5050	5170	5290-5050 cal. BC	Date is older than date for rice from H28 from Center for Applied Isotope Studies	Has charred rice	Not recorded	Cheng et al. (2016)
Kiaosungang	Anhui	小孙岗	Shuangdun	charred grapes	Beta-388144	6110	30	6110±30 BP	5210	4940	5075	5210-4940 cal. BC	As above	Has charred rice	As above	Cheng et al. (2016)
Kiaosungang	Anhui	小孙岗	Shuangdun	charred rice	CAIS-23324	6060	30	6060±30 BP	5050	4840	4945	6050-4840 cal. BC	Direct date on charred rice.	Has charred rice	As above	Cheng et al. (2016)
Kiaosungang	Anhui	小孙岗	Shuangdun	charred rice	CAIS-23325	6100	30	6100±30 BP	5210	4930	5070	5210-4930 cal. BC	As above	Has charred rice	As above	Cheng et al. (2016)
Kiaosungang	Anhui	小孙岗	Shuangdun	charred rice	CAIS-23326	5960	30	5960±30 BP	4940	4740	4840	4940-4740 cal. BC	As above	Has charred rice	As above	Cheng et al. (2016)
<b>MIDDLE YANGTZE</b>																
Bashidang	Hunan	八十垱	Late Pengtoushan	Charcoal	BK-94112	7326	80	7326±80 BP	6390	6030	6210	6390-6030 cal. BC	Dates are quoted by Chen (1999) at 5730 half life and corrected here. Given problems with old carbon/old wood when dating charcoal this date is regarded as suspect.	Has waterlogged rice remains, sometimes in high numbers.	Wood and bone cultivation tools are recorded from the site. But differ from those of the Lower Yangtze	Chen (1999, table 6). Cited from Pei (1996)
Bashidang	Hunan	八十垱	Late Pengtoushan	Charcoal	BK-94111	6792	70	6792±70 BP	5840	5560	5700	5840-5560 cal. BC	As above dates are corrected to 5568 h.l. This and the date below suggest he site was occupied between 5900 to 5700 cal. BC.	As above	As above	Chen (1999, table 6). Cited from Pei (1996)
Bashidang	Hunan	八十垱	Late Pengtoushan	Charcoal	BK-94110	6981	70	6981±70 BP	6000	5730	5865	6000-5730 cal. BC	As above	As above	As above	Chen (1999, table 6). Cited from Pei (1996)
Pengtoushan	Hunan	彭头山	Pengtoushan	carbonised rice temper	Ox-2210	7550	90	7550±90 BP	6590	6230	6410	6590-6230 cal. BC	Thought to be accurate. Other dates have been dismissed due to contamination issues within extracting carbon from the clay pottery matrix as they were by Hedges et al. (1992). The dates given by Crawford and Shen (1998) do not match Hedges (1992). It is suspected that the dates were converted at some time to the 5780 half-life, but then not converted back for later calibration	Large amounts of charred rice grains and chaff used as temper within the pottery. Selected for dating by hedges et al. (1992).	Not recorded	Hedges et al. (1992); Lu (1999: table 7.2); Crawford and Shen (1998)
Pengtoushan	Hunan	彭头山	Pengtoushan	carbonised rice temper	Ox-2214	7040	140	7040±140 BP	6220	5670	5945	6220-5670 cal. BC	As above. Thought possibly slightly too young. However it is more in line with dates on comparable cultures.	As above	Not recorded	Hedges et al. (1992); Lu (1999: table 7.2); Crawford and Shen (1998)
Pengtoushan	Hunan	彭头山	Pengtoushan	carbonised rice straw temper?	BK-89016	7594	100	7594±100 BP	6640	6240	6440	6640-6240 cal. BC	As above. Thought to be broadly accurate. Crawford and Shen (1998) have the dated material as charcoal. Lu (1999) as carbonized rice straw	As above	Not recorded	Chen and Hedges (1994); Lu (1999: table 7.2); Crawford and Shen (1998)
Chengbeixi	Hubei	陈青溪	Chengbeixi	charcoal in pottery	ZK-2643	7988	250	7988±250 BP	7530	6430	6980	7530-6430 cal. BC	Date is on charcoal from pottery and the discrepancy with BK-84028 raises questions of whether dates contain old carbon from the clay. Note date in Crawford and Shen (1998) uses 5730 h.l. Date is corrected here to 5568 h.l.	Rice tempered pottery as seen at Pengtoushan	Not recorded	Crawford and Shen (1998, table 2); Lu (1999, table 7.2)
Chengbeixi	Hubei	陈青溪	Chengbeixi	charcoal in pottery	ZK-2644	8040	234	8040±234 BP	7530	6470	7000	7530-6470 cal. BC	As above the date is corrected for 5568 h.l. But date is rejected as unreliable.	As above	Not recorded	Crawford and Shen (1998, table 2); Lu (1999, table 7.2)
Chengbeixi	Hubei	陈青溪	Chengbeixi	Animal bone	BK-84028	6610	80	6610±80 BP	5710	5380	5545	5710-5380 cal. BC	This date on animal bone is seen as more reliable than the dates on charcoal from pottery fabrics. Note the date in Crawford and Shen (1998) uses 5730 h.l. Date is corrected here to 5568 h.l.	As above	Not recorded	Crawford and Shen (1998, table 2); Lu (1999, table 7.2)
Zhizheng (north)	Hubei	枝江	Chengbeixi	No C14 date?								5550	est. 5700-5400 BC	Rice temper in clay pottery as at Pengtoushan		Chang Zhizheng (1998)
Jialing	Hubei	潜江	Chengbeixi	No C14 date?								5550	est. 5700-5400 BC	Rice imprints recorded and used as temper within pottery pastes.	Stone hoe is recorded in Chinese Arch. 2001: 3(1)	Zhang Zhizheng (1998). Hubei Provincial Inst. Cultural Relics and Archaeology 2001.
Zaoshi Level 9	Hunan	皂市	Lower Zaoshi Culture	Charcoal	BK-82081	6724	200	6724±200 BP	6020	5300	5660	6020-5300 cal. BC	Date in Crawford and Shen (1998) uses 5730 h.l. Date is corrected here to 5568 h.l.	White rice temper seems likely it is unclear if rice is reported from this site	Not recorded	Crawford and Shen (1998, table 2); Lu (1999, table 7.2)
Zaoshi Level 9	Hunan	皂市	Lower Zaoshi Culture	Carbonized straw	Ox-2731	6583	90	6583±90 BP	5670	5360	5515	5670-5360 cal. BC	Date is corrected here to 5568 h.l. Zaoshi Culture is often equated with Chengbeixi and Pengtoushan.	As above	Not recorded	Crawford and Shen (1998, table 2); Lu (1999, table 7.2)
Huajiwuchang	Hunan	胡家湾	Lower Zaoshi Culture	carbonised rice temper	Ox-2731	6580	90	6580±90 BP	5670	5360	5515	5670-5360 cal. BC	Thought by Hedges et al. (1992) along with dates below to be the better representation of the true date. Other dates have been omitted. Older of 4 dates.	Charred grains and rice imprints in pottery temper	Not recorded	Hedges et al. (1992)
Huajiwuchang	Hunan	胡家湾	Lower Zaoshi Culture	carbonised rice temper	Ox-2218	6210	90	6210±90 BP	5380	4930	5155	5380-4930 cal. BC	As above. Youngest of 4 dates. Slightly younger but equated with Zaoshi Culture.	As above	Not recorded	Hedges et al. (1992)
Huajiwuchang	Hunan	胡家湾	Lower Zaoshi Culture	carbonised rice temper	Ox-2222	6310	100	6310±100 BP	5480	5040	5260	5480-5040 cal. BC	As above	As above	Not recorded	Hedges et al. (1992)
Huajiwuchang	Hunan	胡家湾	Lower Zaoshi Culture	carbonised rice temper	Ox-2733	6350	170	6350±170 BP	5630	4910	5270	5630-4910 cal. BC	As above	As above	Not recorded	Hedges et al. (1992)
<b>NORTH OF THE MIDDLE YANGTZE (Upper Huai, Nanyang Basin, Handou)</b>																
Jiahui I	Henan	贾湖	Jiahui Layer 1	ash	DY-01085	7347	125	7347±125 BP	6450	6000	6225	6450-6000 cal. BC	Dates converted from 5730 h.l. as given in HPIRA (1999: Table 92) to 5568 h.l. The calibrated dates given in Zhang and Hung (2013) use 5730 h.l. and therefore when calibrated are incorrect. The dates especially on charcoal are highly variable and notably inconsistent within and across phases.	Has rice grains but no millet grains or evidence for millet agriculture, as often inferred (see Bellwood 1999). Rice domestication status unclear: no domestication traits.	Stone spades are recorded making it the only site with rice and definite stone cultivation tools	HPIRA (1999: table 92); Zhang and Hung (2013)
Jiahui I	Henan	贾湖	Jiahui Layer 1	ash	BK-94172	7205	80	7205±80 BP	6240	5910	6075	6240-5910 cal. BC	As above	As above	As above	HPIRA (1999: table 92); Zhang and Hung (2013)
Jiahui I	Henan	贾湖	Jiahui Layer 1	human bone	BK-95013	6850	80	6850±80 BP	5970	5620	5795	5970-5620 cal. BC	As above. Dates on human bone appear younger	As above	As above	HPIRA (1999: table 92); Zhang and Hung (2013)
Jiahui I	Henan	贾湖	Jiahui Layer 2	charcoal	BK-94173	7958	75	7958±75 BP	7060	6650	6855	7060-6650 cal. BC	As above. Charcoal dates appear too old.	As above	As above	HPIRA (1999: table 92); Zhang and Hung (2013)
Jiahui I	Henan	贾湖	Jiahui Layer 2	Fruit stones	BK-91007	7734	60	7734±60 BP	6660	6450	6555	6660-6450 cal. BC	As above. Date on this short-lived species appears significantly older than human bone dates from Jiahui I	As above	As above	HPIRA (1999: table 92); Zhang and Hung (2013)
Jiahui I	Henan	贾湖	Jiahui Layer 2	human bone	BK-95014	7035	70	7035±70 BP	6030	5790	5890	6030-5790 cal. BC	As above.	As above	As above	HPIRA (1999: table 92); Zhang and Hung (2013)
Jiahui I	Henan	贾湖	Jiahui Layer 3	charcoal	BK-94126	8050	100	8050±100 BP	7310	6680	6995	7310-6680 cal. BC	As above. Charcoal dates appear too old.	As above	As above	HPIRA (1999: table 92); Zhang and Hung (2013)
Jiahui I	Henan	贾湖	Jiahui Layer 3	charcoal	BK-94127	7992	70	7992±70 BP	7080	6680	6880	7080-6680 cal. BC	As above. Charcoal dates appear too old.	As above	As above	HPIRA (1999: table 92); Zhang and Hung (2013)
Jiahui II	Henan	贾湖	Jiahui Layer 4	charcoal	BK-94177	7861	110	7861±110 BP	7050	6490	6770	7050-6490 cal. BC	As above. Charcoal dates appear too old.	As above	As above	HPIRA (1999: table 92); Zhang and Hung (2013)
Jiahui II	Henan	贾湖	Jiahui Layer 4	Jash	DY-01089	6935	130	6935±130 BP	6060	5620	5840	6060-5620 cal. BC	As above. Dates on charcoal seem notably older than those on other material	As above	As above	HPIRA (1999: table 92); Zhang and Hung (2013)
Jiahui II	Henan	贾湖	Jiahui Layer 4	ash	DY-01086	6904	120	6904±120 BP	6020	5610	5815	6020-5610 cal. BC	As above	As above	As above	HPIRA (1999: table 92); Zhang and Hung (2013)
Jiahui II	Henan	贾湖	Jiahui Layer 5	human bone	BK-95018	7773	100	7773±100 BP	7030	6430	6730	7030-6430 cal. BC	As above. This burial appears too old and is inconsistent with the phasing and other dates.	As above	As above	HPIRA (1999: table 92); Zhang and Hung (2013)
Jiahui II	Henan	贾湖	Jiahui Layer 5	charcoal	WB-83-60	7696	150	7696±150 BP	7030	6250	6640	7030-6250 cal. BC	As above. Notably older than the soil deposits.	As above	As above	HPIRA (1999: table 92); Zhang and Hung (2013)
Jiahui II	Henan	贾湖	Jiahui Layer 5	human bone	BK-95017	6836	70	6836±70 BP	5880	5620						

Site	Province	Local Script	Culture	C14 Material	Code	Date	Error	Date	Cal. Start	Cal. Finish	Median	Calibrated	Comments	Crops	Cultivation Tools	References
Jiahu III	Henan	贾湖	Jiahu Layer B	charcoal	BA-S4174	7603	80	7603±80 BP	6630	6250	6440	6630-6250 cal. BC	As above. Charcoal dates appear too old.	As above	As above	WPIRA (1999; table 92); Zhang and Hung (2013)
Jiahu III	Henan	贾湖	Jiahu Layer D	charcoal	BA-S4175	7297	90	7297±90 BP	6380	6010	6195	6380-6010 cal. BC	As above. Date appears slightly too old.	As above	As above	WPIRA (1999; table 92); Zhang and Hung (2013)
Jiahu III	Henan	贾湖	Jiahu Layer B	ash	DY-K0188	6818	130	6818±130 BP	5990	5510	5750	5990-5510 cal. BC	As above. More consistent with other dates on ash and human burials.	As above	As above	WPIRA (1999; table 92); Zhang and Hung (2013)
Bailigang	Henan	八里岗	pre-Yangshao	rice grain	BA-111568	7680	30	7680±30 BP	6600	6460	6530	6600-6460 cal. BC	Direct AMS date on charred rice grains.	Has rice grains and spikelet bases. The grains appear to be wild while the spikelet bases are predominately of the non-shattering domesticated type.	No cultivation tools	Deng et al. (2015)
Bailigang	Henan	八里岗	pre-Yangshao	rice grain	BA-111569	7690	25	7690±25 BP	6600	6470	6535	6600-6470 cal. BC	As above. Consistent with other dates on rice	As above	No cultivation tools	Deng et al. (2015)
Bailigang	Henan	八里岗	pre-Yangshao	rice grain	BA-111571	7710	25	7710±25 BP	6600	6470	6535	6600-6470 cal. BC	As above. Consistent with other dates on rice	As above	No cultivation tools	Deng et al. (2015)
Bailigang	Henan	八里岗	pre-Yangshao	fruit husk	BA-08119	7445	55	7445±55 BP	6430	6220	6325	6430-6220 cal. BC	Short lived species, date slightly younger than rice	As above	No cultivation tools	Deng et al. (2015)
Bailigang	Henan	八里岗	pre-Yangshao	charcoal	BAO-8129	7790	45	7790±45 BP	6700	6480	6590	6700-6480 cal. BC	Slightly older but broadly consistent with rice	As above	No cultivation tools	Zhang and Hung (2013; table 2); Deng et al. 2015
Bailigang	Henan	八里岗	pre-Yangshao	charcoal	BAO-8122	7370	60	7370±60 BP	6390	6080	6235	6390-6080 cal. BC	Slightly younger than dates on rice	As above	No cultivation tools	Zhang and Hung (2013; table 2); Deng et al. 2015
Bailigang	Henan	八里岗	pre-Yangshao	rice grain	BA-10080	7625	35	7625±35 BP	6570	6420	6495	6570-6420 cal. BC	As above. Consistent with other dates on rice	As above	No cultivation tools	Zhang and Hung (2013; table 2); Deng et al. 2015
Bailigang	Henan	八里岗	pre-Yangshao	rice grain	BA-10081	7670	45	7670±45 BP	6600	6440	6520	6600-6440 cal. BC	As above. Consistent with other dates on rice	As above	No cultivation tools	Zhang and Hung (2013; table 2); Deng et al. 2015
Lijiacun	Shaanxi	李家村	Lijiacun	charcoal	ZK-1267	6069	90	6069±90 BP	5230	4740	4985	5230-4740 cal. BC	Date quoted by Crawford and Shen (1998) is 7000-6000 BC; by Chen (1999) as pre-5000 BC; by Wu (1996) as 5500-5000 BC consistent with C14 dates (see Lu (1999)).	Rice hulls present on construction debris. Bellwood (2006, 104) quotes site as having millet but this appears unsubstantiated.	Not recorded	Lu (1999; table 4.7); Crawford and Shen (1998); Chen (1999); Wu (1996); Bellwood (2006, 104).
Lijiacun	Shaanxi	李家村	Lijiacun	charcoal	ZK-1268	6180	90	6180±90 BP	5330	4850	5090	5330-4850 cal. BC	As above	As above	Not recorded	Lu (1999; table 4.7); Crawford and Shen (1998); Chen (1999); Wu (1996)
Hejiawan	Shaanxi	何家湾	Laoguantai	no date?	no date?				5300	4700	5000	est. 5000-3000 BC	Date quoted by Wu (1996) is 5000-3000 BC. But by Chen (1999) as before 5000 BC. Dates likely to be similar to Lijiacun.	Rice hulls present on construction debris	Not recorded	Chen (1999); Wu (1996)