

[Supplementary material]

The rise and decline of China's major Late Neolithic centres and the rise of Erlitou

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Table S1. Structures of major Late Neolithic sites.

Region	Site	Total area (km ²)	Core area (km ²)	Length of known walls and dams (inner/outer/dam) (m)	Max. width of the walls (inner/outer/foundation) (m)	Size of the central structure (m ²)	Dating by excavators (BC)	Reference (dating)
Yangtze basin	Liangzhu	8.0	3.0	7300/-/6600	-/-/150	300 000 (Mojiaoshan)	3000–2000	IA CASS 2010: 679
	Shijiahe	8.0	1.2	1800/2366/-	50/70/-	–	2500–2000	IA CASS 2010: 662
	Baodun	2.7	0.6	3200/6200/-	22/25/-	–	2800–2000	IA CASS 2010: 700
Shandong peninsula	Yaowangcheng	4.0	0.2	1600/-/-	28/-/-	–	2600–2000	IA CASS 2010: 602
	Liangchengzhen	0.8	0.7	-/-/-	-/-/-	–	2600–2000	IA CASS 2010: 602
	Chengziya	–	0.2	1490/-/-	13/-/-	–	2600–2000	IA CASS 2010: 602
The Arc	Yunbaoshan	2.0	–	-/-/-	-/-/-	–	2200–1600*	–
	Shimao	4.0	2.0	5700/-/-	2.5 (on average)	80 000	2300–1800	Sun <i>et al.</i> 2017a

	Dadianzi	0.1	–	–/–/–	–/–/6.15	–	1700–1500	IA CASS 1992: 56
	Zhoujiazhuang	4.5	3.0	–/–/–	–/–/–	–	2300–1750	Dai <i>et al.</i> 2015a
	Taosi	4.0	2.8	–/–/–	–/–/–	130 000 (‘palace’)	2300–1900	He 2013: 256
Shanxi and Henan	Wangchenggang	0.5	0.3	2160/–/–	6.8/–/12.4	–	2200–1835	Beijing & Henansheng 2007
	Guchengzhai	0.2	–	1723/–/–	40/–/–	–	2200–1800	Cai & Ma 2002
	Xinzhai	1.0	0.7	1554/–/–	9 (on average)	–	1870–1720	Zhang <i>et al.</i> 2007
	Erlitou	3.0	–	–/–/–	–/–/–	108 000 (‘palace’)	1750–1550	IA CASS 2014
Erlitou, Zhengzhou and Anyang	Zhengzhou	25.0	18.0	6960/–/–	–/–/30	–	1600–1400	XSZCPG 2000: 63–66
	Anyang	30.0	–	–/–/–	–/–/–	–	1250–1046	XSZCPG 2000: 51–52

– Data not available

* The report of Yunbaoshan has not be published. This is a chronological range of the Qijia culture (Liu & Chen 2012: 299).

Table S2. Supplementary references for sites shown on Figure 2.

Site	References
Baodun	Chengdu 2011; He 2015; Jiang & He 2016; Zhong Ri 1998
Chengziya	Zhang 1996
Dadianzi	IA CASS 1998
Erlitou	IA CASS 2014
Guangfulin	Zhai 2006; Qiao 2014
Guchengzhai	Cai & Ma 2002; Du 2010
Haochuan	Zhejiangsheng & Suichangxian 2001
Liangchenzhen	Underhill <i>et al.</i> 2002; Zhong Mei 2016
Liangzhu	Liu & Wang 2014; Zhejiangsheng 2014; Wang 2016
Qianshanyang	Zhejiangsheng & Huzhoushi 2014
Qujialing	Meng <i>et al.</i> 2017a–b
Sanxingdui	Sichuansheng 1999; Falkenhausen 2003; Sun 2013
Shijiahe	Zhang 2012; Meng <i>et al.</i> 2017c
Shimao	Sun <i>et al.</i> 2013, 2017a, 2017b
Taosi	IA CASS <i>et al.</i> 2003; He 2013; IA CASS & Shanxisheng 2015
Wangchenggang	Fang & Liu 2006; Beijing & Henansheng 2007
Xinzhai	Beijing & Zhengzhoushi 2008; Zhao 2009; Zhao <i>et al.</i> 2009
Yaowangcheng	Liang <i>et al.</i> 2015
Zhoujiazhuang	Dai <i>et al.</i> 2015a; 2015b; Tian & Dai 2018

Table S3. Supplementary references for radiocarbon dates used in calculating the modelled boundaries (Figure 4).

Culture	References
Liangzhu	IA CASS 2009, 2010; IA CASS & IEE CAS 2011; Zhejiangsheng 2014
Qianshanyang	IA CASS 2010; Zhejiangsheng & Huzhoushi 2014
Qujialing-Shijiahe	IA CASS 2010; Liu & Yi 2014
Baodun	Yan <i>et al.</i> 2001; IA CASS 2010
Late Shandong Longshan	IA CASS 2010; Zhong Mei 2016
Late Henan Longshan	Beijing & Henansheng 2007; Cao <i>et al.</i> 2017; Liang <i>et al.</i> 2017
Erlitou & Zhengzhou	XSZCPG 2000; IA CASS 2014

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