

## SUPPLEMENTARY MATERIAL

### S1: Thermoluminescence dates from dolmens excluded of this study

Table S1. Thermo luminescence dates from ceramic fragments in dolmens of South Portugal. Adapted from Whittle and Arnaud (1975).

Site	Laboratoty code	Ceramic sample	Individual dates BC	Calibrated date (68% confidence) cal BC
<b>Dolmen of Poço da Gateria 1</b>	OxTL169a	b1	4640±430	4510±360 (4870-4150)
		b2	4305±400	
		b3	4615±450	
<b>Dolmen of Gorginos</b>	OxTL169b	c1	3860±360	4440±360 (4800-4080)
		c2	4805±400	
		c3	4595±420	
<b>Dolmen Grande da Comenda da Igreja</b>	OxTL169f	f1	3380±340	3235±310 (3545-2925)
		f2	3340±350	
		f3	3255±330	
		f4	3015±340	
<b>Dolmen of Farisoa 1</b>	OxTL169i	i1	2745±380	2405±260 (2665-2145)
		i2	2185±260	

## S2. Dates excluded: previous occupation levels

Table S2. Radiocarbon dating (n: 9) excluded for the sum of probabilities. Dates from sites with previous occupation levels: Tremedal, Cabeçuda 1, Castelhanas, Figueira Branca, Azután, Joaniña, Alberite and Casas de Don Pedro (Calibrated dating by OxCal v.4.4 Bronk Ramsey (2020); r: 5 IntCal20 Atmospheric data from Reimer et al. 2020).

Site	Laboratory Code	Architecture	Context	Sample	<sup>14</sup> C (BP)	Calibrated date (68% confidence) cal BC	Calibrated date (95% confidence) cal BC	Reference
<b>Tremedal</b>	Gra-15938	Passage grave	Monument base level. Previous occupation	Charcoal	7960±60	7040-6700	7050-6650	Ruiz-Gálvez 2000
<b>Cabeçuda 1</b>	ICEN-978	Passage grave	Monument base level. Previous occupation	Charcoal	7660±60	6570-6440	6640-6420	Oliveira 1997a
<b>Castelhanas</b>	ICEN-1264	Passage grave	Monument base level. Previous occupation	Charcoal	6360±110	5480-5210	5540-5040	Rocha 2020
<b>Figueira Branca</b>	ICEN-823	Passage grave	Hearth, Monument base level. Previous occupation	Charcoal	6250±50	5310-5080	5330-5050	Oliveira 1997b
<b>Azután</b>	Ly-4578	Passage grave	Chamber base level. Previous occupation	Charcoal	5840±130	4880-4530	5030-4360	Bueno Ramírez et al. 1999
<b>Joaniña</b>	Sac-1380	Simple chamber dolmen	Chamber base level. Previous occupation	Charcoal	5400±210	4450-3980	4720-3770	Oliveira 1997a
<b>Alberite</b>	Beta-80602	'Covered gallery'	Chamber, hearth on the ochre paving	Charcoal	5320±90	4320-4040	4340-3970	Ramos Muñoz and Giles Pacheco 1996
<b>Azután</b>	Beta-132917	Passage grave	Hut under the mound	Charcoal	5250±40	4230-3980	4240-3970	Bueno Ramírez et al. 2002, 2005
<b>Casas de Don Pedro</b>	Beta-471735	Elongated chamber dolmen	Hearth associated with two previous standing-stones	Charcoal	5040±30	3950-3780	3960-3710	Gavilán Ceballos and Mas Cornellá 2021

### S3. El Pozuelo 1. Contemporaneity test ( $x^2$ -Test) of phase 5 radiocarbon dating.

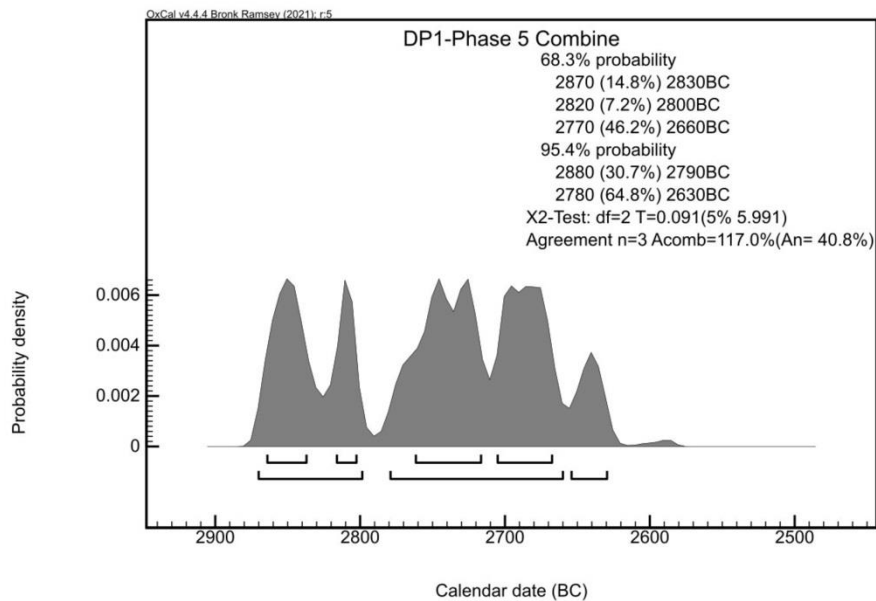
#### S3.1

Table S3.1. Phase 5 dating of the dolmen of El Pozuelo 1. Probabilistic estimates of the contemporaneity test ( $x^2$ -Test) (OxCal v.4.4 Bronk Ramsey (2020); r: 5 IntCal20 Atmospheric data from Reimer *et al.* 2020).

Laboratory code	CALIBRATED DATES		MODELLED DATES		$A_{comb}$ Index	A Index	$x^2$ -Test Index
	Calibrated date (68% confidence cal BC)	Calibrated date (95% confidence cal BC)	Posterior density estimated (68% probability cal BC)	Posterior density estimated (95% probability cal BC)			
Combine Phase 5	2870-2660	2880-2630			117		df=2 T=0.091(5% 5.991)
CNA-3268.1.1	2880-2660	2880-2620	2870-2660	2880-2630		108.2	
CNA-3261.1.1	2870-2630	2880-2580	2870-2660	2880-2630		110.3	
CNA-3269.1.1	2870-2630	2880-2580	2870-2660	2880-2630		110	

#### S3.2

Figure S3.2. Phase 5 of El Pozuelo 1, Los Llanetes cluster. Probabilistic estimates of the contemporaneity test ( $x^2$ -Test) (OxCal v.4.4 Bronk Ramsey (2020); r: 5 IntCal20 Atmospheric data from Reimer *et al.* 2020).



## S4. Calibrated radiocarbon dating of the Chinflón mines

### S4.1.

Table S4.1. Calibrated radiocarbon dating of the Chinflón mines (from Rothenberg and Blanco, 1980; Burleigh et al. 1982) (OxCal v.4.4 Bronk Ramsey (2021); r:5 IntCal20 Atmospheric data from Reimer et al., 2020).

Laboratory code	Context	Sample	$^{14}\text{C}$ (BP)	Calibrated date 68% confidence cal BC	Calibrated date (95% confidence) cal BC
Chinflón (BM-1529)	Mining camp. Settlement: level 3	Charcoal	3320 ± 130	1750-1440	1950-1290
Chinflón (BM-1600)	Mining camp. Settlement: level 4	Charcoal	2890 ± 50	1200-1000	1220-920
Chinflón (BM-1599)	Mining camp. Mine 3: level 9, shaft base 3B3	Charcoal. Branch of Quercus sp.	2830 ± 50	1060-910	1190-830
Chinflón (BM-1528)	Mining camp. Settlement: level 2. Habitation level	Charcoal	2650 ± 60	900-770	980-570

### S4.2.

Figure S4.2. Calibrated radiocarbon dating of the Chinflón mines (OxCal v.4.4 Bronk Ramsey (2021); r:5 IntCal20 Atmospheric data from Reimer et al., 2020).

