Radiocarbon dates used to incorporate the study's lithic remains have already been published in several works (see supplementary material for date details). Details for decision-making in the dating organisation according to the sequence of the different sites are included below. In those sites where details were not discussed, the neolithic units were interpreted as levels derived from repeated occupations carried out during the period without more details in the data than the general phase where it was found. Every date for the phase was collected, but dates were not combined unless the combination passed the test.

NORTHEAST

La Draga.

According to a recent study on radiometric, dendrochronological, and sedimentary data (Andreaki *et al.* 2022), the predominant chronological model suggests two main Neolithic occupations, further divided into at least three phases. These phases involve the construction, use, and repair of foundational wooden platforms, and later constructions are evident after the ground surface was reorganised using travertine slabs. However, contextual details for the glossy blades were not found. In this sense, the highest level of detail to which we could attribute the artefacts, in some instances, was the sector of their recovery. Consequently, the artefacts are associated with the entirety of the published short-lived life radiocarbon dates for the site.

Sant Pau del Camp.

Sant Pau del Camp IV base is shaped for several pits whose dates and cultural material could indicate different occupations. Dates came from silos 1, 2, 9 and 10. Of them all, silos 9 and 10 present the earliest dates as well as some *impressa* ceramic fragments, pointing to a possible more archaic occupation (Molist-Montaña & Gómez-Bach 2020). Dates were combined according to this internal scenario, and because contextual details for the glossy blades were not available, the remains are analysed according to the time bins proportionated for both sub-levels.

INTERIOR

Casa Montero.

Occupation in Casa Montero has demonstrated to be relatively short in time, with a time span between 5337 and 5218 cal. BCE (Díaz del Río *et al*. 2020; Díaz-del-Río & Consuegra 2011). Dates were combined.

La Lámpara.

Hoyo 1.

Since it is a funerary context (Rojo *et al.* 2006), we selected dates from human samples. Dates were combined.

Hoyo 9.

The Hoyo 9, although made and filled in in the middle of the 6th-millennium cal. BCE incorporates materials and coals in the earth with which it fills up, representing all the earliest moments of occupation of the site. Then, we decided to include the most recent

date, consistent with the accepted chronology for the excavated pit (Rojo-Guerra *et al.* 2008: p.37).

La Vaquera I.

Although the date from level 94 ("La Vaquera 3" sample) could be found in a secondary position (Estremera 2003: p.186), since it returns dates for the beginning of the sequence, it is not discardable because it still describes phase I in the site. Dates failed the combination test, so we include both dates as single ones.

SOUTH

Castillo de Doña Mencía.

The neolithic units identified have been interpreted as levels derived from occupations carried out during the first third of the V millennium cal. BCE (Martínez-Sánchez & Vera-Rodríguez 2017). Dates were not combined.

Cueva de Nerja.

We collected the glossy blade from room Vestíbulo – level II (NV2). According to the bibliography, two dates are available for this level, Beta-131577 (Aura-Tortosa *et al.* 2005; Aura Tortosa & González-Tablas Sastre 1998; Jordá-Pardo & Aura-Tortosa 2008) and MAMS-20437 (García-Borja *et al.* 2014). In spite of Beta-131577 has been assigned to level III in other references (Aura Tortosa *et al.* 2013; García-Borja *et al.* 2014), this study considers both possibilities.

In this case, date combination fails the statistical test for internal consistency of *poolDates*, so dates were included as single ones, not combined.

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