Table S1: Petrographic description of the diverse calcareous fabrics identified in Su Coddu/Canelles archaeological site.

Fabric 1 *(n = 4)*	*Coarse fraction (<2.1 mm)*	*Dominant*	**Monocrystalline quartz** (< 1.3 mm; mode = 0.4 mm), equant to prolate, sa.-r., straight extinction
			K Feldspar (< 1 mm; mode = 0.5 mm), equant to prolate, sa.-r., most of them altered to sericite, some perthitic textures
		Common	**Plagioclase** (< 1.5 mm; mode = 0.3 mm), equant to prolate, sr.-r., most of them altered to sericite, multiple twining
			Biotite laths (mode = 0.3 mm)
		Few	**Sandstone** (< 1.5 mm), poor sorted rounded quartz grains with high sphericity with some muscovite and biotite micas present (micaceous sandstone)
		Very few	**Siltstone** (< 0.75 mm; mode = 0.4 mm), sr.-r., moderately well sorted rounded grains with high sphericity
			Muscovite laths
		Rare to absent	**Slate** (0.4 mm), prolate rounded rock fragments, with muscovite and chlorite
			Phyllite rock fragments (< 0.45 mm), r., with foliated structured formed mainly by quartz and some biotite laths
			Acid igneous rock (granite) (< 1.8 mm), holocrystalline inequigranular rock fragments with porphyric texture mainly composed by megacrystals of K-feldspars altered to sericite, quartz and biotite
			Igneous rock (microgranite) (< 2 mm), holocrystalline rock fragments phenocrystals of quartz and feldspar and granophyric texture with the intergrowth of quartz and K-feldspar
			Volcanic tuff
			Pseudomorphic amorphous concentration features
	Fine fraction	*Dominant*	**K feldspar**
			Monocrystalline quartz
		Common	**Plagioclase**
		Rare	**Muscovite**
			Biotite
Fabric 2 *(n = 6)*	*Coarse fraction (< 1 mm)*	*Frequent*	**Monocrystalline quartz** (< 0.9 mm, mode = 0.2 mm), equant to slightly alongated, straight extinction, sa.-r.,
		Common	**K feldspar** (microcline, orthoclase) (< 1 mm; mode = 0.2 mm), equant to elongated, r., sometimes partially altered to sericite, some crystals display perthitic structure, sometimes containing monocrystalline quartz crystals
		Common to few	**Calcimudstone** (< 0.5 mm, mode = 0.2 mm), equant, rounded micritic rock fragments,
			Plagioclase (< 0.5 mm; mode = 0.25 mm), a./sr., equant to elongated, single to multiple twinning, sometimes partially altered to sericite
		Few to absent	**Sandstone** (< 1.1 mm; mode = 0.5 mm), several types of sandstones are documented: 1) *Quartz-arenite* elongated rock fragments with poorly sorted sub-angular quartz and feldspar grains with high sphericity; 2) *Micaceous sandstone*, foliated and elongated rock fragments with monocrystalline quartz and to lesser extent plagioclase crystals as well as

			well oriented muscovite, chlorite and biotite mica laths; 3) *Calcareous sandstone* with micro-spathic and micrite calcite cement; 4) *Arkose* fragments with crystals of quartz, plagioclase and k-feldspar sometimes with micro-spathic calcite. In rare cases chlorite pseudomorphs are present.
			Bioclasts (0.75 mm), cemented by micro-spathic or micritic calcite
			Micro-spathic calcite
		Very few to absent	**Greywacke** (< 0.75 mm) with quartz, k-feldspar and biotite cemented by micro-spathic calcite,
			Intraclasts, peloids and bivalves cemented by intrasparitic calcite
			Siltstone (< 0.8 mm, mode = 0.3 mm), with well sorted sub-rounded to rounded spherical grains
			Claystone (mode = 0.2 mm), mainly formed by biotite and muscovite
			Polycrystalline quartz (< 1 mm)
		Rare to absent	**Shale** rock fragments (< 0.8 mm; mode = 0.2 mm) elongated and well-rounded (chlorite/biotite)
			Phyllite rock fragments (< 0.4 mm; mode = 0.2 mm), well foliated with biotite or chlorite and quartz
			Chert (< 1 mm)
		Very rare to absent	**Quartzite** (0.5 mm) well sorted sub-angular and low sphericity compressed crystals
			Biomicrite rock fragment
			Muscovite laths (< 0.35; mode = 0.15 mm)
			Biotite laths, (< 0.55; mode = 0.18 mm)
			Pure amorphous nodules (mode = 0.15 mm), equant to prolate, r.-sr.
			Sphereulitic volcanic rock fragments (K feldspar) (<1.5 mm)
			Epidote
	Fine fraction	*Dominant*	**Monocrystalline quartz**
		Common to few	**Plagioclase**
			K feldspar
		Few	**Calcimudstone**
		Few to rare	**Muscovite** laths/flakes
			Biotite laths
		Very rare to absent	**Epidote** aggregates
Fabric 3 *(n = 1)*	*Coarse Fraction (<0.5 mm)*	*Dominant*	**Quartz** (< 0.5 mm; mode = 0.15 mm), straight extinction, equant, sr.-r.
		Common	**K feldspar** (< 0.2 mm), r., equant
		Few	**Chlorite laths** (< 0.15 mm)

	Fine fraction	*Dominant*	**Monocrystalline quartz**
		Common	**Muscovite** laths
		Few	**K feldspar**
			Plagioclase
		Rare	**Pure amorphous nodules**
Fabric 4 *(n = 5)*	*Coarse fraction7 (<2.4 mm)*	*Dominant*	**K Feldspar** (microcline, sanidine, anorthoclase) (< 2.4 mm; mode = 0.7 mm) equant to prolate (sometimes lathlike), sa.-sr., simple twinning, some perthitic textures are present, in some cases surrounded by amorphous hypocoatings impregnations (depletions)
			Plagioclase, (anorthite/albite), a.-sr., very well preserved prismatic to equal crystals, simple to multiple twinning (< 2.4 mm; mode = 0.6 mm)
		Common	**Monocrystalline quartz,** (< 1.8 mm; mode = 0.7 mm), equant to slightly elongated, a.-r., generally straight extinction
			Bioclasts
		Few to very few/absent	**Sandstone** (quartz-arenite, arkose), (< 1 mm; mode = 0.5 mm), sr., sometimes containing biotite and muscovite flakes (micaceous sandstone), elongated rock fragments with moderately to poorly sorted sub-angular to sub-rounded quartz and feldspar crystals with high sphericity
			Wackestone (< 1.5 mm; mode = 0.6 mm), r., micritic calcite cementing muscovite, quartz and feldspar, biotite laths and amorphous depletions are also present
			Calcimudstone (< 1.2 mm; mode = 0.7 mm), equant, micritic rock fragments, r.
			Muscovite laths/flakes (< 0.26 mm; mode = 0.12 mm)
			Biotite laths (< 0.3 mm; mode = 0.15 mm)
			Polycrystalline quartz
		Very few to absent	**Amorphous strongly to moderately impregnated hypocoatings and depletions** (< 2.4 mm), forming the micromass of the quartz and feldspar aggregates, also surrounding meso-vesicles, foraminifera or K feldspar crystals
			Siltstone (< 1 mm; mode = 0.4 mm), r., equant to slightly elongated, moderately to well sorted, formed by well-sorted sub-rounded to rounded spherical crystals of quartz, sometimes with mica laths, sometimes surrounded by amorphous hypo-coatings impregnations
			Claystone (< 0.75 mm; mode = 0.26 mm), r.
			Pure amorphous nodules (mode = 0.25 mm), equant, r
		Rare to absent	**Volcanic rock fragments** (rhyolite?, tuff) devitrified with sphereulitic alkali feldspar needles radiating from a common nucleus and quartz, also some chlorite laths can be observed
			Acid Igneous rock fragments (granodiorite to granite), (< 1.5 mm; mode = 0.4 mm), holocrystalline euhedral rock fragments with faneritic texture mainly composed by equigranular to lathlike crystals of K-feldspars and to lesser extent

			plagioclase, monocrystalline quartz and biotite laths, chlorite can be present.
	Fine fraction	*Predominant*	**K feldspar**
			Monocrystalline quartz
		Common	**Plagioclase**
			Micritic calcite
		Few to very few	**Calcimudstone**
			Muscovite laths,
			Biotite laths, sometimes altered to chlorite
		Very rare to absent	**Epidote**
			Hornblende?
Fabric 5 *(n = 2)*	*Coarse fraction (<1.5 mm)*	*Dominant*	**Monocrystalline quartz,** (< 1.5 mm; mode = 0.7 mm), equant, sa.-r., generally straight extinction.
			K Feldspar (< 1.5 mm; mode = 0.8 mm) equant to prolate (sometimes lathlike), sr., crystals mostly partially to almost completely altered to sericite, some perthitic textures are present
		Common to few	**Plagioclase,** (anorthite/albite), sa.-sr., prismatic to equal simple to multiple twinned crystals, mostly altered to sericite (< 1.2 mm; mode = 0.25 mm)
		Few	**Sandstone** (< 1 mm; mode = 0.5 mm), sr., equant, poorly sorted sub-rounded particles,
		Very few to absent	**Calcimudstone** (< 1.2 mm; mode = 0.7 mm), r.
			Metasandstone, (mm), prolate, poorly sorted sub-rounded particles
			Muscovite laths/flakes (< 0.26 mm; mode = 0.12 mm)
			Siltstone (< 1 mm; mode = 0.4 mm), r., equant, well sorted, with mica laths
	Fine fraction	*Predominant*	**K feldspar**
			Monocrystalline quartz
		Common to few	**Micritic calcite**
		Few to very few	**Plagioclase**
			Muscovite laths
Wall coatings *(n = 6)*	*Coarse fraction (<1.4 mm)*	*Dominant*	**Monocrystalline quartz** (< 0.8 mm; mode = 0.25 mm), straight extinction, sa.-sr.
		Common	**K feldspar** (< 1.5 mm; mode = 0.5 mm), prolate/elongated, sometimes altered to white mica, some particles are perthitic,
		Few	**Plagioclases,** (< 1.5 mm; mode = 0.28 mm), multiple twinning, partially altered to white mica
			Calcimudstone (< 1.4 mm; mode = 0.6 mm), sr.-r., equant to elongate, micritic to micro-spathic calcite.
		Few to very	**Chert** (0.75 mm; mode = 0.4 mm), r., equant,

		few	**Sandstone/metasandstone** (< 1 mm; mode = 0.36 mm), prolate, sr., mainly quartz, sometimes with k feldspar grains cemented by micro-sparry calcite (arkose)
			Biotite flakes,
			Pure amorphous nodules (< 0.7 mm; mode = 0.36 mm), equant to prolate, sr., sometimes enclosing crystals of moncrystalline quartz,
			Policrystalline quartz
			Bioclasts
		Rare	**Claystone rock fragments**, (0.8 mm), equant, sr., mainly muscovite and few moncrystalline quartz crystals
			Siltstone, (< 0.46 mm; mode = 0.3 mm)
		Very rare to absent	**Augite** (0.3 mm),r., equant,
			Igneous rock fragments (0.6 mm), sr., holocrystalline rockformed by lathlike plagioclase crystals and little monocrystalline quartz, highly altered,
			Granitic igneous rock fragment (0.3 mm), equigranular formed by quartz, biotite and mainly k feldspar,
			Basic igneous rock fragment (0.44 mm), equant, well-rounded, trachyte, microcrystalline textured rock formed by feldspar and plagioclase phenocrystals
			Shale rock fragments (0.34-0.2 mm), r., foliated and crenulation cleavage formed by biotite, or muscovite and chlorite,
			Volcanic rock fragments with crystal aggregates forming radiate to sphereulitic shapes
	Fine fraction	*Dominant*	**Monocrystalline quartz**
		Common	**K feldspar**
		Few	**Plagioclase**
			Micritic calcite
		Very few	**Biotite** laths
			Muscovite laths
		Rare	**Epidote**
Loom weight *(n = 1)*	*Coarse fraction (<1.5 mm)*	*Dominant*	**Quartz** monocrystalline (< 1.2 mm; mode = 0.36 mm), sa-r., equant and anhedral, some crystals show conchoid fractures
		Common	**Siltstone** (< 0.6 mm), quartz and feldspar inclusions consolidated by calcite cement
			Bioclasts
			K feldspar (mode = 0.5 mm)**,** elongated,
		Few	**Calcimudstone** (0.84 mm)equant and well-rounded inclusions
			Plagioclase (mode = 0.15 mm),sr., multiple twining, sometimes partially altered
			Pure amorphous nodules

			Claystone nodules, well rounded, equant
			Quartz polycrystalline
		Very few	**Biotite** flakes/laths
		Rare	**Quartzite** (0.75 mm) elongated rock fragments with moderately sorted sa.-sr. grains, sometimes containing chlorite flakes aggregates
			Phyllite rock fragments (< 1.8 mm; mode =0.6 mm), with evidence of stretching and crenulated textured formed by sub-angular to sub-rounded equant to elongated very poorly sorted to well-sorted quartz grains. Mud veins can be present along with the quartz grains in some cases
		Very rare	**Arkose,** quartz and k feldspar inclusions enclosed by micro-spathic calcite cement.
			Volcanic rock fragments (rhyolite?) (0.65 mm) devitrified with sphereulitic alkali feldspar needles radiating from a common nucleus and some quartz grains
			Basic igneous rock fragment (basalt?) (0.36 mm), equant, well-rounded, trachyte, microcrystalline textured rock formed by few plagioclase lathlike phenocrystals
			Epidote (< 0.2 mm), equant, r.
	Fine fraction	*Dominant*	**Monocrystalline quartz**
		Frequent	**K feldspar**
		Common	**Plagioclase**
			Micro-spathic calcite
			Pure amorphous nodules
		Few	**Biotite** laths
			Muscovite laths
		Rare	**Epidote**
			Staurolite