

“Domesticating” Death: the Burial Contexts

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Introduction

The following compilation presents the empirical data and analyses of burial contexts at Ba`ja that were part of the *Household and Death Project*.¹ During three field seasons (2016, 2018, 2019a), we excavated eleven burial contexts, which increased the total number of burial contexts to 15 (Table 1, Figs. 1-3).² Additionally, we uncovered three contexts of isolated human remains: one in Area C, Room CR5 and two others in Area D, in Room DR22 and DR30 (Gebel *et al.* 2020: 16). To ensure that no infant bones or tiny ornament elements were missed, all grave contexts were sifted with a 0.5mm mesh sieve. However, due to the poor preservation of many skeletons a loss of bone material was inevitable during excavation and transport. In autumn 2019, an additional study season was necessary to complete the documentation of finds and samples.

During former seasons led by Hans Georg K. Gebel between 2000 and 2005, three collective/multiple burials (CG1, CG12, DG1)³ and one primary⁴ single burial (TU7G1) had already

been excavated under the supervision of Michael Schultz. These burials provide valuable data for comparison with the new burials. They have been published in several preliminary reports and papers, and specific aspects have been investigated thoroughly (Fig. 1; Gebel and Hermansen 2000, 2001, 2004; Gebel *et al.* 2006; Schultz *et al.* 2007; Gebel 2010). As part of the *Household and Death Project*, we were also able to analyse the human remains from one of the supposed collective burials, CG1. The anthropological identifications of this burial done by Susan Klingner (see Appendix 3) and the detailed documentation by Julia Gresky and Christoph Purschwitz allowed us to re-evaluate the burying processes, which we will describe in detail below. For the other two collective burials, CG12 and DG1, and the single primary burial TU7G1, we were able to describe the archaeological contexts and to reconstruct the burying process as detailed as possible based on the field records. Julia Gresky (see her contribution to this volume) did the anthropological analyses of all individuals excavated during the *Household and Death Project* in the Division of Natural Sciences at the German Archaeological Institute. Further investigations of the human bones from these three burials will require future projects. Archaeological and anthropological studies on the newly discovered collective burial in Room CR17 in Area C are still ongoing, so the description and primary data should be considered as preliminary.

without long delay but which, in fact, were either treated somehow or were “stored” in a very dry place to avoid bacterial attack. As we lack evidence for possible post-mortem treatments, this distinction must await further evidence. Moreover, some of the individuals have not been sampled, so that differentiating between both types – which is generally essential information for the reconstruction of the burial ritual –, has not been done here, but see the contribution of Scott Haddow (this volume).

¹ The project was primarily funded by the German Research Foundation and carried out in two phases. The first phase was a pilot study in 2016 (BO 1599/14-1), followed by a three-year project from 2018 to 2021 (BO 1599/16-1/2; Gebel 2020; Gebel *et al.* 2017, 2019; Benz *et al.* 2019).

² Results of the 2021 autumn season are not considered here anymore, see Gebel *et al.* forthcoming.

³ For the sake of brevity, we introduce here acronyms for every burial, because some burials comprise several loci. The first letter indicates the area of the burial, while the second letter refers to the burial number. A reference list for the loci and burial numbers is given in Table 1.

⁴ For the time being, it remains difficult to differentiate between real primary and ‘primary’ burials (see Gebel *et al.* 2022b), that look as if the individual had been buried

Table 1 Overview of all burials excavated between 2000 and 2019 at Ba'ja. Loci numbers of human remains are given in square brackets. Human bones excavated during the *Household and Death Project* are on permanent loan and currently housed at the German Archaeological Institute's Natural Sciences Division in Berlin, under the supervision of J. Gresky. Those denoted by [G], which were excavated during the 2000 and 2005 seasons, are hosted on permanent loan in Göttingen at the Zentrum für Anatomie, under the supervision of M. Schultz. The grey characters indicate human remains that were unavailable for investigation within the scope of the *Household and Death Project*.

Area	Room Number	Grave ID	Loci Directly Belonging to the Burials ⁵	Burial Type	MNI
C	CR35	CG1 [G]	C10:148-152 [CR10:152]	Collective/ multiple?	6
C	CR5	CG2	CR5:49-54 [CR5:53, CR5:54]	Double primary/ secondary?	2
C	CR5	CG3	CR5:48A-50A [CR5:49A]	Single primary	1
C	CR6	CG4	CR6:20, CR6:45-49 [CR6:48]	Single primary	1
C	CR6	CG5	CR6:27, CR6:30 CR6:19(partly?) [CR6:23a-b]	Double primary/ secondary?	2
C	CR6	CG6	CR6:22; CR6:26, CR6:28-29, CR6:30, CR6:32, CR6:33(?) -34, CR6:36-43 [CR6:40-41a-c]	Single primary associated with isolated bones of minimum four individuals (two adults, one infant, one fetus)	4
C	CR36.1	CG7	C1:20; C1:29-30; C1:33-34; C1:29; C1:42; C1:44; C1:46; C1:52, C1:60, C1:63; C1:65; C1:66 [C1:46]	Single primary	1
C	CR35	CG8	C10:405 ⁶ [C10:405 Ind.I+II]	Double primary	2
C	CR28.2	CG9	CR28.2: 111; CR28.2:115; CR28.2:117; CR28.2:120-121; CR28.2:122a-b/123a-b [CR28.2:122a-b/123a-b]	Multiple primary + secondary	4
C	CR35	CG10	C10:146b, C10:408 [C10:408.8]	Single primary	1
C	CR17	CG11	CR17:115; CR17:115; CR17:117a; CR17:117; CR17:116; CR17:127; CR17:130; CR17:131; CR17:132; CR17:133/135; CR17:136/137; no loci were given to human remains in this burial except for CR17:133 and CR17:117b. (CR17:109; CR17:116; CR17:124; CR17:136/137 = on floor deposits, but possibly related to the collective grave or grave cover);	Collective	14
C	CR34	CG12 [G]	C10:129(?); C10:133; C10:138; C10:170; C10:143(?); [C10:133, C10:170]	Collective	6
D	DR26.2	DG1 [G]	D11/12/21/22:21(?) -22, D11/12/21/22:25-29 [D11/12/21/22:26]	Collective	12
D	DR19	DG2	DR19:110 [DR19:110]	Single primary	1
TU7	---	TU7G1 [G]	TU7:5 no separate locus number was given to human remains	Single primary	1

Systematics of Burial Descriptions

The description of the empiric data starts with the single and double burials of Area C (proceeding from east to west) and the single infant burial in Area D, terminating with the single primary Burial TU7G1 in the Test Trench Area TU7, in the western most area of the site. The multiple and collective burials

are described in the second part, proceeding from north to south, starting with the collective Burial DG1 in Area D, then the multiple (?) Burial CG9 in Room CR28.2, the collective Burial CG12 in the adjacent Room CR34 south of it, and the enigmatic supposed collective Burial CG1 in Room CR35. Finally, a short report will be given on the sequence of collective Burials CG11 in Room CR17. Since it was impossible to terminate the excavations and analyses of the latter burial during the *Household and Death Project*, it was decided to summarise this burial only briefly (see also Gebel *et al.* 2019, 2020).

⁵ For further loci that might be in relation to burial rituals or other rituals that might be in relation to commemoration practices see the respective description of the burial.

⁶ In 2016, burials were given only one general locus number, making it difficult to describe single events of the burial. Therefore, this has been changed from 2018 onwards.

We consider the burial of a person to be a social activity, relating the living community with

their departed members, which contributes to the formation and strengthening of collective identities. We therefore aimed at a reconstruction of these processes that was as detailed as possible. To facilitate comparisons, each description follows a standardised scheme. A table with all results is given in Appendix 1. Due to the limited number of burials and the selective nature of the individuals interred on site, multivariate statistics would not be significant. However, we present some descriptive analytics in this regard.

In the synthesis (Part 1 of this volume), the empirical evidence is compared and evaluated in the wider context of the southern Levant during the Late PPNB, and the burials are assessed according to the theoretical categories and questions developed in the archaeoethanatomical approach of the *Household and Death Project* (Gebel *et al.* 2022b, Gebel and Benz forthcoming b). Here, we only present the evidence that may have contributed to cognitive filters related to death rituals, and to the relation of the living to former members of the communities.

Nomenclature of Burial Types and Limitations

Before moving on to the empirical data, it is important to note the limitations of the standard nomenclature used to classify burial types. The simplified categories of collective and multiple burials are not easily applicable to the Late PPNB burials of Ba`ja. The line between these categories is blurred, and they do not adequately capture the complexity of the Late PPNB burial practices. Even seemingly primary burials may involve multiple stages of burial ritual, potentially including mummification or other methods to prevent bacterial decay (as discussed by Haddow in this volume). Further analyses, including histological and micromorphological approaches, will be necessary to fully understand these practices. For the time being, with a few exceptions (Burials CG8, Ind. I and DG2), most burials appear to be ‘primary’ burials in the sense defined by Gebel *et al.* (2022b; see Footnote 3) – that is, they appear to be primary burials based on their outward appearance and anatomical articulations, but histotaphonomic studies suggest that there was handling of the corpses and delayed interments. For collective and multiple burials, we have adopted the definitions that were developed in France (Duday *et al.* 1990; Duday 2009). In our understanding, collective burials involve a series of interments, while multiple burials are characterised by the simultaneous deposition of several individuals. Both types of burials

can include primary or secondary inhumations. Evidently, distinguishing between these two types of burials can be challenging, as discussed in the section on collective burials below.

Bio-Anthropological and Archaeobiological Analyses

The results of bio-anthropological investigations are described by Julia Gresky, with chapters on non-metric traits of human teeth by Julia Krauß *et al.*, on the results of aDNA by Eirini Skourtanioti and Michal Feldman, and strontium analyses by Corina Knipper *et al.* Unfortunately, preservation of the bones was very poor, making collagen analyses for stable isotopes from human bones impossible (see Appendix 4). Consequently, information on foodways was unavailable, even though it would have been crucial in understanding sharing and reconstructing households. The reconstruction of prehistoric diets is thus limited to the analyses of archaeobotanical remains and animal bones and groundstone tools for processing food, which will be presented in the first volume of the *Household and Death Project* (Gebel and Benz forthcoming a). Proteomic analyses on teeth are planned for future projects. Within this volume, a chapter by Anja Prust is devoted to the animal bones in burial contexts. Investigations on palaeobotanical samples from burials are still ongoing and will be reported elsewhere. However, with few exceptions, many of the burials were filled with rather sterile sand, with hardly any charcoals. Due to the non-preservation of phytoliths (see Ögüt forthcoming), it will not even be possible to detect any offerings of flowers or grave elements of organic matters through this method. Except for the impression of basketry on some tiny plaster pieces (see below), no other unambiguous evidence for the use of plants in burial rituals was documented.

Evidence on Basketry and the Use of Pigments

The discovery of hundreds of small red painted plaster pieces with impressions of mats and basketry within one of the child burials deserved a chapter of its own. Nicole Reifarth *et al.* describe the results of XRF analyses conducted on these plaster pieces. The impressions reveal the existence of two types of basketry, which is valuable information for understanding the emergence of containers made of lime and the modelling of plastic material. These red plaster pieces are a further proof of the importance of the colour red (see Gebel b this volume).

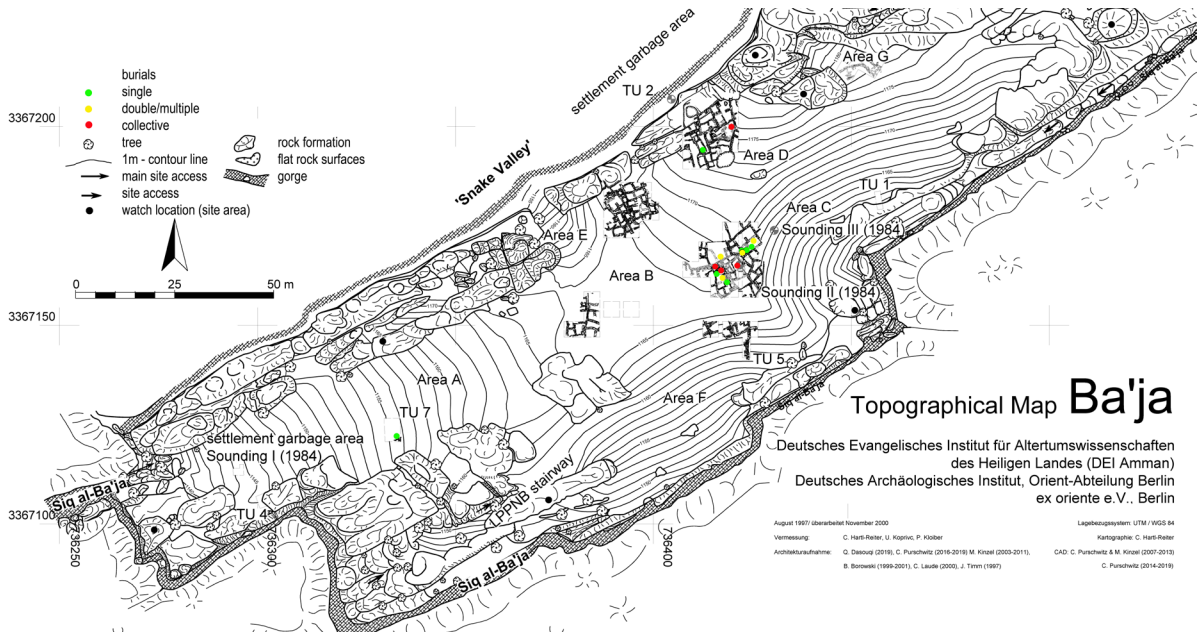


Fig. 1 Overview of all burials excavated between 2000 and 2019. (Topplan: C. Purschwitz *et al.*, modified by M. Benz, Ba'ja N.P.)

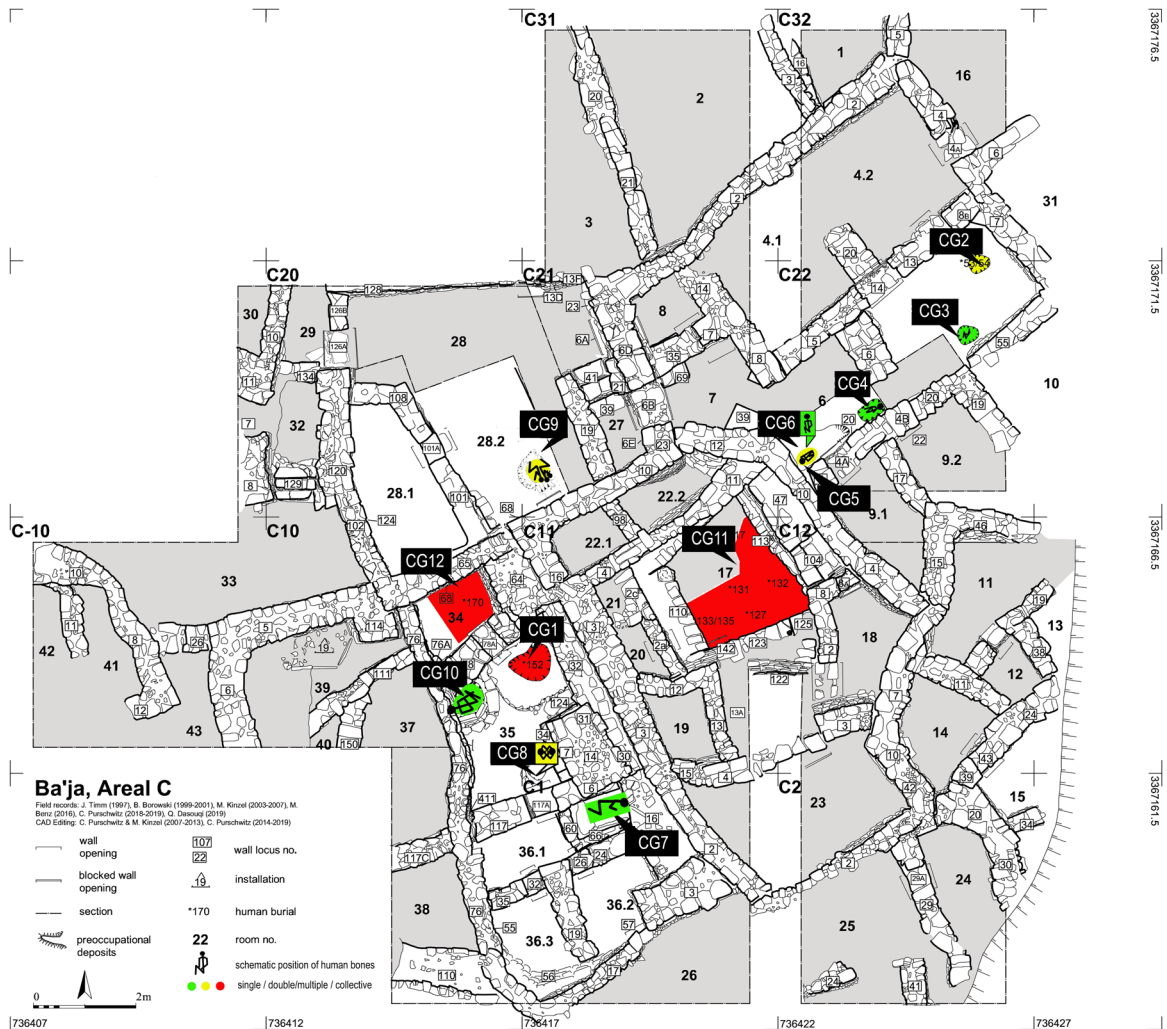


Fig. 2 Overview of the burial locations in Area C. The grey-shaded areas indicate rooms where excavations were undertaken but did not, or only partly, reach the building's oldest floor. (Topplan: C. Purschwitz *et al.*, modified by M. Benz, Ba'ja N.P.)

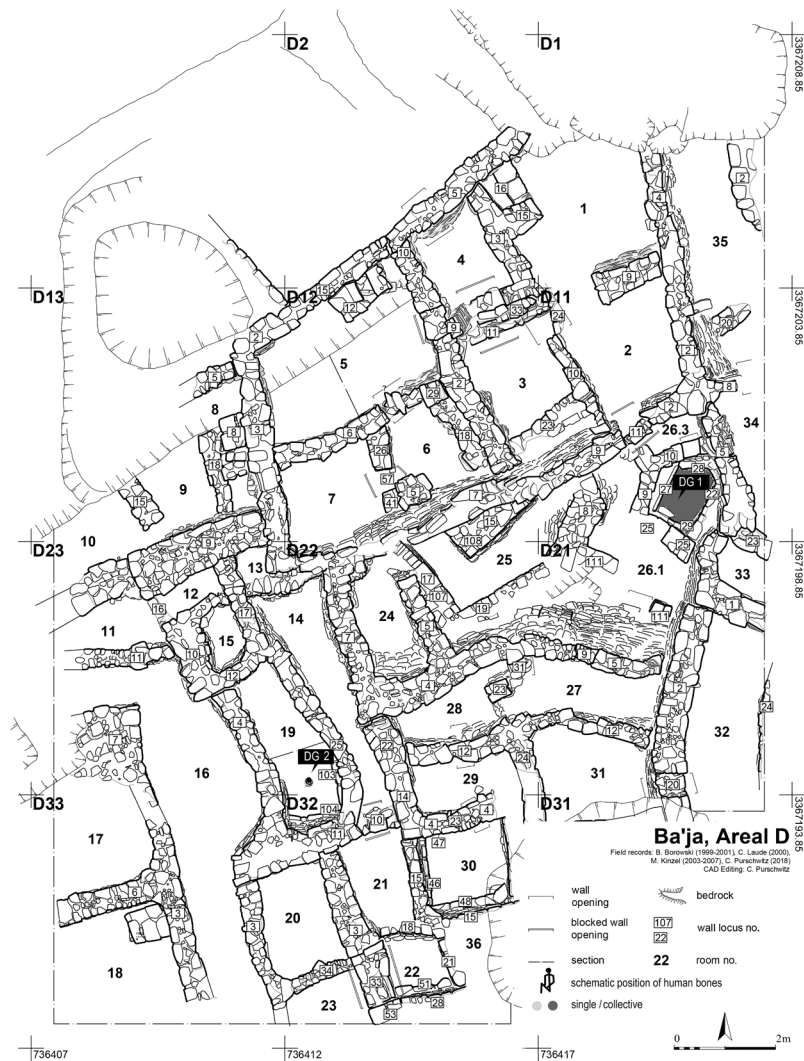


Fig. 3 Overview of the burial locations in Area D. (Topplan: C. Purschwitz *et al.*, modified by M. Benz, Ba'ja N.P.)

Ornaments and Other “Grave” Goods

Due to the unexpected importance of ornaments in burials at Ba'ja, it was decided to describe these objects in three chapters within this volume. The first chapter, by Hala Alarashi, provides a comprehensive description of all biographical aspects of ornaments, including their production, use, and discard or recycling. Unfortunately, investigations on bone beads from burials have not been possible due to Covid-19 restrictions. The second chapter on ornaments, focuses on the meticulous analyses and reconstruction of the necklace found in the child Burial CG7 (“Jamila”), while the third chapter examines the general spatial and contextual distribution of ornament elements. These three chapters are concluded by a chapter on the geo-chemical identification of shell and mineral raw materials from ornaments

by Melissa Gerlitzki and Manfred Martin. Shell beads continued to be in use, and cowries became one of the most distinctive ornament types of the Late PPNB cultures of the southern Levant – not only for ornaments (*e.g.*, Alarashi *et al.* 2018; Alarashi 2021; Benz *et al.* 2020) but also for representing eyes on plastered skulls (*e.g.*, Kuijt 1996; Bocquentin *et al.* 2016). While the use of various mineral sources and shells for ornament production increased during the Pre-Pottery Neolithic, organic matters for ornamentation should not be forgotten.⁷

The conservation of beads and pendants from the extraordinary necklace found in Burial CG7 (“Jamila”) is described in a chapter by

⁷ We are grateful to Reinder Neef for stressing this matter.

Alice Costes and Andrea Fischer. Hussein M. al-Sababha and Mousa Serbil present the reconstruction of this grave in the new Petra Museum.

Except for the daggers and ornaments, the few other grave goods, such as stone vessels, mace-heads, worked bone objects will be analysed within their object categories in Gebel and Benz (forthcoming a). However, brief descriptions are provided in the tables for each burial and Hans Georg K. Gebel will dedicate a chapter to the daggers in this volume, as they are considered to be ritual tools associated with burial rituals.

Room CR5: Burials CG2 and CG3

Room CR5 is enigmatic for its series of ritual and domestic events (Gebel *et al.* 2020; see also Prust and Pöllath forthcoming). We uncovered two burials in this room: one very close to the southern wall (CG3, Loci CR5:48A-50A), and a double burial (CG2, Loci CR:49-54) in the middle of the northern half of the room, beneath a possible hoard (Fig. 4; Gebel *et al.* 2020). Next to these burials a large grinding slab was found close to the northern wall west of Burial CG2. The burials underline the supposed special function of this room (Gebel *et al.* 2020). It must also be emphasised that Rooms CR5 and CR6 formed one confined space, when the burials were dug through the floor.

CG2: Double Burial of two Subadults

The dislocations of some bones and the poor preservation of the bones of the younger individual

(Gresky this volume), makes it difficult to decide whether both individuals were buried simultaneously or whether the burial was reopened once. This burial of two subadults is one of four similar interments in which subadult individuals of the age of 3-4 years were buried alongside one or two infants who were no older than 2 years.

Location: Unlike most of the other burials, this double burial was not close to a wall or a window-like opening, but almost in the middle of the room, though a bit shifted to the north-eastern part, at a distance of 50cm from the eastern wall and 45cm from the northern wall. It is important to note that the window-like openings Loci CR5:8A and CR5:14A belong to the latest occupation Phase III of the settlement, which is much later than the interments in Area C (see Gebel *et al.* 2020).

Stratigraphy: Beneath a possible trilith, the heap of sherds (“tabun-like” installation), and remains of plaster mixed with very unusual objects (Loc. CR5:45; Gebel *et al.* 2020: 19-22), the following sequence for the burial of two subadults can be reconstructed (Fig. 5).

Grave construction: The burial is a simple sub-oval pit (Loc. CR5:51) that was dug through the plaster floor and its pebble sub-construction (Loc. CR5:47a) into the underlying paleosol, which consists of intramontane Pleistocene sediments (Abu-Jaber *et al.* 2020). The extension of the grave pit was *c.* 50cm SE-NW-direction and 40cm in SW-NE-direction, providing just enough space for the two individuals (Figs. 6-7). The grave was filled

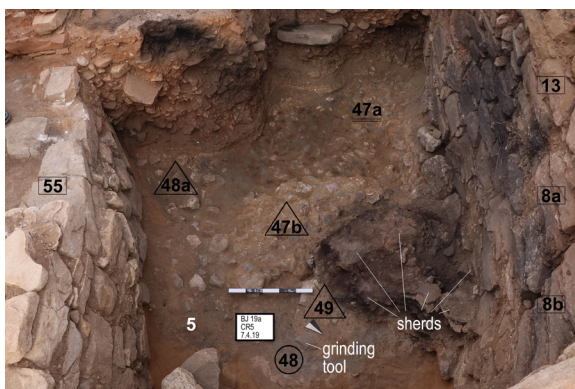


Fig. 4 Overview of CR5 in 2019. 1 floor (plastered paved), 1 temporal floor, □ walls/ (sub-) structures, △ limited features (fire places, pits, burials, etc.), ○ fills, * loci with human remains. (Photo: M. Benz, Ba'ja N.P.)

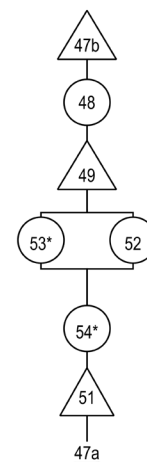


Fig. 5 Harris Matrix of Burial CG2. For the legend see Fig. 4. (Graph: M. Benz, Ba'ja N.P.)

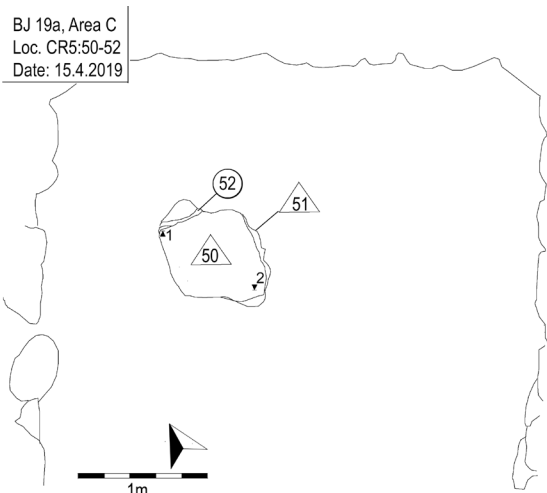


Fig. 6 Position of the Burial CG2 in Room CR5. For the legend see Fig. 4. (Drawing: L. Miškolsciová, Ba'ja N.P.)



Fig. 7 Burial pit of CG2. (Photo: M. Benz, Ba'ja N.P.)

Table 2 Description of loci related to Burial CG2.

Locus	Description
CR5:47a	Plaster floor with cobble-sized stone sub-construction, dug through for the burial pit
CR5:47b	Heap of cobble-sized stones, possibly from the digging of the grave pit through Loc. 47a. NB: Diary p. 6 "two layers of medium-sized stones mainly in the middle of CR5" → later divided in two Loci CR5:47a and b
CR5:48	Ashy layer with human and animal bones, a thin (5cm) layer of plaster
CR5:49	Broken white sandstone slabs, above main covering stone slab (Loc. CR5:50)
CR5:50	Large, greyish-rosé/ light-violet stone slab = main covering slab
CR5:51	Burial pit
CR5:52	Pit filling, silty sand (10YR4/1-5/1) with angular limestone and flint gravel next to the skeletons; pieces of charcoal, lumps of clayey silt
CR5:53	4-5 year-old child
CR5:54	1.5 year-old infant, many bones missing

with loose silty sand mixed with reddish hard patches of clay and small angular flint- and limestone grit that were less than 2cm in size (Loc. CR5:52).

Although the pit lacked any discernible constructional features, the grave cover was remarkably elaborate. Directly above the bones, and resting on a very thin layer of grave filling, was a rosé-grey to light-violet coloured, schist-like sandstone slab that was very brittle (Loc. CR5:50) (Table 2, for levels see Table 3). This slab had the form of a parallelogram, measuring *c.* 45 x 45cm with a thickness of 3-4cm. It was broken *in situ* on the northeastern corner, because it had sunken down on this edge into the pit, possibly due to the weight of the other stones (Fig. 8).

The upper grave cover (Loc. CR5:49) consisted of eight broken stone slabs, of which two fitted together, but were found separated from each other on the grave. This indicates that the stones were not broken *in situ*, but rather at another location, shortly before or during the burial ritual (Fig. 9).

On top of the southeastern part of the grave, and extending onto the floor Loc. CR5:47a, a very loose ashy layer was recognised (Loc. CR5:48; Fig. 4). Within this layer some isolated human bones (F.no. 118015) from at least one adult and one child were uncovered, obviously not belonging to the two subadults inside the grave. On top of this ashy layer and on top of the grave slabs, a heap of 5-10cm large, angular and round stones was piled up, including one mano

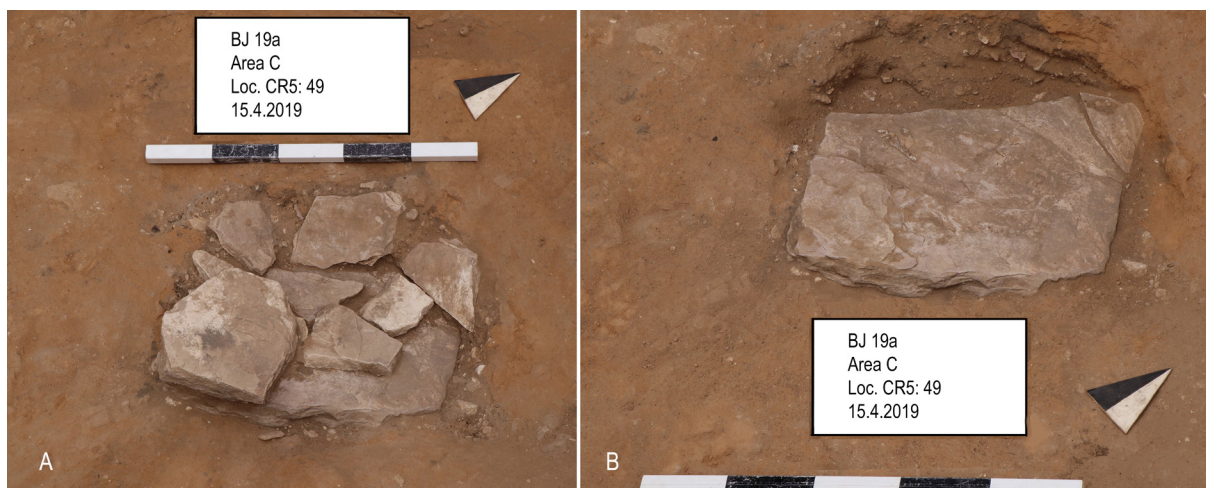


Fig. 8 Grave cover of Burial CG2 *in situ*: A layer of white deliberately broken Disi sandstone slabs, B the greyish-rosé large slab beneath. (Photos: M. Benz, Ba'ja N.P.)



Fig. 9 White deliberately broken covering slabs with two of them fitting perfectly well together but found separately in the cover. (Photo: M. Benz, Ba'ja N.P.)

of white sandstone (Fig. 4). These stones were embedded in several layers of plaster and grit, probably reused from the floor that had been cut through for the burial pit.

Human Remains: Loci CR5:53 and CR5:54 (F.no. 118007); Loc. CR5:48 (F.no. 118015); age: 4 years + 12 months (Loc. CR5:53; according to teeth); 18 months (Loc. CR5:54; *fontanella anterior* still unfused); infans and adult isolated bones (Loc. CR5:48); sex: indet. with individual Loc. CR5:53 being possibly female (f>m).

Position: The older individual (Loc. CR5:53) rested on top of the younger individual (Loc. CR5:54). Loc. CR5:53 was laying on its back (?), with its legs turned to the right side. The femora of Loc. CR5:54 were found close to the north wall of the burial pit, not *in situ*.

Both parietals and occipital bones (Loc. CR5:53 and CR5:54) were *in situ*. The mandible of Loc. CR5:53 was turned 180° to the southeast (Fig. 7). Inside the skull of the older individual, additional bones, vertebrae, ribs, skull base, and right scapula of the older

Table 3 Levels of Burial CG2. Sketch numbers refer to the in-field documentation of 2019, numbers in square brackets refer to labels of levels in the drawing (Fig. 6).

Location	▼ (UL) m a.s.l.	▲ (LL) m a.s.l.
Loc. CR5:47	1165.90	1165.58
Loc. CR5:48	1165.85	1165.76
Loc. CR5:49 (broken stone slabs) (Sketch 11)	1165.89	1165.66
Loc. CR5:50 (main grave slab) (Sketch 11/12) [1-2]	1165.77	1165.66
Loc. CR5:51 (grave pit)		1165.54
Loc. CR5:53 skull (Sketch 12)	1165.68	1165.60
Loc. CR5:53 spine (Sketch 12)	1165.68	1165.60
Loc. CR5:53 pelvis (Sketch 12)	1165.66	
Loc. CR5:53 femur left (?)(Sketch 12)	1165.69	
Long bone northern border (infans Loc. 54), (Sketch 12)	1165.62	

Table 4 Objects found in the grave pit Loc. CR5:51 or which might be related to it. For the identification of animal species in burial contexts see Prust this volume.

Objects Related to Burial CG2		
Objects	Field Numbers	Description
		frgm. fragment, BTF bifacial trimming flake, dom. domesticated, indet. not identified
2x Flints (Loc. CR5:52)	112027	1x BTF 1x Microdebris
Animal bones (Loc. CR5:48)	114024, 114082	1x Frgm. hare, 3x Frgm. dom. sheep/ goat, 11x Indet.

individual, were identified. The spine of the older individual was attached to the skull and seems to be complete, but could only be partly removed due to poor preservation, the preservation of the Loc. CR5:54 was very poor (Gresky this volume).

Orientation: Individual Loc. CR5:53 was oriented NE-SW, both skulls were facing north, laying on their right side.

Objects related to Burial CG2: There were no artefacts or animal bones that could be unambiguously attributed to the burial. It seems that the two flint debris came into the filling accidentally. A few animal bones were found in the ashy layer on top, which was probably related to the burial (Table 4). Most of these bones were identified as sheep/ goat. Only one bone was from a wild animal: a metatarsal bone of a hare. Though tubular beads made of hare bones were used for a necklace (F.no. 64500; see Alarashi and Benz this volume: Fig. 1),

this bone does not show any working traces or use-wear.

Use of pigments: Traces of red pigment were observed on the skull of individual Loc. CR5:53.

Use of fire: Besides the above mentioned layer of ash on top of the grave cover (Loc. CR5:48; Fig. 4), no other evidence of the use of fire related to the burial ritual was observed.

Samples: see Appendix 2

Comments: A polisher with red pigment was found in Loc. CR5:47 (F.no. 111808). It might be related to Burial CG2 (Loci CR5:50-54) or CG3 (Loci CR5:48A-50A); the bones of both individuals (Loci CR5:53 and CR5:49A) had traces of red pigments; in the possible hoard of Loc. CR5:45, a phallus object of schist (F.no. 111815), 1165.90 m a.s.l.; a cuboid clay object decorated with radial lines of dots, level:1165.92 m a.s.l. (F.no. 111602), and an unusually big, unused

Byblos point (F.no. 112026) were found in the ashy layer Loc. CR5:48 underneath the clay sherds (Gebel *et al.* 2020). Although they were deposited much later after the burial, they may be related to the burial somehow. In 2018, the lower part of a clay anthropoid figurine was discovered, which may also be part of this deliberate placement of artefacts in this context (Gebel *et al.* 2020: Fig. 29).

One grinding tool (Fig. 4) was found among the stones that covered the grave. It needs to be determined whether this layer of stones was intentionally placed as a grave cover or if it belonged to a layer of debris that had been previously found in another part of the room.

Burial ritual: The events of the burial ritual can be reconstructed as presented in Table 5. The most notable observations about this burial are its location in the middle of the room, the total absence of any (preserved?) “grave goods” or ornaments, and the intense animal activities. This may indicate that there was a void beneath the large covering slab for some time and that it only slipped down and broke at the edge later on due to the pressure from the upper grave cover and stone layers. Due to the poor preservation of the bones of the younger individual, it cannot be excluded that the burial

was reopened for a second interment, *i.e.*, both individuals were not buried simultaneously. The peculiar position of some bones inside the cranium of the older individual, as well as the turning of the mandible support this scenario. It is worth noting that the pit must have been partially filled up when the large stone slab slipped down, as the skull of the older individual on top had not been severely affected.

The simplicity of the grave pit stands in stark contrast to the elaborate grave cover, which would have been visible to anyone entering the room. Since the ash layer (Loc. CR5:48) is covered by the heap of stones (Loc. CR5:47b), the fire must have been lit before this cover existed. It is likely that the fire was related to the burial ritual, although the exact timing between the lighting of the fire and the actual burial remains uncertain. Nonetheless, the covering of the ash layer must have occurred relatively quickly, as even a slight breeze of air would have been enough to make it disappear. If it were open for a longer period, only faint traces of ash would have been preserved. The relation of the isolated human bones in the ash layer to the buried individuals is unclear as well. The animal bones (see Prust this volume) that were discovered in the ash layer might hint at some meat consumption during the burial ritual.

Table 5 Reconstruction of the burial ritual of Burial CG2 in Room CR5. *events marked with asterisk might have happened at a later point of time. The sequence of events is labeled according to the reconstructed comprehensive burial rituals of the single adult “Usaid” in Burial CG10 (Loc. C10:408) in Room CR35 and of the elaborate child burial of “Jamila”, CG7 (Loc. CR1:46) in Room CR36.1 (see Appendix 1). Missing numbers indicate that these activities of the idealised burial ritual were not realised or not identified.

Event	Activities
1.1-2	Selecting the burial place in Room CR5, in which large grinding equipment and a limestone basin indicate plant processing on a large – possibly supra-household – scale. Whether the other burials in CR5/6 were earlier or later cannot be clarified. The location almost in the middle of Room CR5, slightly shifted to the north-eastern part is rather unusual compared to other burials
2.1	Use of red pigment/ red tainted clothes in relation with individual Loc. CR5:53
2.3	Cutting a pit through the floor Loc. CR5:47a
4.5	Depositing both corpses contemporaneously in the pit, in a crouched position, on their right side, both facing north
6.2/6.3*	Covering (?) the corpses with sediment mixed with charcoal and clay lumps, some pieces of animal bones and small flint gravel probably came accidentally in the grave filling during the burying process
6.4	Covering the pit with a large greyish-rosé sandstone slab
6.5	Covering the sandstone slab with deliberately broken smaller white sandstone slab fragments; if the burial was reopened for the interment of the second individual, the sequence may have restarted with event 4.5
5.3*	Lighting a fire outside the grave (Loc. CR5:48). How the isolated human remains came into the ash layer is unclear
6.6	Possibly covering the grave with stones from the former sub-construction of the floor Loc. CR5:47a → Loc. CR5:47b
6.7	Adding a fragment of a mano in the grave cover
6.8-6.9	Unclear whether the uncovered plaster remains were in relation to the burial, no white painting has been observed
7	Whether the following sequence of enigmatic objects deposited in the hoard Loc. CR5:45 was directly related to the burial or in commemoration must remain an open question but is rather improbable

CG3: Single Primary Burial of an Infant

Location: Burial CG3 was located very close to the southern wall Loc. CR5:55 of Room CR5, approximately 50cm east of the wall opening Loc. C22:20B (Fig. 4). The position of the infant also appeared to be related to the course of the wall, with its back found more or less parallel to the wall. The orientation of the corpse suggests that the infant was probably facing into the room, even though the skull was missing. The alignment of three burials (CG3, CG4, and CG5) along this wall in Room CR5/6 supports the assumption that the wall (Loc. CR5:55/C22:20) was already standing when the burial pits were dug into the floor. However, due to the unclear stratigraphic data, it cannot be excluded that the Burial CG3 was dug into the paleosol prior to the construction of the floor Loc. CR47a and wall Loc. CR5:55.

Stratigraphy: The workers only discovered the Burial CG3 at an advanced stage of the excavation. Possibly, the upper edge of the burial pit has been missed. It remains unclear whether the pit was cut through the floor Loc. CR5:47a or whether it was covered later by the reused stones of the floor construction. In the photo, these stones appear to be rather loose in the sediment, whereas they are very compact and close to each other in the floor's sub-construction. The trench supervisors have confirmed that the pit was beneath Loc. CR5:47a. If this is the case, it would be the first burial found that was not dug through the floor of a room, but rather in an extra-mural context (?), into the paleosol. As a result, there are two possible versions of the stratigraphic sequence (Fig. 10).

Grave construction: The shallow ovoid pit (Loc. CR5:48A) was parallel to the wall (Figs. 11-12); c. 37cm NE-SW; 27cm NW-SE;

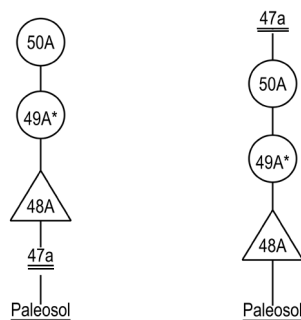


Fig. 10 Two possible versions for the stratigraphic sequence of Burial CG3. For the legend see Fig. 4. (Graphs: M. Benz, Ba'ja N.P.)



Fig. 11 The 1.5-2 year-old infant was buried in a shallow pit very close to the southern wall Loc. CR5:55 of Room CR5. (Photo: M. Benz, Ba'ja N.P.)

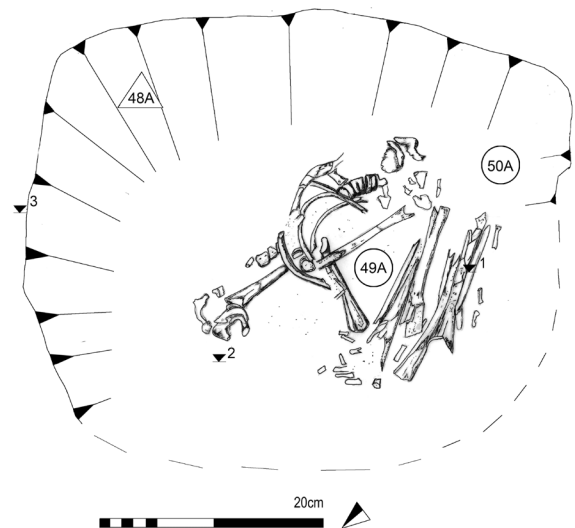


Fig. 12 Infant Burial CG3. For the levels see Table 7, for the legend see Fig. 4. (Drawing: M. Benz, Ba'ja N.P.)

the burial was probably originally undisturbed, but it was recognised too late by the workers, which may explain the missing skull bones; the depths of the burial pit can thus not be precisely determined, unless the baulk, that remained at its south-western border, is excavated. The grave filling consisted of a rather homogenous, unusually dark brown, loose silty sand (Tables 6-7).

Human remains: Loc. CR5:49A (F.nos. 118006, 118014); infant without skull. According to the anthropologist, the skull had not been intentionally removed because the

Table 6 Description of loci related to Burial CG3.

Locus	Description
CR5:47a	Plaster floor with cobble-sized stone sub-construction, dug through for the burial pit
CR5:48A	Ovoid grave pit dug into natural soil
CR5:49A	1.5-2 year-old infant, skull missing
CR5:50A	Silty sand, rather homogenous, loose and very dark brown to black

Table 7 Levels of Burial CG3. Numbers in square brackets refer to the labels of the levels in the drawing (Fig. 12).

Location	▼ (UL) m a.s.l.
Loc. CR5:47 slightly NE of/ above Loc. 48A (see Diary 2019 Sketch 3, [1])	1165.82
Loc. CR5:48A pit border E [3]	1165.78
Loc. CR5:48A pit bottom [2]	1165.63
Loc. CR5:49A between femur and tibiae [1]	1165.73
Loc. CR5:49A cervical vertebrae	1165.67
Red ochre sample (see Diary 2019 Sketch 4; Loc. CR5:47)	1165.87

Table 8 Objects found in relation to the Burial CG3.

Objects Related to Burial CG3		
Objects	Field Numbers	Description, Raw Material, Measurements mm: l length, h height, w width, th thickness, d diameter, pres preserved, dp diameter of perforation; g gramme, MOP mother-of-pearl
3x MOP pendants	110415.1	Rectangular with rounded edges and a narrowing in the middle part on both sides; 2 horizontal perforations in the upper half; l 11.9, h 12.97, th 1.0, dp 1.8; weight: 0.3g
	110415.2	Subtriangular; 1 perforation in the c. middle; l 9.1, h 11.46, th 1.4, dp 2.6; weight: 0.2g
	110415.3	Rectangular; 1 perforation on the upper third; l 9.5, h 15.6, th 1.4, dp 1.8; weight: 0.3g
1x Limestone bead	110821	Cylindrical; l 8.2, d 4.0, dp 2.1; weight: 0.2g
1x Flint object (in CR5:48A)	112030	Flakelet
1x Piece of red ochre (found on top of the grave (Loc. CR5:47)	117807-08	

skull base (*clivus*) was present and pressed into the cervical vertebra. It is possible that the cranial bones were missed due to their very brittle preservation.⁸ The preservation of the bones was generally very poor; some measurements were taken *in situ*: right humerus: min. 10.0cm, right radius: min. 9.0cm, right ulna min. 10.0cm; age: 1.5-2 years; sex: indet.

⁸ "Skull bones" recorded in 2018 at the same place, but much higher (min. 44cm), on 5th, July 2018 (see Diary Sketch 8, level of needle found in the same place 1166.31 m a.s.l.) turned out to be an epiphyses of an animal (pers. comm. J. Peters 2/8/2019)

Position: 180° right hocker, both legs tightly flexed. The skull should have been in the same layer as the upper parts of the cervical spine.

Orientation: N-S; orientation of the face unclear, possibly NW-NE.

Objects related to Burial CG3: The presence of three mother-of-pearl pendants and one white limestone tubular cylindrical bead aligned *in situ* next to the right humerus supports the idea that the burial had not been disturbed in prehistoric times (Figs. 13-14). The surface of the mother-of-pearl pendants and of the limestone



Fig. 13 Three MOP pendants and a shell or limestone cylindrical limestone bead were aligned *in situ* along the right *humerus* of the infant. (Photo: M. Benz, Ba`ja N.P.)



Fig. 14 The ornaments of the infant were so poorly preserved that nothing remained of the original surface. (Photo: H.G.K. Gebel, Ba`ja N.P.)

bead were leached so strongly, that the original surface was hardly preserved. The flint flakelet found in the grave filling probably came into the burial incidentally, but should not be considered a grave good. For the description of the objects see Table 8. While there were only a few items, the choice of exclusively white raw materials

(shell and/ or limestone) is highly selective, with at least the mother-of-pearl items being originally iridescent.

Use of pigments: The bones of the infant were stained red and black, but in the grave itself no pigment was observed. On top of the burial, remains of red pigment were uncovered, which might be in relation to the burial.

Samples: see Appendix 2

Comment: This infant burial is one of three subadult interments that had no grave cover, except for the stones of the floor sub-construction Loc. CR5:47a, which may have been recycled. Due to stratigraphic uncertainties, it is possible that the burial was originally dug in the natural soil and only later covered over by the construction of the floor, although this is unusual for the site. The right hocker position and orientation roughly parallel the orientation of the subadults in Burials CG2 and CG4. Moreover, it is in a row with CG4 and CG5 along the southern wall of Room CR5/6. This suggests that the wall had already been built when the burials were dug through the floor of the room.

Due to the *in situ* position of the beads and bones in articulation it is difficult to imagine that the bones were buried secondarily and then painted in a defleshed state. It appears more plausible that painted clothes, mats or skin caused the colouring of the bones while decaying. No remains of pigment were observed on the ornaments, so any application of red pigment as a liquid during the burial ritual seems rather improbable (Table 9).

Table 9 Reconstruction of the events/ activities related to the burial ritual of Burial CG3 in Room CR5. For the legend see Table 5.

Event	Activities
1.1-2	Selecting the burial place in Room CR5, in which large grinding equipment and a limestone basin indicate plant processing on a large – possibly supra-household – scale. Whether the other burials in CR5/6 were earlier or later cannot be clarified. The location along the Wall CR5:55 is in line with the Burials CG4-5, about 50cm NW of the window-like opening Loc. C22:20B
2.1.	Using pigments (red/ black) in relation with the infant's body/ clothes
2.2	Decorating the corps with a bracelet of three MOP pendants and one limestone bead, possibly with red/ black clothes or painting the skin red
2.3	Cutting a pit into the paleosol, possibly through the floor Loc. CR5:47a
4.5	Depositing the corps in the pit, in a hocker position (N-S), on its right side
6.2/6.3	Covering the corpses with sediment mixed with charcoal
6.6	Possibly covering the grave with stones from the former sub-construction of the floor Loc. 47a

Burial ritual: The burial ritual of Burial CG3 appears to be relatively simple. It consists of a primary single burial, with a personal adornment – probably a bracelet that the infant wore on its right upper arm. While the missing skull may suggest that the grave was reopened and the skull was removed, the presence of the *clivus*, other bones in articulation, and the *in situ* position of the ornaments do not support this idea. No other objects or traces of organic remains were found in either the grave filling or on the grave cover, except for possibly a few remains of red pigments that were uncovered on top of the grave.

Room CR6: Burials CG4, CG5, and CG6

In Room CR6, four subadults were buried (CG4: Loc. CR6:48, CG5: Loci CR6:23a and b, and CG6: Loc. CR6:40). Two subadults, an infant (Loc. CR6:40) and a child (Loc. CR6:48), were buried in earth pits that had been cut through the floor of Loc. CR6:21.1 into the paleosol and covered with stone slabs and additional stones. On top of the grave cover of Loc. CR6:40, two subadults (Loc. CR6:23a and b) were deposited in a crossed orientation, above the feet's area of Loc. CR6:40. This is the first instance where a more recent burial shows a clear relation to an ancient burial, without being placed in the same grave pit, as was typical of collective burials. Additionally, isolated human remains of possibly two individuals (Loc. CR6:41a), the *ilium* and rib of an infant (Loc. CR6:41b), and fragments of an *ilium* and a left radius of a fetus (Loc. CR6:41c) were discovered deposited or dispersed on the pit's border and below the infant Loc. CR6:40 (Gresky this volume:



Fig. 15 A test pit (in the right part of the photo) was cut into Loc. CR6:19 in 2018, and the Burial CG4 was discovered. Burial CG4 was located between the Burials CG3 and CG5/6, parallel to the wall Loc. C22:20. (Photo: M. Benz, Ba'ja N.P.)

Appendix 1). At the bottom of wall Loc. C22:10, a very special stone stained with white fond and red stripes had been inserted on top of the grave pit, as if to mark the burial. According to the analysis of Dálíbor Višánský, the colouration appears to be natural. As with other graves, a window opening in wall Loc. C22:4 granted access to the room.

CG4: Single Primary Burial of a Child

Location: The single primary burial of this child was – like Burial CG3 – parallel to the wall Loci CR5:55 and C22:20 (Fig. 15). It was located between the Burial CG3 and the large grave pit (Loc. CR6:22) of Burial CG6. Since there is no overlapping of the grave pits, the relative chronological relation of the burials to each other remains unclear. Burial CG4 is located very close to the wall opening (Loc. C22:20B) and about 50cm northwest of the wall opening (Loc. C22:20A).

Stratigraphy: The pit of Burial CG4 was cut through the terrazzo-like floor of Loc. CR6:21.1, on which the wall Loc. C22:20 had been built (Fig. 16). However, as mentioned previously, the alignment of three burials along this wall suggests that the wall had already been built prior to the creation of the burials. The western edge of wall Loc. C22:20 abuts with a clear joint to walls Loci C22:10 and C12:4. On the threshold between the pit of Burial CG4 and the pit Loc. CR6:22, a layer of ash (Loc. CR6:33) and pieces of charcoal were uncovered on top of the terrazzo-like plaster floor. Immediately beneath the large stone slab (Loc. CR6:20) that covered the burial (Fig. 17), a very thin layer of brown sediment (10YR4/3, Loc. CR6:45) composed of grit, small lumps of clay, a few stones, and charcoal covered the skeleton in the western part of the burial pit. The loose composition was surely due to the fact that the burial had been opened shortly in 2018 (Fig. 18). The grave filling became more compact around the skeleton, but the composition remained more or less the same, except for the missing clay lumps (Loc. CR6:47). The concentration of charcoals was highest in the northern part of the pit. A few larger stones (<10cm) were embedded in this filling. Due to the baulk and the modern supporting construction that had to be built for safety reasons, it was impossible to determine whether these stones had slipped into the grave from the sub-construction of the floor or whether they originally formed some kind of border. A small patch of ash appeared north of the skull, with some rubefaction on the

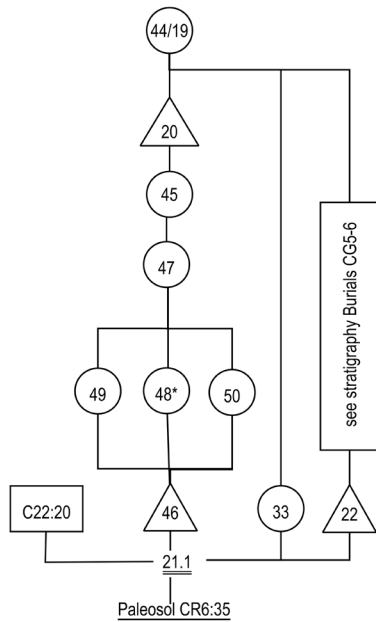


Fig. 16 Harris Matrix of Burial CG4. For the legend see Fig. 4. (Graph: M. Benz, Ba'ja N.P.)

stones due to the impact of heat (Loc. CR6:50; Figs. 19-20).

In the lower part of the grave filling (Loc. CR6:49), the amount of small angular limestone grit increased around the skeleton and at the bottom of the pit. The consistence of the sediment became quite loose. The destruction of the cranium, which was almost in contact with the covering slab, was probably due to the weight of this large slab (Table 10).

Grave construction: The child was interred in a shallow oval pit, with the NE-SW axis measuring 64cm and the NW-SE axis 34cm.; the exact extension of the NE-SW axis is unclear due to the baulk, but based on the alignment of the pit's northern and eastern borders in the lower part of the burial, it is likely that the pit did not extend significantly further to the north and east. The pit was dug through the terrazzo-like plaster floor into the paleosol. Its depth was only about 25cm. (Table 11) At the southwestern edge of the large covering slab, a fist-sized, pentagon-shaped stone was found embedded vertically in the border of the pit. While there were other stones present in the pit, it is possible that this stone served as a marker for the burial. A similar marking was observed for Burial CG5/6, which was inserted at the bottom of wall Loc. C22:10.



Fig. 17 The large sandstone slab covering the burial was discovered in 2018 but put back at its original place without disturbing the skeleton. It should be noted that the stone slabs located northwest of the burial do not belong to a prehistoric construction, but were part of the supporting structure that was necessary due to the collapse of a modern retaining wall. (Photo: M. Benz, Ba'ja N.P.)



Fig. 18 The upper layer of the grave filling contained many pieces of charcoal that were concentrated in the northern part of the burial. In a deeper layer, there was evidence of rubefaction on the stones and the paleosol. (Photo: M. Benz, Ba'ja N.P.)

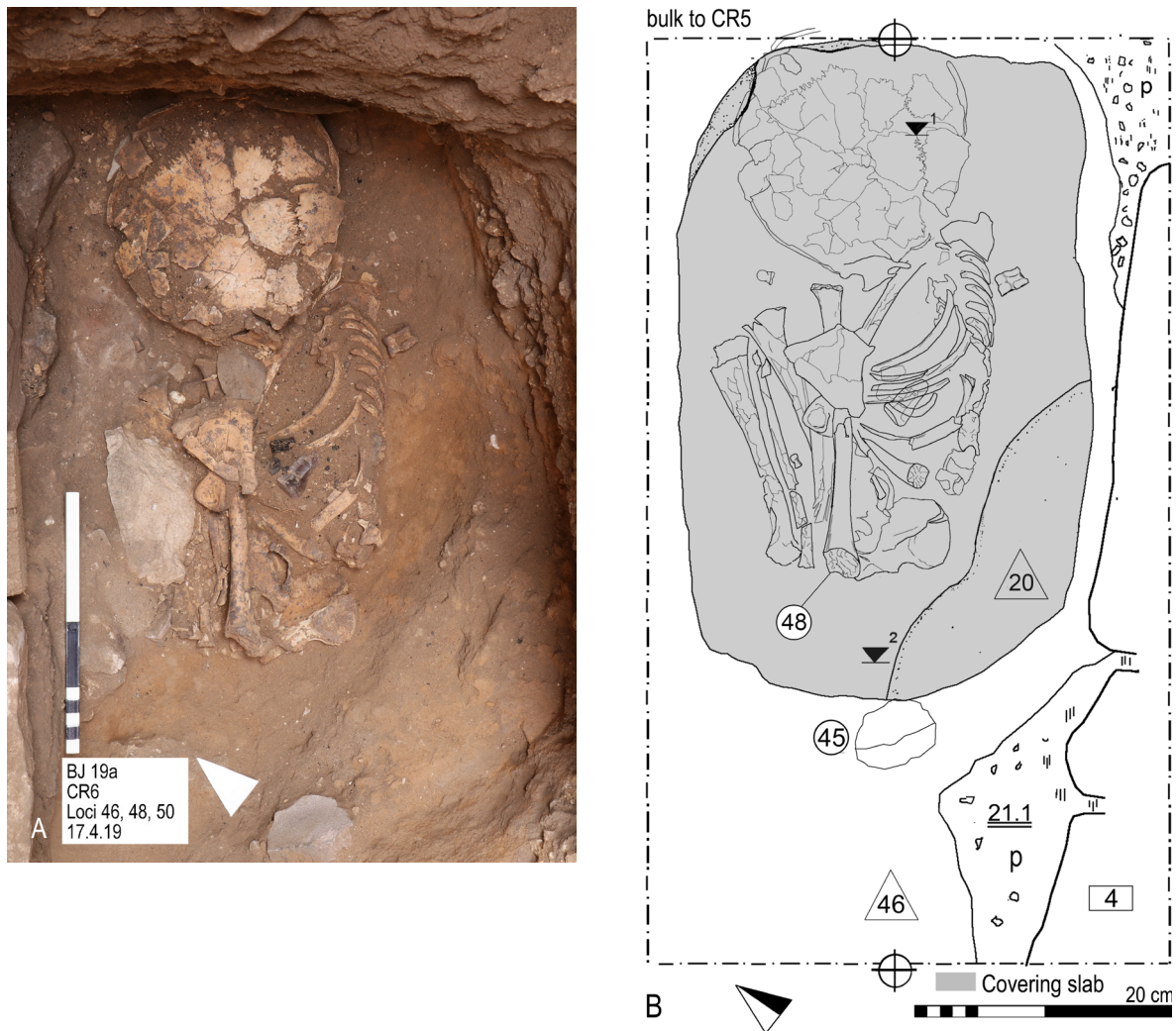


Fig. 19 A The child Loc. CR6:48 was placed in a strongly (180°) flexed position on its right side, with an orientation of NE-SW. Near the child's skull, the soil and stones appeared slightly rubified. Behind the child's back was an astragalus of a small ruminant (sheep/ goat), as if it had been placed there deliberately, B drawing of Burial CG4. For the legend see Fig. 4. (Photo and drawing: M. Benz, Ba`ja N.P.)

Table 10 Description of loci related to Burial CG4.

Locus	Description
CR6:19	See Loc. CR6:44
CR6:20	Complete white ovoid Ordovician sandstone slab
CR6:21.1	Terrazzo-like gravel floor with fine coat of white and red painted plaster (Loc. CR6:31, see Burial CG5)
CR6:33	Layer of ash mixed with charcoal on the threshold between burial pits Loci CR6:22 and CR6:46
CR6:35	Paleosol in Room CR6
CR6:44	Dark brown silty sand with some angular grit, small lumps of clay possibly remains from backfill, because the grave cover was opened in 2018, but put back because of the end of the excavation season (identical with CR6:19)
CR6:45	Loose dark grey-brown (10YR4/3) silty sand with some small angular gravel pieces, lumps of clay and charcoal, similar to Loc. CR6:44, only preserved on the western border of the pit
CR6:46	Ovoid burial pit hardly larger than the gravestone slab Loc. CR6:20, cut into Loci CR21.1 and CR6:35
CR6:47	Burial filling, rather compact dark grey-brown (10YR4/3) silty sand
CR6:48	Child skeleton
CR6:49	Loose dark grey-brown silty sand (10YR4/3), less compact than Loc. CR6:47 but with similar components, in the lower part around the skeleton, more small angular grit and coarse sand
CR6:50	Small ashy patch with traces of heating on the surrounding stones

Table 11 Levels related to Burial CG4. Numbers in square brackets refer to the labels of the level in the drawing (Fig. 19B).

Location	▼ (UL) m a.s.l.	▲ (LL) m a.s.l.
Loc. CR6:20 east [1]	1165.66	
Loc. CR6:20 west [2]	1165.66	
Loc. CR6:47 sw corner		1165.64
Loc. CR6:47 middle of the grave		1165.59
Loc. CR6:48 skull top	1165.62	
Loc. CR6:48 spine upper part	1165.58	
Loc. CR6:48 pelvis	1165.56	
Loc. CR6:48 tibia right	1165.51	



Fig. 20 The slightly rubified soil northwest of the skull was well visible at the bottom of the grave. (Photo: M. Benz, Ba'ja N.P.)

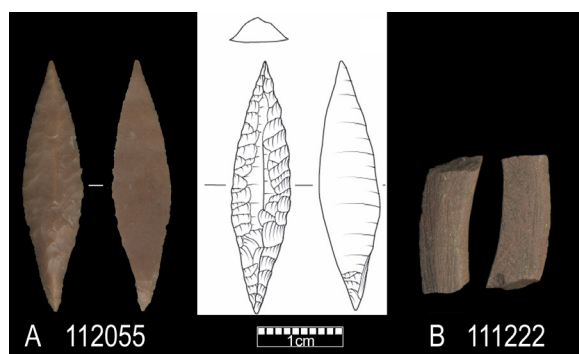


Fig. 21 Objects related to Burial CG4: A miniature projectile point made of purple flint, B sandstone ring fragment. (Photos: H.G.K. Gebel; drawing: C. Porschwitz, Ba'ja N.P.)

Human remains: Loc. CR6:48 (F.no. 118009). There seems to be some taphonomic displacements of small bones. The feet were displaced and most of the thoracic and cervical vertebrae, as well as the right pelvis, were very poorly preserved. Two tarsal bones and a sacral vertebra were inside the cranium. However, most of the bones were still articulated; age: 7 years \pm 24 months; sex: female or male, with a slight tendency to female.

Position: The child rested on its right side, in a tightly flexed 180° hocker position. The left arm was flexed, so that the left hand held the left knee, and the right arm was flexed in a 90° angle, so that the right hand was below the middle of the right tibia and femur. The bones of the right hand were displaced.

Orientation: NE-SW, possibly facing north, with the back along wall Loc. C22:20.

Objects related to Burial CG4: No ornaments were found with the child, although it is possible that something may have been burned as an offering within the grave pit. Evidence for this includes the aforementioned rubefaction of the soil and stones, the small patch of ash (Loc. CR6:50), and the higher concentration of charcoal in this area (Figs. 18; 20). In the grave filling (Loc. CR6:47), a complete miniature projectile point of Amuq type was uncovered during sieving (F.no. 112055). It was made of non-local purple flint (Fig. 21A). A bifacial trimming flake (BTF) was uncovered on the child's torso (Fig. 19A).

Behind the child's back, there was a complete astragalus of a domesticated goat. Additionally, a fragment of milvus' femur and a few bone fragments of sheep/ goat-sized animals were mixed with the sediment. None of the animal bones show evidence of burning, but one fragment of a medium-sized ruminant attests to intense weathering, and some of the bones have black spotty traces – probably from manganese precipitation. They thus were not related to the burning event observed in the NE part of the burial. It is possible that they came into the grave accidentally. The small fragment of an almost finished sandstone ring (F.no. 111222; Fig. 21B) and the other flint artefacts from the grave filling (F.no. 112075) were probably mixed with the sediment by chance. In contrast to other burials, e.g., Burials CG6, CG7, or CG9, the grave filling was not sterile reddish silty sand but rather brown (10YR4/3) and heterogenous sediment. The flint

Table 12 Objects found in the Burial CG4.

Objects Related to Burial CG4		
Objects	Field Numbers	Description, Raw Material, Measurements mm: l length, h height, w width, th thickness, d diameter, med medial, prox proximal, dis distal, pres preserved, av average, dp diameter of perforation, BTF bifacial trimming flake, frgm. fragment
1x Stone ring fragment	111222	Fragm. Stage 6a, red sandstone, d inside 60, d outside 72, th 3.0; weight: 0.4g
1x Flint artefacts from surrounding sediment of Loc. CR6:44 (non <i>in situ</i>)	112028	1x Flakelet
1x Mini projectile point in grave filling Loc. CR6:47	112055	1x Amuq point, leaf shaped, purple, non local flint; l 11.30, w 6.7, th 2.9, weight 0.3g
11x Flint fragments from the grave filling CR6:47/49	112075	7x Microdebris, 2x flakes, 1x BTF, 1x flakelet
1x Animal bone	114058	Complete astragalus <i>capra hircus</i>
Animal bones indet. from sifted sediment	114042	3 Frgms. of medium-sized mammals and one bird femur (<i>milvus</i> sp.) see Prust this volume

Table 13 Reconstruction of the events/ activities related to the burial ritual of Burial CG4 in Room CR6. For the legend see Table 5.

Event	Activities
1.1-2	Selecting the burial place in Room CR6, very close and parallel to wall Loc. C22:20 and two window-like openings Loci C22:20A and C22:20B, aligned with the Burials CG3 and CG5/6.
2.3	Cutting a pit through the floor Loc. CR6:21.1.
5.3	Lighting a fire/ burning something in the northern part of the grave
4.5	Depositing the corpse in the pit, in a strongly flexed position, on its right side, facing north/ northwest
5	Putting the flint projectile and the astragalus in the grave, possibly putting the BFT on the torso of the child
6.2/6.3*	Covering (?) the corpse with sediment mixed with charcoal, some pieces of animal bones, and small flint debris, possibly slipped into the grave during the burying process
6.4	Placing the pentagon-shaped stone next to the southwestern border and covering the pit with one large ovoid white-grey sandstone slab
5.3 ^{9*}	Lighting a fire outside the grave (Loc. CR6:33)

flakelet (non- *in situ*!) (F.no. 112028), immediately on top of the grave covering slab, belongs to the common debris spectrum (Table 12).

Use of fire: There are two indications that fire may have been used during or just prior to the burial. Firstly, inside the burial pit, the northeastern corner exhibited the intense concentration of charcoal, and the surrounding stones showed the reddish colouration, despite the absence of such signs on any of the bones. These findings suggest that a small fire was lit inside the pit before the body was placed

there. Secondly, a rather thick layer of ash was discovered on the threshold between the burial pit (Loc. CR6:22) and the pit of Burial CG4. It is impossible to determine to which burial the ash layer was related.

Samples: see Appendix 2

Comment: The exotic miniature projectile point confirms the Late PPNB chronological attribution of this burial. The so-called purple flint was a widely exchanged raw-material, flint artefacts respectively. Flint artefacts made from this material were highly prized during this period (Purschwitz 2017: 45). Interestingly, no evidence of any coloured pigment was observed in this burial.

⁹ The fire outside the burial pit was either lit before the burial pit Loc. CR6:46 was cut through the floor or after the covering of the grave.

Burial ritual: The events of the burial ritual can be reconstructed as suggested in (Table 13). The selection of the location was likely influenced by the presence of two nearby window-like openings and the alignment of wall Loc. C22:20. After having cut the pit through the terrazzo-like floor Loc. CR6:21.1, a spatially restricted fire was lit, and something was probably burned inside the pit close to the northern border. The bones show no signs of heat damage, indicating that the corpse was probably placed in the pit after this event. As outlined above, the projectile point, and possibly the complete goat astragalus, can be considered “grave goods”, but it remains uncertain whether the BFT found on top of the torso was intentionally placed there. The bird bone (milvus) does not show work- or use-wear traces and may have entered the grave with the sediment. The grave was filled with sediment containing flint debris and a few animal bone fragments, similar to cultural debris layers. The grave was covered with a large stone slab, and a pentagon-shaped stone was possibly placed at the southern edge of the slab, either to fix it or mark the grave. Next to the southwestern border of the grave pit, between both pits Loci CR6:46 and CR6:22.2, a layer of ash was preserved. As it obviously did not enter the grave pit of CG4, the grave had either been covered before the fire had been lit, or the burial pit Loc. CR6:46 was cut through this layer of ash. However, due to the excavation of the test trench in 2018, the precise relation of the ash layer to Burial CG4 cannot be determined anymore.

CG5 and CG6: Enigmatic Sequence of Interments

The following sequence of Burials CG5/6 in the southwestern corner of Room CR6 is very complex. In both burials, primary subadult interments were associated with isolated human bones. In the case of Burial CG5 bones of a second infant were found, and in Burial CG6, beside the articulated infant bones, isolated bones of at least two adults, an infant and a foetus, were uncovered. The two burials appear to be closely related spatially and probably also chronologically, making it difficult to determine which part of the burial construction belongs to which burial. That is why the Harris Matrix of both burials is presented together. Arbitrarily, the complete burial construction will be described with the more ancient Burial CG6, in accordance with observations made in other burials, especially Burials CG7 and CG10. However, it is possible that some of the stones and stone slabs of the supposed grave cover may



Fig. 22 The double child Burial CG5 on top of the grave cover of Burial CG6. For the legend see Fig. 4. (Photo: M. Benz, Ba`ja N.P.)

have belonged to a platform constructed for the more recent Burial CG5. For the sake of clarity, both burials are described separately, but there is strong evidence to suggest that they were closely related to each other.

For Burial CG6, two possible scenarios of the ritual will be discussed, as it was impossible to determine which sequence of events occurred. Burial CG5 is also informative, not only because of the double burial of an approximately 3 year-old child with isolated infant bones, but also because it is the first burial at Ba`ja in which red plaster was used to cover basketry and mat (see Reifarth *et al.* in this volume).

CG5: Double Burial of two Subadults

This double burial (Fig. 22) is the first burial at Ba`ja which seems to be clearly related to a more ancient burial. In this sense, it is reminiscent of the infant burial which was buried on top of a group of adult plastered skulls discovered by Danielle Stordeur and her team at the PPNB site of Aswad, in Syria (Stordeur *et al.* 2006; Stordeur

and Khawam 2007; Benz 2012). Yet, unlike at Aswad, Burial CG5 was related to an infant burial (CG6).

Moreover, in Burial CG5, the isolated infant bones were associated with the primary burial of the 2-4 year-old child and not with skulls of adults.

Location: Similar to Burials CG3 and CG4, Burial CG5 was situated parallel to the wall Loc. CR5:55/C22:20, close to the window-like opening Loc. C20:22A in the southwestern

corner of Room CR6, and on top of the large grave pit (Loc. CR6:22) of Burial CG6. It was impossible to clarify its chronological relationship to Burial CG4.

Stratigraphy (Tables 14-15): As Burials CG5 and CG6 are closely related, the Harris Matrix is presented together (Fig. 23). The description of Burial CG6 is given in the following chapter. Burial CG5 was uncovered immediately beneath the cultural sediment Loc. CR6:19, without any apparent grave pit. It was surrounded by dark brown, loose silty

Table 14 Description of loci related to the sequence of Burials CG5 and CG6.

Locus	Description
CR6:19	See Burial CG4; Loc. CR6:44
CR6:21.1	Terrazzo-like gravel floor with fine coat of white and red painted plaster (Loc. CR6:31, see Burial CG5)
CR6:22	Pit of Burial CG6 cut through floor Loc. CR6:21.1/31, into the paleosol Loc. CR6:35; more or less triangular shape, in the southwestern corner of Burial CR6, probably two merged pits with a threshold at the SW border of the eastern part: one NE-SW oriented ovoid, rather shallow pit and one N-S oriented, deeper pit along wall Loc. C22:10
CR6:23a-b	Infans I (Loc. CR6:23a) 3 years \pm 12 months and infans I (Loc. CR6:23b) 1.5-2 years, relation unclear
CR6:24	Patches of compact silty sand mixed with small pieces of charcoal
CR6:25	Oval pit (N-S: 26cm; W-E: 18cm); depth 13cm; filling: middle brown loose silty sand, a flint celt, 15 up to half-fist-sized stones and one small polisher, depth 13cm
CR6:26	=CR6:24, but above Loc. CR6:28/32
CR6:27	Dark brown to black loose silty sand (10YR3/2; 7.5YR5-3/2), similar to Loc. CR6:19, small pieces of charcoal, small pieces of reddish-pink plaster on the facial (northern part of the skull, but mainly in Loc. CR6:30); some sediment below Loc. CR6:23a, probably from decay
CR6:28	One large white-grey sandstone slab and up to fist-sized stones of various raw materials, including flint, marly limestone, a large piece (c.10 x 8cm) of yellow ochre, basalt, sandstones, two stone vessel fragments, four grinding stones, embedded in Loc. CR6:32
CR6:29	Patches of ash/ ashy sediment below Loci CR6:23a-b, above Loc. CR6:26
CR6:30	Round depression of 10cm diam. with pinkish-red plaster pieces 2.5YR6/4-6; possibly from a decayed organic container or less probably from the skull of individual Loc. CR6:23b
CR6:31	Red coloured plaster on top of Loc. CR6:21.1., south/ southwest of the burial pit Loc. CR6:22
CR6:32	Sediment (10YR3/2) into which Loc. CR6:28 is embedded, very similar to Loc. CR6:27, but with more angular grit possibly from Loc. CR6:21 and, in particular in the eastern part of pit Loc. CR6:22, with more and larger pieces of charcoal
CR6:33	Layer of ash mixed with charcoal on the threshold between burial pits Loci CR6:22 and CR6:46
CR6:34	Two reddish-grey sandstone slabs (5YR6/1-2), covering the western part of the pit Loc. CR6:22, below Loc. CR6:28
CR6:35	Paleosol in Room CR6
CR6:36	Grave filling below the two stone slabs in the western part of pit Loc. CR6:22; silty sand (10YR2/3-4), very loose, with up to 2cm large pieces of charcoal; some splinter of decaying sandstone slabs, compact pieces of clay and limestone congregations
CR6:37	Grave filling, similar to Loc. CR6.36, but with more angular small gravel
CR6:38	Red-brown loose silty sand 10YR5/6; 7.5YR5/6, with only few flitters of charcoal and animal bones
CR6:39	Grave filling, around Loc. CR6:40, similar to Loc. CR6:38, but with more humous dark brown soil, possibly from decay of the corps
CR6:40	Infans I (0 years \pm 2 months)
CR6:41	Isolated human remains of adult age (partly in articulation) and of subadult age
CR6:42	Small patch of ash/ ashy sediment in the northeastern corner of the western part of Loc. CR6:22
CR6:43	Contact layer between Loc. CR6:35 and the lower grave filling Loc. CR6:38; possibly due to standing water on top of the compact paleosol, a lot of tiny limestone congregations

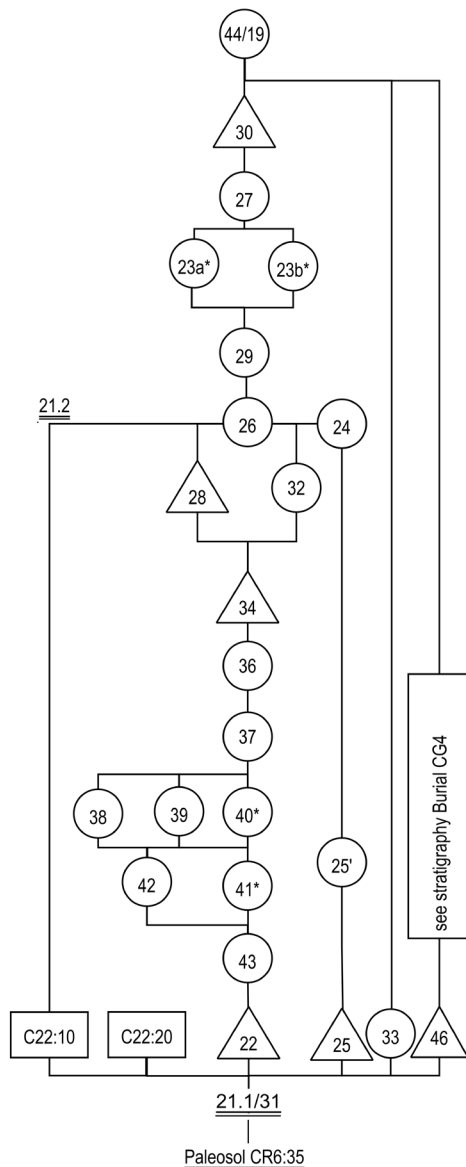


Fig. 23 Harris Matrix of Burials CG5 and CG6. For the legend see Fig. 4. (Graph: M. Benz, Ba`ja N.P.)

sand (10YR3/2; 7.5YR5-3/2), similar to Loc. CR6:19, but with small pieces of charcoal (Loc. CR6:27). A round depression, approximately 10cm in diameter, was discovered northwest of the child's skull in this sediment (Loc. CR6:30). In this depression and partly on top of the child's skull, many tiny pieces of small reddish-pink plaster were uncovered, separated from each other in such a way that the original shape of the plastered object could not be determined (Fig. 24; see Reifarth *et al.* this volume). It is possible that the round depression was caused by the skull of the infant associated with the child, but it is more likely that it resulted from a small container made of organic material that had been covered with the red painted plaster.



Fig. 24 The skeleton of an approximately 3 year-old child (Loc. CR6:23a) with hundreds of tiny pieces of reddish plaster, most of which were accumulated in a small round depression northwest of the child's skull. For the legend see Fig. 4. (Photo: M. Benz, Ba`ja N.P.)

As the organic support decayed, the plaster fell off in pieces. Nicole Reifarth observed two types of basketry impressed on the backside of the painted plaster pieces. Additionally, more plaster pieces were found with impressions of matting on the torso and close to the skull of individual Loc. CR6:23a.

The older child (Loc. CR6:23a) was associated with infant bones (Loc. CR6:23b) which were only identified in the laboratory. Some sediment (Loc. CR6:27) was found below the human bones. Ash and ashy sediment (Loc. CR6:29) was uncovered slightly northeast of the child bones, above patches of compact orange-brown silty sand (Loc. CR6:26). Patches of clay (Loc. CR6:24) were also observed at the northern border of the grave pit Loc. CR6:22 and on top of a small pit filled with up to fist-sized stones, and a flint celt (Loc. CR6:25, see below). It is possible that these features belonged to the grave cover of Burial CG6.

In about the middle of the southwestern border of the grave pit, a white stone, with intense red colouring was found inserted in the lowest part of wall Loc. C22:10. It might have marked either the double Burial CG5 or the primary Burial CG6.

Due to the test trench excavated in 2018, the stratigraphic relationship between Burials CG4 and CG5 remains unknown.

Grave construction: During the excavation, no burial pit was detected, and the sediment in the surrounding area was very similar to that

Table 15 Levels of Burials CG5 and CG6. Numbers in square brackets refer to the labels in the drawing (Fig. 29).

Location	▼ (UL) m a.s.l.	▲ (LL) m a.s.l.
Loc. CR6:23a cranium	1165.71	
Loc. CR6:23a mandible	1165.66	
Loc. CR6:23a left radius and left pelvis	1165.65	
Loc. CR6:23a pelvis right	1165.65	
Loc. CR6:23a bottom of the grave=top of main stone slab of Loc. CR6:28 in the southwestern corner of Loc. CR6:22		1165.62
Loc. CR6:23a bottom of layer of turquoise beads		1165.66
Loc. CR6:27	1165.80	
Loc. CR6:27 eastern part	1165.78	1165.57
Loc. CR6:28 southwestern part [2]	1165.60	
Loc. CR6:28 on top of Loc. CR6:34 southern slab east part	1165.65-62	
Loc. CR6:28 southwest part (largest slab; pentagon-shaped) [1]	1165.62	
Loc. CR6:28 eastern part	1165.61-57	
Loc. CR6:28 on top of Loc. CR6:34 northern slab, beneath reused grit layer (CR6:21.2) from floor Loc. CR6:21.1 [5-7]	1165.67-56	c. 1165.48
Loc. CR6:28 eastern part upper layer, grinding stone [4]	1165.58	
Loc. CR6:30 pinkish plaster	1165.67	
Loc. CR6:34 southern slab, eastern part [3]	1165.58	c. 1165.53
Loc. CR6:34 southern slab, southwestern part	1165.56	c. 1165.52
Loc. CR6:34 southern slab, northwestern part	1165.56	c. 1165.52
Loc. CR6:34 northern slab [8]	1165.48	
Loc. CR6:36 beneath Loc. CR6:34 south [9]	1165.50	1165.46
Loc. CR6:39	1165.35-31	
Loc. CR6:40 skull	1165.35	
Loc. CR6:40 pelvis	1165.29	
Loc. CR6:40 thorax	1165.28	
Loc. CR6:41 ulna middle	1165.26 (!)	
Loc. CR6:41 right hand	1165.24	
Loc. CR6:39 bottom of grave pit below Loc. CR6:40		1165.28
Loc. CR6:38 below Loc. CR6:41		1165.22
Loc. CR6:43 contact layer to paleosol; bottom of the pit Loc. CR6:22 west		1165.21-1165.15
Loc. CR6:43 threshold to the eastern part of Loc. CR6:22		1165.46
Loc. CR6:43 bottom of pit Loc. CR6:22 eastern part		1165.32
Loc. CR6:22 northeastern border of the pit	1165.74	
Loc. CR6:24 (patch of compact silty sand) northern border of the pit	1165.76	
Loc. CR6:22 northern border of the pit, beneath Loc. 24	1165.64	
Loc. CR6:25 [10-11]	1165.73	1165.60

of Loc. CR6:19. However, it appears that the Burial CG5 was dug into the burial cover of the more ancient Burial CG6, which resulted in the destruction of the ancient grave cover (Loci CR6:26 and CR6:21.2) of Burial CG6. The two subadults were resting on top of a larger white-grey sandstone slab (Loc. CR6:28)

that was above the southern main slab of the lower grave's cover (Loc. CR6:34 south). It seems that the two subadults were intentionally surrounded by at least ten to eleven white sandstones and a piece of yellow ochre, which were arranged in a half circle around the burial. These stones formed a striking contrast to the

other stones of the pit filling (Loc. CR6:28) of the lower Burial CG6 (Fig. 28). Similar to the aforementioned patch of ash, it is impossible to determine whether the large sandstone slab and the white surrounding stones belonged to the grave cover of Burial CG6 or were part of the sub-construction of Burial CG5. For the detailed description of the lower part of the grave see the description of Burial CG6, which seems to be the main burial.

Human Remains: Loc. CR6:23a with possibly more bones from Loc. CR6:23b (F.no. 118011). Four isolated fragmented bones were uncovered in the sediment (F.no. 118001): one fragment of an adult finger (3. Phalanx fragment), two pieces of a pelvis and a fragment of a radius, the latter three coming from a very young infant not belonging to one of the two subadults of this burial; age: Loc. CR6:23a: 3 years \pm 12 months; Loc. CR6:23b: 1.5-2 years; sex: indet.

Position: It appeared that the child's torso was bent onto the legs, or that the head and torso had fallen forward onto the stretched legs (from a former sitting position). The child's bottom was in the northeast, with the head resting on the lower stretched legs in the southwest. As mentioned earlier, a depression was observed northwest of the skull, which was filled with pinkish plaster pieces (Loc. CR6:30). Reifarth *et al.* (this volume) identified a "remarkably high amount of calcium phosphate and protein" in the

red pigment layer on these plaster pieces. These residues may have come from the decaying contents of the container, perhaps from (parts of) a corpse. However, such a high concentration has only been observed in the pigment layer and not in the plaster itself, it is more likely that blood was used as a binder for the colour.

Orientation: SW-NE, facing N/NW with the head and feet in the SW.

Objects related to Burial CG5 (Table 16): 33 "greenstone" beads were found on top and below the left pelvis of individual Loc. CR6:23a, very close to the proximal part of the left ulna and the distal part of the left humerus, respectively (Figs. 25-26). They were not identified by XRD analyses, but preliminary identification was made through comparison. Most of them were made of turquoise, along with a few other minerals such as chrysocolla, amazonite, and possibly malachite (F.nos. 110808.1-8, 110808.10-34, Table 17). One limestone bead (F.no. 110808.9) with very faint traces of red pigments was also uncovered. The beads were partly aligned and more or less *in situ*. They most likely belonged to a bracelet, but it remains unclear whether they were worn by the child or placed in the grave as some kind of offering. Investigating these beads was out of the scope of the *Household and Death Project*. However, from the first microscopic inspection some of the beads show very strong use-wear and were

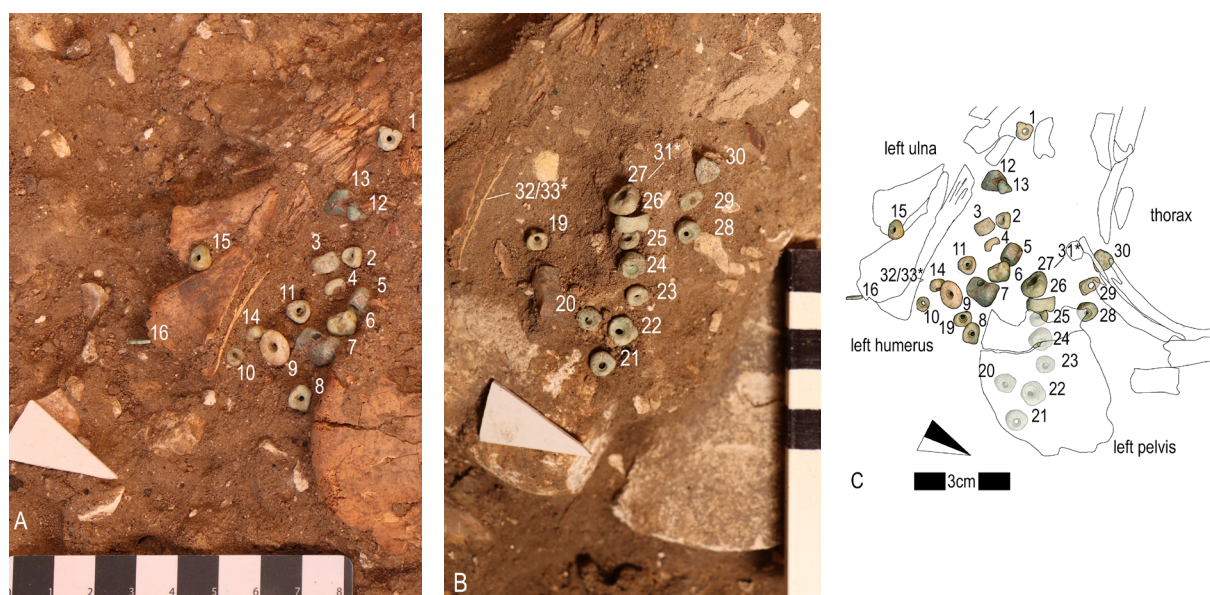


Fig. 25 The bracelet made of 33 "greenstone" and one limestone bead (F.no. 110808) was uncovered between the left pelvis and the left arm of the child Loc. CR6:23a: A upper layer, B lower layer beneath the pelvis, and C reconstructed alignment of all beads. (Photos and drawing: M. Benz, Ba'ja N.P.)

Table 16 Objects found in the Burial CG5 or associated with Loc. CR6:23a/b.

Objects Related to Burial CG5		
Objects	Field Numbers	Description, Raw Material, Measurements mm: l length, h height, w width, th thickness, d diameter, med medial, prox proximal, dis distal, pres preserved, av average, dp diameter of perforation; frgm. fragment, bidir. bidirectional
33x "Greenstone" beads (see Table 17)	110808.1-8; 110808.10-34	Most were made of turquoise, 1x or 2x amazonite, 1x malachite/ turquoise (?), 1x chrysocolla (?) subtriangular to sub-round or drop-shaped, measurements see Table 17, l 5-11, h 4-11.8, w 1-6.9; av weight: 0.2g
1x Pale red limestone bead All beads were on top and below the left pelvis and between the pelvis and the left ulna of individual Loc. CR6:23a	110808.9	Oval/ drop-shaped; traces of red pigment; l 7.0, w 4.2, h 8.8; weight: 0.2g
Hundreds of tiny pieces of reddish-pink "plaster" north of the skull of individual Loc. CR6:23a and concentrated in Loc. CR6:30	117024	
Objects from Loc. CR6:27		
12x Flints in Loc. CR6:27	112004	3x Microdebris, 4x flakelets, 2x flakes, 3x bidir. blades/ blade frgm.
Animal bones in CR6:27	114013	Not analysed within this study
Objects from Loc. CR6:19		
1x Nerite	110802	"Found just above the grave"; l 15.2, w 12.0, h 8.5; weight: 1.2g
Flint objects	112003	1x NFT, 1x flakelet, from "lowest level of Loc. CR6:19 near grave SW corner"
1x Bone tool	115010	Bone point "recently broken and again clued, close to baby burial" (find list BJ19a)
Animal bones	114010 114011	Almost exclusively dom. sheep/ goat, 1x frgm. stone marten

probably intensively worn. The varying degrees of bleaching may indicate different raw material sources. It is said that turquoise from Serabît el-Khadim typically exhibits a strong degree of bleaching, according to Hauptmann (2004: 173). This remains to be tested in a future project.

Moreover, a bone point (F.no. 115010) which was "recently broken" was uncovered "close to the baby burial Loc. 23" along with a marine Nerita¹⁰ bead (F.no. 110802) "just above the grave" (see Fig. 24, immediately south of the back of the child). These are the only objects from Loc. CR6:19 that were taken into consideration for the statistical description because they were attributed by the excavators to the child burial or identified in the photo. The following objects were not included in the

statistical analyses, because no clear association was recorded in the 2019 find list, although it is possible that they were related to the burial: several insignificant flint objects (F.no. 112003) from the "lowest level of L[oc.] 19 near grave SW corner", a "needle without a hole (F.no. 115004) from lowest level", resembling a modern tooth pick (Gebel *et al.* 2020: Fig. 28), found in the western part of CR6, and animal bones (F.no. 114010-11) from "lowest level just above the grave".

As with the use of fire in Burials CG4 and CG6, the small patch of ash (CR6:29) beneath individual Loc. CR6:23a may suggest that something was burned prior to the children's burial, although it cannot be ruled out that the fire had been lit on top of the more ancient Burial CG6.

Use of pigment: The use of pigment was attested on the bones of both individuals, on the pinkish plaster pieces (Reifarth *et al.* this volume), and on

¹⁰ For brevity's sake, "nerite" will be used to refer to the marine snail species Nerita.

Table 17 BJ 19a, F.no.110808 beads of the ornament (bracelet?) between the left ulna and left pelvis of CR6:23a; wg=weight, d out=outer diameter, dp=diameter perforation, l=length, w=width, h=height; all measurements are given in mm and g.

ID	Type	Material	W (g)	d out	Dp	L	H	W	Comment
110808.1	Amorphous, drop-shaped	Turquoise (?)	0.1	5.6	1.8			3.0	
110808.2	Oval	Turquoise (?)	<0.1			5.5	5.2	2.5	Used
110808.3	Subtriangular	Turquoise (?)	0.2	7	2.4	7		4.4	Conical perforation
110808.4	Amorphous	Turquoise (?)	0.3	7.8	2.8				
110808.5	Subtriangular	Turquoise (?)	0.3		2.5	6.6	6.1	5.2	
1108098.6	Subtriangular	Turquoise (?)	0.2		2.4	7.3	6.5	5.1	
110808.7	Amorphous	Turquoise (?)	0.9		2.4	11.24	7.8	6.9	
110808.8	Subrectangular	Turquoise (?)	0.2		1.8	6.3	5.3	3.8	
110808.9	Oval, drop-shaped	Limestone	0.2		2.3	7	8.8	4.2	Traces of red pigment
110808.10	Subrectangular	Turquoise (?)	0.1		2.3	5.2	4.3	2.4	Very used perforation
110808.11	Truncated conical	Turquoise (?)	<0.1		2.3	6	5.6	2.6	
110808.12	Pyramidal	Malachite (?)/turquoise	0.5		2.1	6.7	11.8	6.4	
110808.13	Truncated conical	Turquoise (?)	0.3		2.3	7.7	7.4	3.8	
110808.14	Truncated conical	Turquoise (?)	0.1		1.6	4.9	5.1	3.0	
110808.15	Oval	Turquoise (?)	0.1		2.1	6.2	4.5	3.8	
110808.16	Irregular, very thin	Amazonite (?)	0.1		0.9	6.6	5.0	1.0	
110808.17	Subround	Turquoise (?)	0.1		2.3	5.5	5.1	3.1	
110808.18	Suboval	Turquoise (?)	0.1		1.9	6.1	4.4	3.8	
110808.19	Suboval	Turquoise (?)	0.1		1.9	5.0	4.2	4.1	Very used
110808.20	Subround	Turquoise (?)	0.1	5.4	1.7			2.6	
110808.21	Subround	Turquoise (?)	0.1	5.9	1.9			2.0	Very used
110808.22	Subround	Turquoise (?)	0.2	6.9	2.1			3.1	
110808.23	Drop-shaped	Turquoise (?)	0.1		2.0	5.3	6.3	3.2	
110808.24	Subround	Turquoise (?)	0.2	6.2	3.1			3.44	Conical perforation
110808.25	Subround	Turquoise (?)	0.1	5	1.8			3.52	
110808.26	Pyramidal	Chrysocolla (?)	0.3		2.3	7.8	8.1	4.1	
110808.27	Pyramidal	Turquoise (?)	0.4		3.1	7.9	7.5	5.1	Conical perforation
110808.28	Round	Turquoise (?)	0.1	5.9	1.8			1.8	Conical perforation
110808.29	Oval	Turquoise (?)	0.2		1.7	7.1	4.5	3.2	
110808.30	Amorphous	Turquoise (?)	0.2		1.9	7.5	5.7	6.3	
110808.31	Subround	Turquoise (?)	0.2	4.6	1.7			3.0	
110808.32	Subround	Turquoise (?)	0.2	7.1	1.9			3.1	
110808.33	Truncated conical	Turquoise (?)	0.3		2.6	8.2	6.0	5.3	
110808.34	Subround	Turquoise (?)	0.1		2.1	5.0	5.6	3.2 middle 4.1 edges	Very used

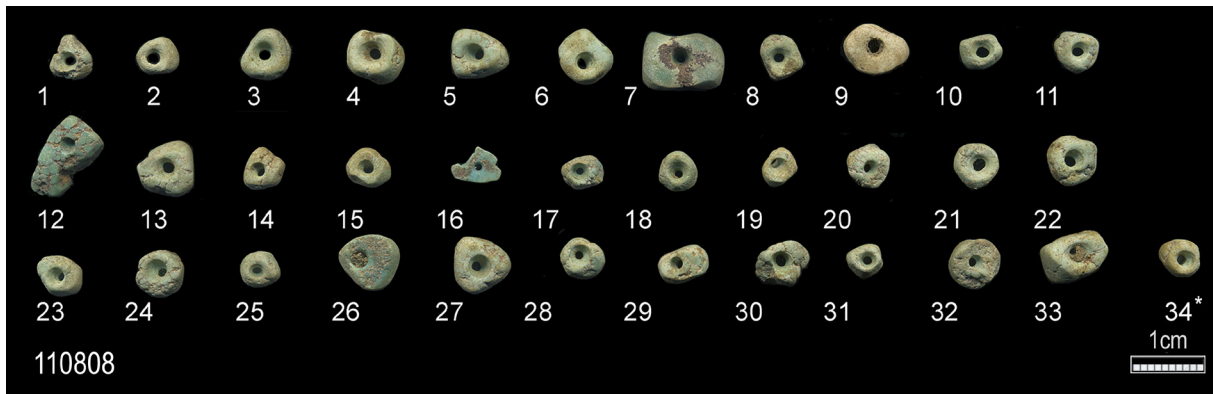


Fig. 26 Beads (F.no. 110808) from the bracelet discovered between the left pelvis and left arm of individual Loc. CR6:23a. (Photo: H.G.K. Gebel, Ba`ja N.P.)



Fig. 27 A naturally red and white coloured stone was inserted at the bottom of wall Loc. C22:10, on top of the burial sequence CG5/6. (Photo: M. Benz, Ba`ja N.P.)

the stone that was inserted inside wall Loc. C22:10 and identified as natural colouration by D. Všíanský (pers. comm. H.G.K. Gebel; Fig. 27).

Use of fire: As mentioned for Burial CG4, it is impossible to decide to which burial the ash layer between Burials CG4 and CG5/6 belongs. Similarly, it cannot be decided whether the remains of ash (Loc. CR6:29) immediately beneath individuals CR6:23a-b, were connected with the burial beneath (CG6, Loc. CR6:40), or with the double Burial CG5.

Samples: see Appendix 2

Comment: The position of the older individual was observed at Ba`ja for the first time, as well as the use of plaster possibly around a small basket and on some kind of mat (see

Reifarth *et al.* this volume). Interestingly, the position of the body was oriented in a *c.* 80° angle to the infant (Loc. CR6:40) buried in the lower pit, to which it seemed clearly related.

Burial ritual: Since it is not clear how much time had passed between the double subadult Burial CG5 and the infant Burial CG6, the activities and burying events will be described together, after the description of Burial CG6.

CG6: An Elaborate Grave Cover for a Baby

Stratigraphy: For the list of loci see Table 1; for the Harris Matrix of Burial CG6 see Fig. 23 and for the description of loci see Table 14, for the levels see Table 15.

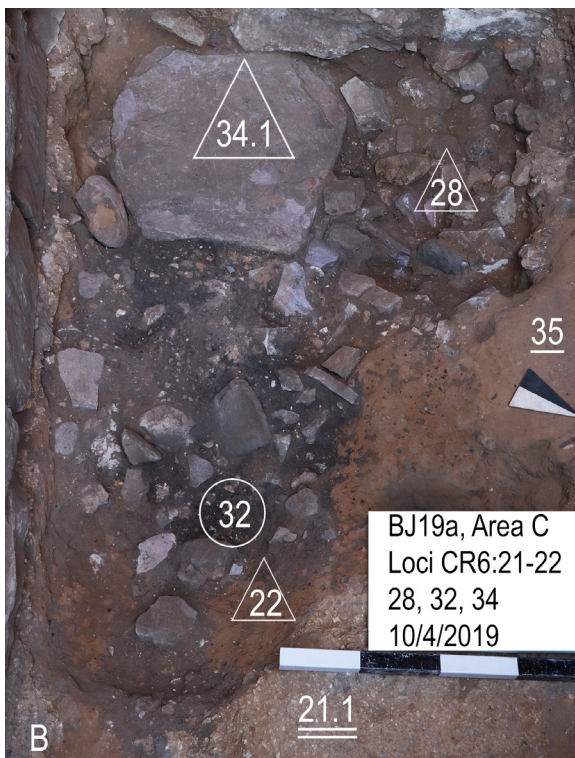
Grave construction: The grave pit Loc. CR6:22 was dug through the white/ red plastered terrazzo-like floor Loci CR6:21.1 and CR6:31 in the southwestern corner of Room CR6.

It had an irregular triangular shape and was bordered by walls Loci C22:20 in the south and C22:10 in the west. It undercut wall Loc. C22:10. The pit consisted of two parts, one in WSW-ENE extension, continuing with a slight threshold in a SSE-NNW oriented, oval shaped burial pit, in which the skeleton of an infant (Loc. CR6:40) was found. The eastern border of the pit was only slightly sloping to the west, whereas all other borders were almost vertical. At the pit's eastern border, there was a threshold to the grave pit (Loc. CR6:46) of Burial CG4, which was covered by ashy sediment and with pieces of charcoal (Loc. CR6:33).

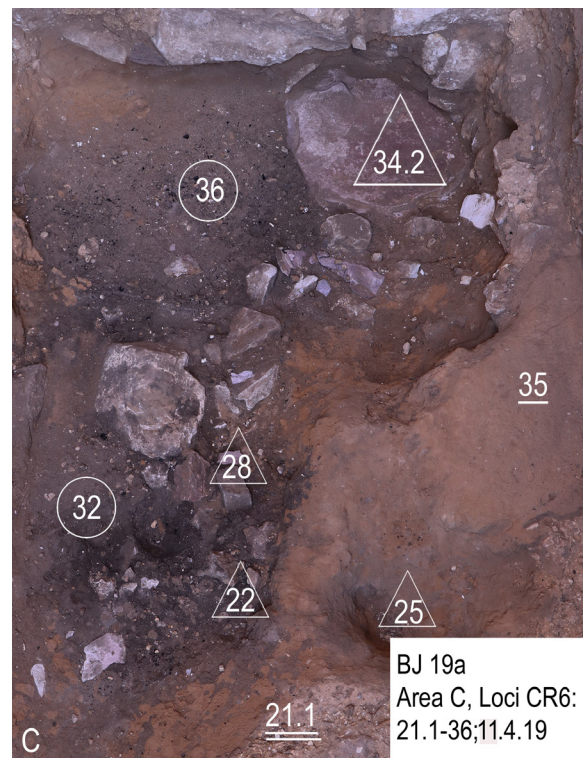


BJ 19a
Area C, Loci CR6:
21.1-35; 9.4.19

Fig. 28 Pit Loc. CR6:22: A covered with one large white-grey sandstone slab (CR6:28) in the southwestern corner below Burial CG5, B-C two large reddish sandstone slabs beneath (Loc. CR6:34.1-2) and many large stones, two stone vessel fragments and a fragment of a grinding tool. For the legend see Fig. 4. (Photos: M. Benz, Ba'ja N.P.)



BJ19a, Area C
Loci CR6:21-22
28, 32, 34
10/4/2019



BJ 19a
Area C, Loci CR6:
21.1-36;11.4.19

During the excavation we realised that the northwestern part of Loc. CR6:21 was not the original floor, but a mixture of reused plaster and gravel to cover the grave pit. This part was renamed as Loc. CR6:21.2 (Fig. 23). Its southern part was probably destroyed by the Burial CG5. The original plaster floor (Loc. CR6:21.1) continues beneath wall Loci C22:20 and

C22:10, while Loc. CR6:21.2 runs unto the wall Loc. C22:10, indicating that the burial was more recent than the construction of the wall. As previously mentioned, an enigmatic stone (F.no. 117804; Fig. 27) was placed into the wall (Loc. C22:10) just above the grave pit as if to mark the position of the grave.

There were no visible human remains found in the eastern section of the pit. The filling of the pit (Loci CR6:28 and CR6:31) was composed of dark-brown silty sand mixed with a significant amount of charcoal, fist-sized angular stones made from various raw materials (including flint, marly limestone, basalt, sandstones, and a large piece of yellow ochre), as well as two fragments of stone vessels and four grinding stones (for the find numbers see Table 18). The stone vessel fragments matched, but both showed flaking on the breakage, indicating some intentional destruction. The largest slab of the grave cover Loc. CR6:28, a white-grey sandstone measuring 25 x 26 x 5 cm in a hexagon-like shape, was almost immediately beneath the burial Loc. CR6:23a-b (Fig. 28).

Unlike Burials CG2 and CG7, there were no identifiable matches for the stone slabs of Loc. CR6:28, except for one plate that was broken *in situ*. The aforementioned white stones delineated more or less the border of the southern grave slab (Loc. CR6:34) which was made of reddish-grey-violet (5YR6/1-2), very brittle sandstone (Fig. 28B). This slab had a trapezoidal shape measuring 45cm in E-W extension and 38cm at the larger side, and 28cm at the smaller side. It was c. 5cm thick and ran parallel

to wall Loc. C22:10, undercutting it for a few centimetres. A second grave slab of the same colour covered the northern part the grave pit (Fig. 28C). All other stones of Loc. CR6:28 did not show any particular order. Beneath the two slabs (Loc. CR6:34) and below two thin layers of brown-grey silty sand (Loc. CR6:36-37), the western part of the pit was filled with almost pure reddish sand (Loc. CR6:38), except around the skeleton where the sediment was dark brown, potentially due to the decay of organic material, and mixed with small gravel (Loc. CR6:39). The deepest point of the pit was at 1165.15m a.s.l., making it no more than 60cm deep from the top of the plaster floor to the bottom (Fig. 29).

Human remains: Loc. CR6:40 and CR6:41a-c (F.no. 118010) include the primary burial of an infant (Loc. CR6:40) and beneath it, isolated adult bones, partly in articulation (Loc. CR6:41a: two patellae; a hyoid bone, a right ulna, a right radius, parts of a right hand and one left hand); mixed with the left hand, isolated infant bones Loc. CR6:41b (rib and *ilium*) were uncovered in this grave (Fig. 30) as well as a fragment of an *ilium* and a left radius of a fetus (Loc. CR6:41c). The preservation of the subadult bones was quite good; age: Loc. CR6:40: 0 years \pm 2 months; Loci CR6:41a young adult, CR6:41b the *ilium*

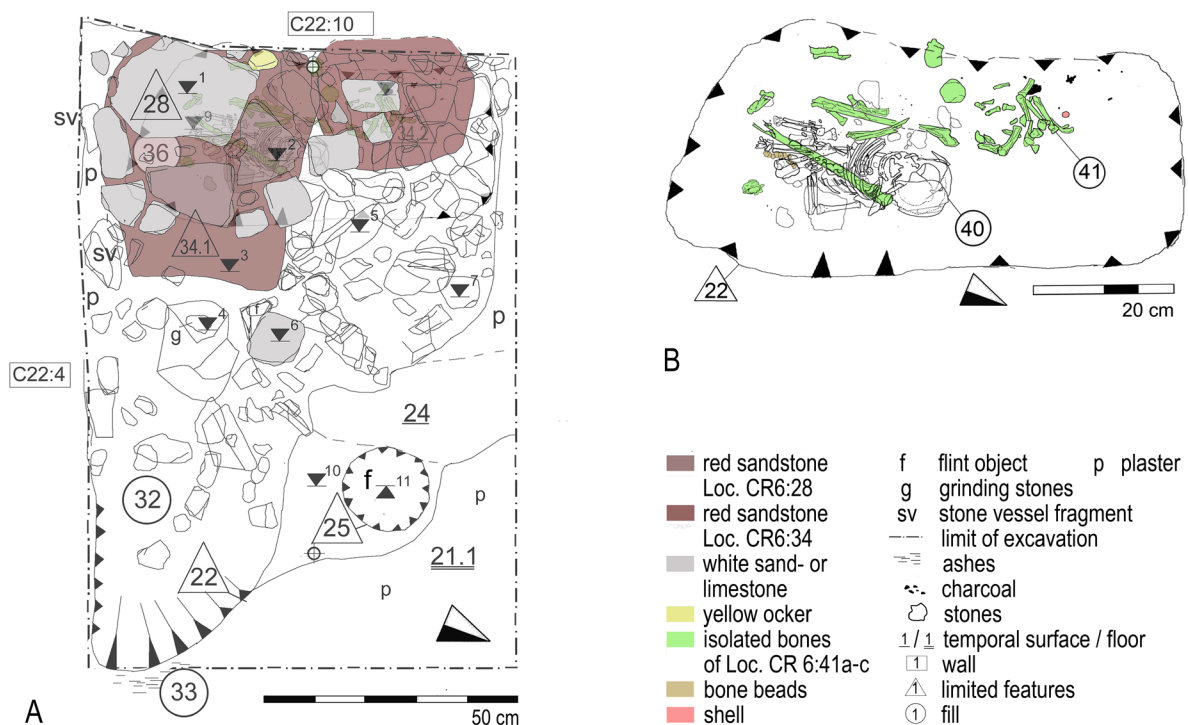


Fig. 29 A The burial pit Loc. CR6:22 filled with stones and three large sandstone slabs, B the infant Burial CG6 in the western part of the pit. (Drawings: S. al Shoubaki, M. Benz, Ba'ja N.P.)

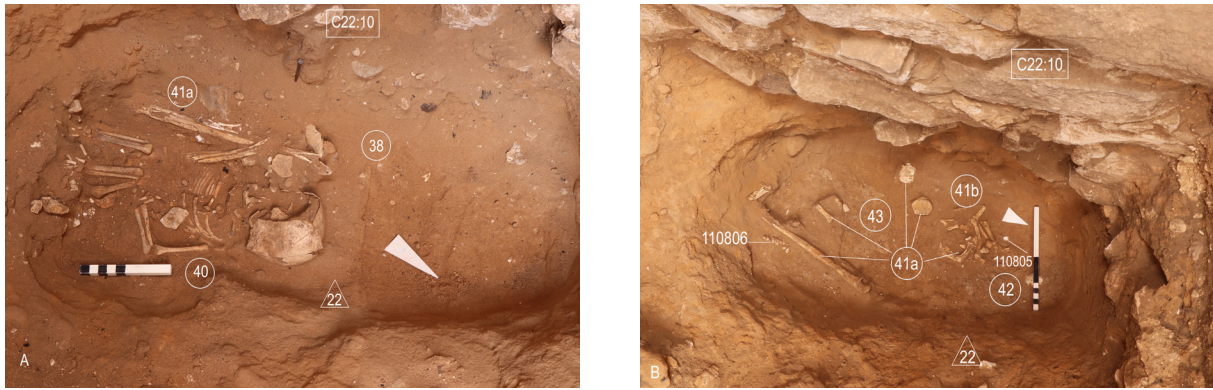


Fig. 30 Human remains uncovered in the western part of Burial CG6: the primary infant burial Loc. CR6:40 and beneath, respectively around it, isolated human bones of at least two adults (CR6:41a), one infant (CR6:41b), and a fetus (CR6:41c). For the legend see Fig. 4. (Photos: M. Benz, Ba'ja N.P.)

Table 18 Objects found in Burial CG6.

Objects Related to Burial Fillings Loci CR6:28, CR6:32, CR6:38, and CR6:39; and to the Human Remains Loc. CR6:40/41		
Objects	Field Numbers	Description, Raw Material, Measurements mm: l length, h height, w width, th thickness, d diameter, med medial, prox proximal, dis distal, pres preserved, av average, dp diameter of perforation, MOP mother-of-pearl, frgm. Fragment
Loc. CR6:28		
1x Flint core and core preparation	112099	
4x Grinding tool fragments (see Gebel forthcoming)	116004	Disi sandstone shaped by a grinding use (rounded sides and flat body [50 mm])
	116008	Mano, prox/ dis frgm.; suboval, elongated, quite flat, resulting from use of both sides; black traces of ash? visible; lateral depressions; quarzitic sandstone; parallel cross-section; w 112, th 35
	116115	Mano, prox frgm., suboval, elongated, parallel long section; biconvex narrow section, quarzitic sandstone; w 89, th 39.
	116171	Mano frgm., partly natural shape, parallel long section; "plano-triangular" narrow section; quarzitic sandstone; w 100, th 48; highly smoothed and flaking on both working surfaces.
2x Stone vessel fragments, matching, belonging to one object, but found separated in the grave cover (see Fig. 29; Gebel forthcoming)	116801	Body frgm. of large plate, junction (between wall and base), Umm Ishrin sandstone; planoconcave sections; frgm. shows clear flaking along the interior fracture delineation onto the fracture similar to piece F.no. 116809.
	116809	Small frgm. of large plate, edge/ rim; Umm Ishrin sandstone;
Loc. CR6:32		
Animal bones	114081	3 Frgms. of sheep-/ goat-sized long bones and 1 frgm. vertebra; 1 indef. mamalia (see Prust this volume)
Loc. CR6:38		
Animal bones	114083 114084	Mostly frgms. of sheep-/ goat-sized feed, 1 hare (?) longbone, 1 frgm. radius of a fox, and remains of rodents (see Prust this volume)
Loc. CR6:39		
1x MOP button	110814.1	MOP, ovoid, serrated edges. 2 perforations: l 14.5, h 9.03, th 0.7, dp 2.1; weight: 0.1g
1x Shell bead	110814.2	Conidae, top of spire, abraded; d 5.4, th 1.1; weight: 0.1g
1x Nerite	110814.3	Perforated, faint traces of red pigment; weight: 0.4g
1x Flakelet, 1x Microdebris	112105	
Loc. CR6:40/41		
10x Bone beads	110806.1-10	Description see Table 19, very close to the right adult ulna (Loc. CR6:41b)
1x Nerite (?)	110805	Perforated; next to the adult hand, weight: 0.2g

and rib of an infant, sex: indet, and CR6:41c, fetus, sex indet.

Position: The infant (Loc. CR6:40) was positioned in the southern half of the western burial pit. She/he was laying on the back with legs in strong (*c.* 150°) hocker position (possibly due to binding), with the legs slightly bent towards the right side. The left hand rested on the pelvis, while the right arm was stretched with the right hand positioned between the knees.

Loc. CR6:41a-c: The right adult ulna was located along the southeastern border of the grave pit with its distal end pointing towards the south. Some carpals, fragments of metacarpals, and phalanges of a right hand were found to the west of the ulna. The right radius was parallel to the right side of the infant and was positioned on top of an animal tale, which was also positioned parallel to the radius and probably from a rodent animal (F.no. 114083; see Prust this volume). The two human adult patellae were located next to each other and were very close to the western border of the pit, while the left hand was found northwest of the infant's skull. The *ilium* and the rib of another infant as well as a fragment of an *ilium* and a left radius of a fetus were found mixed with the adult bones (see Gresky this volume: Appendix 1).

Orientation: Loc. CR6:40: almost N-S; facing south/ upwards.

Objects related to Burial CG6 (Table 18): Burial CG6 did not contain any objects that could be unambiguously linked to the infant, with the exception of some deliberately placed animal bones of sheep and goat size in the grave filling (Loci CR6:32 and CR6:38) above the infant (F.no. 114081/114083/114084; see Prust this volume). It is also worth mentioning that a fragment of a fox radius and a long bone, possibly of a hare, were found. In 2007, a necklace of tubular beads made of hare bones was discovered in Area B-North (Nielsen 2009, F.no. 64500, see also Burial CG2, Alarashi and Benz this volume: Appendix 1). However, the bones found in Burial CG6 did not exhibit any traces of use or manipulation. In the sieved grave earth (Loc. CR6:39) surrounding the infant skeleton (Loc. CR6:40), a serrated ovoid mother-of-pearl button (F.no. 110814.1), a tiny bead made of the top part of the spire of a Conidae shell (F.no. 110814.2), and another nerite shell bead (F.no. 110814.3) were discovered (Fig. 31). Although it cannot be ruled

out that the latter three objects belonged to the isolated human remains, it is likely that they belonged to the infant, based on their stratigraphic position.

Ten almost complete short tubular bone beads (F.no. 110806.1-10) were found aligned next to the right ulna of the adult individual and were probably *in situ* (Fig. 31, Table 19). These beads most likely formed a bracelet that was worn by the adult. This type of bone beads is rare and was only discovered at Ba`ja in the collective Burial CG1 (Gebel *et al.* 2006: Tab.1). A similar bead was found at the Middle PPNB settlement of Shkārat Msaied (Nielsen 2009: Pictures 12-13). Slightly longer tubular bone beads have been recorded from the Late PPNB site of Basta (Hermansen n.d.). Near the adult's left hand and the isolated infant bones, a nerite shell (F.no. 110805) was discovered. These objects were only preliminarily documented, but they will be part of a future project.¹¹

As outlined below, two scenarios may be possible for the interment of the child. Scenario 2 suggests that the isolated human bones (Loc. CR6:41a-c) could be considered as “grave goods” for the infant. However, at the moment, it seems more probable that earlier interments were removed for the infant Burial CG6 (Scenario 1). The rather unspectacular ornamentation of the infant is consistent with the low number of ornaments found in other infant burials (*e.g.*, CG2, CG3, DG2). However, it strongly contrasts with the high number of animal bones in the upper grave filling and with the elaborate grave cover including three large sandstone slabs, four grinding tools, and the two stone vessel fragments (Fig. 29a; see also Table 18). If Scenario 1 is accurate, it is possible that the artefacts and construction elements were originally part of an older burial that was reopened for the purpose of interring the infant. In this case, the artefacts and the covering stone slabs may have been recycled from the previous burial.

Loc. CR6:25 (Figs. 28A, 28C, 29A): small pit, 26cm N-S x 18cm E-W, depth 13cm, cut into the paleosol (Loc. CR6:35), located northeast of the burial pit (Loc. CR6:22). It contained 14 up to half-fist-sized stones, one flint celt (F.no. 112020) with intensive use-wear on the cutting edge of the tool (pers. comm.

¹¹ Plans to export these objects or study them in Jordan became impossible in 2020 due to the Covid-19-pandemic.

Table 19 BJ 19a, F.no. 110806 bone beads of the bracelet next to the right ulna Loc. CR6:41a; d out=outer diameter, dp=diameter perforation, l=length, w=width, h=height; all measurements are given in mm and g.

ID	Type	Material	Weight	d out	dp	l	w	h
110806.1	Oval, tubular	Bone	0.1		1.8	6.9	6.5	5.3
110806.2	Subround, tubular	Bone	0.2		1.8	6.9	7.1	5.2
110806.3	Oval, tubular	Bone	0.1		1.7	4.4	3.3	4.5
110806.4	Oval, tubular	Bone	0.1		1.1	6.8	6	4.7
110806.5	Oval, tubular	Bone	0.2		1.2-1.7	8.2	6.9	5.2
110806.6	Fragment	Bone	<0.1		1.3			6
110806.7	Subround, tubular	Bone	0.1		1.3	7.1	5.9	4.5
110806.8	Oval, tubular	Bone	0.2		1.6	7.9	6.2	5.5
110806.9	Oval, tubular (not complete)	Bone	c. 0.2		1.8	6.3	5.2	5.5
110806.10	Round, tubular (broken in two pieces)	Bone	0.1	6.3	1.8			6.0

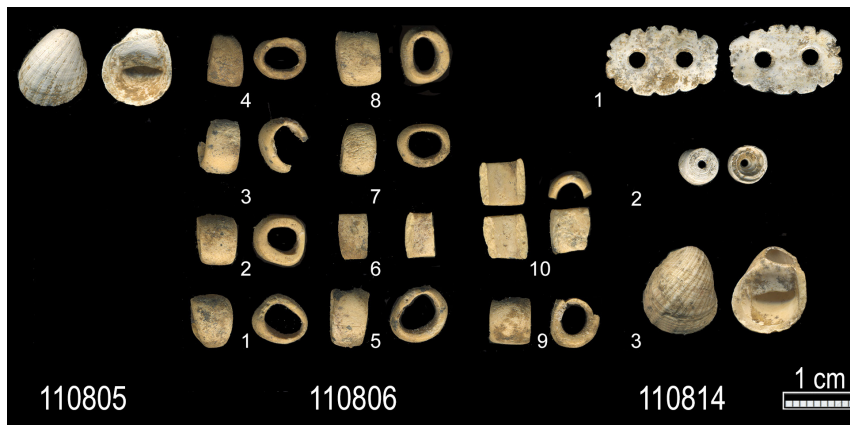


Fig. 31 Ornaments possibly related to the Burial CG6. The bone beads were found aligned next to the right ulna of an adult individual. (Photo: M. Benz, Ba`ja N.P)

C. Purschwitz), and a small polished pebble (F.no. 111804), possibly a polisher. This pit was covered with the same type of clay (here Loc. CR6:24) as was found on top of the burial cover Loc. CR6:28 (Loc. CR6:26). As a result, it is likely that both occurrences happened at the same time. The celt may possibly be considered as some kind of offering associated with the burial ritual.

Use of pigments and colours: Traces of red colour were observed on the nerite shell (F.no. 110814.1), and pieces of red pigment were uncovered in the grave fill (Loc. CR6:36), just beneath the red sandstone slabs. Interestingly, geo-physical analyses of the sandy sediment of the burial filling (Loc. CR6:38) identified a coating of the sand particles with haematite (pers. comm. M. Gerlitzki). Therefore, a more

detailed microscopic examination is required for a comprehensive assessment of the use of pigment, especially for lighter colours such as yellow ochre. Our on-site observation, which revealed no traces of pigment on the infant's bones, must be considered preliminary.

The grave cover (Loc. CR6:28) included one stone with traces of red colouration and a rather large, triangular-shaped piece of yellow ochre. Furthermore, although the pit filling (Loc. CR6:28) did not show much organisation, it appeared as if the red southern grave slab (Loc. CR6:34.1) was deliberately surrounded by white stones with the whitish-grey sandstone slab placed on top of it. Although the enigmatic white- and red-coloured stone, which was stuck at the bottom of wall Loc. C22:10, was naturally coloured, it seemed to have been intentionally

Table 20 Reconstruction of the events/ activities related to the burial ritual of Burials CG5/6 in Room CR6. For the legend see Table 5.

Event	Activities Related to Burial CG6	
1.1-2	Selecting the burial place in Room 6 close to a window opening	
2.3.1-2	Cutting a pit through the floor Loc. CR6:21.1	
	Scenario 1	Scenario 2
2.2	Adorning the adult corpse (Loc. CR6:41a) with a bone bracelet and a nerite shell	Arranging isolated adult and infant bones (Loc. CR6:41a-c), a bone bead bracelet and a nerite shell in the burial pit only slightly before the burial of the infant Loc. CR6:40.
4./ 4.5	Depositing the adult corpse in the pit with other isolated bones (Loc. CR6:41b-c)	
5.3	Putting ashes and charcoal (Loc. CR6:42) of something incinerated into the pit	
2.3./ 6.1.	All further steps are unknown, except for taking off most of the adult skeleton while digging the pit for the infant (Loc. CR6:40)	Covering the isolated bones with red-brown loose sand, identical to the grave filling of the infant (Loc. CR6:40).
2.2	Adorning (?) the infant (Loc. CR6:40) with a few ornaments/ giving the ornaments as a gift	
4.	Depositing the infant in the pit	
6.2./6.6	Covering it with a few stones and the same red-brown sand with which Loc. CR6:41 was covered	
2.1	Grinding red pigment	
4.5.2	Adding parts of animals in the infant's burial pit (Loc. CR6:38/36)	
6.1/6.2	Filling the pit of the infant's burial with loose silty sand and on top with brown-grey silty sand, mixed with charcoals and pieces of red pigment	
6.4.	Covering the western part of pit Loc. CR6:22, above the infant with two reddish-grey sandstone slabs	
?	Digging a small pit (Loc. CR6:25) NE of the burial pit, depositing a used celt and a polisher, covering it with stones	
5.3.*	Lighting a fire (Loc. CR6:33) between Burial CG4 and the grave pit (Loc. CR6:22)	
6.2./ 6.3/ 6.6	Filling the complete pit with many stones, ashes and charcoals	
6.7	Adding fragmented grinding tools and deliberately chipped stone vessel fragments in the pit	
6.8	Covering the small pit (Loc. CR6:25) and the burial pit (Loc. CR6:22) in the northwestern part with patches of clay (Loc. CR6:24/26) and reused plaster (Loc. CR6:21.2) (preserved only in the northwestern corner)	
	Activities Possibly Related to Burial CG6 or to Burial CG5	
6.4.	Arranging (?) white stones in a half-circle on top of the eastern and northern border of the southern reddish-grey grave slab (Loc. CR6:34.1), putting a white sandstone slab on top of the southern red slab	
7.*?	Putting a stone as a marker (?) in the lower edge of the western wall Loc. C22:10.	
5.3*	Incinerating something on top of the clay cover (?) ¹² / depositing something incinerated (Loc. CR6:29) on top of the clay cover (Loc. CR6:26)	
2.3	[Digging a pit into the grave cover for Burial CG5] ¹³	
	Activities Related to Burial CG5	
2.1-2	Adorning the corpse of a c. 3 year-old child (Loc. CR6:23a) with/ or depositing a bracelet of 33 "greenstone" beads and one limestone bead next to the child	
4	Depositing the child almost immediately above the white sandstone slab in an 80° axis to the infant burial below, either in a sitting position or with the body bent onto the stretched legs (with the feet and head in the SW, pelvis in the NE)	
4.5.1	Associating isolated infant bones (Loc. CR6:23b), possibly packed in an organic container with red plastered surface or depositing a plastered organic object next (NW) to the child's head (Loc. CR6:30)	
6.2.	Covering the corpse with brown/ dark brown silty sand including some animal bones and insignificant flint debris and fragments. Isolated infant and adult bones indicate that the grave filling probably comprised also the grave fill of former burials	

¹² Traces of rubefaction due to heat were not observed on the clay.

¹³ This activity is hypothetical if the white sandstone slab belonged to the grave cover of Burial CG6 and was not positioned as some kind of platform for the Burial CG5.

selected and placed in the wall, just above Burial CG6.

Use of fire: There were two, and possibly three, instances where fire was used during the burial. Inside Burial CG6, a patch of ashy sediment was found (Loc. CR6:42) in the north-eastern part of the pit, indicating that something had been burned and placed into the grave. There were no signs of burning on the bottom of the grave pit, although the paleosol normally displays rubefaction and hardening when heated. Therefore, it is unlikely that something was burned inside the grave, as suggested for Burial CG4, but rather that the ash and charcoals of something incinerated were placed into the grave. On top of the burial cover, just below the two subadults CR6:23a-b and at the threshold to Burial CG4, remains of ash (Loc. CR6:29 and CR6:33) were observed. In addition, the pit (Loc. CR6:22) contained an unusually high amount of charcoals, including larger pieces.

Samples: see Appendix 2

Comment: Before suggesting a reconstruction of the burial ritual, some uncertainties should be noted. It is not clear whether the patch of ash (Loc. CR6:29), just beneath Burial CG5, was related to the upper or the lower burial. Similarly, it is uncertain whether the pile of stones (Loc. CR6:28) represents only the grave cover of Burial CG6, or whether the upper part of it, including the pentagon-shaped white sandstone slab and the surrounding white stones, was stacked up as a platform for Burial CG5 (Loc. CR6:23a-b). The remains of reused plaster (Loc. CR6:21.2) suggest that the grave construction for the infant in Loc. CR6:40 (or possibly for the adult buried before in the pit) may have been similar to the cover of Burials CG7 and CG10, with a final coating of white plaster over a cover made of fragmented stone slabs and/ or stones. However, this cover may have been destroyed either for the interment of the infant in Burial CG6 (Loc. CR6:40) or at the latest for the double subadult Burial CG5 (Loc. CR6:23a-b).

The precise relationship to the burial pit (Loc. CR6:46) of Burial CG4 and to the nearby small pit (Loc. CR6:25) with the flint celt remains unclear. All three pits were dug through the plastered floor (Loc. CR6:21.1) and are older than the room filling Loc. CR6:19 and Loc. CR6:16 respectively.

The chronological relationship between the isolated adult and subadult human bones Loc. CR6:41a-c and the infant Loc. CR6:40 is not definitively clear either. One possibility is that a partly disarticulated adult skeleton (and other infants?) had been removed from the grave, leaving some isolated bones behind (Scenario 1). If this were the case, loose finger and foot bones would be expected to remain in the grave. The size of the burial pit, which is much too large for an infant, and the two patellae would support this scenario. However, the *in situ* alignment of the bone beads next to the right ulna and the articulated left hand seems to contradict this and may speak in favour of only a slight movement of the bones for the infant's burial, if the chain of beads was not deposited as a grave good with the infant. Due to these uncertainties, any suggestion about the original position and the treatment of the adult corpse is highly speculative.

Furthermore, it cannot be ruled out that the isolated bones (Loc. CR6:41a-c) were placed in the pit during the same burial ritual, only slightly prior to the deposition of the infant (Loc. CR6:40) as some kind of "grave good" (see Table 20, Scenario 2). There was only a very thin layer of reddish sand between some of the adult and infant bones, and some adult bones (the patellae and the radius) were even at the same height.

Interestingly, not a single human bone and very few animal bones (F.no. 114081, Table 18) were found in the eastern part of the burial pit's filling (Loc. CR6:32). The stones of the pit's filling did not show visible affections by heat, but the sediment contained many pieces of charcoal.

Burial ritual: Considering the aforementioned shortcomings, the reconstruction of the burial ritual remains speculative (Table 20). The large burial pit (Loc. CR6:22) as well as the isolated adult and subadult bones indicate the dislocation of more ancient burials, possibly long before burying the infant in Burial CG6. The evidence for incineration, the abundance of stones for the pit filling, and the depositing of a celt in a separate pit covered with stones, as if it were a burial, are remarkable activities associated with these burials. The description of Burial CG6 is divided in two possible scenarios. Moreover, some of the ritual activities might either be attributed to Burial CG5 or to CG6.

Room CR36.1: a Special Place for a Special Person

The Burial CG7 is *extra*-ordinary in many aspects, from its location in the exclusively used Room CR36.1 to its elaborate grave construction, the intensity of red pigment used, and the sophisticated ornament worn by the child (Gebel *et al.* 2019; Benz *et al.* 2020, 2023; Alarashi b this volume). Although the Room CR36.1 may not seem special at first glance, there are striking observations that deserve to be noted in connection with the location of the grave.

Room CR36 was once a room of about 3.70m (SW-NE) x 3.00m in size, with a well-made terrazzo-like plaster floor (Loci C1:64=C1:40=C1:51). It was adjacent to Room CR35 in the north, with the southern wall Loc. C10:117 of that room forming the northern wall of CR36.



Fig. 32 The alignment of the three wall openings Loci C1:26, C10:117A, and C10:78A (Fig. 44) was underlined by the top of the southern wall (Loc. C1:60) of the grave construction of Burial CG7. In front of this wall, the plaster floor was damaged at several instances with a large black burnt patch in the middle of the room. For the legend see Fig. 4. (Photo: M. Benz, Ba'ja N.P)

At some point, Room CR36 was divided into three smaller compartments by a T-shaped wall (Loci C1:19 and C1:24/35): one long, SW-NE oriented room (CR36.1) in the north, and two rectangular rooms (CR1:36.2-3) parallel to each other, adjacent to Room CR36.1 in the south. Rooms CR1:36.2-3 were each connected to Room CR36.1 by wall openings Loci C1:26 and C1:32 respectively. Both wall openings had windowsills made of pure white Ordovician sandstone. As we describe the grave, the symbolic significance of these glittering white sandstones will become clear, in addition to their aesthetic impact.

These wall openings are not only remarkable because of their white glittering sills, but also because of their levels. The wall openings Loci C1:26, C10:117A, and C10:78A (Fig. 2) are aligned in one axis. Loci C1:26, C10:117A and the neighbouring window sill Loc. C1:32 are almost at the same level $1165.53 \pm 1 \text{cm}^{14}$ m a.s.l., with sill Loc. C10:78A being only 8cm deeper (Kinzel 2013: 461). Sills of Loci C1:32 and C1:26 belong, in fact, to the same wall which is divided into two parts (Loc. C1:24/35) by wall Loc. C1:19. Sill Loc. C1:26 is east of wall Loc. C1:19, sill Loc. C1:32 is west of it. The obviously deliberate alignment of the first three openings is underlined by the small wall (Loc. C1:60, Fig. 32) that separated the Burial CG7 from the western part of Room CR36.1. The upper edge of this approximately 35cm-high wall was also delineated by white Ordovician slabs, which were left uncovered by the gravel plaster that coated the rest of the burial site. The top of this wall was therefore visible and linked the two wall openings Loci C1:26 and C10:117A. It is worth noting that white sandstone slabs were not commonly employed in ordinary walls.

Furthermore, a fourth blocked wall opening (Loc. C1:57) was uncovered in the southern wall (Loc. C1:56) of Room CR36.2 (Fig. 33). The height of the sill was at 1165.44m a.s.l. like sill Loc. C1:78A, indicating that even if not built at the same time, all the constructional elements were built in reference to each other. In front of that latter opening, in Room CR36.2, the terrazzo-like floor was cut off, but no pit had been dug into the paleosol (Loc. C1:53; Fig. 34).

¹⁴ The level measurements taken in 2016 had all to be corrected for +8cm due to the uncertainty of the reference point of 2016 (see also CG8 and CG10) and the comparison with measurements taken in 2018-2019.



Fig. 33 The still unexcavated, blocked wall opening Loc. C1:57 in the southern wall Loc. C1:56 of Room CR36.2. For the legend see Fig. 4. (Photo: M. Benz, Ba'ja N.P.)

Whereas in both Rooms, CR36.2 and CR36.3, the plaster floors were renovated several times, in CR36.1 it was renovated only once. The floor (Loc. C1:64) in Room CR36.1 was devoid of finds. From about 1m from the western wall, it had been taken off and was bordered by a stone alignment leading from wall Loc. C10:117 to the middle of the room in direction of the wall opening Loc. C1:32. East of this alignment an ovoid patch (30 x 35cm) of dark loose silty sand was uncovered. The sand was wet sieved (0.351mm-mesh), but it was devoid of any macro-botanical remains, proteomic or lipid analyses are pending. Close to wall Loc. C1:35 a small pit (Loc. C1:69) was uncovered, but again nothing special was inside. These activities were either related to former household activities taking place in that space or to rituals in relation to interments taking place in these rooms. The missing part of the terrazzo-like plaster in front of the grave is puzzling. Later, perhaps related to the building of walls Loci C1:19, C1:35, and C1:24, a less well preserved mud/ grit plaster floor (Loc. C1:67) with a stone sub-construction (Loc. C1:68) was built.

The Burial CG7 was cut through this second floor, and the small wall Loc. C1:60 was placed on top of it to separate the burial area from the western part of the Room CR36.1. After the construction of the grave, there is hardly any evidence for prolonged use of that area, except for a small patch (in Loc. C1:61) of darker filling (with an enhanced number of charcoals) immediately in front of the southern part of the grave wall Loc. C1:60 (Fig. 32). It may indicate some rituals, but could possibly also be a dumping pit related to a patch of middle-grained anthracite



Fig. 34 Gap in the plaster floor Loc. C1:40, perhaps indicating a burial pit that had never been finished in front of the wall opening (Loc. C1:57) in the southern wall of Room CR36.2, the room south of the extraordinary Burial CG7. (Photo: M. Benz, Ba'ja N.P.)

coloured sand (Loc. C1:59) that was uncovered on top of this patch. Interestingly, the same loose anthracite coloured sand was encountered on top of Burial CG10. The rest of the western part of Room CR36.1 was filled with wall and floor debris.

In summary, the alignment of four window openings (including the unexcavated Loc. C1:57), their demarcation by white sandstone slabs, and the division of the large room into three compartments are remarkable. Room CR36.1 was particularly significant within this area, as it contained only one burial, in contrast to the other rooms in Area C which either held several burials or none at all. The void in the terrazzo-like plaster floors in Rooms CR36.2 and CR36.1 may hint at the preparations either for a burial that never was or for taking off material for burial covers. Whereas the other Rooms CR36.2-3 were used for continued activities, after the construction of Burial CG7, no further household activities could be

observed in Room CR36.1. The elaborate grave construction segregated the burial from the rest of the room and enhanced the height of the Burial CG7 compared to the floor Loc. C1:67 by about 35cm.

CG7: the Burial of “Jamila”

Location: The Burial CG7 in the eastern corner of Room CR36.1. is not very visible, considering its position (Fig.37I). It is protected by three surrounding walls in the east, south and north. However, the space it reclaims is large and was clearly segregated from the rest of the room. The location close to two wall

openings – one north of Burial CG7 and one to the south – parallels the locations of other burials. Most of them were very close to a wall opening. The grave construction is integrated in and respects the architecture so strongly that it appears as if it had become a constructional part of it. The small wall (Loc. C1:60) in front of the grave demarcates on the one hand the western limit, while on the other hand, it connects the wall openings Loci C1:26 and C10:117A. It appears to have been designed as a path to facilitate movement between the burial chambers. Interestingly, as mentioned above, the white slabs of the wall top were not covered with white lime plaster.

Stratigraphy and grave construction: Since the stratigraphic information is strongly interwoven with the burial construction, both data will be described together. A detailed reconstruction of the grave is given by al-Sababha and Serbil in this volume. The stratigraphic sequence is presented in Fig. 35, with the main steps of the grave construction represented in Figs. 36-37, Table 21, and in the drawing (Fig. 38).

The burial pit was dug through two floor constructions, namely Loci C1:64 and C1:68/67 (Fig. 36A-B). In order to create the grave pit (Loc. C1:44’), the eastern wall Loc. C1:16 was undercut by about 10cm. The pit had a step in the western part, where the floor Loc. C1:67/68 was only partly eliminated, while the terrazzo-like floor Loc. C1:64 (Fig. 36A) was preserved between the small wall Loc. C1:60 and the burial. The eastern part of the pit was dug down further into the paleosol for approximately 20cm. Within this pit, a wall (Loc. C1:66) was built parallel to the southern wall of Room CR36.1 (Loc. C1:24). In front of it, an almost rectangular grey schist-like sandstone slab (with one bevelled corner) was positioned vertically (Loc. C1:44 [#038]). Sandy mortar was then filled in between the southern wall (Loc. C1:66) and this slab to secure it in place. Impressions of plants, possibly of grasses, were uncovered on one of the mortar samples (F.no. 107016, pers. comm. N. Reifarth).

The construction of the northern grave wall was simpler. A pentagon-shaped grey sandstone slab (Loc. C1:44 [#037]) was fixed parallel to the other one at a distance of about 40cm (Fig. 37A-C). The void between this slab and the northern wall of the room (Loc. C1:117) was filled with up to fist-sized angular stones and

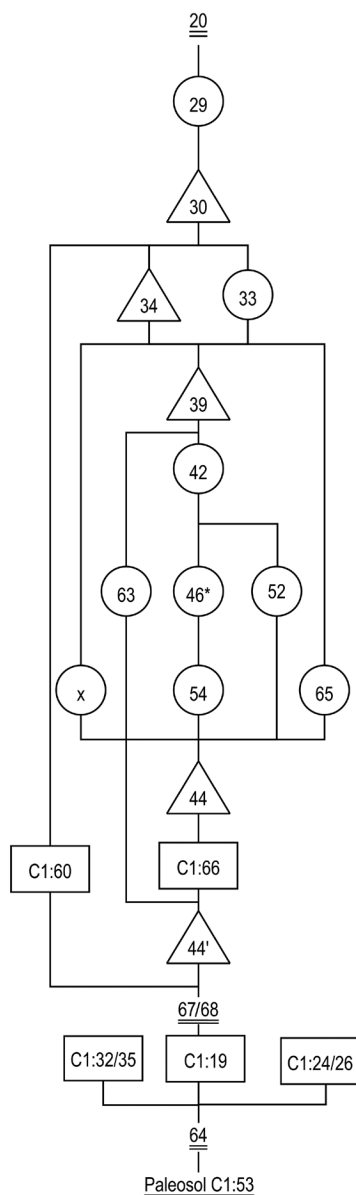


Fig. 35 Harris Matrix of Burial CG7. For the legend see Fig. 4. (Graph: M. Benz, Ba’ja N.P.)

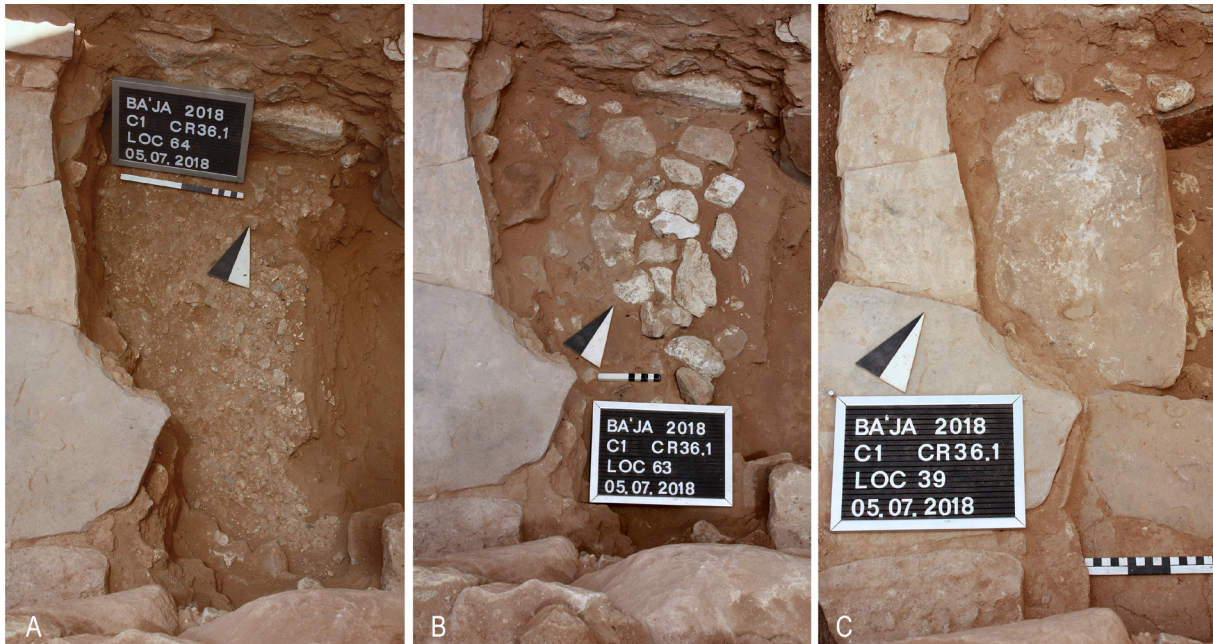


Fig. 36 Western part of the grave construction of Burial CG7: A most ancient floor (Loc. C1:64) through which the burial was cut, B white chalky, non-local stones embedded partly in the loose reddish sand of the grave filling. Immediately next to the small wall Loc. C1:60, the original floor sub-construction Loc. C1:68 was preserved, C covering slab Loc. C1:39.3 on top of Loc. C1:63. (Photos: M. Benz, Ba`ja N.P.)

sandy mortar (Loc. C1:x). During the excavation both slabs showed a reddish surface, but when they were taken off the grave, it turned out that this was either due to the use of red pigment or the impact of the reddish sand used for the grave filling.

The corpse (Loc. C1:46) was deposited in the pit. Next to its femur in front of the torso, a lump of red pigment (Loc. C1:52) was laid down.

The grave pit was filled with loose almost sterile silty sand (10YR6/4-6/5) similar to the sediment found in the Burials CG6, CG8, CG9 and CG10. In the western part of the burial on top of the preserved floor Loc. CG1:64, white chalky stones (Loc. C1:63) were deposited (Fig. 36B). In contrast to the stones of the floor sub-construction (Loc. C1:68), which was partly preserved in the burial pit, behind wall Loc. C1:60, these stones were stuck loosely in the reddish-brown sand and seemed to be all of the same non-local chalky type. Intertwined with wall Loc. C1:66 and Loc. C1:39.3-5 (s. below), the first layers of the above mentioned SE-NW running small western wall Loc. C1:60 were built on top of floor Loc. C1:68/67.

On top of the chalky stones, two small stone slabs (Loc. C1:39.3-5 [#016, #024]) in the south and two larger ones (Loc. C1:39.2-3

[{#001,#003,#004,#032}¹⁵, #027]) in the north, were piled up, with C1:39.3 (Fig. 36C) being below C1:39.2 (Fig. 37A). The latter slab served as the western support of the large stone cist covering slab. The largest, ovoid slab, namely Loc. C1:39.1 [#002] was used as the main cover of the cist (Fig. 37C). This slab measured max. 82.5 x 49 x 3-4cm. It was of white Ordovician sandstone.¹⁶ The western slabs were intertwined with wall Loci C1:60 and C1:66, indicating that the whole construction of the grave was built up layer by layer and that the constructional elements were contemporaneous.

On top of the main covering slab, two to three layers of white Ordovician sandstone slab fragments were fixed in silty sand-mortar (Table 22, Fig. 37D-H). These fragments included five grinding stones (F.no. 106004, 106019, 106021, 106044, 106047). The small wall Loc. C1:60 built the western border of this cover. Some of the fragments of the cover were found to fit together, forming an oval plate of about

¹⁵ The four fragments within paranthèse courbée formed one slab (Loc. C1:39.2) that was broken during excavations in 2018. I am grateful to Martin Bader for identifying the parts of this slab in 2019.

¹⁶ By mistake, it was described as “grey-reddish” in former publications (Gebel *et al.* 2019; Benz *et al.* 2020).

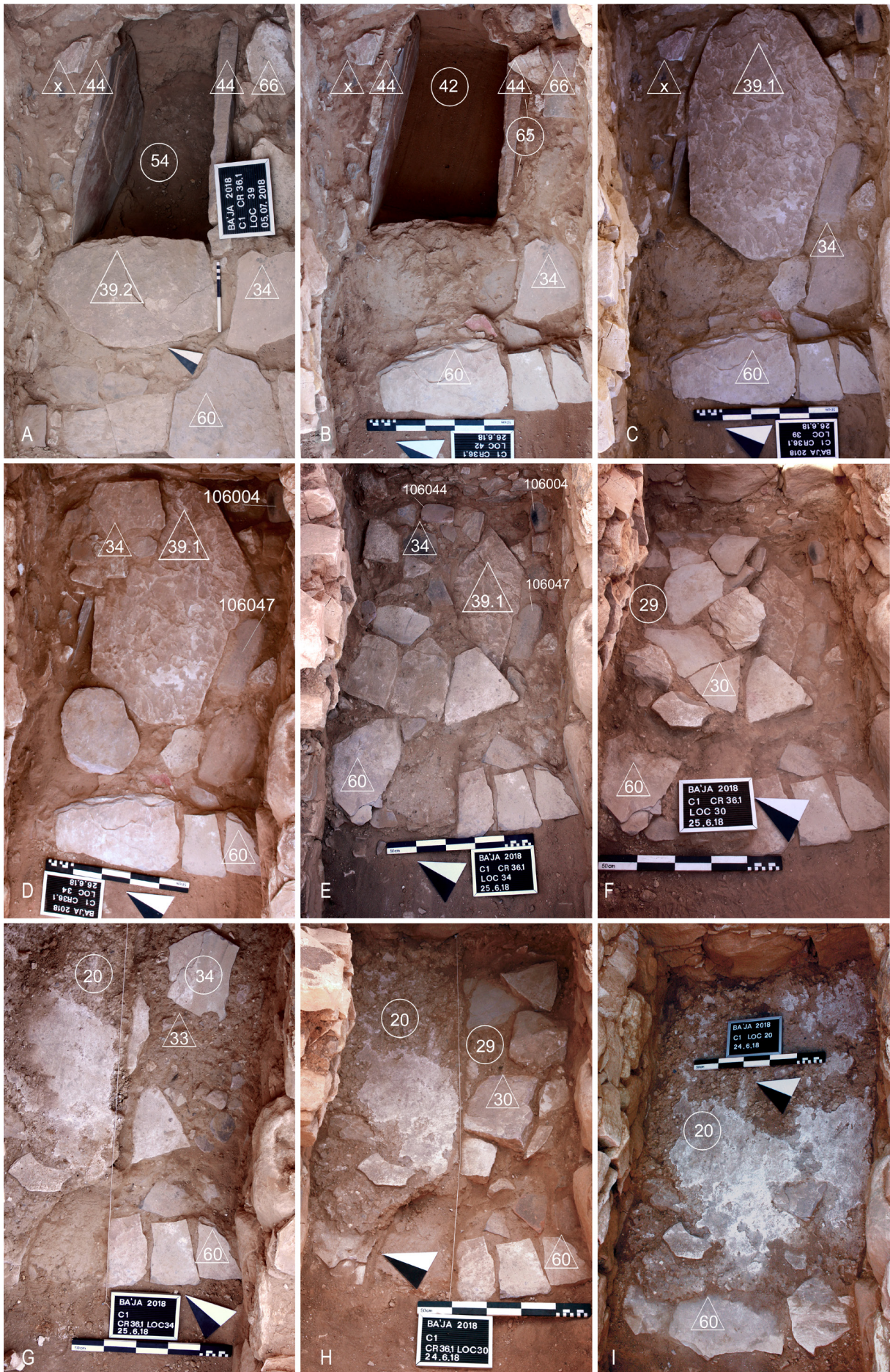


Fig. 37 (previous page) Main steps of the burial construction: *A* the empty grave cist with the two vertical stone slabs (Loc. C1:44) and the stone slab Loc. C1:39.2 in front of the cist serving as sub-construction for the major covering slab, *B* the filled cist with the child's skeleton below the reddish-brown sand; in the front of the photo: the western border of Loc. C1:60, *C* grave cist covered with the main slab Loc. C1:39.1, *D-E* lower and upper layer of Loc. C1:34, partly covering the main slab, including three of five grinding stones, *F* north: Layer C1:30, top layer of white sandstone fragments, *G-H* north: white lime plaster Layer Loc. C1:20; south: upper layer of white sandstone slab fragments of Loci C1:34 and C1:30 respectively, embedded in mortar of Loci C1:33 and C1:29, *I* white plaster cover Loc. C1:20 with the western grave border uncovered. For the legend see Fig. 4. (Photos: M. Benz, Ba'ja N.P.)

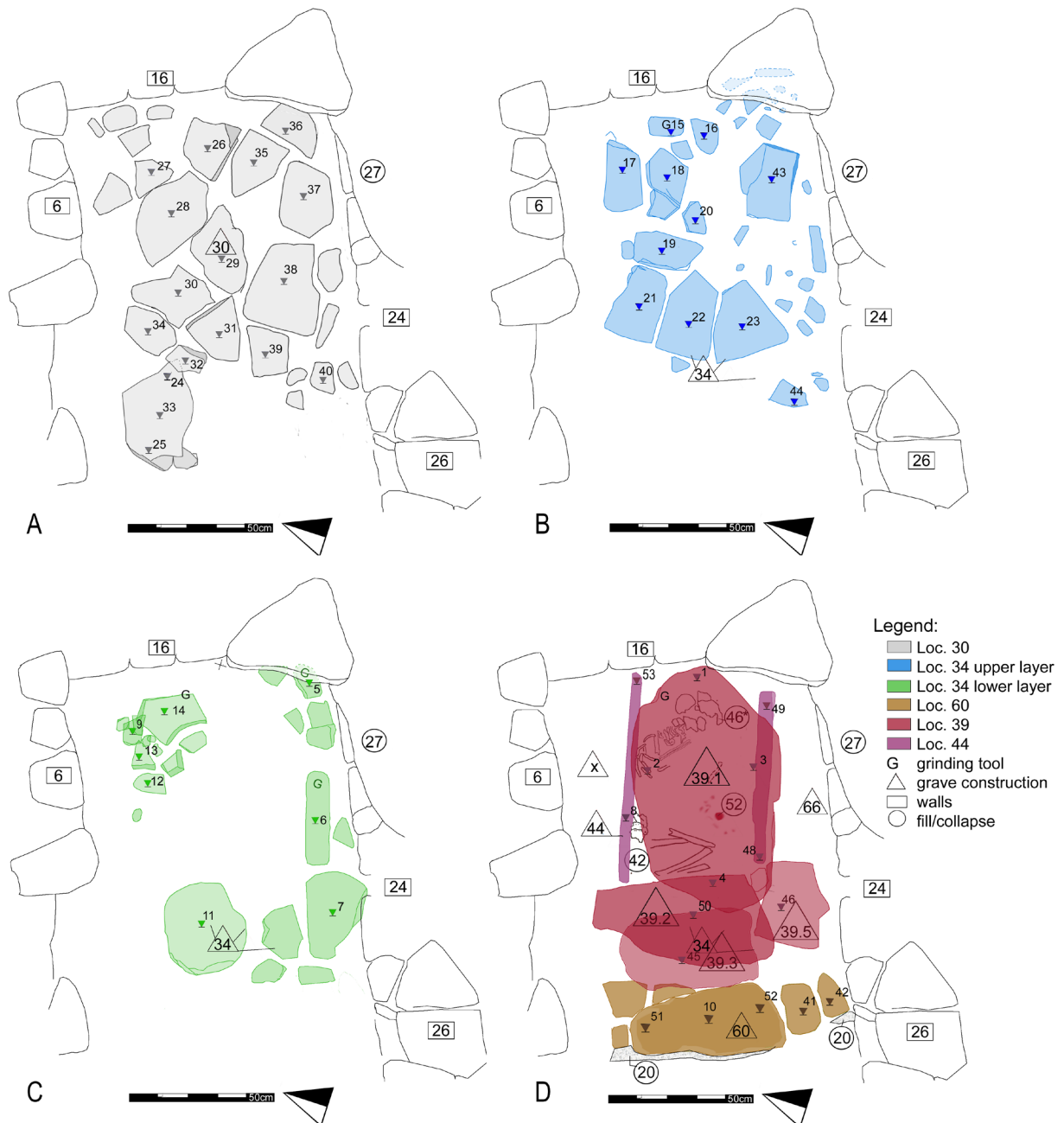


Fig. 38 Schematic reconstruction of the stages of construction of Burial CG7 from the three layers of the cover (A-C) to the grave cist (D), for the levels see Table 22. (Drawings: C. Purschwitz, compiled, modified, and digitalised by M. Benz, Ba'ja N.P.)

Table 21 Description of loci related to Burial CG7.

Locus	Description
C1:20	White limestone plaster cover with limestone grit, probably recycled from floor Loc. C1:64, covering the whole grave construction except of the upper layer of Loc. C1:60
C1:29	Brown silty sand with inclusions of limestone congregations and small pieces of charcoal (mortar)
C1:30	Deliberately broken white sandstone slab fragments mixed with a few other stones
C1:33	Similar to Loc. C1:29 above and below Loc. C1:34
C1:34	Second and third layer of white sandstone slab fragments (=Loc. C1:30)
C1:39	Main grave cover and its sub-constructional elements: C1:39.1 [002] ovoid white cist covering slab: max. 82.5 x 49 x 3-4cm; two larger superposed slabs west of it (Loci C1:39.2-3 [{#001,#003,#004,#032} ¹⁷ ,#027]) and two smaller slabs Loc. C1:39.3-5 [#016, #024] south of Loci C1:39.2-3
C1:42	Pit filling, loose silty sand (10YR6/5-6/4), with c. a third of middle grained sand, almost sterile with tiny pieces of charcoal and a few limestone congregations (sifted 0.5mm mesh); a few larger pebbles
C1:44	Two schistic grey (red stained from sand/ pigments inside) sandstone slabs forming the northern and southern construction of the stone cist: southern slab (upper length: 62cm/ lower length: 57cm; height max: 32cm; thick max: 5.5cm; [#038]), northern slab (upper length: 69cm/ lower length:44cm; height: east 44cm/ west 24cm; thick max: 3.1cm; [#037])
C1:44'	Grave pit: no proper label was given to this negative feature during excavation. 114/80 x 50cm pit, with a step in the western part. Depth from Loc. C1:67 to pit bottom: c. 23cm; eastern depth from C1:64 down: 20cm
C1:46	8 ± 2 year-old child
C1:52	Lump of red/ dark-red pigment (R104/6-3/6), with smaller dusky red pieces (R103/3) south of the torso
C1:54	Contact layer between paleosol and silty grave sand filling; not as hard as the paleosol
C1:60	Western border of the grave construction forming a small wall of c. 34cm height from Loc. C1:68 to the uppermost layer at 1165.18-19m a.s.l (drawing 5, C. Purschwitz) ¹⁸
C1:63	Layer of non-local white chalky stones, embedded in Loc. C1:42
C1:64	Limestone grit ("terrazzo-like") plaster floor = Loci C1:51 and C1:40
C1:65	Brown silty sand similar to Loci C1:29 and C1:33 but less hard
C1:66	Small wall between Loci C1:44 south and C1:24, below Loc. C1:34
C1:67	Mud plaster surface of Loc. C1:68
C1:68	Floor sub-construction of up to fist-sized stones
C1:x	Filling with differently sized stones, sand, and mortar between Loc. C1:44 north and wall Loc. C10:117

62 x 40 x 1.5-3cm (Fig. 39). One or two fragments were found upside down and in different layers, indicating that they were deliberately destroyed outside the grave before being used to cover it. The broken edges of the fragments showed no abrasion and matched precisely, suggesting that the slabs were smashed shortly before deposition. However, clear impact points were not visible, so it appears that the smashing may have been done simply by stamping with a foot or by letting them fall on non-stony soil. In addition, two small stone slabs were found to be completely stained red (F.no. 107912¹⁹, Fig. 40).

¹⁷ See footnote 15.

¹⁸ See footnote 14.

¹⁹ This slab had not been numbered during the conservation season, because it had been exported for pigment analyses in 2018.

Finally, the whole construction – except for the uppermost stone slabs of the small western border (Loc. C1:60) – was firmly sealed by a white plaster containing tiny limestone gravels, which were likely recycled from the floor Loc. C1:64 (Fig. 37I). Some pieces of this limestone-grit plaster were also preserved on the western front of wall Loc. C1:60. The plaster extended onto the surrounding walls Loci C1:16, C1:24, and C10:117. The whole niche covered by this plaster measured about 1.32m long and 88cm wide.

Apart from this white surface, the elevated podium of the grave construction, and the white glittering sandstone slabs of Loc. C1:60, no other grave marker was identified.

Human remains: The human bones (F.no. 108000) were rather brittle except for the cranium and the mandible, and some of the bones could not be preserved or were only visible as a

Table 22 Levels of Burial CG7. Numbers in square brackets indicate in column 1: stone slab or find number as recorded by H.M. al-Sababha, M. Bader, and J. Graf; in column 2: the level number, if visible in the schematic reconstruction; upper case characters: slab fragments that were found separated but matched together.

Location	▼ (UL) m a.s.l.	▲ (LL) m a.s.l.
Loc. C1:30 [#030=top northern edge of wall Loc. C1:60]	[24] 1165.15 (east) [33] 1165.18 (middle) [25] 1165.19 (west)	
Loc. C1:30 [#009=top middle of wall Loc. C1:60]	=[33+2cm]=1165.20	
Loc. C1:30 [#020, #022, #030, or #033?= top southern part of wall Loc. C1:60]	=[33]	
Loc. C1:30 [#014.1+ ^{#007, #014.2-5, #015}]	[26] 1165.18	
Loc. C1:30 [#031]	[27] 1165.18	
Loc. C1:30 [#007+ ^{#014.1-5, #015}]	[28] 1165.17	
Loc. C1:30 [#023]	[29] 1165.18	
Loc. C1:30 [#015+ ^{#007, #014.1-5}]	[30] 1165.17	
Loc. C1:30 [#014.2+ ^{#007, #014.1, #014.3-5, #015}]	[31] 1165.18	
Loc. C1:30	[32] 1165.21	
Loc. C1:30	[34] 1165.21	
Loc. C1:30 [#034]	[35] 1165.20	
Loc. C1:30 [#006.6? / #040?]	[36] 1165.22	
Loc. C1:30 [#026?]	[37] 1165.22	
Loc. C1:30 [#036?]	[38] 1165.20	
Loc. C1:30 [#039?]	[39] 1165.17	
Loc. C1:30	[40] 1165.10	
Loc. C1:34 [F.no. 106004]	[5] 1165.17	1165.10
Loc. C1:34 [F.no. 106047]	[6] 1165.08	
Loc. C1:34 [#016]	[7] 1165.03	
Loc. C1:34	[9] 1165.07	
Loc. C1:34 [#005]	[11] 1165.08	
Loc. C1:34	[12] 1165.09	
Loc. C1:34	[13] 1165.11	
Loc. C1:34 [#021]	[14] 1165.15	
Loc. C1:34	[15] 1165.15	
Loc. C1:34	[16] 1165.13	
Loc. C1:34[#030]	[17] 1165.15	
Loc. C1:34	[18] 1165.13	
Loc. C1:34[#017]	[19] 1165.12	
Loc. C1:34	[20] 1165.12	
Loc. C1:34[#019]	[21] 1165.15	
Loc. C1:34 [#012]	[22] 1165.13	
Loc. C1:34 [#025]	[23] 1165.12	
Loc. C1:34 [#035?]	[43] 1165.18	
Loc. C1:34 [#014.4+ ^{#007, #014.1-3, #014.5, #014}]	[44] 1165.08	
Loc. C1:39.1 [#002]	[1,E] 1165.07 [2,N] 1165.05 [3,S] 1165.07 [4,W] 1165.05	s. C1:44
Loc. C1:39.2 [#001,#003,#004,#032, 1xn.d.]	[50] 1165.00	
Loc. C1:39.3 [#027]	[45] 1164.98	
Loc. C1:39.4 indet.	[47] 1164.96	
Loc. C1:39.5 [#024]	[46] 1164.93	

Table 22 *continued*

Location	▼ (UL) m a.s.l.	▲ (LL) m a.s.l.
Loc. C1:42		West: 1164.63 East: 1164.66
Loc. C1:44 [#037] north, W-edge	[8] 1165.05	
Loc. C1:44 [#037] north, E-edge	[53] 1165.04	
Loc. C1:44 [#038] south, W-edge	[48] 1165.02	
Loc. C1:44 [#038] south, E-edge	[49] 1164.97	
Loc. C1:46 mandible left	1164.66	
Loc. C1:46 cervical vertebra	1164.78	
Loc. C1:46 lowest rib right	1164.78	
Loc. C1:46 pelvis left	1164.70	
Loc. C1:46 femur prox left	1164.67	
Loc. C1:46 femur dist. Left	1164.66	
Loc. C1:46 tibia prox right	1164.74	
Loc. C1:52	1164.67	
Loc. C1:54	West: 1164.63 East: 1164.66	
Loc. C1:60 [#011.1]	[41] 1165.10	
[#011.2]	[42] 1165.11	
[#008] N-edge	[51] 1165.09	
[#008] middle	[10] 1165.08	
[#008] S-edge	[52] 1165.09	
Loc. C1:63	1164.88, 1164.85	1164.83
Loc. C1:64	1164,83	
Loc. C1:67	1164.88, 1164.85	
Loc. C1:x = C1:34 (between Loci C1:44 north and C10:117)	[9] 1165.07	

shadow (*e.g.*, right lower arm); age: 8 ± 2 years; sex: possibly female, according to the mandible.

Position: Left hocker, with about 80° angle of the femur, and the tibiae close to the femora, with the feet touching the western border of the pit and the back leaning against the northern slab (Fig. 41). The cranium had (been) turned down on its face.

Orientation: E-W

Objects related to Burial CG7 (Table 23): Similar to other burials, *e.g.*, CG1, CG6, CG10, and CG9, five grinding stones were embedded in the grave cover, of which two were complete and three fragmented. All but

one (F.no. 106047) found to be completely stained red on one side, indicating their likely use in grinding red pigment. They were re-used as constructional elements for the western part of the grave construction (Figs. 37B-C, 40). In the grave cover, a third phalange of sheep/ goat size (F.no. 108000) was embedded. Whether this small bone was intentionally placed as a “grave good” or ended up in the grave cover by chance remains an open question. Interestingly, an isolated astragalus of sheep/ goat size was uncovered in Burial CG4.

Inside the grave, a lump of red pigment (F.no. 107907) was placed south of the corpse in the grave filling. No traces of burning were observed.

Table 23 Objects related to Burial CG7.

Objects	Field Numbers	Description, Raw Material, Measurements mm; l length, h height, w width, th thickness, d diameter, med medial, prox proximal, dis distal, pres preserved, av average, dp diameter of perforation, g gramme, frgm. fragment, MOP mother-of-pearl, indet. not deter- mined by XRF
In the Grave Cover (Loc. C1:34)		
5x Grinding tools for more information (see Gebel forthcoming)	106004	Mano, dis/ prox frgm.; very fine grained Umm Ishrin sand- stone, intensively used, traces of red pigment all over, flaking on end after use for pigment grinding and grey-black staining on working face; w 102, th 37
	106019	Mano, dis frgm.; quarzitic sandstone, black and red staining; w 109, th 35
	106021	Mano, dis frgm.; quarzitic sandstone, very smoothed edges, rough pecking (reshaping?); th 30
	106044	Mano, complete, fine crystalline limestone, intensively used, traces of light pink staining, l 138, w 85, th 35; weight: 738
	106047	Mano, complete, quarzitic sandstone, natural lateral residues (lichen?), red pigment on working face 2; l 287, w 117, th 43; weight: 2585
1x Used retouched flint flake with notch	102019	
1x Animal bone fragment	104040	Third phalange of sheep/ goat size (pers. comm. A. Prust)
Objects Inside the Grave²⁰		
1x MOP ring-spacer	100814.20	
4x Conidae beads	100814.R BOX 2 3x 100814.S.BOX.2.EC.XXV	Cut (or naturally abraded?) top part of spire, used as disc beads
1x Dentalium	100814.W BOX 3	
54x Tubular barrel shaped shell beads	(Various numbers)	<i>Tridacna</i> sp.; see Alarashi and Benz Appendix 1
178x Tubular cylindrical shell beads	(Various numbers)	<i>Tridacna</i> sp.; see Alarashi and Benz Appendix 1
Total white items: 238		
5x Turquoise disc beads	100814.Zc, Box 3 100814.166 100814.Zb, Box 3 100814.W, Box 3, ECXXX	Turquoise; drop-shaped to ovoid, rather flat beads, intense use traces.
Total Blue-green Beads: 5		
2x Hematite spherical beads	100814.E 100814.B	
1x Hematite buckle	100814.154	Ovoid shaped flat ornament; two horizontally positioned perforations, with very intense use traces of both perfora- tions; polished, intensively used; scratches all over, some strongly polished parts; l 29.5, w 21.5, th 5; perforations (dp: upside 4.7-5mm; downside 3mm);
1x Tubular barrel shaped bead	100814.H	Resin beads see Alarashi b this volume
1x Tubular cylindrical bead	100814.Zc BOX 3	
Total Black to Brown Items: 5		
2264x Red limestone disc beads	100814 (various numbers)	See Alarashi and Benz this volume: Appendix 1
65x Red limestone cylindrical beads	100814 (various numbers)	See Alarashi and Benz this volume: Appendix 1
1x Red limestone barrel-shaped bead	100814.B	Found next to the hematite bead (F.no.100814.B)
7x Red limestone oval flat bead	100814.F 3x 100814.L BOX 1 100814.S BOX 2 100814.U BOX 3 100814.W BOX 3	
Total of Red Beads: 2337		
Lump of red pigment	107907	Indet. pigment, possibly ochre (R10 4/6-3/6)

²⁰ For all measurements of ornaments see Alarashi b this volume; for mineralogical analyses see Gerlitzki and Martin this volume.



Fig. 39 Some of the white sandstone slab fragments which were dispersed but fitted so neatly together that the oval plate was probably destroyed only shortly before the burial ritual or even during the ritual itself. (Photo: M. Benz, Ba'ja N.P.)

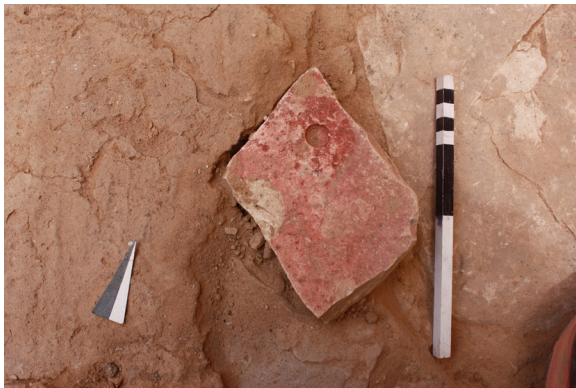


Fig. 40 *In situ* position of the red stained sandstone plate (F.no. 107912) from the cover of Burial CG7. (Photo: M. Benz, Ba'ja N.P.)

The most remarkable object in this grave was the sophisticated necklace the child wore. It was made of at least 2583 beads, one hematite buckle and a white mother-of-pearl ring that functioned as a spacer for all the chains (see Alarashi b this volume and Costes and Fischer this volume). The beads consisted mostly of tiny red limestone disc beads and white *Tridacna* sp.²¹ beads. Five turquoise, two hematite, and at least two resin beads completed the ornament. Interestingly, with the possible exception of five beads (4 Conidae and 1 Dentalium), all beads were produced beads. Hala Alarashi provides a detailed description of the necklace (Alarashi b this volume), so it suffices to mention some taphonomic aspects here. As the child was laid on its left side, the necklace chains slipped in

²¹ For the sake of readability, the complete denomination "*Tridacna* sp." will be used only in the tables and captions but not in the following text.



Fig. 41 The about 8 year-old child was buried on its left side with the legs in an c. 80° hocker position, and the hands brought up to the face, with the head slightly turned to the left side. All the bones were stained red, see Gresky this volume. For the legend see Fig. 4. (Photo: M. Benz, Ba'ja N.P.)

the area of the left shoulder and between the mandible and the neck due to gravity. The weight of the chains caused the mother-of-pearl ring to tear towards the mandible, where it came to a stop. The tiny limestone beads which were stuck in the perforations of the ring's appendices indicate that the ring was still attached to the chains when the child was buried (Fig. 42). Similarly, a small disc bead was still attached to the black buckle, which was found behind the neck of the child (Fig. 43).

Use of colour: Red and white were the dominant colours in that burial, whereas the grave construction was made of almost only white stones and stone slabs (except for the two vertical grey cist slabs on the southern and northern side of the cist). The colour of the sand and the red pigment contrasted strongly with this. This white-and-red pattern was repeated in the necklace. Additionally, all the bones were stained red, but the sediment



Fig. 42 The MOP ring was torn by the chains in the direction of the mandible, and the parts that were attached to the chains were turned downwards. (Photo: H. Alarashi, Ba'ja N.P.)



Fig. 43 The black buckle of the necklace was found behind the neck of the child. (Photo: M. Benz, Ba'ja N.P.)

surrounding them was obviously not coloured by pigment except for the area around the red pigment lump itself (Loc. C1:52). While the outer surfaces of the bones were stained red, the inner parts, such as the internal lamina of the skull, remained unstained. At least the skull was intact when the colour was applied (Benz *et al.* 2023). It is possible, that the child was wearing red-coloured clothes or the skin had been stained with red pigment. The preserved anatomical connections contradict a secondary deposition, making it unlikely that the bones themselves were coloured.

The glittering white materials, such as the mother-of-pearl ring in the middle of the necklace and the Ordovician sandstone slabs which reflect the light due to the rather large-grained quartz crystals, are remarkable.

The red and white colour pattern of the necklace was only slightly interrupted by the five tiny turquoise beads and the two hematite beads. However, the turquoise beads are so small that they are hardly visible, and the knowledge about their exotic nature was likely more important than their visual appearance. All five turquoise beads show intense use-wear traces and were thus valued items. The black hematite buckle in the back of the necklace was normally not visible. Nonetheless it was also a valuable object that was used very intensively (Alarashi *b* this volume).

Use of fire: there is no direct evidence for the use of fire, except for the presence of sediment that is rich in ashes and charcoal

(Loc. C1:61) immediately in front of the grave and in the middle of the western part of the room (Loc. C1:71). However, it should be noted that both events do not necessarily indicate a direct relationship with the burial and may simply represent household activities.

Samples: see Appendix 2

Comments: The burial of “Jamila” bears many similarities to Burial CG10, which is located in the adjacent Room CR35 to the north (Gebel *et al.* 2017; Benz *et al.* 2019): the sealing of the grave with white plaster, embedding (fragmented) objects in the grave cover, covering the grave pit/ construction with large sandstone slabs and filling the pit with red-brown almost sterile silty sand. It has also many structural similarities with other grave constructions, above all the white cover of fragmented sandstone slabs. The cist-like construction recalls burials from Shkārāt Msaied (Hermansen 2017) and Wadi Hemmeh (Makarewicz and Rose 2011), but its hermetic sealing and the play of the colours white and red are as outstanding as the necklace the child wore.

The intense use-wear traces of some beads (see Alarashi *b* this volume) suggest that they were circulated for a long time. This holds true above all for the black buckle. Such ornaments were considered characteristic for the Natufian (Bar-Yosef Meyer and Porat 2008) and are rare during the Late PPNB. However, similar objects made of malachite were also found in Harifian contexts (Goring-Morris 1991: 199), and a sub-rectangular double perforated mother-

of-pearl ornament was found in the burial of a 2.5-4 year-old child (Loc. A18:46=Burial 30) at Basta (Hermansen n.d.: Plate 40.3). In North Mesopotamia, at the PPNA sites of Mureybet and Jerf el-Ahmar (Alarashi 2014) and in the PPNB phases of Anatolian sites such as Çayönü (Lichter 2007: 316, 318), similar ornament elements of stone were also found. It cannot be excluded that this piece indeed represents a very ancient object that had been re-used into the necklace for the interment of the child.

While the abundance of beads may seem excessively lavish for a child's burial, the mother-of-pearl ring appears to be a characteristic trait of infant and child burials. A similar but slightly smaller ring was found under the skull of an infant in the collective Burial DG1 in Room DR26.2 (F.no. 30408) (see Alarashi b this volume: Fig. 7; for comparisons outside of Ba`ja see Part 1). Pointed oval mother-of-pearl rings of similar size and with two perforations but without appendices, were also uncovered at Ba`ja, in Burials DG1 and CG11 (see below). In the case of CG11, two rings – one (F.no. 110410.2) of almost the same diameter as “Jamila’s”, along with a much smaller one (F.no. 110410.1) – were discovered next to the chest of a newborn (N°101, 0 years ± 2 months) (Fig. 114). Additionally, fragments of such rings were found in room fills in Area C (F.no. 0411, Loc. C2:23; F.no. 20413, Loc. C20:66; F.no. 20415.2, Loc. C10:67) and in Area D in a wall context (F.no. 20206, Loc. D33:10; see also Alarashi a this volume: Fig. 5).

The raw materials also testify access to far-reaching exchange networks (Hermansen 2004; Spatz et al. 2014) for the procurement of exotic materials, such as shells from the Red Sea and turquoise beads (see Gerlitzki and Martin this volume). So, while “greenstone” minerals may have been increasingly important during the Pre-Pottery Neolithic (Wright and Garrard 2003; Hauptmann 2004; Bar-Yosef Mayer and Porat 2008; Al Nahar 2014; Thuesen and Kinzel 2018), it seems that this increase in popularity corresponds to a general increase in the use of all mineral-based beads, including those made of red limestone/ marble, amazonite, turquoise, chrysocolla, malachite, carnelian and other varieties of calcedony and chlorites (*e.g.*, Alarashi 2016; Baysal 2017; Vasić 2020). Shells that have been used extensively since the Epipalaeolithic era in their natural state with only piercing, pecking, or grinding holes, are now being more frequently modified into artificial shapes. This

has resulted in a wide variety of shapes, ranging from rhomboid and oval to cylindrical. Various artefacts of mother-of-pearl objects were produced too, of which the rings with perforated appendices are probably the most sophisticated ones (see Alarashi a, b this volume; Costes and Fischer this volume). The trend of altering natural shapes to assert mastery over nature and leave a lasting anthropogenic imprint can be considered one of the most significant ethological changes during the Neolithic period. It is mirrored here in the artistic treatment of ornaments, but can be seen in many areas of Neolithic life (see Gebel and Benz forthcoming b).

The comparison of the mother-of-pearl objects from Ba`ja and Basta shows that there were some standardised types that were common to both sites. At the PPNB site of Nahal Issaron an ellipsoid double perforated shell ring similar to, though a bit smaller than the shell ring (F.no. 411) of Ba`ja, was discovered (Goring-Morris and Gopher 1983: fig. 4.15; Alarashi a this volume: Fig. 5z). About 30km to the north, at Ghwayr, an infant was buried with a mother-of-pearl pendant of plain disc shape (Simmons and Najjar 2006, pers. comm. A. Simmons). Though Ghwayr has been radiocarbon-dated to the Middle PPNB, it shares many similarities in architecture with the Late PPNB sites. The difference in pendant type is therefore remarkable.

“Amber” beads were uncovered at Ba`ja (F.no. 20832) and Basta before (Hermansen n.d. [F.no. 20874, amber waste F.no. 30931]) but they have not been analysed for their composition and were most probably not made of amber but red-brown minerals (pers. comm. H. Alarashi). Analyses of the bead from the necklace indicated that they were indeed fossilised resin, but its source remains a matter of debate. Irrespective of the source, it is a very rarely used material during the Late PPNB.

The reconstruction of the burial ritual will show that even though this burial is outstanding for the Neolithic, and even though it contrasts with other child burials at Ba`ja (see also Gebel *et al.* 2022b), it respected many local traditions. It can rather be considered a comprehensive example of the idealised ritual to which most of the burials abided more or less strongly. As has been shown in detail for the Burial CG10 of a young adult (Benz *et al.* 2019), “Jamila’s” burial was extraordinary in the sense that it deviated from the norm, but it still followed the main rules, even becoming a standard or idealised

Table 24 Sequence of events related to Burial CG7. For the legend see Table 5, lines between square brackets and written with grey characters indicate that there is only little evidence or that it is speculative.

Event	Activities
1.1-2	Creating or choosing the space in the north-eastern niche of Room CR36.1., between two wall openings (Loci C1:26 and C10:117A)
2.1	Preparing the corpse for the burial by grinding red colour on some white stone slabs; possibly colouring clothes or the corpse with red pigment/ or painting the skin
2.2	Putting the necklace around the head of the child
2.3.1	Cutting a pit (Loc. C1:44') through the floors Loci C1:64 and C1:68, probably also Loc. C1:67
2.3.2	Undercutting wall Loc. C1:16 for about 10cm
3.1	Constructing the walls Loci C1:66 and C1:60, possibly starting with Loc. C1:60
3.2	Fixing the southern and northern border of the pit with two vertical large slabs (Loc. C1:44) and some smaller slabs west of the northern slab of Loc. 44, comprising two slabs on which red pigment had been ground; putting silty sand (similar to the mortar of the walls Loc. C1:66 and C1:60 but looser) on top of the floor Loc. C1:64 between the wall Loc. C1:60 and the grave pit, placing the chalky limestones (Loc. C1:63) on it, putting two large stone slabs and some smaller ones (Loc. C1:39-west) to fill the area in the south of the slabs; fixing the vertical slabs with mortar (Loc. C1:65). Adding more stone slabs on Loc. C1:60. The stones of Loci C1:60 and C1:39 overlap partly and thus were probably deposited in one event, but with Loc. C1:60 forming a clear border to the western part of Room CR36.1
4.1-4	Placing the child in the grave; due to gravity the head of the child turned on its face to the left shoulder. Most of the beads/ chains of the necklace accumulated in the area of the left shoulder, the neck and the chest
5.2	Putting the red pigment (Loc. C1:52) in the space between her legs and arms
5.3(?)	[Possibly during the burial ritual, a fire was lit in front of the grave in the western area of the room; the round dark coloured circular patch of sediment (Loc. C1:70) might hint at that activity]
6.1	Filling the grave pit with red almost sterile sand (Loc. C1:42)
6.4	Closing the grave cist with the large stone Slab 1 of Loc. C1:39
6.5	Destroying the prepared or available oval Ordovician sandstone slabs (Loc. 34/30); covering the whole space between walls Loci C1:60 and C1:16 with up to three layers of the destroyed stone slabs, including a second plate (F.no. 107912), on which pigment had been ground and five grinding stones
6.7	Adding five grinding stones/ grinding stone fragments in the grave cover, and perhaps an animal hoof? (sheep/ goat)
6.8	Covering the stone layer with mortar (Loc. C1:29) to fix the (recycled ?) small limestone/ grit on top (Loc. C1:20)
6.9	Plastering the grave cover and the front of Loc. C1:60 with white lime plaster, except for the upper most layer of Loc. C1:60 (not drawn)
7.	Even though the burial was not marked by a standing slab or any preserved special object, the small wall that formed its western border and the knee-high elevation of the grave construction made the grave a clearly visible constructional element of the niche in CR36.1. No further activities could be recorded in relation to the ritual or memory activities around the grave, although it cannot be excluded that the ash/ charcoal layer in Loc. C1:61, immediately in front of the grave was related to some rituals

version that others may have imitated. It became a special monument due to its elaborate construction, which has never been overbuilt or destroyed. However, it was one of many burials in the same area and was located in a less prominent location than other burials, rather hidden and protected in the niche of Room CR36.1. Therefore, it may be premature to consider this burial evidence for institutionalised heritable hierarchies. A sudden or unusual death, deep grief, extraordinary mental capacities, or other reasons that we, with our western epistemology, may be unable to imagine, may have been the reason for this extraordinary burial.

Burial ritual: Many aspects of the burial ritual concern the burial construction (Table 24) and

need not to be repeated here. It is worth to mention that in front of the grave at least two instances of fire activities are attested (Loci C1:71 and C1:61). Whereas the lowest layer seems to belong to a former phase, Loc. C1:61 is related to room fill west of the grave. Since the time laps between the different events is unknown, it cannot be excluded that one or the other event belongs to the construction or commemoration of the burial.

Room CR35: Burials CG8 and CG10

In Room CR35 three burials were uncovered: in the northeastern corner the multiple Burial CG1 in 2003, excavated in 2005 (Gebel *et al.* 2006), next to it in the northwestern corner, the

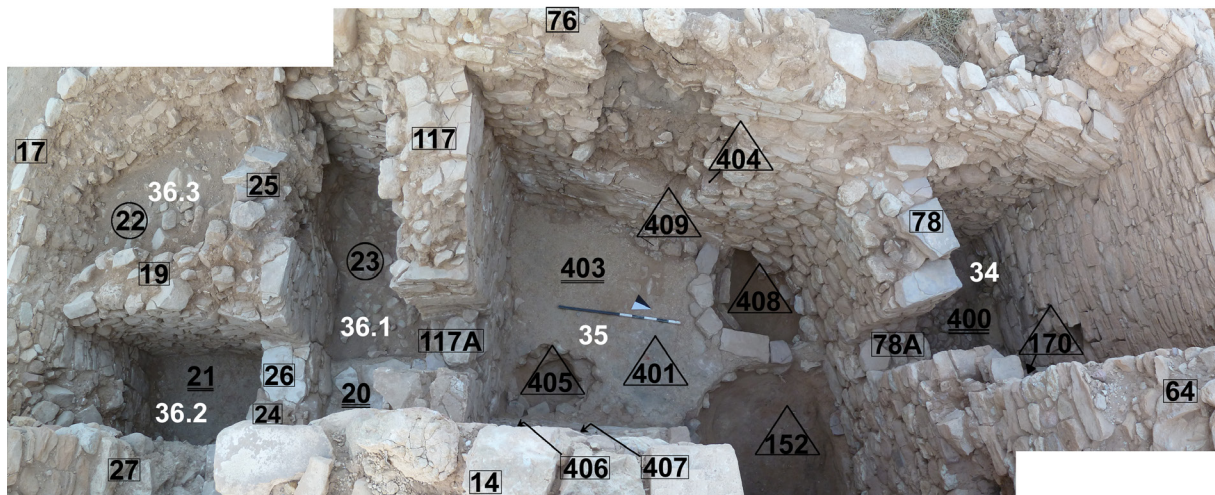


Fig. 44 Overview of Room CR35 at the end of the 2016 excavation season. For the legend see Fig. 4. (Photo: Gebel, Ba'ja N.P., modifications: M. Benz, Ba'ja N.P.)

primary burial of a single young adult (CG10 “Usaid”), and in the southeastern corner a double primary burial of two subadults (CG8) in 2016 (Fig. 44; Gebel *et al.* 2017; Benz *et al.* 2019).²² Further destructions (Loc. C10:409) of the plaster floor which were visible at the western and southwestern edges of the room, were excavated in 2018. They were not due to pits. Below the stone sub-construction nothing indicated any anthropogenic activities. There was just the paleosol. At the end of the 2018 season, the whole room was filled with sand and large stones to stabilise and preserve the archaeological remains.

Each burial was located in one corner of the room, directly beneath wall openings. All three burials were cut through the most ancient floor (Loc. C10:403) of the room. Unfortunately, due to the lack of stratigraphic information, it is impossible to determine the relative chronology of the burials with respect to each other. We can only infer that they postdate the earliest use of the room, but predate the collapse phase preceding the main occupation Phase III (see Purschwitz and Benz forthcoming). Burials CG8 and CG9 have been radiocarbon dated to the most recent phase of the Late PPNB (Benz *et al.* 2019, see also below). During the *Household and Death Project* we also had the chance to analyse the human bones of Burial CG1, allowing a more precise reconstruction of the position of the

corpses in the grave (see Gresky this volume). This reconstruction requires reconsidering the idea that it was a collective burial, but possibly the deposition of several corpses at different stages of decomposition. Investigations of the human bones may reveal whether any of the individuals were initially kept outside the grave for a period of time. Burial CG1 will be described along with the other collective burials.

CG8: Another Double Burial of two Subadults

The burial of two subadults is one of four interments in which subadults of the age of *c.* 3-4 years were buried together with one or two infants of max. 2 years. It is also one of the two child graves in which no “grave goods” were uncovered at all.

Location: Burial CG8 is located in the southeastern corner of Room CR35 immediately below the wall opening Loc. C10:117A that connects Room CR36.1 with Room CR35. At its northern border it abuts to the wall Loc. C10:407 with the window-like opening Loc. C10:406. Although it is in the same room as Burials CG1 and CG10, it does not overlap with these burials.

Stratigraphy: The grave pit was dug through floor Loc. C10:403 and into the paleosol. The two corpses were placed into the pit and partly covered with sediment. During this process, some stones and grit from the floor Loc. C10:403 fell into the pit. Finally, a stone slab was placed over the grave (Fig. 45, Table 25).

²² All measurements taken in 2016, had to be corrected +8cm compared to the measurements taken in 2018-2019. The measurements given in this text are corrected.

Table 25 Description of loci related to Burial CG8, Ind.=Individual.

Locus	Description
C10:401	Layer of ash, including small pieces of red pigment
C10:403	Most ancient limestone grit plaster floor in Room CR35 with stone sub-construction (=C10:146a)
C10:405	Double primary child burial Ind. I and Ind. II
C10:406	Wall opening/ niche? in Loc. C10:407, depth 25cm, height 38cm, width 29cm; at a height of c. 44cm from floor Loc. C10:403
C10:407	Wall construction abutting to wall Loc. C10:117 with a clear joint; beneath – and forming the lower part of – the buttress Loc. C10:14
C10:x	Burial fill: upper layer comprised compact blocks of brown sand (possibly mortar from Loc. C10:403), stones and limestone grit possibly fallen into the pit from floor Loc. C10:403. The lower fill was silty sand (10YR5/8), with frequent pieces of charcoal and a few flat stones up to 8cm, some of them were tipped down

Table 26 Levels of Burial CG8.

Location	▼ (UL) m a.s.l.	▲ (LL) m a.s.l.
Loc. C10:403 upper border of the pit in SE edge, [1], Fig. 46A-C	1164.92	
Loc. C10:405 step like border inside the pit, [2], Fig. 46A-C	1164.67	
Loc. C10:405 pit bottom [3], Fig. 46C		1164.62
Loc. C10:406 window sill	1165.32	

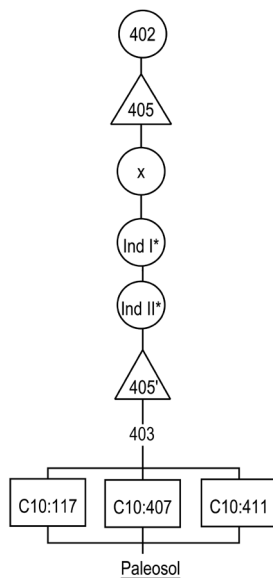


Fig. 45 Harris Matrix of Burial CG8. For the legend see Fig. 4. (Graph: M. Benz, Ba`ja N.P.)

Grave construction: Burial CG8 was a simple grave pit with an oval top measuring 63 x 43cm, which narrowed down to a round pit of 37 x 38cm. The pit was 30cm deep from the upper border to the bottom and was covered with a trapezoid stone slab measuring 36cm in length and 12cm and 34cm in width (Figs. 46-47). The lower part of the grave fill was intentionally filled

with sterile sand, while the upper part contained mortar, grit, and stones from floor Loc. C10:403. It's possible that the pit was not filled completely, which may have caused the slightly oblique position of the covering slab (Fig. 48).

Human remains: Medium to well preserved remains from two individuals, with Ind. II (F.no. 98001) put into the pit first and Ind. I (F.no. 98000) squeezed on top of it, probably shortly one after the other, because there was no evidence for a reopening of the grave (bones from sifted soil sample [F.no. 98002]); aDNA: both individuals were tested for aDNA. Snips of aDNA of Ind. I were successfully sequenced and identified, indicating that it was a female individual with the Haplogroup N1b1a (Skourtanioti and Feldman this volume: Table 2). She shares a similar ancestral composition with similarities to the Epipalaeolithic Natufian communities (75-85% Natufian related ancestry) and the published Kfar Hahoresh, Motza, and 'Ain-Ghazal individuals but she also shows some clear differences. If she had hair at that young age, it would have been rather thick and straight. She tended to have light skin with freckles. There is also evidence that she had sickle cell anaemia, which would have reduced the risk of severe malaria. However, she also had some genetic risk of G6PD deficiency, which, in severe cases, can lead to haemolytic crises. For

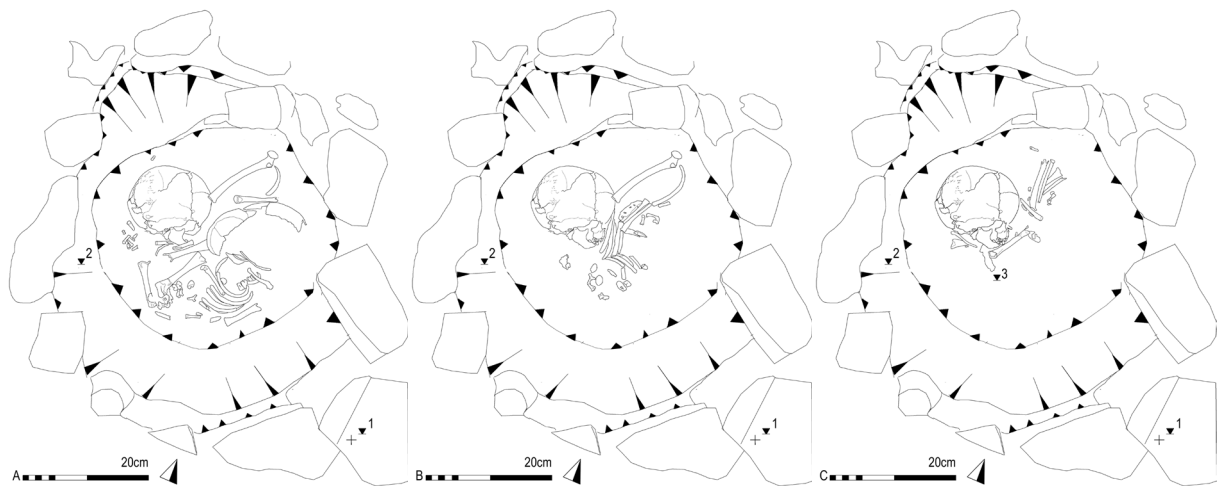


Fig. 46 A-C Layer 1-3 of Burial CG8 (Loc. C10:405). Levels are given in Table 26. (Drawing of burial: K. White; drawing of skeletons after rectified photos by J. Benz: M. Benz, Ba'ja N.P.)



Fig. 47 Both subadults were put in the small pit at the same time with the infant (Ind. I) on top of the 3-4 year-old child (Ind. II). (Photo: J. Benz, Ba'ja N.P.)



Fig. 48 Covering slab of Burial CG8. (Photo: M. Benz, Ba'ja N.P.)

the intra-site and population level interpretation of aDNA results see Skourtanioti and Feldman (this volume); age: Ind I.: 6-9 months; Ind. II: 3-4 years; sex: Ind. I: f (aDNA); Ind. II: indet.

Position: crouched/ sitting/ squeezed; with their back to the burial's border, facing each other, Ind. I leaning against the western border, Ind. II leaning against the eastern border

(Figs. 46-47). Both individuals were found collapsed with partially scattered vertebrae and inverted ribs, indicating the presence of a void during decomposition. The skull of Ind. I was partly disturbed by animal activities (and modern destruction), with the parietal bone slipping over the frontal bone. Ind. I had her legs drawn up in a 180° angle, with the knees under the chin, while the head may have fallen

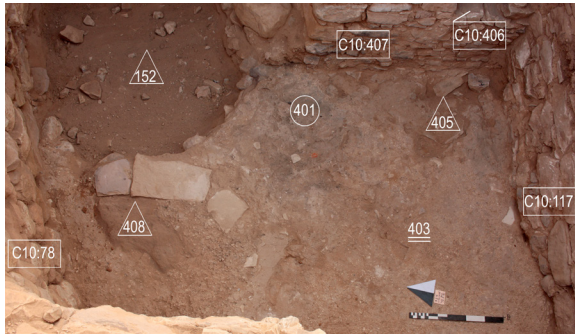


Fig. 49 An intense fire (Loc. C10:401) was lit between the collective Burial CG1, the primary adult Burial CG10, and the double subadult Burial CG8. For the legend see Fig. 4. (Photo: M. Benz, Ba`ja N.P.)

forward. The head of Ind. II was turned to the left side with the knees up against the skull. The vertebrae were bent and twisted as if the individual was squeezed into the pit. The right arm was under the mandible, and the left arm was on the side of the body, with the hand brought up at a 45-60° angle.

Orientation: Ind. I facing east, Ind. II facing west.

Objects related to Burial CG8: none identified.

Use of colours: no traces of colouration, nor pieces of pigment were discovered in this burial.

Use of fire: Next to the southwestern border of the grave pit a small patch of ash and charcoal was discovered (Fig. 49), while a large fire had been lit to the north of it (Loc. C10:401).

The latter had blackened the wall Loc. C10:407 and rubified the paleosol underneath. The layer of ash, which included small pieces of red pigment, was preserved between the plaster cover of Burial CG10 and Loc. C10:403, as well as on top of the floor Loc. C10:403. Due to the volatility of the ash, it is highly probable that this fire was related to the interment of the young adult man of Burial CG10 (Loc. C10:408) and not to the interment of the two subadults of CG8.

Samples: see Appendix 2

Radiocarbon samples were taken from the burial filling. Direct dating of the human bones failed because of the poor preservation of collagen (Table 27; for all radiocarbon dates see Purschwitz and Benz forthcoming).

Comments: The Burial CG8 is one of the most simple burial pits not having any major constructional elements or evidence of elaborate rituals. The stones that seem to surround the burial are in fact the remains of the sub-construction of floor Loc. C10:146a/403 that was cut through by the burial pit. Although the radiocarbon date suggests a later date than for the interment of a young adult man in Burial CG10, both ranges of the calibrated data overlap considerably, and it must be kept in mind that the sample of CG10 was charcoal of juniper, whereas the sample of the infant burial was a small juniper twig. The latter seems then more reliable, whereas for the date of CG10 an old wood effect may possibly cause a bias for this date.

Table 27 Radiocarbon data from the double infant Burial CG8 (Loc. C10:405) and the primary adult Burial CG10 (Loc. C10:408) (Benz *et al.* 2019: Table 3). Conventional ages (BP) were calibrated with Oxcal v. 4.3.2., IntCal 13 (Reimer *et al.* 2013), $\delta^{13}\text{C}$ values were measured in the accelerator and should not be compared directly with radiocarbon data.

Lab ID MAMS	Context Ba`ja C10, CR35	^{14}C age BP $\pm 1\sigma$	$\delta^{13}\text{C}$ AMS [‰]	cal BCE 95.4% Probability	C [%]	Material	Species
30312	Loc. C10:405 Ind II	No collagen				Bone unburnt	
30313	Loc. C10:408	No collagen				Bone unburnt	
30314	Loc. C10:408 BP 97415	8039 \pm 27	-22.7 \pm 0.5	7071-6982(54.3%), 6974 6911(18.6%), 6885 6830 (22.5%)	51.2	Charcoal	<i>Juniperus</i>
30315	Loc. C10:405 BP 97422	7928 \pm 29	-35.1 \pm 0.5	7028-6931(19.5%) 6920-6877(11.5%) 6860-6684(64.5%)	44.9	Charcoal, twig	<i>Juniperus</i>

Table 28 Suggested sequence of events for the burial ritual of Burial CG8 in Room CR35. For the legend see Table 5, lines between square brackets and written with grey characters indicate that there is only little evidence or that it is speculative.

Event	Activities
1.1-2	Selecting the southeastern corner as a burial place in Room CR35, very close to the wall openings Loci C1:117A and C1:407. Whether the other burials in CR35 were earlier or later cannot be clarified
2.3	Cutting a pit through the floor Loc. C10:403
4.5	Depositing both corpses facing each other in the pit, possibly in a sitting/ crouched position, with the knees 180° next to the skulls, Ind. I above Ind. II, most probably at the same point of time
6.2/6.3*	[Covering (?) the corpses with sediment] taphonomic observations (pers. comm. K. White) indicate that there must have been a void during decomposition of the corpses. Perhaps sediment infiltrated only later or the grave was not filled up completely with sediment.
6.4	Covering the pit with a light chamois coloured slab
5.3*	Lighting a fire outside the grave close to its southwestern border

Burial ritual: The events of the burial ritual can be reconstructed as suggested in Table 28. Taphonomic studies seem to indicate the burying of a corpse, at least for Ind. I, whereas Ind. II shows only low levels of bioerosion (see Haddow this volume). Neither animal bones, nor plant remains, nor any other artefacts were associated with the two subadults. The few charcoal pieces probably were from the nearby fires. The lack of pigment, either red or yellow, is remarkable, too.

CG10: Extraordinary Adult Primary Burial

This primary burial of a young adult man was uncovered by chance, when making a test cut to understand the construction of the floor Loc. C10:403 (labelled Loc. C10:146 during the 2003 season) and its relationship to the collective Burial CG1 (Loc. C10:152) next to it, in the northeastern corner of the same room (Figs. 2,



Fig. 50 Situation during the 2003 excavation, showing the burial cover of Burial CG10 and the covering slab of the collective Burial CG1 (2003:A II:40: 10.9.03). (Photo: H.G.K. Gebel, Ba`ja N.P.)

50). Both, the collective burial and the floor, had been uncovered already in 2003. A section was cut through the hump like, irregular part of the supposed floor where some large stone slabs were embedded in the limestone grit. It became clear that several layers of the supposed floor which were mentioned in the diary, belonged in fact to a grave cover and a floor (Fig. 51).

In 2003, it was impossible to recognise that the “deformation” of the floor had not (only) been caused by pressure from the upper filling, but most probably by the collapsing grave construction beneath. Therefore, the original designation Loc. C10:146 was divided in Loc. C10:146a the floor construction (=C10:403) and the grave cover Loc. C10:146b (Table 29). Most interesting is a sub-rectangular void (labelled here Loc. C10:408.1) in the northeastern part of the cover, immediately south of wall Loc. C10:78. The northern, eastern, and southern side of this depression are straight and form a rectangular shaped “U”, whereas the western side is irregularly convex. The length of this void (oriented in a N-S direction) is about 35cm. It is c. 10cm (at both ends) and c. 20cm wide

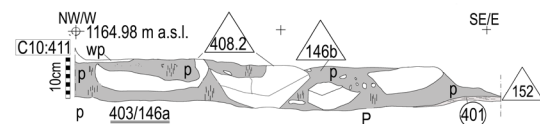


Fig. 51 Drawing of the small section through the supposed floor Loc. C1:146a, relabled as Loc. C1:403, and the grave cover Loc. C10:146b, showing details of the construction of the grave cover. For the legend see Fig. 4, p=plaster, wp=white plaster, groups of horizontal lines indicate ashes. (Drawing: M. Benz, Ba`ja N.P.)

Table 29 Description of loci related to Burial CG10; l=length, w=width, h=height, th=thickness.

Locus	Description
C10:146b	Limestone grit, probably recycled from floor Loc. C10:403 (=Loc. C10:146a), covering the whole grave construction, except for the void (Loc. C10:408.1). In 2003, the surrounding stone slabs (Loc. C10:408.2) were still covered too, except for one small corner of one slab. In 2016, the thin white plaster slip was preserved only on the southern border of the grave where it ran onto wall Loc. C10:411. According to photos of 2003, it once covered the whole grave
C10:408.1	Subrectangular void in the northeastern part of the grave cover, immediately south of wall Loc. C10:78. The northern, eastern and southern sides are straight and form a rectangular U-shape, whereas the western side is irregularly convex. The length (N-S direction) is c. 35cm. Its width is c. 10cm (at both ends) and c. 20cm in the middle, depth is unknown
C10:408.2	Six sandstone slabs of sub-rectangular to trapezoidal shape embedded in and covered by Loc. C10:146b; five of them were preserved in 2016, but the impression of the sixth was clearly visible in the mortar
C10:408.3	Anthracite coloured, middle-grained, compact sand, similar to the sand found in Loc. C1:61 in front of Burial CG7
C10:408.4	Layer of larger stones embedded in mortar and limestone grit
C10:408.5	Three large sandstone slabs covering the grave pit: southern slab, broken into three parts, possibly due to the weight of the other slabs, l 77cm, w 37-39cm, th 3-5cm; middle slab: oval l 70cm, w 44cm, th 4cm, northern slab: subrectangular l 44cm, w 23cm, th 3cm, traces of burning on top of the northern most slab
C10:408.6	Two vertically put, rectangular stone slabs set along the southern border; some larger stones, fixed in mortar and limestone grit behind and next to the stone slabs to fix the grave pit's border. Western slab: l 31cm, h 23cm, th 10cm; eastern slab: l 30cm, h 17cm, th 7cm
C10:408.7	Pit filling, loose silty sand (10YR5/8), ²³ comprising c. 1/3 middle grained sand, almost sterile with tiny pieces of charcoal and a few limestone congregations (sifted 0.5mm mesh); a few larger pebbles, possibly intrusive from wall Loc. C10:78 or from the grave construction
C10:408.8	Skeleton of a young adult male person, very poor preservation of the bones, in primary position
C10:408.9	Grave pit dug through floor Loc. C10:146a/403, extension of the pit N-S: 60cm, E-W: 80cm, with a step in the northern part as support of the northern sandstone slab
C10:410	Up to fist-sized stones set in mortar = sub-construction of terrazzo-like plaster floor Loc. C10:403

in the middle. Two arguments favour the idea that this void was not the result of collapsing large stone slabs: 1) The re-used plaster material of the grave cover becomes very hard (almost impossible to excavate); 2) beneath the void space, remains of this plaster should have been preserved, if it had been caused by collapsing stones. According to the photo (Fig. 50), this does not seem to be the case. On the contrary, the stones of the grave cover of Loc. C10:408 appear at the bottom of the depression. We therefore suggest that this void may have been caused by a large stone/ slab that was inserted on top during the construction of the grave cover. It could either mark the burial, or it may have simply served as a step to reach the wall opening Loc. C10:78A.

²³ The identical sand filling of other graves was identified in 2018/2019 as "10YR6/5-6/4". This proves that shades and hue of colours vary considerably according to the season/ light and daytime. A test made in 2018 with the excavation team members showed that there is always a range, but that except for one person, all (n=10) team members chose more or less the same range of colours. Yet, this test was made at the same time of the day and in the same light conditions. The scientific value of the Munsell Colour Chart descriptions can therefore be used as a rough estimation, but should not be overestimated.

Location: The Burial CG10 was located in the northwestern corner of the Room CR35 below and next to the wall opening Loc. C10:78A (Fig. 2). The spatial choice does not seem extraordinary, but identical to many other burials that are all located close to walls and wall openings. However, the quarter-circle-shaped space that is clearly confined by a row of large stones is rather large for a burial of one person, almost identical to the space given to the six individuals of the nearby collective Burial CG1 (see below).

Stratigraphy and grave construction: Like the other burials of Room CR35, Burial CG10 was also dug through the most ancient plaster floor Loc. C10:146a (=Loc. C10:403) and into the sterile paleosol. The stratigraphic relationship of Burial CG10 and the collective/ multiple Burial CG1 remains unclear due to the excavation history. It is worth noting that the western border of the test cut in Fig. 50 is an arbitrary test trench section, and does not represent the border of Burial CG1. Similar to the burial of "Jamila" (CG7), much of the stratigraphy corresponds to the grave construction. That is why the construction and stratigraphy are described together. In 2016 no loci numbers were given to single constructional elements. However, for the sake of clarity, it seemed indispensable to give

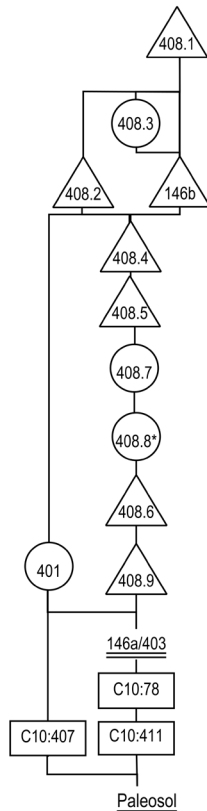


Fig. 52 Harris Matrix of Burial CG10. For the legend see Fig. 4. (Graph: M. Benz, Ba`ja N.P.)

sub-numbers to the general Loc. C10:408 of the burial (Figs. 52-53A-D, Table 30). At first, a 72cm (N-S) large, 60cm wide (E-W), and about 55cm deep pit was cut through the terrazzo-like floor Loc. C10:146a (=C10:403) and its sub-construction of large pebbles (Loc. C10:410) into the hard paleosol, with the inner border

narrowing to 60cm in the N-S extension (Table 30, Fig. 53D). The pit undercut the wall Loc. C10:78 in its western part for *c.* 10cm. The southern border of the pit was fixed with two vertical stone slabs, whereas on the northern border a slight step had been dug into the sediment in order to place the grave covering slabs on top. The grave pit was covered with three large overlapping red and white Ordovician sandstone slabs (Table 30, Fig. 53C). Up to fist-sized stones, pebbles, and grit embedded in reddish-brown sand were used to cover the slabs. Within this layer, several objects were placed (Table 30, Fig. 53B). A *c.* 10cm high row of six larger stone slabs (Loc. C10:408.2), forming a half of a circle, was set into mortar and grit surrounding the southern and eastern border of the grave pit. This elevated border segregated the burial from the remaining space in Room CR35. At the end, the final sealing (Loc. C10:146b) was added with a layer of re-used flint- and limestone small-sized grit that also partly covered the stone border of the grave and an ash layer at the southeastern border of the grave (Loc. C10:401, see below). The grit and plaster ran onto walls Loc. C10:411 (in the southwest) and Loc. C10:78 (in the north). This observation proves that the burial was younger than both walls. In the eastern part of the grave on top of the grit layer, the patch of coarse-grained, anthracite coloured sand was observed, but it remains unclear whether this was a deliberate deposition or whether it was due to later processes of decay. In front of Burial CG7, a similar sediment was found. Finally, the grave was sealed with white painted grit-plaster. According to the photos of 2003, when the grave cover was encountered at first, remains of white



Fig. 53 Main steps of the burial construction: A grave cover Loci C10:146b and C10:408.2, with anthracite coloured sand, B grave cover Loci C10:146b and C10:408.4 with embedded objects, C three large sandstone slabs (Loc. C10:408.5) covering the burial pit Loc. C10:408.9., D upper layer of the poorly preserved male adult individual (Loc. C10:408.8*). For the legend see Fig. 4. (Photos: M. Benz, Ba`ja N.P.)

Table 30 Levels of Burial CG10.

Location	▼ (UL) m a.s.l.	▲ (LL) m a.s.l.
Loc. C10:146b western border	1164.92	
Loc. C10:146b eastern border/ top of the third large slab (from west) of Loc. C10:408.2	1164.88	
Fourth slab from the west	1164.93	
Sixth slab from the west (not preserved) but impression in mortar		1164.82
Loc. C10:146a (=Loc. C10:403) preserved beneath the border construction of Loc. C10:408	1164.80	
Loc. C10:146b SW corner of the plaster, running onto wall Loc. C10:411	1164.94	
Loc. C10:146b NW corner of the grave cover	1164.82	
Loc. C10:408.6 western slab top west	1164.69	
between western and eastern slab	1164.62	
top on eastern slab	1164.57	
Loc. C10:408.9 step north	1164.44	
Bottom of grave pit		1164.27
Loc. C10:401 (layer of ash)	1164.85	
Loc. C10: 410 (beneath Loc. C10:401)	1164.84	
SW corner of Room CR35	1164.92	
SE corner (≈Loc. C10:405 upper border)	1164.92	

plaster appeared all over the grave (Table 30, Figs. 53A, 54), suggesting that at one time, the whole grave had been covered.

The completed grave construction formed a slight elevation of at least 10-15cm from the original floor. Considering the collapse of the stone slab cover, it can be suggested that this elevation may have been even higher before the collapse (see below “burial ritual”).

Levels: All measurements of the 2016 seasons had to be corrected for +8cm (see Table 30; also Footnote 22; Benz *et al.* 2019).

Human remains: The human remains (F.nos. 98003, 98004, 98006) were *in situ*, indicating a primary burial, the preservation of the bones was very poor (see Gresky this volume); age: 25-35 years; sex: possibly male according to the mandible (Benz *et al.* 2019).

Position: The individual was positioned in the pit with the left femur flexed at a 120° angle and the right femur at a 90° angle (Figs. 53D, 54). Both legs were turned to the left side. The right tibia was positioned close to the right femur. The left arm was extended below the legs, with the left hand touching the eastern border of the grave pit. The right upper arm was positioned

along the right rib cage, and the right lower arm was flexed over the body, with the right hand gripping the left upper arm (Fig. 55). The torso was found lying on its back, and the cranium had collapsed onto the chest, whereby the mandible had turned upside down. This position of legs, arms, and torso is hardly possible when all the ligaments are still in articulation. It is possible that the legs shifted to the left side after some ligaments had decomposed, indicating that the individual was sitting with his back against the western edge of the grave pit. However, the anatomically correct alignments of most bones – except for the head – do not suggest many post-mortem movements.

Orientation: SW-NE

Objects related to Burial CG10: The objects discovered in the grave can be classified into two main categories: items found within the grave pit and objects that were embedded in the stone layer above the grave, covering the stone slabs (for all measurements see Table 31).

“Grave goods” inside the grave: At least six isolated turquoise beads, along with fragments of “greenstones” that may be amazonite, were discovered around the right side of the head and on the chest of the individual (Fig. 56.1-8,10).

Table 31 Eco- and artefacts related to Burial CG10. *Compilation and measurements by H.G.K. Gebel; identification of beads and measurements by H. Alarashi. Numbers in square brackets refer to numbers in Fig. 56.

Objects Related to Burial CG10		
Item	Field Numbers	Description, Raw Material, Measurements mm: l length, h height, w width, th thickness, d diameter, med medial, prox proximal, dis distal, pres preserved; frgm. fragment, FRMG flint raw material group (Purschwitz 2017)
Embedded in the Grave Cover Loc. C10:146b Lower Part and in Loc. C10:408.4 (Fig. 58)		
1x Stone pestle (for all ground stone objects see Gebel forthcoming)	91813	Cylindrical pestle, basalt?/ igneous rock; flat working face; proximal: old fracture l 119.0; w max. 54.0; weight: 625.80g
1x Flint dagger	92019	Pressure-flaked dagger with impact burination, fine edge denticulation outside hafting/ prehension area; flint, complete; l 183.4; w max. 33.3; th prox 7.5; th med 7.8; w dist 6.7; weight: 66.36g
2x Projectile points	92020	Tanged arrowhead (tang broken); flint, l pres 30.6; w max. 9.6; weight: 0.77g; unidentified raw material class
	92032	Tanged arrowhead (tang broken); flint, l pres 35; w max. 11; weight: 1.2g; FRMG 2/4?
Flints	92013 92015 92017 92026	13x Debris, 3x bidir. CTE, 1x flakelet, 1x birdir. blade, 2x indet blades
Animal bones	94072 95013	Not analysed Frgms. of a small animal bone (pers. comm. B. Abuheleleh 14/9/2020)
1x Bone spatula	95012 95014	From rib; complete, broken during excavation; l. 148.3; w med 18.1; w dist 19.7
2x Grinding stone tools	96046.1 96046.2	Re-used as grinding micro-slab, very slight depression, plano-convex section, sandstone; w mean 101, th max. 104 Mano, prox frgm., plano-convex section, sandstone, above stone slab; flakings at lateral end of convex side; w mean 91, th max. 38
1x Stone bowl fragment	96804	Rim frgm. of steep-sided bowl; light reddish sandstone d 300?; th 10 below rim: 27
Objects Below the Large Slabs Loc. C10:408.5 and Associated with the Skeleton Loc. C10:408.8* (Fig. 56)		
MOP ring; around upper right arm	90400	[13] Ring of carved MOP; poor preservation (soil acids, roots) d interior +/- 70.00 (?)
MOP frgms. (from sifted material)	90407	[13] Small and tiny MOP frgms., affected by soil acid/ leached
4x Small mineral beads; neck and head area	90800	[3] Unfinished amazonite? bead; l 6.75, w 3.85, th 1.89 [5] Broken turquoise bead; l 3.85, w (?) th (?) [6] Turquoise flat semi-cylindrical bead; d max. 5.12, h 2.90 [8] Turquoise flat cylindrical bead; d max. 4.86, h 2.98 [10] Frgm. of "greenstone" (amazonite?)
Shell frgms. next to the left part of the chest	90802	[11] <i>Conus</i> sp.; heavily leached; <15 [12] (?) heavily leached; <16
4x Small mineral beads, 1x Shell bead (from sifted grave fill)	90803	[4] Turquoise flat cylindrical bead; d 5.01, h 2.26 [1] "Greenstone" faceted bead; l 5.37, w 6.05, th 4.74 [2] Carnelian bead, pendant-shaped; l 8.66, w 3.40, th 3.32 [9] Rhomboid <i>Tridacna</i> sp. (?) bead; heavily leached > 6.01 x 5.51 [10] Frgm. of amazonite/ "greenstone" (?)
Shell frgms. (from sifted material)	90804	Small and tiny shell frgms., affected by soil acid/ leached, <i>Tridacna</i> sp.
Composite arm ring; around upper left arm	91264	[14] 5 superposed elements: 1 carved MOP ring and 4 rings carved from a layered (?) mudstone; very fragile; poor preservation (soil acids, roots); interior d ± 69
1x Macehead, next to the left upper arm	91811/ 91812	Broken in two halves and smaller frgms.; visible impact of pointed stroke; biconvex outline and biconical perforation; basalt/ igneous rock; h 53.0; w 55.5; d central perforation 13.4; d outer perforations 25.2 and 24.9; weight: 241.50g
Animal bones	94063	not analysed
1x Grinding stone	96044	Mano frgm., biconvex section, sandstone, below stone slabs, flaking along side and depressions on working face 1, remains of lichen; w mean 91, th max. 38
"Red mineral", between finger bones of the right hand, holding it intentionally (?)/ reached this position after decomposition?	97900/ 97902	Mixture (?) of red mineral, lime inclusions and fossilised material

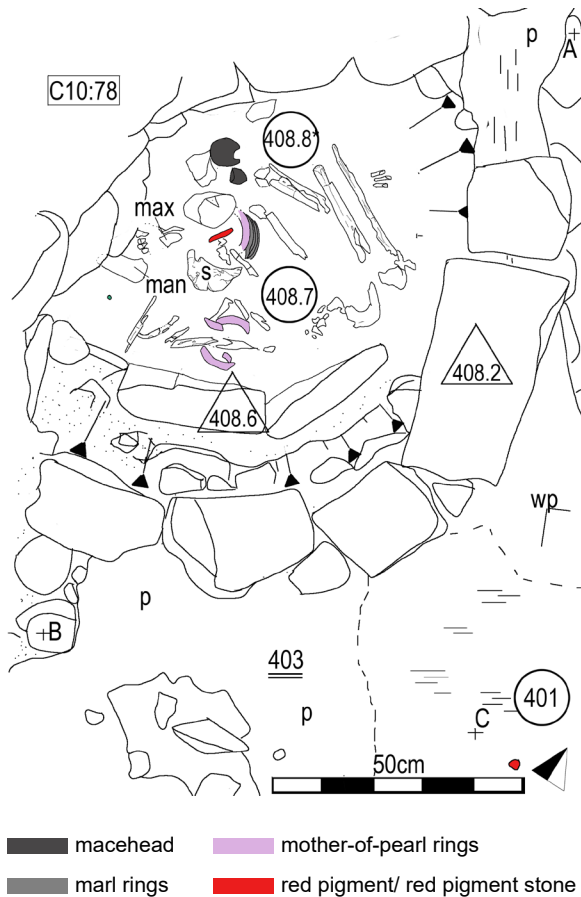


Fig. 54 Drawing of the Burial CG10. For the legend see Fig. 4., max=maxilla, man=mandible, s=skull, p=plaster, wp=white plaster, groups of horizontal lines indicate ashes; F.no. of the objects are given in Figs. 53B, 53D. (Drawing of the burial construction: K. White, Ba'ja N.P.; drawing of the skeleton: M. Benz, Ba'ja N.P.).



Fig. 55 Detail of the *in situ* left upper arm with the composite arm ring (F.no. 91264) and the fingers of the right hand with the red pigment stone (F.nos. 97900, 97902). (Photo: M. Benz, Ba'ja N.P.)



Fig. 56 Objects found next to the skeleton: beads (F.nos. 90800, 90803): 1, 4-6 turquoise; 2 carnelian; 3, 10 fragments of "greenstone" (amazonite?); 7-8 turquoise (?); 9 fragment of shell bead; 11-12 two fragments of *Conus* sp. (F.no. 90802); 13 fragments of the MOP right arm ring, made of several pieces (F.no. 90400); 14 composite left upper arm ring made of one complete MOP ring and four marl rings (F.no. 91264); 15 deliberately destroyed macehead (F.nos. 91811, 91812). (Photos: H. Alarashi, H.G.K. Gebel, Ba'ja N.P.)



Fig. 57 Composite upper arm ring of the young adult man. The ring was composed of four rings made of marl and a single mother-of-pearl ring that had been carved out as one piece (F.no. 91264). (Photo: H.G.K. Gebel, Ba`ja N.P.)

The beads were examined macro- and microscopically according to a use-wear approach (Alarashi 2014). They show use-wear traces all over the surfaces and with various stages of intensity: from moderately to heavily used and recycled items (Benz *et al.* 2019). A carnelian bead, shells, and mother-of-pearl fragments were recovered from the sifted grave sediment.

On the left arm, the individual wore a composite upper arm ring, which consisted of a complete mother-of-pearl ring connected to four rings made of marl(?) (Fig. 56.14, F.no. 91264). On the right upper arm, he wore a mother-of-pearl ring made of several pieces (Fig. 56.13, F.no. 91400). Judging from the inner diameter of both rings (*c.* 70mm), the buried person was not very corpulent but rather gracile. However, due to the poor preservation of the human bone surfaces, precise measurements cannot be obtained.

The macehead (F.nos. 91811-91812) that was found next to the left shoulder was made of igneous rock. It was smashed *in situ* by a single high-energy blow (split in two halves with several fragments *in situ*; one fracture surface shows an impact point with radial scars) (Fig. 56.15). Its height (53.0mm) and weight (241.50g) (see Table 31) range at the upper end of Neolithic maceheads, while the diameter (55.5mm) is average (Rosenberg 2010). A rather similar but smaller and complete item was discovered in the collective Burial DG1 in Area D (Fig. 72B). Igneous rocks are not local. A mano fragment (F.no. 96044) was used as part of the grave construction beneath the large stone slabs.



Fig. 58 Objects embedded in the grave cover (Loc. C10:146b, Fig. 53B): 1 flint dagger (F.no. 92019); 2 spatula (F.nos. 95012, 95014); 3 pestle (F.no. 91813); 4-5 two arrowheads (F.nos. 92020, 92032); 6 stone vessel fragment (F.no. 96804). (Photos: H.G.K. Gebel, Ba`ja N.P.)

“Grave goods” embedded in the grave cover:
A complete pressure-flaked serrated bifacial flint dagger (F.no. 92019) was embedded in the western part of the grave cover (Table 30, Figs. 53B, 58.1; see Gebel *et al.* 2022a, Gebel a this volume). Low-powered use-wear analyses confirmed the impact burination at the tip and discovered rounding of the edges of the serration as well as an overall polish along all the edges and even on the middle of the blade (pers. comm. D. Štefanisko). The impact burination at the tip and the slight rounding of the serrated edges (for 9.5cm from the top on both sides) could indicate the single penetration of an object in a stabbing motion stopped by hard material (*e.g.*, bone). Experimental replications by Štefanisko highlighted the specialised – probably prestigious – skill²⁴ for the production of such an exquisite artefact. Cutting was hardly possible without serious rounding of the serration (pers. comm. D. Štefanisko). The uneven polish on many parts of the dagger may point to wrapping in a soft material or the use of such material during fabrication (Benz *et al.* 2019). The missing evidence for the production of such daggers at Ba`ja and the exotic raw-material point to the importance of these highly valued objects. Two more daggers

²⁴ MB is grateful to C. Purschwitz for the information on prestigious production of Nordic flint daggers.

of that type are known from Ba`ja: one from the collective Burial CG1 next to Burial CG10, and the other was uncovered in the collective Burial DG1. The latter was broken in three pieces (Gebel *et al.* 2022a, Gebel a this volume).

West of the dagger, a complete bone spatula (F.nos. 95014, 95012) and a cylindrical pestle (F.no. 91813) of igneous rock were found. The pestle shows traces of use on its distal end. In the north-eastern part of the grave cover, a rim fragment of a red sandstone bowl was uncovered (F.no. 96804). Furthermore, two flint projectile points of Byblos type (F.no. 92020, 92030), another mano fragment (F.no. 96946.1), and a small grinding slab (F.no. 96046.2) were embedded in the cover. Neither projectile point exhibits any standard use-wear damage common on projectile points (*e.g.*, diagnostic impact fracture or edge rounding), but they both have a broken tang caused by a snapping motion, which is very uncommon at the site (pers. comm. D. Štefanisko).

Unfortunately, the few animal bone fragments uncovered in the grave cover and inside the grave were not available for analyses.

Use of colours: There were no visible traces of pigment or of the use of pigment associated to this burial. However, a reddish disc-shaped stone (F.no. 97902) was found between the fingers of the individual's right hand. It is unclear whether the stone was deliberately placed there or if it fell into that position during decay. Its position speaks rather in favour of a deliberate choice.

Use of fire: A fire (Loc. C10:401) was lit on the floor Loc. C10:146a (=Loc. C10:403) south-east of the burial, probably during the burying ritual. The ash layer and traces of this fire could be clearly seen during the excavation between the floor and the grave's final sealing, but they decayed shortly after excavation. Traces of the ashes, including tiny pieces of red pigment, were visible on the plaster of floor Loc. C10:146a (=C10:403) southeast to the burial (Fig. 49). The sealing of this ash layer must have taken place shortly after the fire expired. Traces of charcoal were also observed on the northern slab, indicating the use of fire during the burial ritual.

Samples: see Appendix 2

The charcoal sample (F.no. 971415 = MAMS30314) was dated successfully, confirming the use of this space as a burial area at

the end of the Late PPNB between 7071-6684 cal BCE (95.4%) (Table 27). A possible old wood effect of the sample, due to juniper charcoal cannot be ruled out. However, the date overlaps considerably with the date of a small twig (MAMS 30315) from the nearby double child Burial CG8 (Loc. C10:405), meaning the probability for an old wood effect is rather low. The plateau of the calibration curve and the uncertain stratigraphic relation to the other burials in Room CR35 hampered statistical operations (see Purschwitz and Benz forthcoming).

Comments: Burial CG10 represents the most lavishly decorated adult interment discovered at Ba`ja to date. With the exception of a later single, primary burial of an adult woman (TU7G1), no other adult individual was buried alone, but only in collective burials. The young man's social role within the Ba`ja community has been investigated in detail (Benz *et al.* 2019) and is further interpreted in the synthesis. Considering the similarities of his burial with other graves at Ba`ja, the elaboration of the grave construction, and the exotic "grave goods", it has been suggested that he possibly held a high prestige position within the community. However, his corpse was displayed as a *primus inter pares*. On the one hand, the burial construction abides with the local customs in many respects. The same holds true for the types of objects found in the burial context (Benz *et al.* 2019): none of them, except for the composite mother-of-pearl/ marl upper arm ring, were exclusively found within this grave. Nonetheless, this burial is *out of the ordinary* in terms of the space, time, effort, and care invested in it. This does not only hold true – at the moment – for Ba`ja, but for the entire period of the Late PPNB of the Levant. The meaning of this extraordinary status remains to be discussed.

The taphonomic processes of the corpse indicate a void, at least for a certain amount of time. Traces of gnawing from small rodents corroborate this observation (Benz *et al.* 2019; see also Gresky this volume). Eventually, due to the pressure of the sediment and middle stone plate, the southernmost stone slab collapsed after some while. This must have happened after the sand had infiltrated since the slab did not fall into the grave pit completely. The mere sterility of the sand and its loose consistence remain enigmatic. Modern tests showed that the sediment becomes very hard, almost like mortar, when it gets into contact with water and dries again. However, these tests were conducted

Table 32 Suggested sequence of events for the burial ritual of Burial CG10 in Room CR35, modified after Gebel *et al.* 2017. For the legend see Table 5. Lines between square brackets and written in grey indicate that there is only little evidence.

Event ²⁵	Activities
1.1-2	Choosing the space in the north-western corner of Room CR35, close to the wall opening Loc. C10:78. Burials CG8 and CG1 were in the same room, yet the exact chronological relation between these three burials remains unclear
2.2	Decorating the corpse with the armrings and perhaps with some beads (perhaps the beads were not part of a cloth or body adornment but were put in the grave one by one)
2.3.1	Cutting a pit (Loc. C10:408.9) through the floor Loc. C10:146a and into the paleosol
2.3.2	Undercutting wall Loc. C10:78 for about 10cm
3.1*	Delimiting the burial pit from the rest of the room by six sandstone slabs (Loc. C10:408.2) embedded in grit and mortar, possibly after fixing the pit's southern border with two vertical slabs (Event 3.2).
3.2	Fixing the southern border of the pit with two vertical slabs (Loc. C10:408.6) and mortar, and some smaller stones, comprising one fragment of a mano. Fixing the vertical slabs with mortar and limestone grit. Adding some larger stones on the eastern and south-eastern border to support the large covering slabs
4.1-4	Placing the young adult in the grave on the back with flexed legs
5.1	Placing the macehead in the grave next to the left shoulder of the corpse and destroying it <i>in situ</i> with a pointed stroke, perhaps scattering the beads on the corps (?)
5.2	Putting a red pigment stone in the right hand (?)
5.3(?)	Lighting a fire outside the grave (if the fire does not relate to the Burials CG1 and/ or CG8)
6.1	The timing of the filling of the grave pit with red almost sterile sand (Loc. C10:408.7) is unclear, but at least for a certain amount of time, there must have existed a void, so that the head could fall on the chest with the mandible turning upside down
6.4	Covering the grave pit with three large stone slabs (Loc. C10:408.5); use of fire or of charcoal on the stone slab (MAMS 30314: 8039±27 BP see Table 27)
6.6	Covering the large slabs with stones, gravel, limestone grit, and mortar
6.7	Adding a flint dagger, two projectile points, a stone vessel fragment, a pestle, a spatula, a mano fragment, and a micro grinding slab in the grave cover
6.8	Covering the stone row and the pit with the (recycled?) small limestone/ flint grit (Loc. C10:146b), adding a patch of anthracite coloured sand (Loc. C10:408.2), covering the whole grave again with limestone/ flint grit
6.9	Plastering the grave cover with white lime plaster
7	[Marking (?) the burial with a large stone slab (?), indicated by a void (Loc. C10:408.1) in the lime/ flintstone grit plaster beneath the wall opening Loc. C10:78A]. No further activities could be recorded in relation to the ritual or memory activities around the grave
8	Decay of body with the cranium falling on the chest and the mandible turning upside down and possibly other slight taphonomic movements; intrusion of fine sand and fine gravel (?) and collapse of the stone slabs

during the hot summer, and it is possible that the sand maintained its loose consistency when it dried slowly in a cool, covered grave. The origin of this sand in the burial remains an open question. One possibility is that the burial was open for some time, and the sand was filled in only after the corpse had significantly decayed. The poor preservation of the bones may support this scenario, as well as the histotaphonomic studies (Haddow this volume).

Burial ritual: The ritual of Burial CG10 shares many similarities with that of Burial CG7 (“Jamila”), including the use of vertical stone slabs in the grave construction, deliberate

destruction of objects, segregation of grave goods in two categories (inside the pit and above the grave cover), and the white plaster sealing (Table 32). However, there are some fundamental differences between the two burials, notably the body ornaments and the missing white deliberately destroyed sandstone slabs that were so characteristic of “Jamila’s” burial and that were also encountered in other subadult burials, such as in the multiple Burial CG9 and the double Burial CG2.

Whether the fire Loc. C10:401 was only lit for Burial CG10 or during several burial events remains unclear but for sure, some parts of the ash were sealed by the burial cover Loc. C10:146b, suggesting that it probably was not lit long before the interment.

²⁵ Events were up-dated and adjusted to the standardised sequence of events and modified after Gebel *et al.* (2017).

Room DR19

Room DR19 is a rather narrow and long room adjacent to and west of the corridor similar to Room DR14 (Fig. 3). In 2019 a test cut was dug down in the southern part of the room to clarify the stratigraphy of the room fill. It was difficult to recognise the grave pit in the room fill Loc. D32:102, and the assignment of the objects found close to the burial remains uncertain.

DG2: Single Primary Infant Burial

Stratigraphy: Below the room fill Loc. DR19:102, the burial pit Loc. DR19:109 was dug into the room fill (Loc. DR19:105) and the compact floor Loc. DR19:106 (Fig. 59).

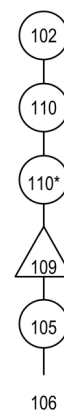


Fig. 59 Harris Matrix of Burial DG2. For the legend see Fig. 4. (Graph: M. Benz, Ba`ja N.P.)

Table 33 Description of loci related to Burial DG2.

Locus	Description
DR19:102	Brown (10YR5/3) sand with few grit and silt, some angular stones (5-15cm) and limestone congregations (1-2%)
DR19:105	Semi-compact light yellowish-brown (10YR6/4) to greyish brown (10YR5/2) sand with a tiny fraction of grit and stones (10-15cm)
DR19:106	Very compact brown (10YR5/3) silty sand ("floor")
DR19:109	Pit cut into Loci DR19:105 and DR19:106
DR19:110	Pit filling including human remains

Compared to the stratigraphic position of the other burials, which were mostly cut through the most ancient floors or on top of these, this infant burial seems to belong to a more recent level. This chrono-stratigraphic attribution to a more recent period is supported by the typological similarity of the turquoise button (F.no. 110815) found in this grave to another turquoise button (F.no. 100809) from rather recent layers of Area D in Loc. DR25:101 (Alarashi a this volume: Fig. 4m).

Grave construction: The infant was buried in a simple earth pit that seems to be rather shallow. However, the upper borders of the pit have been missed by the workers. The recorded diameter of the pit was *c.* 30cm (Fig. 60, Table 34).

Human remains: The human remains of the infant (F.no 118008) were rather fragmented, but almost complete, with some bones missing due to difficult field conditions; age: 0 years \pm 2 months; sex: indet.

Position: Probably sitting (?) with flexed legs to the left, head falling to the anterior.



Fig. 60 Like the single primary infant Burial CG3, Burial DG2 was devoid of any grave construction. Under the right hand of the infant, a turquoise button (F.no. 110815) was uncovered. (Photo: M. Benz, Ba`ja N.P.)

Table 34 Levels of Burial DG2.

Location	▼ (UE) m a.s.l.	▲ (LE) m a.s.l.
Loc. DR19:110 skull	1171.54	
Loc. DR19:109 pit bottom		1171.41

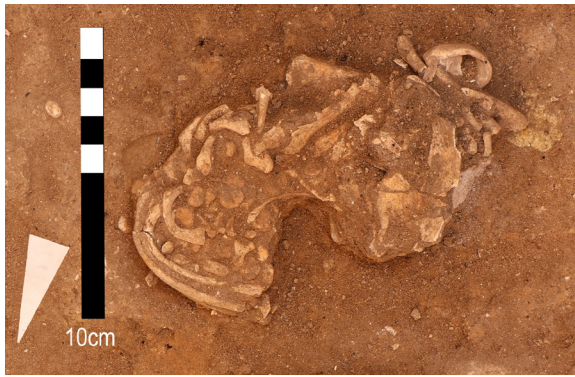


Fig. 61 The large nerite shell (F.no. 110304) was *in situ* next to the left humerus of the infant, close to the piece of yellow ochre. (Photo: M. Benz, Ba'ja N.P.)



Fig. 62 The nerite shell (F.no. 110304) and the turquoise button (F.no. 110815) found next to the infant, possibly representing personal adornments. (Photos: H.G.K. Gebel, M. Benz, Ba'ja N.P.)

Orientation: Facing northeast, with the back in the south.

Objects related to Burial DG2: As the upper border of the burial pit was not recognised, the association of some objects found close the burial remains uncertain. A turquoise button was found beneath the right hand (F.no. 110815, Figs. 60, 62). Additionally, a perforated and unusually large marine nerite shell (F.no. 110304) was discovered near the infant's left humerus, and only slightly below the turquoise button (Figs. 61-62). Next to the shell, a lump of yellow ochre was discovered. The close association of the ornaments with the right hand and left humerus lead us to suggest that they belonged to some kind of bracelet, although the tiny collapsed bones make any clear reconstruction impossible. The turquoise button (F.no. 110815) has not been analysed yet, but its close similarity to

another button (F.no. 100809), uncovered in Area D (Loc. DR25:101) and identified by XRF-analyses as turquoise (see Gerlitzki and Martin this volume, Alarashi a this volume: Fig. 4m), implies the identical raw material.

Furthermore, a bone point (F.no. 114031.6) and a flint projectile point (F.no. 114031.5) were uncovered mixed with the sediment DR19:105 close to the burial. They may represent two further "grave goods". Whether the other artefacts (F.nos. 114031.1-4), namely three blade fragments and a sandstone ring fragment, also belong to the burial or were part of the room fill, is uncertain (Table 35).

Use of colours: no traces of pigment were observed macroscopically. However,

Table 35 Objects related to Burial DG2.

Objects Related to Burial DG2		
Objects	Field Numbers	Description, Raw Material, Measurements mm: l length, h height, w width, th thickness, d diameter, med medial, prox proximal, dis distal, pres preserved, av average, dp diameter of perforation; frgm. fragment
1x Nerite	110304	Rather large complete nerite, abraded and perforated at the apex; l 24.2, w 17.8, h 12.3; weight: 4.1g
1x "Greenstone" button like object	110815	Oval button with two perforations parallel to the long side; turquoise; l 6.6, w 4.8, th 1.2, dp 1.1; weight: 1g
1x Piece of yellow ochre	117823	Next to the skeleton
Objects Uncovered in the Burial Fill		
1x Frgm. red sandstone ring	114031.1	Finds uncovered in the burial fill (?)/ next to the infant burial; association with the burial uncertain
3x Flint artefacts (3 blade frgm.)	114031.2-4	
1x Flint projectile point	114031.5	
1x Bone point	114031.6	

Table 36 Burial events related to Burial DG2.

Event ²⁶	Activities
1.	Choosing a rather narrow space, too small for a living room; obviously in an already abandoned room (DR19), close to a wall but without opening
2.2*	Decorating the infant with a nerite shell and a turquoise button or putting these two objects in the burial very close to the infant during the interment
2.3	Digging a shallow pit in the room fill (Loc. DR19:105) through an earthen floor (Loc. DR19:106)
4.1-4	Depositing the corpse, possibly in a sitting position with the legs flexed to the left side; facing northeast
5.	Adding a lump of yellow ochre, and possibly a bone point and a flint arrow head (association unclear)
6.2-3	Covering the corpse with sediment, including a few charcoals

microscopic analyses of the ornaments are pending. The large lump of yellow ochre was deliberately deposited in the pit and recalls the two large lumps of ochre in the multiple subadult Burial CG9 (see below) where two blocks of yellow ochre were put right and left of the head of the firstly buried child. Also in the stone arrangement on top of the infant Burial CG6, perhaps surrounding Burial CG5, a large lump of yellow ochre was uncovered, as well as in the upper layers of the final stage of the collective Burial CG11, in Loc. CR17:115.

Use of fire: Unlike the other burials, no traces of the use of fire next to the burial were observed, and the few pieces of charcoals next to the infant were probably associated by chance with the burial fill.

Samples: see Appendix 2

Comment: Unusually simple interment without any installation; no cover distinguishable/preserved; possibly belonging to a late phase due to stratigraphic and typological observations.

Burial ritual (Table 36): The primary burial of the infant in a rather narrow, possibly abandoned, room without any nearby wall opening does not suggest an elaborate public event. The burial pit did not comprise any constructional elements, nor was the burial covered by stone or plaster, which is in strong contrast to all other burials in Areas C and D. The sitting position resembles the double subadult Burial CG8. The low number of ornamental elements found in the infant's burial is similar to other infant burials with either a few or no adornments at all, such as CG2, CG3, CG5,

and CG8, and the use of yellow ochre may also be related to the young age of the individual.

TU7G1: Single Primary Burial in an (Upper) Ruined Housing Area?

The Burial TU7G1 (= Loc. TU7:5, Fig .63) from the test Trench TU7 in Area A was uncovered in 2005, excavated by Nikolaos Roumelis, and preliminarily published by Gebel *et al.* (2006). The human bones were not available for the study within the *Household and Death Project*, so only the preliminary description of the archaeological data can be provided here. The burial is dated back to the Neolithic period, as indicated by the presence of an approximately 80cm thick fine-grained layer of light greenish erosional and colluvial sediments. The excavators suggested the burial may belong “stratigraphically...to a post-occupational early Neolithic phase of the site, a Final PPNB/ PPNC” (Gebel *et al.* 2006: 19).

Stratigraphy: Field observations remain unclear, whether the corpse of the woman was deposited on top or into the midden layer (Loc. TU7:9; Figs. 64-65). According to the excavators, it “was not placed in a proper burial pit, *i.e.*, lined and covered by set stones, but rather was buried in the stone rubble. [...] the area in which the contracted corpse rested was also full of densely packed stones (2-20cm, in average 5-10cm). The corpse appears to have been protected by stones.” (Gebel *et al.* 2006: 18). The stone rubble layer next to the skeleton was arbitrarily defined as “Loc. 6” (according to the new designation: Loc. TU7:6) within the photogrammetric points (Tables 37-38).

Human remains: According to the photos, the preservation of the human remains (F.no. 58002) seems to be fairly good. They

²⁶ Events were up-dated and adjusted to the standardised sequence of events after Gebel *et al.* (2017).

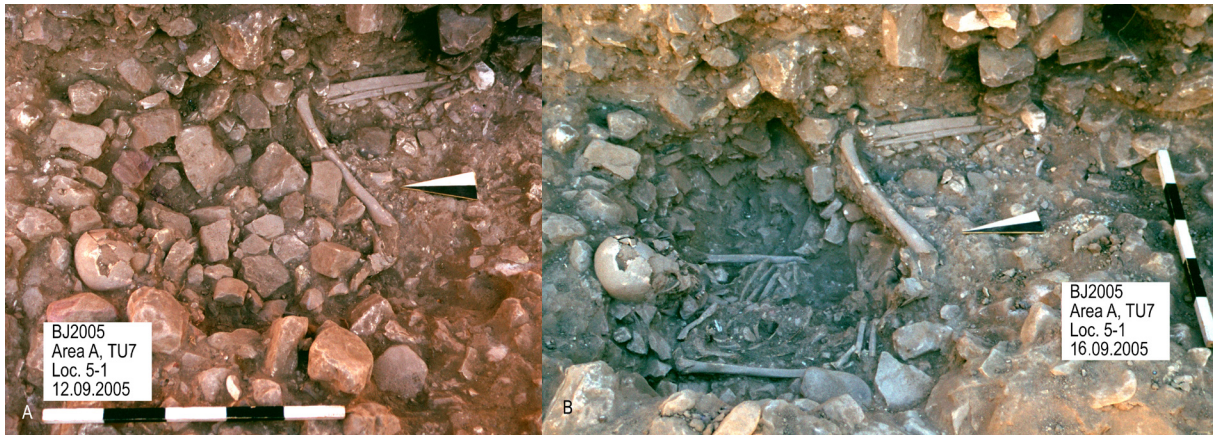


Fig. 63 A gracile adult female, aged according to preliminary in field observations between 25-50 years, was deposited in a midden area (Loc. TU7:9), at the western-most area of the site. Stages of the excavation: A body still covered with stones, B the striking position of the right arm beneath the lower spine is clearly visible. (Photos: C. Purschwitz, Ba`ja N.P.)

Table 37 Loci related to Burial TU7G1:5.

Locus	Description
TU7:4	Silty sand, middle grained, greyish (c. 70-25%), stone debris (c. 20-25%), relation to Loc. TU7:5 uncertain, but appears to cover the whole test Trench TU7
TU7:5	Almost complete skeleton of an adult woman
TU7:6	Arbitrarily labeled area around the skeleton within photogrammetric points; "pit, including pit filling" (Diary note 12.9.05)
TU7:9	Dark to dark-grey colour, lenses of ash and stone debris in high quantity; lenses of brown-greyish lenses (clay?); segregated from Loc. TU7:4 by a thin layer (2-3cm) of small gravels

were rather gracile. The completeness and the *in situ* position of most of the bones indicate a primary burial. "The individual suffered from dental diseases such as abscesses" (Gebel *et al.* 2006: 19); sex: female; age: 25-50 years.

Position: "The thorax of the body rested on its back with the skull being placed slightly higher...the right arm rested below the lower part of the spine, while the lower left arm stretched towards ESE. The lower extremities were contracted, but not really representing a

Table 38 Levels of Burial TU7G1. Numbers in square brackets refer to the labels in the drawing; prox=proximal; dis=distal (Fig. 65A).

Location	▼ (UE) m a.s.l.
Loc. TU7:5 skull [1]	1153.53
Loc. TU7:5 femur prox end right [2]	1153.40
Loc. TU7:5 femur dis end right [3]	1153.46
Loc. TU7:5 tibia right [4]	1153.46
Loc. TU7:5 tibia left dis end [5]	1153.50
Loc. TU7:5 left foot [6]	1153.43
Loc. TU7:9 sediment south of right leg [7, 19]	1153.40
Loc. TU7:6 stone cover east of the skeleton [8]	1153.43
Loc. TU7:6 stone cover on top of the spine [9-11]	1153.44-1153.39
Loc. TU7:6 stone on the left shoulder [12]	1153.44
Loc. TU7:6 stone left of the right shoulder [13]	1153.55
Loc. TU7:6 stone cover north of the skull [14-15]	1153.56
Loc. TU7:6 stone west of the spine [16]	1153.52
Loc. TU7:6 stone west of pelvis [17]	1153.43
Loc. TU7:6 stone southern end of the pit [18]	1153.43

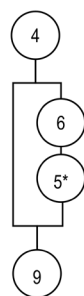


Fig. 64 Harris Matrix of Burial TU7G1. For the legend see Fig. 4. (Graph: M. Benz, Ba`ja N.P.)

BJ 2005
TU 7 - Loc. 5
Stage A
12.09.2005



BJ 2005
Loc. TU 7:5
Stages B-C
16.09.2005



Fig. 65 Female adult primary Burial TU7G1 in Trench TU7: A Stage A with rubble layer on top of the burial, B Stages B-C after having taken off the stone layer. (Drawings: C. Purschwitz, modifications: M. Benz, Ba`ja N.P.)

‘hocker’ position (Gebel *et al.* 2006: 18). This position resembles the position of the young adult male of Burial CG10, in Room CR35, with an important difference – the position of the lower right arm of the woman was beneath the lower part of the spine, which is very unusual.

Orientation: N-S, facing south.

Objects related to Burial TU7G1 (Table 39): Within the area designed as Loc. TU7:6 (see above) one leaf-shaped small (<3cm) arrowhead (F.no. 52018; pers. comm. C. Purschwitz), sandstone ring fragments (F.no. 51206), and animal bones (F.nos. 54002, 54004, 54020) were found (Gebel *et al.* 2006: 19). The association of these objects with the burial is questionable. Moreover, it is worth to note that a fragment of a spatula (F.no. 55001) was discovered on the same day in Loc. TU7:6, and two beads come from Loc. TU7:4 which may perhaps also belong to the burial context.²⁷ However, the two beads represent the “classic” repertoire of the

²⁷ According to the field diary, during the final days of the excavation season, Loc. TU7:4 was divided into Loc. TU7:4, the upper layer, and TU7:9, the midden layer beneath the burial. Finds recorded before this subdivision, might either belong to the upper Layer Loc. TU7:4 or the lower midden layer Loc. TU7:9.

PPNB burials encountered in Areas C and D (Fig. 66). It is therefore more probable that they came from the midden layer Loc. TU7:9, and that they originally belonged to the burial.



Fig. 66 The association of the two beads that were found in Loci TU7:4/9 with the Burial TU7G1 remains uncertain. (Photo: M. Benz, Ba`ja N.P.)

Comment: This burial hardly resembles any of the ritual events identified characteristic of the burials in Area C and D, except for the cover

Table 39 Objects possibly related to Burial TU7G1 (Loc. TU7:6). *not considered for statistical analyses, because the association with the burial is uncertain.

Objects Related to Burial TU7G1		
Objects	Field Numbers	Description, Raw Material, Measurements mm: l length, h height, w width, th thickness, d diameter, med medial, prox proximal, dis distal, pres preserved, av average, dp diameter of perforation; frgm. fragment, max. maximal, min. minimum
1x Arrowhead	52018	Leaf-shaped small (l <30) flint point
Sandstone ring frgms.	51206	According to the list and description, it is impossible to know whether one or two fragments were found in the surrounding sediment (see Gebel <i>et al.</i> 2006: 19)
Animal bones	54002 (TU7:6) 54004 (TU7:5) 54020 (TU7:6)	Not analysed in the frame of the <i>Household and Death Project</i>
1x Worked bone object	55001 (TU7:6)	Bone spatula frgm.
Objects Possibly Related to the Burial, but Found in Loc. TU7:4/9		
2x Beads (Fig. 66)	50800*	<i>Tridacna</i> sp.; cylindrical to barrel-shaped l 11.9, w min. 7.4, w max. 7.59, dp 2.78, 3.41
	50801*	Sandy limestone, white, disc-shaped, d 6.82, dp 2.61, th 1.16

of the corpse with a compact layer of unworked stones, and perhaps for the position of the corpse. However, the position of the right arm seems awkward. The small leaf-shaped arrowhead indicates a very late phase of the site's occupation, possibly a Final or Post-PPNB chronological position (pers. comm. C. Purschwitz). Further anthropological analyses, including aDNA and pathological investigations, are indispensable in order to know more about the identity of this woman. Was it the usual burial ritual during the later phases of the site's occupation, which may be supported by the simple earth burial of the infant in DR19:110? Was she a local inhabitant of the site or a foreigner? Did she belong to the same gene-pool as the others? How was her health status? Did she suffer from any unusual diseases, or had she been injured by the arrowhead? Why was her lower right arm positioned behind her back? Does this suggest

any bondage? As far as we cannot answer these questions, her social role within the community and why she was buried apart from all the others in an outside area, remains pure speculation.

Burial ritual: The burial ritual seems to be rather simple – a primary body burial in a simple pit, or the corpse being deposited on a midden layer and covered by stones. In contrast to all other known burials, the woman was buried in an outside area. It remains an open question, whether this location was deliberately chosen in relation to the supposed entrance area of the site. It is also uncertain whether any of the above mentioned objects were put in the burial pit deliberately, or whether they were there by accident due to digging into earlier deposits. The levels show that the head was resting 13cm higher than the pelvis. Interestingly, this position recalls the young adult man's position

Table 40 Suggested sequence of events for the Burial TU7G1 in Trench TU7. For the legend see Table 5.

Event²⁸	Activities
1.	Choosing the space in the western most, extra-mural area of the settlement at the possible access to the plateau
2.3	Digging a pit into or depositing the corpse onto the midden layer Loc. TU7:9
4.1-4	Depositing the corpse in supine position with the legs flexed 90° to the left side; orientation N-S; facing south
5.	No objects can be clearly associated with the burial, except perhaps for the arrow head
6.6	Covering the corpse with unworked stones

²⁸ Events were up-dated and adjusted to the standardised sequence of events after Gebel *et al.* (2017).

of the lavishly decorated Burial CG10, in Room CR35. The corpse was then covered with a lot of unworked stones and no marking of the area was identified (Table 40).

Multiple and Collective Burials

Including former excavations, in total five collective/ multiple burials were uncovered at Ba`ja: four in Area C (CG1, CG9, CG11, and CG12) and one in Area D (DG1) (Table 1, Fig. 1). In the following chapters, we will describe them from north to south, starting with DG1, in Area D and ending with CG11 in Room CR17. The designation as “collective burial” that has been used in preliminary field reports will be used more carefully in this final report. Due to the fragmentary preservation and mixture of many corpses in one burial pit or space, this term had been used before to designate all burials comprised of several individuals. However, in light of new methods of taphonomic studies (see Haddow this volume) and our observations during the *Household and Death Project*, other scenarios could also be imagined. For example, it might turn out that two individuals died at the same time. Other human remains that had been kept somewhere outside a grave for a while or being disinterred, may have been buried with them, as it is suggested for the multiple Burial CG9 in Room CR28.2. In the strict definition of a ‘collective burial’ (where several corpses are deposited at different moments of time) such a combination of primary and secondary interments in one moment of time, should not be

designated as “collective” but “multiple”. Without an in-depth taphonomic investigation it seems premature to define all burials comprising several (primary and/ or secondary) interments as collective burials. However, it must be emphasised that our suggestions concerning possible multiple burials are preliminary. For example, in the case of Burial CG9, the reopening of the grave to deposit a second individual or further isolated infant bones secondarily cannot be excluded.

Catastrophic events, such as earthquakes that were recorded at Ba`ja (Gebel *et al.* 2020), might have even caused the burial of a whole family at once. However, such an *ad hoc* multiple burial has not been recorded at Ba`ja so far, but could be imagined, for example, for the multiple burial (of a man and a woman with two subadults) at the Late PPNB site of Basta (Gebel *et al.* 2004).

The Collective Burial DG1

The Burial DG1 (Loc. D11/12/21/22:26) that was discovered in 2000 and excavated in 2001 by Michael Schultz and his team could not be evaluated comprehensively in the frame of the *Household and Death Project*. Information on the burial was available from the field diaries, preliminary reports, photos, and find lists (Gebel and Hermansen 2000, 2001; Gebel 2010).²⁹ The position of the ornaments was recorded according to the bones, but since these could not

²⁹ We are very grateful to Hans Georg K. Gebel for providing all the primary data.



Fig. 67 The collective Burial DG1 after the excavation of the layers with human bones. (Photo: H.G.K. Gebel, Ba`ja N.P.)

be studied, only a rough description of the burial events is given in Table 44 (see also Gebel and Hermansen 2001).

Location: The burial was located in the north-eastern corner of Room DR26 (DR26.2; Fig. 3). This NE-SW oriented space (measuring inside 1 x 1.6m) was constructed like a small chamber, separated from the main room (DR26.1) by a NW-SE running wall (Loc. D11/12/21/22:25) at the southern edge of the chamber (Fig. 67). The other sides of this space were bordered by walls Loc. D11/12/21/22:9 (west), D11/12/21/22:10 (north), and D11/12/21/22:11 (east)³⁰, whereby the western face of wall Loc. D11/12/21/22:11 was decorated with the wall painting Loc. D11/12/21/22:31 (see Gebel and Hermansen 2000). A passage to Room DR26.3 was possible through a window like opening in the northern wall Loc. D11/12/21/22:10. The choice of this small room can possibly be related to the former use of this room. Whether the floor

³⁰ These loci were recorded in the field-records as D11/12/21/22:X. They should not be confused with the loci D11:X.

Loc. D11/12/21/22:NN³¹ belonged to this space or whether it was made for the burial, cannot be clarified without further excavations. Irrespective of these uncertainties, the small size of the room, the wall painting, and possibly a floor made of stone slabs suggest that this space had a special function, before it was chosen as a collective burial place. This collective grave is so far the only burial uncovered in the northern area of the site, except for one primary infant burial in Room DR19 and some isolated human remains uncovered in Room DR30. Excavations down to bed rock in the adjacent southern Room DR26.1 proved that there was no further burial.

Stratigraphy and construction of the grave (Fig. 68): No information is available on the preparation of the burial floor. It seems that the human bones rested directly on floor Loc. D11/12/21/22:NN. It was not recorded whether there was a thin layer of sediment between the bones and the floor, so it remains unclear whether the slabs formed a more ancient floor related to the more ancient walls

³¹ During the 2000-excavations this floor had not received an own ID.

Table 41 Loci related to Burial DG1.

Locus	Description
D11/12/21/22:11	N-S running wall built of regular layers of rubble stone masonry with mortar, length 4m, painted with wall painting (Loc. D11/12/21/22:32)
D11/12/21/22:14	Greyish yellow (10YR6/2) ashy sand with fist-sized stones, some cobbles and patches of yellowish-brown mortar or wall plaster, including many finds; embedded within this layer was a large oblique violet-greyish sandstone slab, which either may have belonged to a dislocated grave cover, or which may have marked the burial
D11/12/21/22:21	Compact hard yellowish-brown lime plaster floor with a pebble foundation layer, perhaps sealing of the grave; finds include lithics, animal bones, one MOP "paillette" (F.no. 20216) and 21 sandstone ring fragments
D11/12/21/22:22	Eastern wall of the burial chamber, built of several layers of worked stones, including one former lintel, running NE-SW, closely interconnected with the northern wall (Loc. D11/12/21/22:28); set in front of the wall painting (Loc. D11/12/21/22:32) on the wall Loc. D11/12/21/22:11
D11/12/21/22:25	Southern wall of Room DR26.2, segregating it from Room DR26.1
D11/12/21/22:26	Human remains of at least 3 adults and 9 subadults (F.no. 38000), for the finds see below, embedded in yellowish-brown (10YR5/3) sediment, including some stones and one larger slab that seems to have been affected by fire. The sediment, bones, and artefacts are in some parts intensively stained red
D11/12/21/22:27	Western wall of the burial chamber constructed on top of one to two layers of irregular stones with one large rectangular stone slab put vertically with (at least) one row of building stones aligned on top of the slab's upper border. The slab was broken <i>in situ</i> during prehistoric times and collapsed after the excavation
D11/12/21/22:28	Northern wall of the burial chamber built of worked stones running in E-W direction, mortar runs onto the western slab (Loc. D11/12/21/22:27)
D11/12/21/22:29	Southern wall of the burial chamber, set in front of Loc. D11/12/21/22:25; composed of one vertically set stone plate in the western part and several layers of worked and unworked stones in the eastern part, abutting to wall Loc. D11/12/21/22:22
D11/12/21/22:32	White wall plaster with <i>al fresco</i> red wall painting attached to wall Loc. D11/12/21/22:11, covered by burial chamber wall Loc. D11/12/21/22:22
D11/12/21/22:NN	Large stone slabs covering the whole surface of the burial chamber floor, all broken <i>in situ</i> in several fragments, beneath Loci D11/12/21/22:22, 27, 28, 29

Loci D11/12/21/22:11-25-9-10, or whether it was made explicitly for the burial chamber. This question could only be clarified by further excavations, in order to check whether there was some sediment on top of the floor running onto the walls Loci D11/12/21/22:11-25-9-10. Test excavations beneath the slabs of floor Loc. D11/12/21/22:NN did not reveal further burial evidence (Fig. 69).

All the slabs of the floor were broken *in situ*, and most of them in several pieces (Fig. 67). Unlike the deliberately destroyed stone slabs of the grave covers of several subadult burials (CG2, CG7, CG9), these slabs were originally complete, but broke either due to trampling, or due to the load of later sediments, or due to shockwaves caused by earthquakes or falling stones or sediment.

The walls of the grave chamber were set onto these stone slabs into the small Room DR26.2, directly adjacent to the above mentioned main walls, forming a space of about 65m². It seems that the western wall (Loc. D11/12/21/22:27) was constructed at first. It was the only wall of the burial chamber that was built by one large stone slab that was put vertically on a row of one to two layers of irregular stones. The slab broke vertically *in situ* in two main pieces. On top of the western stone slab, at least one row of worked stones was aligned and interconnected with the other walls (Fig. 70). The other walls – Loci D11/12/21/22:28 (north), D11/12/21/22:22 (east), and D11/12/21/22:29 (south) – were made of masonry with subrectangular building



Fig. 69 Excavations beneath the stone slab floor of Burial DG1 did not reveal any further burial layers. (Photo: H.G.K. Gebel, Ba`ja N.P.)

stones of various sizes. The northern wall abutted against the western stone slab with a clear joint, with the mortar running onto the western slab, suggesting that the slab was set in first. The other walls were so closely interconnected that they were undoubtedly contemporaneous. Wall Loc. D11/12/21/22:29 included one smaller stone slab, put vertically. Wall Loc. D11/12/21/22:22 covered the mural painting Loc. D11/12/21/22:32 on wall Loc. D11/12/21/22:11 (Gebel and Hermansen 2000: Fig. 4).

The skeletons were covered with a hard yellowish lime plaster floor (Loc. D11/12/21/22:21) based on a pebble foundation layer (Fig. 70). It is not clear whether this floor was originally meant to be used as a floor, or whether it should seal the burial as was

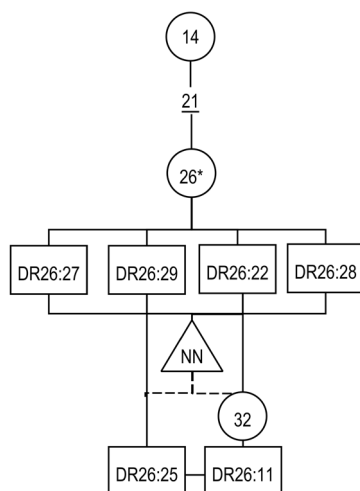


Fig. 68 Harris Matrix of Burial DG1. For the legend see Fig. 4. (Graph: M. Benz, Ba`ja N.P.)

Table 42 Levels related to the collective Burial DG1 (according to Diary Ba`ja N.P. 7.5.2000; p. 27).

Location	▼ (UE) m a.s.l.
Loc. D11/12/21/22:21	
NE-edge	1173.86
Middle N	1173.84
E part	1173.86
SE edge	1173.81
W part	1173.84
NW edge	1173.86
Loc. D11/12/21/22:22	
S-edge	1173.96
N-edge	1174.07
Loc. D11/12/21/22:28	1174.02
Loc. D11/12/21/22:27	1173.86
Loc. D11/12/21/22:29	1173.76



Fig. 70 The grave was sealed with a hard lime plaster (Loc. D11/12/21/22:21) that covered the area of the human skeletons but not the burial's walls. (Photo: H.G.K. Gebel, Ba'ja N.P.)



Fig. 71 Whether the stone slab embedded in the debris layer (Loc. D11/12/21/22:14) once marked the burial, or belonged to the debris room fills, remains an open question. (Photo: H.G.K. Gebel, Ba'ja N.P.)

observed for the Burials CG7 (“Jamila”) and CG10 (“Usaid”). Besides a high number of lithic artefacts and animal bones, many sandstone ring fragments (n=21) and a mother-of-pearl ring fragment/ production waste (F.no. 20216) were uncovered on (embedded in ?) this “floor”. The large quantity of sandstone ring fragments, which is atypical for graves, along with the presence of mother-of-pearl fragments and production waste, may speak in favour of a domestic origin of the covering sediment. It may also be possible that after the burial had been covered by an organic matter (?), this area was used as a dumping area. The supposed plaster “floor” covered the whole surface of the human bones and the small southern border (Loc. D11/12/21/22:29), but not the top of the other walls of the burial chamber (Loci D11/12/21/22:22, 27, 28).

It is worth mentioning that the area was subsequently filled with a layer of “classic” room fill debris (Loc. D11/12/21/22:14), containing numerous stones and a noteworthy violet-grey sandstone slab (Fig. 71). Similar to other burials, such as CG2, CG6, CG11, or

CG12, the stones may represent a deliberate cover of the bones. According to the excavators, the burial may have been covered with large stone slabs. The more or less same heights of the burial chamber’s walls (difference of max. ± 31 cm) may support this suggestion (Table 42). However, none of these slabs was found *in situ* (Gebel and Hermansen 2001: 17). The heights of the stone slab floor (Loc. D11/12/21/22:NN) of the burial are unknown.

Human remains: Inside the grave chamber, several depositions of human remains were recorded, reaching a height of about 35cm and with the uppermost layers being the most well preserved (Fig. 72A-C). Only the preliminary infield observations can be given here, because the human remains were not available for further studies within the *Household and Death Project*. It seems that skulls and postcranial remains of previous inhumations were pushed aside to the borders of the burial. Some articulations of long bones were well preserved. In the southern part of the chamber, the legs of an adult individual were uncovered with the knees bent in a 180° angle, suggesting a crouched

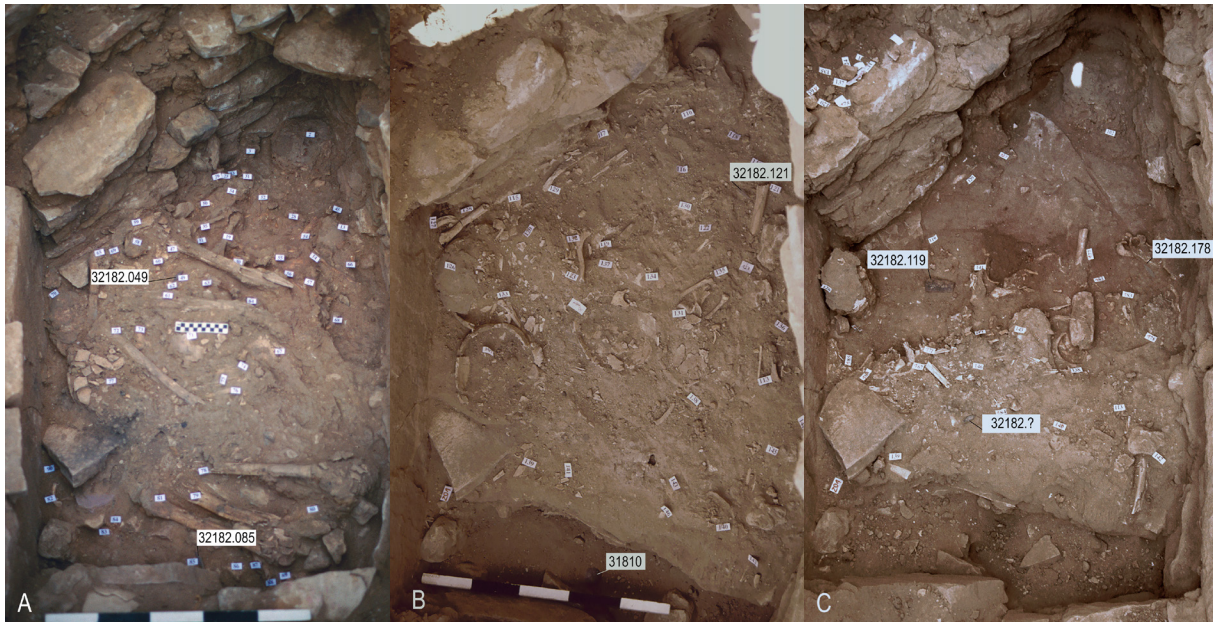


Fig. 72 Three layers (A-C), top to lowest layer of human remains with some localised objects found in the collective Burial DG1. (Photo: H.G.K. Gebel, modifications M. Benz, Ba'ja N.P.)

position in N-S orientation. The lowermost layers exhibit a shift in soil colour from brownish-yellow to an orange-reddish brown sediment, and the human remains appear as a dense covering of exceptionally fine bone fragments. This phenomenon could be attributed to either excavation techniques that removed larger bones and left behind tiny fragments for the final cleaning, resulting in their accumulation at the bottom of the grave chamber, or multiple burial events that contributed to the extensive fragmentation of earlier interments. Only further taphonomic studies of the excavated bones might explain the differences in their preservation. As a preliminary conclusion, it has been suggested that the human remains hint at a normal practice of collective burials, with the deposition of new corpses requiring the redeposition and rearrangement of older remains. This scenario is supported by the position of the objects. Most of them were scattered in the lower layers, meaning that they accumulated there due to the handling of bones, and most of them were pushed to the borders of the burial chamber (Fig. 73A-B). A further argument for movements within the grave may come from the broken stone slabs of the burial floor (see above).

According to the field notes, three adults and nine very young infants were buried in this chamber.

Objects related to the Burial DG1: Besides the objects related to the possible grave cover/plaster floor (Loc. D11/12/21/22:21; Table 43), two mother-of-pearl ornaments (F.nos. 30407-30408), at least 88 stone and shell beads (for the find numbers see below), nine arrowheads (F.no. 32182), and one flint dagger (F.no. 32182.119) that was broken – possibly deliberately – in four parts (Gebel *et al.* 2022a, Gebel a this volume) were uncovered in the burial fill (Fig. 73). Additionally, two sandstone bracelet fragments and many flint artefacts were found. Whereas the latter possibly came into the grave accidentally with the filling, the beads, mother-of-pearl ornaments and arrowheads can be considered as “grave goods”, either as personal adornments, possessions, or gifts. Similar to other burials (CG7, CG11), the mother-of-pearl rings (“paillette”) were associated to two subadult burials, with the simple pointed oval ring pendant being found beneath the skull of a newborn (Gebel and Hermansen 2001: Fig. 7A-B). The beads (MNI 88) also represent the common repertoire of types found in other burials. However, the “greenstone” beads show a remarkably wide variety of raw-materials. 79 beads that were exported in 2001 could be identified, but no in-depth investigations were possible in the frame of the *Household and Death Project*. Five of the beads (F.nos. 20822, 20824, 20830, 20831, 20841) that were found

Table 43 Objects related to Burial DG1 and to the “floor”/ grave cover (?) Loc. D11/12/21/22:21. *not considered for statistics (see Alarashi and Benz this volume) due to uncertain attribution.

Objects Related to Burial DG1		
Objects	Field Numbers	Description, Raw Material, Measurements mm: l length, h height, w width, th thickness, d diameter, med medial, prox proximal, dis distal, pres preserved, av average, dp diameter of perforation, max. maximal, min. minimum; frgm./ frgms. fragment/ fragments, MOP mother-of-pearl
2x MOP paillettes (Fig. 74)	30407.154 (Export Box 4)	MOP, pointed oval shaped ring, one triangular end has two perforations; measurements according to drawing in Gebel and Hermansen (2001: Fig. 7): d max. 44.1, d min. 38.6; d inside: 31.4, c. th 2.8; found beneath skull of newborn.
	30408 (Beidha Store)	MOP, ring shaped with four serrated appendices, each of which was perforated with three holes in a horizontal line, measurements according to drawing in Gebel and Hermansen (2001: Fig. 7): h c. 55.8, d outside 31.7, d inside 22.1, th c. 2.8, dp c. 2.8
9x Beads + x? unidentified beads (F.no. identified according to photo 2000 Serie a XVI [15])	20822 {13}*	Bead; recorded in diary with Loc. D11/12/21/22:26, but according to the masterlist it belongs to Loc. D11:18; <i>Conus</i> sp.
	20824 {1}	<i>Nerita polita</i>
	20830 {171}	<i>Tridacna</i> sp., cylindrical short
	20831 {172}	<i>Tridacna</i> sp., cylindrical short
	20834	Disc bead/ spheroid calcareous ? sandstone light grey; d 6, dp c. <2
	20835	Turquoise bead drop-shaped, h 7.5, w max. c. 6
	20836	<i>Tridacna</i> sp. bead sub-rhomboid, l c. 9mm, w 4.8 (measurements from photo)
	20837	<i>Tridacna</i> sp.; cylindrical; l 8
	20838 [?]*	<i>Tridacna</i> sp., identification in the photo is unclear, cylindrical; l 10, d c. 25;
	20839	<i>Tridacna</i> sp. barrel-shaped bead l c. 10; d max. 5.5
	20841 {156}*	Bead recorded in wall Loc. DR26:11, possibly belonging to the burial; <i>Tridacna</i> sp.
79x Beads (Fig. 75)	30809	For individual labels and identification of beads see Alarashi and Benz this volume: Appendix 1, most of the beads have traces of red colouration; <u>stone beads</u> : 2x red-rosé disc limestone beads, 1x red short cylindrical limestone bead, 2x white/ light grey disc calcareous sandstone/ limestone beads, <u>16x “greenstone” beads</u> : 2x drop-shaped turquoise beads, 1x disc turquoise (?) bead, 6x plancheite/ malachite disc-/drop-shaped beads, 1x amazonite or plancheite (?) disc-shaped bead, 3x chryso-colla, 3x unidentified ring-shaped “greenstone” beads; <u>shell beads</u> : 1 Conidae bead, 57x <i>Tridacna</i> sp. (24x cylindrical, 14x barrel-shaped, 15x rhomboid-cut-cone-shaped, 3x spherical/ disc/ ellipsoid, 1x biconical)
2x Stone ring frgms.	21374 31316	Sandstone
1x Macehead (Fig. 76)	31810	Complete, igneous rock, spherical-biconvex shape, biconical perforation, measurements according to drawing in Gebel and Hermansen (2001: Fig. 7): h 38.6, d max. 40.6, dp max. 17.9, dp min. 9.6
Flint (c. 50 items)	22087	No information available
	32182.217	Flakelet
	32182.184	6x Flakelets/ debris pieces
1x Flint dagger	32182.119	Deliberately broken in four parts; Ba`ja Dagger Type (Gebel <i>et al.</i> 2022a, Gebel a this volume)
9x Flint arrowheads	32182.0	(see Gebel and Hermansen 2001:18: [n=9])
	32182.049	In Slide 2003.15: n=8, 2 of them frgm.
	32182.085	Items 32182.0, 32182.049 and 32182.085 are not recorded in the findlist, but in the photos by CP (10.1.2007)
	32182.121	Subnumbers -.211, -.304 are only recorded in the findlist,
	32182.174	32172.178A, tip is broken in three parts
	32172.178	CP: N° 32182.178 corresponds to the upper left point in the slide “2003.15” by Gebel.
	32182.178A-C	
	(32182.304[find list] 32182.211[find list])	
Animal bones	24195	Not analysed
Human bones	38000	Infield notes: “9 very young infants, 3 adults” (Gebel and Hermansen 2001: 18)

Objects on the Floor/ Plaster Cover Loc. CR26:21, c. <20 cm Above Loc. D11/12/21/22:26		
Objects	Field Numbers	Description, Raw Material, Measurements
1x MOP frgm.	20216 {122} ³²	<i>Pinctada</i> sp.; demi-circular piece of MOP, possibly part of/ or waste of a ring-pendant production
21x Sandstone ring frgms.	21299	
Chipped lithics	22208	
Animal bones	24117	Not analysed

in the grave or very close to it, were accessible for studies by Hala Alarashi. Those beads that could be identified, either from the photos or during studies, included at least 25 stone beads of various raw materials: red limestone, calcareous sandstone, and various “greenstones”, namely turquoises, amazonite, chrysocolla and possibly malachite, plancheite and chlorites, as well as 57 (three more were not accessible) *Tridacna* beads of various shapes, one nerite bead, and one tiny mother-of-pearl pendant. The raw material of two disc beads is unidentified. A bead made of the upper part of the spire of a Conidae was recorded in the diary as belonging to the grave, but in the find-list it was recorded as coming from Loc. D11/12/21/22:18.

Most interesting is the combination of a dagger – broken in four pieces – (F.no. 32182.119) with nine arrowheads (F.no. 32182.xx) and the complete macehead (F.no. 31810). A similar combination of artefacts – besides other objects – was found in the single male adult Burial CG10 in Room CR35 and, except for the macehead, in the collective Burial CG1 (see below; for a detailed description of these daggers see Gebel *et al.* 2022a, Gebel a this volume). However, in the single burial, the macehead had been destroyed deliberately *in situ* and the dagger was complete, except for a small burination at the tip (Benz *et al.* 2019). The dagger in the collective Burial CG1 was also complete. Unfortunately, use-wear traces have neither been investigated on the dagger in the collective burials, nor on the flint arrowheads. Whether the macehead was once attributed to a specific individual or was put at the bottom of the southern part of the grave chamber from the beginning,

³² Numbers between braces indicate the study number by H. Alarashi (see Alarashi a this volume: Appendix 1).

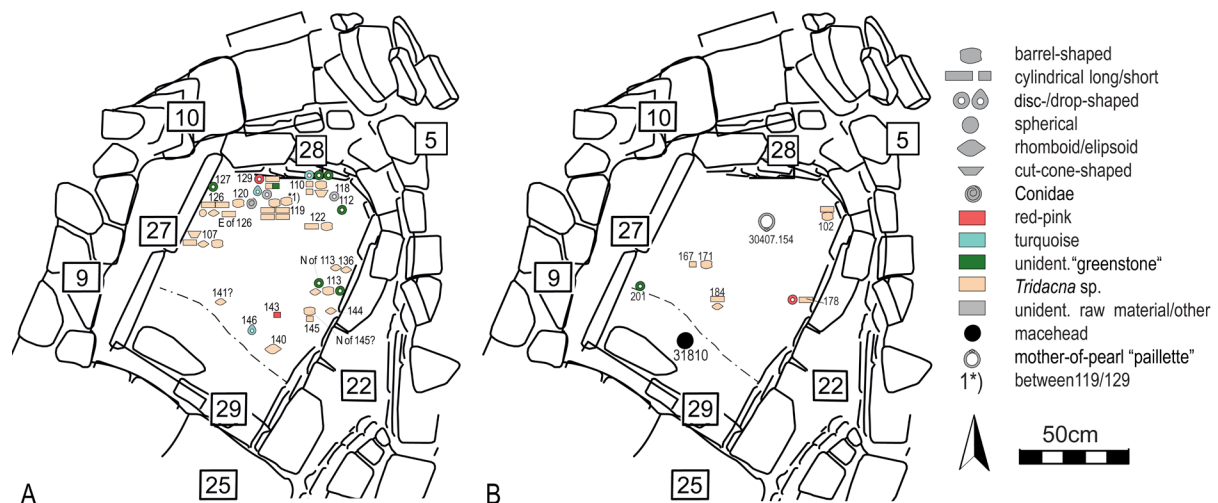


Fig. 73 Schematic drawings of the distribution of ornaments and selected objects which were identified according to labels in the lower layers of human remains: A lower layer, B bottom layer of ornaments. For the position of the dagger see Gebel *et al.* 2022a and Gebel a this volume. Note that the symbols for beads are not scaled. (Graph: M. Benz; based on field records: B. Borowski [1999-2001], Q. Dasouqi [2019], C. Laude [2000], M. Kinzel [2003-2007], C. Purschwitz [2018], CAD Editing: C. Purschwitz)



Fig. 74 MOP rings (“paillettes”) associated to infants uncovered in Burial DG1. (Photo: H.G.K. Gebel, Ba’ja N.P.)

is impossible to decide due to the intensive handling of bones. On top of it, the remains of the above mentioned adult individual were found, but this association may be by chance.

Use of pigments: The use of red pigment is attested in this burial by several small lumps of red pigment, traces of red pigment “throughout the grave” as well as on some human bones, beads, and flint artefacts (Gebel and Hermansen 2001: 18). A sample of yellow ochre from the burial also attests to the use of yellow pigment, but no traces of yellow ochre were observed on the bones by the naked eye.

Use of fire: Some stones of the grave filling (Loc. D11/12/21/22:26) show traces of intense burning and pieces of charcoal point



Fig. 75 Selection of stone bead types from Burial DG1, shell bead types correspond to *Tridacna* sp. of Burial CG9, only one Conidae bead was discovered in Burial DG1. (Photo: M. Benz, Ba’ja N.P.; see Alarashi and Benz this volume: Appendix 1)

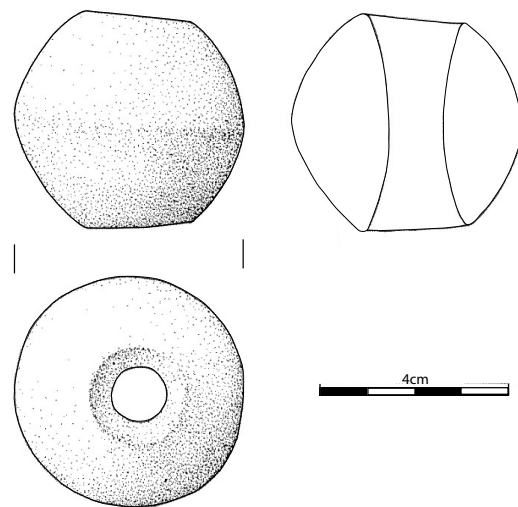


Fig. 76 Macehead (F.no. 32182.119) uncovered in the collective Burial DG1, for the *in situ* positions see Fig. 72B (Drawing macehead: B. Winckler, H.G.K. Gebel; for the dagger see Gebel a this volume)

to the use of fire in relation to the sediment filling (Fig. 72). Although it thus seems rather probable that a fire was lit inside the grave, it cannot be excluded that the stones and pieces of charcoals had been brought in from outside the grave. Unlike the rather clear evidence of fire in relation to the Burial CG10 (Fig. 49), it cannot be proven that a fire was lit during burying activities.

Samples: see Appendix 2

Comments: Keeping in mind that the human bones have not been analysed yet, and that it is thus impossible to reconstruct the depositional sequence of the human bones as was done for the collective/ multiple Burials CG1 and CG9, preliminary observations can still be made

about the grave construction and burial ritual based on the field notes and objects that were related to the interments.

Burial ritual: Although the burial construction of the collective Burial DG1 is unique, the burial ritual does show some similarities to the single burials, but also to some of the collective burials as well. The location near a window-like wall opening in a room corner or segregated space, recalls especially the Burials CG1, CG5/6, CG7-8, CG10-11. The burial construction with a vertical slab in the western part is similar to the single Burials CG7 (“Jamila”) and CG10 (“Usaid”), and the masonry walls recall the small walls Loci C1:60 and C1:66 of Burial CG7. The burial floor (if it originally belonged to the burial?) and the location in front of a fresco are unique so far. Despite the fact that the

eastern wall of the burial chamber obscured the depictions, information about this unique mural was evidently still in circulation (Gebel and Hermansen 2000: Fig. 4). The crumbled remains of the lower bone layers, the destruction of the stone slabs, and the scattering of the ornaments to the chamber’s walls (Fig. 73) suggest that the burial was open for some while, or that a cover was taken off easily to place new corpses in the burial chamber. In contrast to the other firmly sealed burials, it is not clear whether the burial was really covered with stone slabs or not. It is possible that the original cover was finally taken away, and the area was leveled with the above-mentioned plaster floor Loc. D11/12/21/22:21 when the collective burial was no longer in use. The artefacts that were related to the burial show very close similarities to the Burials CG1 and CG10, all having a dagger and arrowheads.

Table 44 Suggested sequence of events for the burial ritual of Burial DG1 in Room DR26.2. For the legend see Table 5, lines between square brackets and written in grey indicate that there is only little evidence or that it is hypothetical.

Event ³³	Activities
1.2	Choosing the special, small space of Room DR26.2 with the wall painting and possibly a stone slab floor, close to the wall opening in the northern wall Loc. D11/12/21/22:10 for the burial
2.1*	Grinding red (and possibly yellow) pigments
2.2*	Decorating the corpses with pendants and/ or beads (perhaps the beads were not part of a cloth’s or body’s adornment but were scattered in the grave)
2.3	Cleaning (?) or constructing the burial floor with large stone slabs
3.1	Using a segregated space (DR26.2) for the burial construction on top of floor Loc. D11/12/21/22:NN
3.2	Building the grave chamber: western border with a vertical slab (Loc. DR26:27) founded on a row of irregular stones, constructing the northern (Loc. D11/12/21/22:28), eastern (Loc. D11/12/21/22:22), and southern (Loc. D11/12/21/22:29) walls of the burial chamber, connecting wall Loc. D11/12/21/22:28 with the slab of the western wall Loc. D11/12/21/22:27 by using mortar. Placing an upper row of stones on slab Loc. D11/12/21/22:27 to connect (?) the walls and probably to create a rather even border for a possible cover
4*/4.5.1-2	Placing the corpses in the burial chamber possibly at several instances, while pushing more ancient human remains aside; probably as primary burials, but secondary burials cannot be excluded (see also Burials CG9 and CG10). Some isolated (unstudied) animal bones were also placed in the grave filling
5.1*	Placing the macehead in the grave chamber, very close to the southern border; possibly at a very early stage, but due to the intensive handling of bones, it may have been dislocated; destroying the dagger, scattering the fragments in the burial chamber, depositing the arrowheads in the grave chamber (relation to certain individuals no longer identifiable) at several instances; depositing/ scattering (?) beads in the grave fill or dislocating dissolved beads to the borders of the grave chamber
5.2	Adding red and yellow (?) pigment on the human remains, especially in the early phases of the burial
5.3	[Lighting fire outside the grave], placing charcoal and a burnt slab in the grave filling
6.2-3	Covering the corpses with sediment including charcoal
6.4	[Covering the grave chamber with stone slabs, covering the grave chamber with organic mats/ material?]
6.6	[Covering the burial with a “stone foundation”; no photographic evidence, only in diary’s description]
6.7	This “floor”/ burial cover (?) (Loc. D11/12/21/22:21) includes many objects (s. above), <i>i.a.</i> sandstone ring fragments and a MOP ornament
6.8	Covering the grave chamber with limestone grit/ “plaster” (Loc. D11/12/21/22:21)
7	[Marking (?) the burial with a large stone slab]

³³ Events were up-dated and adjusted to the standardised sequence of events after Gebel *et al.* (2017).

Moreover, bead types reflect the common repertoire of the other burials. The use of red and yellow pigment abides with the local burial custom, even though the use of red pigment (possibly in a liquid form) was very intense in this burial. It is difficult to decide whether the charcoal remains and black traces of charcoal on one slab in the burial fill were due to a fire outside, or whether a fire was lit inside or next to the burial. Patches of ash, as they were documented for other burials (CG1, CG4, CG5/6, CG8, and CG10), were not recorded.

The events of the collective Burial DG1 can thus be reconstructed preliminarily as presented in Table 44.

The Multiple or Collective Burial CG9 in Room CR28.2

During the final days of excavation in 2019, the collective/ multiple subadult Burial CG9 was discovered in Room CR28.2 (Fig. 77). The sophisticated beads and pendants present in this burial were meticulously recorded, but due

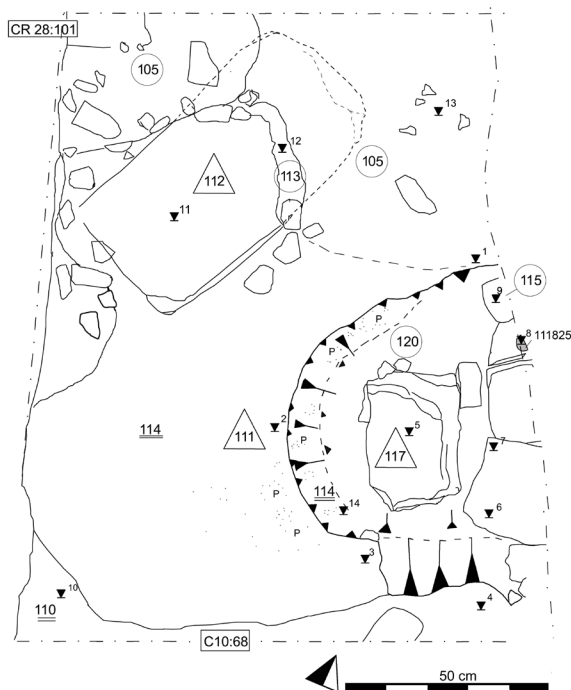


Fig. 77 Location of Burial CG9 close to the southern wall Loc. C10:68 and with the large, dislocated stone slab, possibly used as grave cover. For the legend see Fig. 4, levels are given in Table 46. (Drawing: S. al-Shobaki, M. Benz; digitalised: M. Benz, Ba'ja N.P.)

to Covid confinement in 2020, the more than 1150 items could not be analysed in detail. As part of a future project, a 3D reconstruction, detailed use-wear analyses, and taphonomic studies are planned.

Location: Burial CG9 was located in Room CR28.2, which is one of four compartments of a larger building entity called CR28 (Gebel *et al.* 2020). The southwestern part of Room CR28.2 was excavated in 2019, with the eastern and northern part still being covered with *c.* 2m loose deposits (Loc. CR28.2:105), with lots of air-chambers suggesting a rapid filling, perhaps associated with a catastrophic event.

Room CR28.2 was connected to the adjacent western Room CR28.1 by a window-like opening (Loc. CR28:101A) in wall Loc. CR28:101/108. No burial was uncovered in the latter room, only a plastered floor. It was at the same height as the plaster floor Loc. CR28.2:110/114, through which the Burial CG9 was cut, suggesting a more or less contemporary use for both rooms. Moreover, Room CR28.2 was once connected by a window-like opening in the southern wall Loc. C10:68, possibly to an open space beneath the later Room C11:22.2 (pers. comm. C. Purschwitz). However, according to the room-biographic reconstruction, this window-like opening immediately south of CG9 had already been blocked when the burial was cut through the floor. A third wall opening was in the eastern wall Loc. CR28.2:126 just above the grave leading to Room CR28.3 (Gebel *et al.* forthcoming).

Because the excavations in this room have not been completed, some questions, especially concerning the grave cover, must remain open. Without further taphonomic studies it will also not be possible to decide whether it was a multiple burial, *i.e.*, that the two children were associated to at least two secondarily buried infants at one moment in time, or whether the burial was reopened carefully with successive interments meaning that it would be a collective burial. The integrity of the sophisticated body decorations of both primary interred 3-4 year-old children make a reopening of the grave rather improbable. However, as we will outline below, it may even be possible, that there were two interments of two 3-4 year-old children, each associated with secondarily buried infant bones. Burial CG9 is thus not only remarkable because of its costly ornaments (see Alarashi and Benz this volume: Appendix 1, F.no. 110825) but above all for its enigmatic burial ritual.

Stratigraphy and burial construction: The stratigraphy can be reconstructed fairly well for the lower part of the burial (Fig. 78, Tables 45-46), whereas the upper part remains enigmatic and could be clarified by micromorphological analyses in the future. A sample of the sediment layers above the grave covering slabs has been taken (F.no. 117900).

The corpses were interred in an ovoid pit of c. 86 x 72cm, which was cut through the plaster floor Loci CR28.2:110 and CR28.2:114 into the paleosol with a step at the southern border, possibly as some kind of support for the cover of the burial. Individual Loc. CR28.2:122a was deposited at first, and some limestone

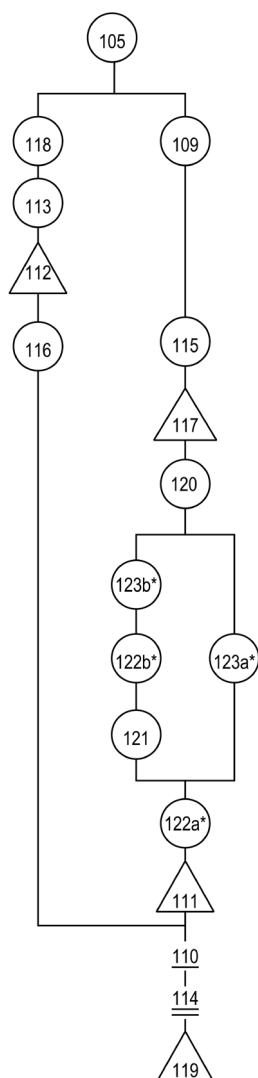


Fig. 78 Stratigraphic sequence of Burial CG9. Whether the large sandstone slab Loc. CR28.2:112 was dislocated from Burial CG9 or belonged to another burial, remains an open question. For the legend see Fig. 4. (Graph: M. Benz, Ba'ja N.P.)

grit and sand accumulated around this corpse, most probably from the floor Loc. CR28.2:114. A bloc of yellow ochre was put on the right shoulder/chest. Isolated but clustered infant bones (Loc. CR28.2:123a) were found next to the right shoulder and on top of the torso of Individual CR28.2:122a. A second about 3 year-old child (Loc. CR28.2:122b) was interred immediately west of the first interred individual (Loc. CR28.2:122a), mirroring the position of the latter child. There was only a bit of sand between the two individuals. Furthermore, isolated infant bones (Loc. CR28.2:123b) were uncovered at the area of the pelvis of the second child (Loc. CR28.2:122b). A second bloc of yellow ochre was deposited immediately east of the skull of the second child. When this bloc was deposited, the ornamentation of the head (possibly some kind of cap decorated with shell beads) must already have slipped from the head of the first child, because the yellow ochre was found on top of the shells. However, the shells were still in a row, suggesting that they were sewn on a support that had slipped in its integrity from the head of the first child. The temporal distance between the first and second interment remains unclear. It is possible that they occurred almost simultaneously, with the headgear slipping off the head of the first child as they were being interred.

The grave filling consisted of loose, almost sterile silty sand, similar to the grave filling of Burials CG6, CG7, and CG10. The grave was covered by six stone slabs (max. 30 x 40cm, c. 3cm thick) and two smaller stones (Figs. 79-80A). On top of these slabs, thin layers of different sediments accumulated, including a layer of reddish sterile sand (Loc. CR28.2:115a) similar to the grave filling.



Fig. 79 The pit of Burial CG9 with white deliberately destroyed sandstone slabs *in situ*. (Photo: M. Benz, Ba'ja N.P.)

Table 45 Loci related to the collective/ multiple Burial CG9, LM=lunar month.

Locus	Description
CR28.2:105	Room fill with many stones and building debris
CR28.2:109	"[L]ooser darker brown sediment than Loc. CR28.2:105, sandy clay...finds: 14 (!) grinding tools" (diary B. Kubicová 13.5.19)
CR28.2:110	Fine layer of greyish white lime plaster on top of Loc. CR28.2:114, probably representing a finish of this floor
CR28.2:111	Ovoid burial pit (c. 86 x 72cm) cut through Loci CR28.2:110 and CR28.2:114 into the paleosol with a step at the southern border, possibly for putting some kind of cover on the burial
CR28.2:112	Ordovician sub-rectangular stone slab (75.5 x 35 x 3cm) 5YR7/2, 7.5YR8/2, orient. NNE/SSW, eastern border covered by Loc. CR28.2:113, silty grey sand with fine limestone inclusions
CR28.2:114	Terrazzo-like compact grit floor, with angular limestone and flint grit in a middle brown to grey compact mortar matrix of silty sand, covered by a greyish-white plaster (Loc. CR28.2:110), inside the pit it seems that there may be two grit floors on top of each other, but this has to be verified in the room
CR28.2:115	Pit filling above Loc. CR28.2:117, divided in three layers (a-c); micromorphological sample; a) brown-reddish rather loose sand, b) a thin layer of sandy matrix with a lot of limestone grit, c) more compact brown-reddish sand with at least two thin layers of organic material (dark brown)
CR28.2:116	Thin layer of dark brown silty sand above Loc. CR28.2:118
CR28.2:117	3-5cm thick Ordovician stone slabs broken before deposition in the grave, three slabs fitted perfectly, and two other slabs matched quite well; they were lying separately in the pit
CR28.2:118	Thin layer of charcoal and ashy sediment on top of Loci CR28.2:110 and CR28.2:119
CR28.2:119	Fist-sized stones, below Loci CR28.2:118 and CR28.2:116, in some parts, close to the window opening (Loc. CR28:108A) obviously very loose; to be checked, whether the stones belong to a pit filling, or whether they are the sub-construction of Loc. CR28.2:114
CR28.2:120	Semi-compact light yellowish-brown (10YR6/4) to greyish brown (10YR5/2) silty sand
CR28.2:121	Similar to Loc. CR28.2:120 but with more limestone grit and a few stones
CR28.2:122a-b-123a-b*	Human remains of two primarily buried 3-4 year-old children, with at least two secondarily buried bones of peri-natal individuals (9.5 LM, 9.5-10LM); embedded in Loc. CR28.2:120/121. The S-N buried child resting in a right hocker position was buried first, the other three subadults later. Temporal distance uncertain, but probably not too long after each other, perhaps even contemporaneously

Table 46 Levels related to the multiple/ collective Burial CG9. Numbers in square brackets refer to labels in the drawing (Fig. 77).

Location	▼ (UE) m a.s.l.	▲ (LE) m a.s.l.
Loc. CR28.2:105 room fill	1165.14	
Loc. CR28.2:109 room fill	1165.20-16	1165.11
Loc. CR28.2:111 upper border [1-4] and bottom of the pit	1165.10-02	1164.77
Loc. CR28.2:111 upper step inside the pit [14]	1164.91	
Loc. CR28.2:112 [11]	1165.07-05	1165.03
Loc. CR28.2:113 [12]	1165.09	
Loc. CR28.2:110/ 114 [1-3, 10]	1165.12-02	
Loc. CR28.2:115, top of stone at N-border [9], stone vessel F.no. 111825 top [8]	1165.07	1164.91
Loc. CR28.2:116	1165.03	
Loc. CR28.2:117 [5-7]	1165.00-1164.91	
Loc. CR28.2: quarzitic pebble F.no. 117856 (see Fig. 81A)	1164.98	
Loc. CR28.2: yellow ochre west of child's skull (CR28.2:122)	1164.91	
Loc. CR28.2:121	1164.89-88	
Loc. CR28.2:122a skull	1164.89	
Loc. CR28.2:122a legs	1164.88	



Fig. 80 A Deliberately destroyed white Ordovician stone slabs covering the corpses of CG9 as they matched together (for the *in situ* position see Fig. 79), B dislocated large white Ordovician sandstone slab as uncovered during the excavation. (Photos: M. Benz, Ba'ja N.P.)

A large stone slab (Loc. CR28.2:112) was found north of the pit (Figs. 78, 80B); it is possible that it was once the main grave cover, but it appears to have been dislocated in prehistoric times, before the accumulation of debris (Loc. CR28.2:105). A thin layer of dark brown humous silty sand (Loc. CR28.2:116) was found between the terrazzo-like plastered floor (Loci CR28.2:110/114) and the stone slab, indicating that the slab had been dislocated after the floor was constructed and in use for a while. However, it cannot be excluded that it was dislocated from another pit, such as if the stones below Loc. CR28.2:118 (Loc. CR28.2:119) were not the sub-construction of the floor (Loc. CR28.2:114) but a pit filling, similar to the stone filling Loc. CR6:28 of the pit Loc. CR6:22 (Burial CG6). Due to time constraints, it was not possible to confirm this.

Human remains: The bones of all four individuals were very poorly preserved and fragile (F.no. 118012); age: Loc. CR28.2:122a-b: 3-4 years; Loc. CR28.2:123a-b: 9.5 and 9.5-10 lunar months; sex: indet.

Position: The first interred older individual (Loc. CR28.2:122a³⁴, red in Fig. 82) was slightly turned on its right side with the head in the south and with the legs turned to the right side in a 90° hocker position (Figs. 81-82A-E). The infant bones (Loc. CR28.2:123a, green in the

drawing) were found close to the right shoulder of the older child with parts of the thorax (ribs) resting on the right arm of CR28.2:122a. The infant was hardly preserved except for the ribs, some long bones, and for the skull that was east of and next to the skull of the older individual (Fig. 82A-D). The second about 3 year-old child (Loc. CR28.2:122b, blue in the drawing) rested in the same orientation as Loc. CR28.2:122a, but on the left side and with its back against the back of the firstly interred individual. The legs of this individual were turned to the left side (Fig. 82A-D). The isolated bones of the second infant (Loc. CR28.2:123b) were scattered in the pelvis area of individual Loc. CR28.2:122b (Fig. 82A-C).

Orientation: Loc. CR28.2:122a-b S-N; two secondarily interred infans without clear orientation (Loc. CR28.2.:123a-b).

Objects related to Burial CG9: Most of the ornaments associated with the subadults in Burial CG9 belonged to the decoration of the firstly interred individual, the 3-4 year-old child (Loc. CR28.2:122a, Tables 47-48, Fig. 83 [F.no. 110825]). In total, its body decoration was composed of at least 756 items and possibly eight more. The ornaments were divided into two main parts for the two older children (Loc. CR28.2:122a-b), and there was possibly a third beaded cloth or ornament adorning the infant bones (Loc. CR28.2:123a) beside it:

- 1) Below and above the skull and mostly on the torso (=Area C of the bead documentation), a high concentration of white shell

³⁴ 122a[sic!] wrongly labelled as 123 in the sketch of the grave file diary.

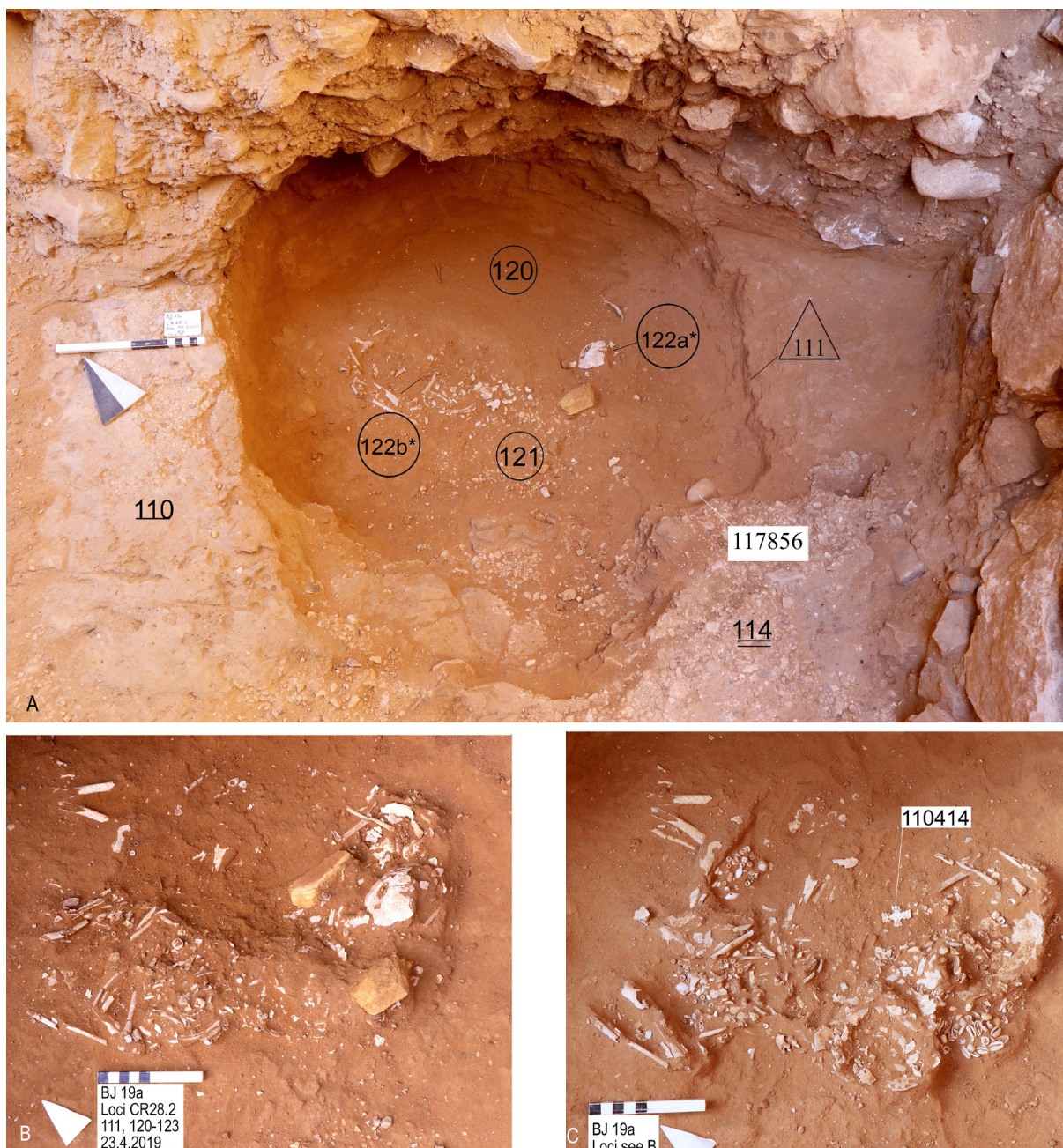
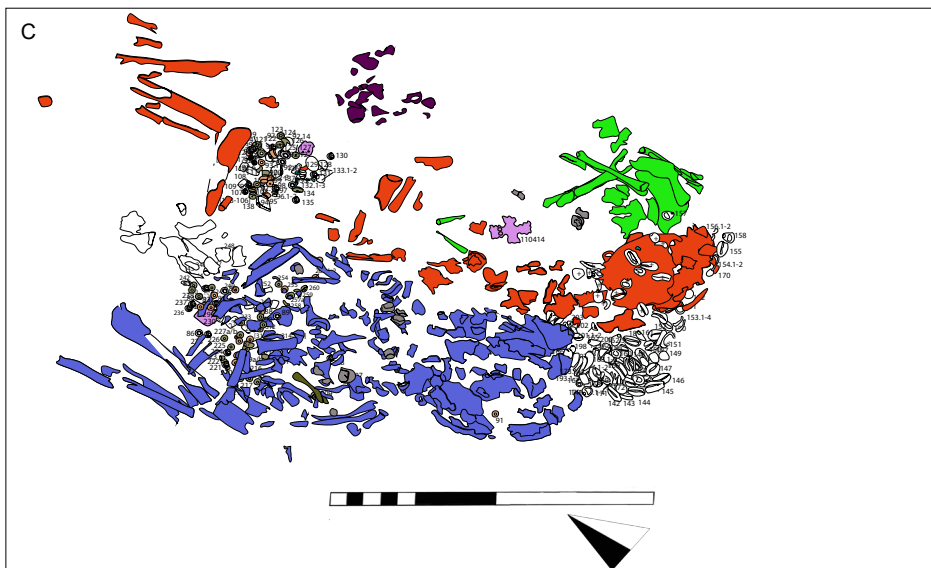
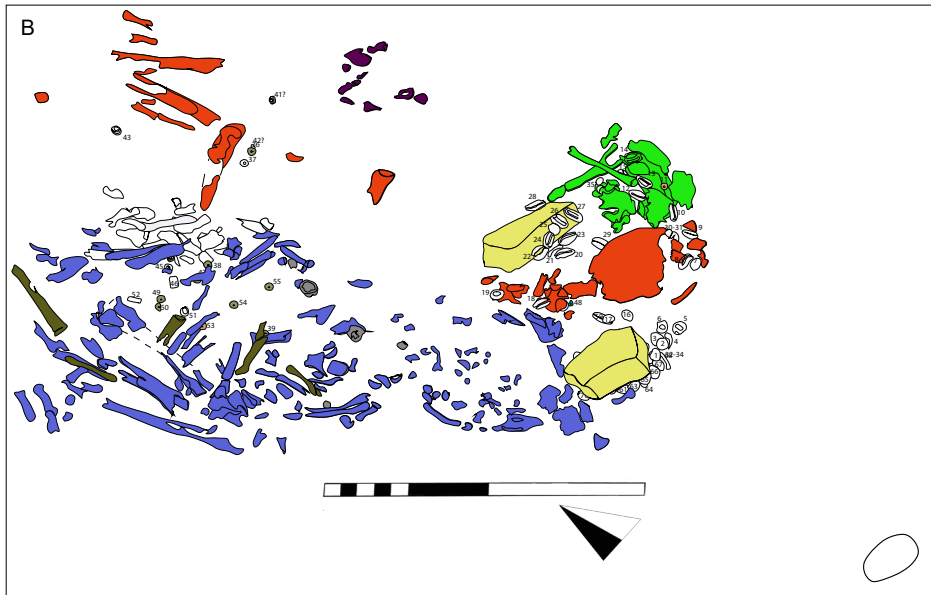
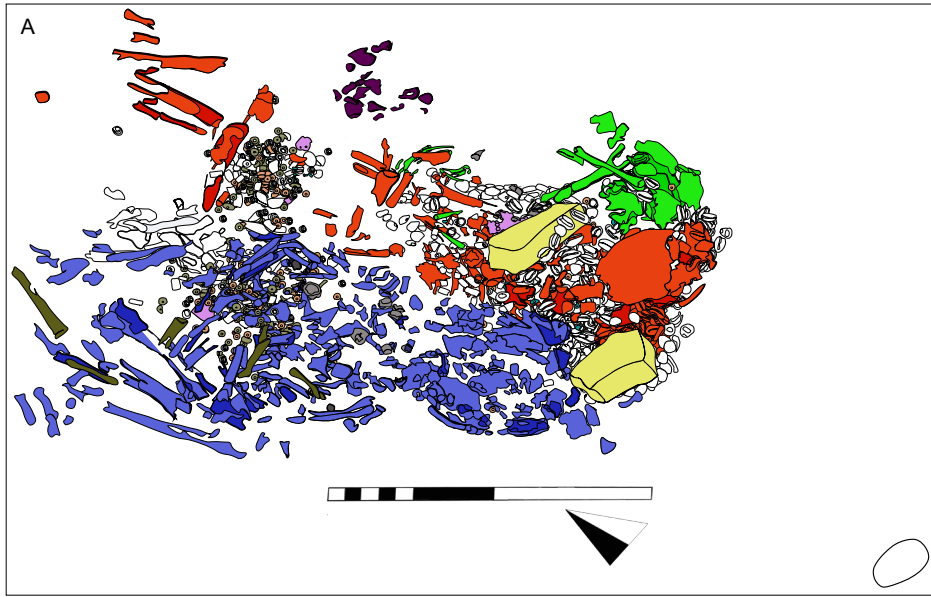


Fig. 81 Main steps of the excavation of Burial CG9: A uppermost layer immediately below the central white stone slab and of the quartzitic pebble close to the southwestern border, B position of the two yellow ochre lumps east and west of the firstly interred child Loc. CR28.2:122a, C the two 3-4 year-old child skeletons in a hocker position with the cross-shaped MOP pendant on the chest of the firstly interred individual and the bead assemblages in the area of the pelvis of both children. For the legend see Fig. 4. (Photos: M. Benz, Ba'ja N.P.)

beads (n=492) was uncovered. Many of them were perfectly well preserved *in situ* (mostly cowries, nerites, *Tridacna*). Shell beads made up c. 92% of this ornament (Fig. 84). Only a few stone disc beads of pale pink and whitish colours and some chrysocolla beads (n=42, 7.8%) were aligned around the neck and on the chest, possibly forming some kind of necklace – or they were part of a cloth's decoration.

On the chest of this child, a mother-of-pearl cross-shaped pendant (F.no. 110414) was found. It may either have been a part of the aforementioned shell-chrysocolla-limestone garment/ ornament, or it served as a decoration for a cloth in which the child was wrapped – although, for the moment, we lack any evidence for the latter option (Benz *et al.* 2020).



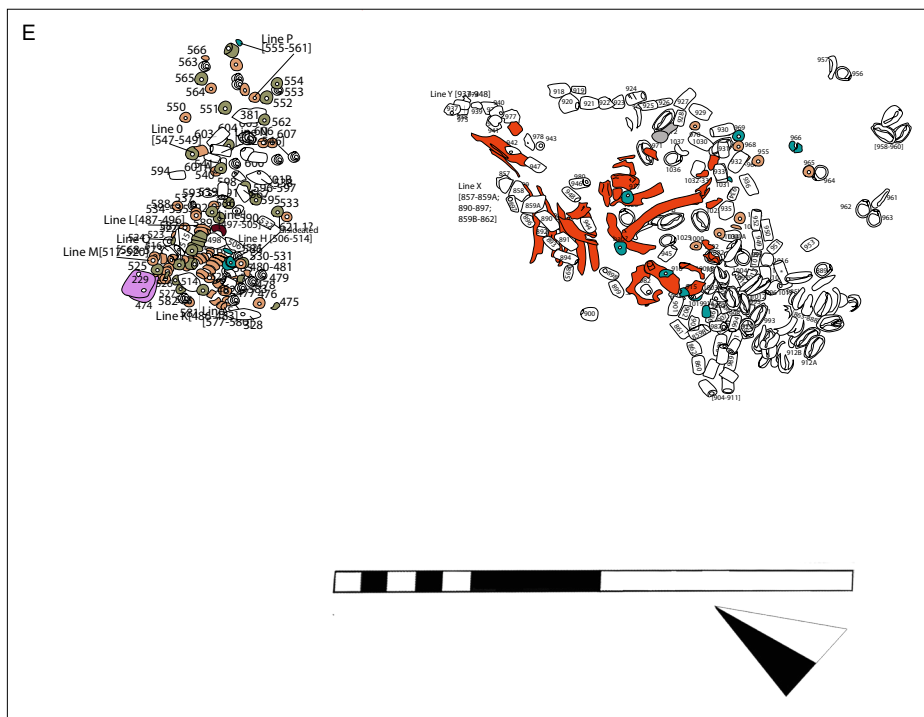
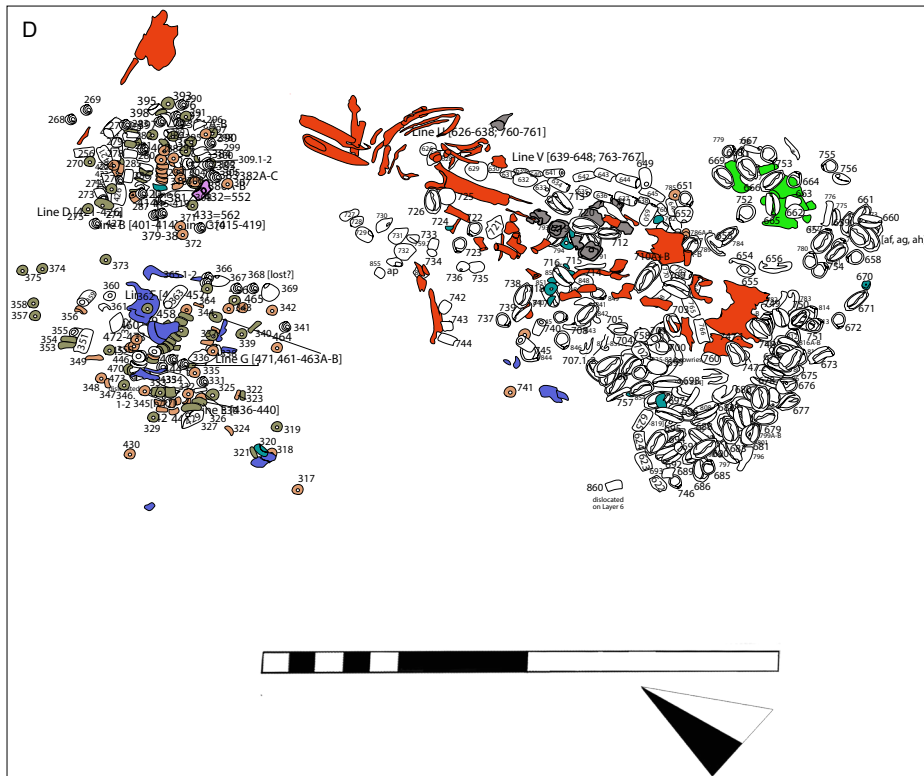


Fig. 82 Schematic drawings of the main steps after superimposed photos of at least 4 subadults; the rectification is not valid for measurements, since it was done only approximately according to the drawing of the burial: *A* All layers without numbers of the beads, *B* Layers 1-3, *C* Layers 4-5, *D* Layers 6-7; *E* Layers 8-9. Layer 10 was the last layer of isolated beads ($n=14$) at the bottom of the pit (not drawn); red=Loc. CR28.2:122a, blue=Loc. CR28.2:122b, green=Loc. CR28.2:123a, olive= Loc. CR28.2:123b, purple=clustered unidentified bones, white=bones of which the attribution to either individual red or blue is unclear, grey=teeth, yellow=yellow ochre, beads: white=shell beads, rosé=pale pink to reddish (lime?-)stone beads, blue-green=chrysocolla, brown=various minerals, dark violet=indet., pink=MOP. (Drawings: M. Benz, Ba'ja N.P.)

2) In the area of the pelvis of both older children (Areas A and B of the bead documentation) in contrast to the predominantly white decoration, many alignments of variously coloured beads of different minerals were discovered. These ornaments included only a few shell beads (Conidae and probably *Tridacna*) and four mother-of-pearl buttons/ pendants (individual Loc. CR28.2:122a Area A: n=229 items; individual Loc. CR28.2:122b Area B: n=263 items). The composition of these

two decorations in the pelvis areas was remarkably similar, as if one child mirrored the other (Fig. 84). Even the mother-of-pearl buttons/ pendants were evenly distributed, with each child having two of them. However, the shape of each was unique. The vivid colour play of these various stone and shell beads, from dark purple, rosé to clear blue, olive green, brown, dark grey and white is in strong contrast to the cloth/ garment of the torso decorated almost exclusively with white shell beads.

Table 47 Number of bead and pendant raw material classes associated with the three subadults in the Burial CG9. The isolated bones of the fourth individual did not show any clear association to a bead. *Area* here refers to the location inside the burial, with *Area A* being the area of the pelvis of individual Loc. CR28.2:122a, *Area B* the pelvis of individual Loc. CR28.2:122b, and *Area C* the area of the torsi and the isolated infant bones (Loc. CR28.2:123a). T=*Tridacna* sp., N=*Neritae*, mN=mini *Neritae*, C=*Cypraeidae* (cowries), mC=mini *Cypraeidae*, Con=*Conidae*, D=*Dentalia*, Sh?=Shell indet., MOP=mother-of-pearl, Sw Car=Sweetwater carbonate, L=limestones, M=marl, sL=sandy limestones, (c)S=(carbonatic) sandstones, Chrys=chrysocolla, G=indet. "greenstones", indet.=not identified.

ID	Number	Number of Items per Raw Material																		
		Shell						Minerals												
Loc. CR28.2:	Total	T	N	mN	Cow	mCow	Con	D	Sh?	MOP	Sw Car	L	M	sL	(c)S	Vulcanic	Chryso	G	Feldspar?	Indet.
122a	756 +8?	194	61 +1?	50	212	4	74 +1?	1	4	3	3	70 +4?	26 +1?	15	6	2	28 +1?	2	1	
Area A	225 +4?	30	4				74 ³⁵ +1?		1	2	3	59 +2?	26 +1?	15	5	2	2	2		
Area C	531 +4?	164	57 +1?	50	212	4		1	3	1		11 +2?			1		26 +1?		1	
122b	261 +2?	32 +1?		1			38			2	9	103 +1?	44	9	14	5	3			1
Area B	261 +2?	32 +1?		1			38			2	9	103 +1?	44	9	14	5	3			1
122a/122b	4				1		1					2								
Area B	3						1					2								
Area C	1				1															
123a	52 +1		11	11	28 +1		1					1								
Area C	52 +1?		11	11	28 +1?		1					1								
122a/123a Area C	10				10															
Unclear Total	64	16		9	12		3				3	13	4	4						
Area A/B	32	5			1		3				3	13	3	4						
Area C	12	4		2	6															
Ident.	20	7		7	5								1							
Total	1158	243	73	71	264	4	118	1	4	5	15	194	75	28	20	7	32	2	1	1

³⁵ Of which nine were located between Areas A and B but belong to Ind. 122a.

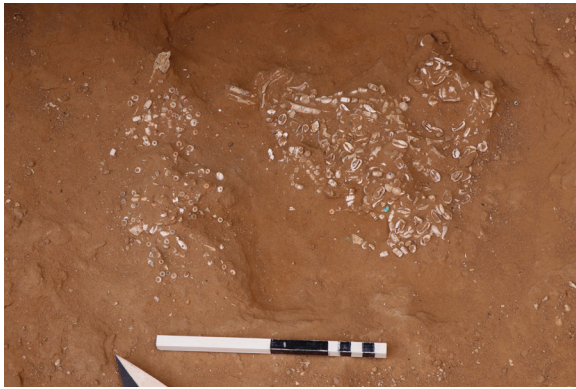


Fig. 83 Perfectly well *in situ* preserved chains of the body decorations of the two 3-4 year-old children (see Fig. 82D, Layer 6). In the southern part the bead-decorated cloth/ garment made almost exclusively of shell-beads and only a few chrysocolla and limestone beads and in the pelvis area of both children, the colourful assemblages of various bead types. (Photo: M. Benz, Ba'ja N.P.)

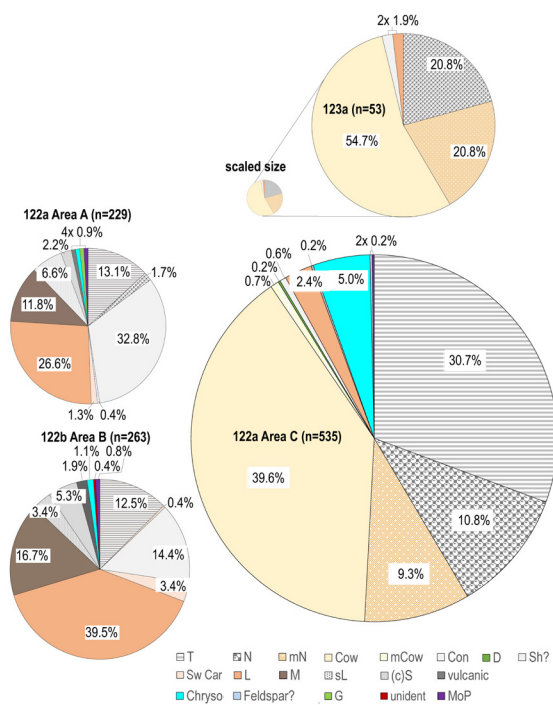


Fig. 84 Raw materials used for beads and pendants for the three individuals Loci CR28.2:122a, CR28.2:122b, and CR28.2:123a. Beads that could not be clearly attributed to one or the other individual were not considered in the graph. The size of the graphs are scaled according to the number of beads with the graph for individual Loc. CR28.2:123a being represented twice: the small circle in scaled-size and the larger non-scaled to show the percentages. For all beads and abbreviations see Table 47. (Graph: M. Benz, Ba'ja N.P.)

Cowries and nerites were also discovered around the skull of infant Loc. CR28.2:123a (Fig. 84). The isolated Conidae bead and one pale pink limestone bead that were also associated with the infant may have been dislocated from the adornments of child Loc. CR28.2:122a on whose left shoulder the infant rested. The beads formed a half circle around the bones, suggesting either a decoration of the skull or a decorated cloth or bag in which all the bones of the infant were placed. As has been suggested for the single burials, it seems that whoever had made these decorations had a very precise idea how they should look like and which materials were to be used (Fig. 85). Not a single Conidae bead was used for the chest/skull decoration of the firstly interred child, even though 117 Conidae beads were used in both decorated objects discovered in the pelvis areas of the 3-4 year-old children. In contrast, with the exception of a few dislocated cowries – mostly fragments –, no cowries were used for the decoration of the pelvis areas. The same holds true for the blackish-grey volcanic beads, and olive to dark grey coloured marly limestone beads. Both types were exclusively used for the ornamentation in the pelvis areas. Last but not least, it should be mentioned that – as far as we can tell for now³⁶ – from the “greenstone” category, only chrysocolla beads were used. Their different composition of trace elements suggest that this choice was not because chrysocolla was the closest or only accessible source of “greenstone”. According to trace element analyses, the minerals possibly came from different sources (Gerlitzki and Martin this volume). Moreover, beads of the other burials show that turquoise, amazonite, malachite, and possibly plancheite were available. Choosing only chrysocolla as a raw material for blue-green coloured beads therefore probably was a conscious choice, although it cannot be excluded that access to other “greenstones” had not been possible. Even though we lack the meaning of this choice (apotropaic, religious, ethnic, age or gender...?), it implies a profound knowledge of the raw material. It should also be mentioned that in none of the other burials a similar decoration has been found so far.

Taken together these observations lead us to suggest firstly that the striking similarity of the two decorated objects of the pelvis areas of both older children indicates a clear idea of how such

³⁶ Two “greenstone” beads were not identified in the field.

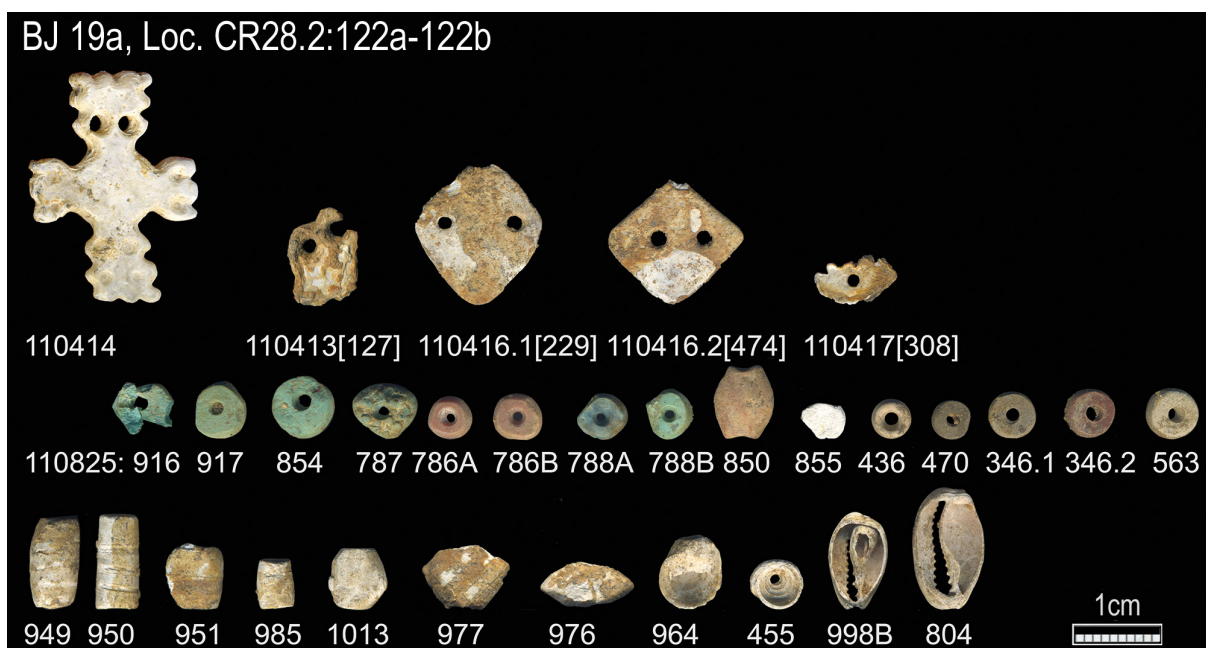


Fig. 85 Selection of bead types that were used for the adornment of the corpses in Burial CG9. MOP artefacts were recorded each with an own F.no., their individual bead IDs are given in square brackets. All other beads were recorded under the main F.no. 110825 with individual subnumbers. (Photos: H.G.K. Gebel, M. Benz, Ba`ja N.P)

an ornament should look, and that they should probably manifest a close relation (possibly familial) between both children. Secondly, even though similar bead types were used in other burials – except for the high number of cowries which is unique so far –, the composition of both types of jewellery is unparalleled for the time being. Neither the supposed cape or headgear and body decoration of the firstly interred child, nor the decorated cloth/ belt/ bag in both pelvis areas is known from any other site in the Near East. Belts and/ or head decorations (so-called “diadems”) have been documented at the Late PPNB site of Halula (Alarashi 2014; Alarashi *et al.* 2018) and at the “PPNA” site of Hasankeyf Höyük (Miyake 2016: 35), but they consisted of a single row of shells. A beaded cap (d: 16cm) was uncovered at the Late PPNB site of Nahal Hemar Cave (Schick 1988: 35-36). The small diameter of this cap suggests that it was also worn by a child possibly younger than ten years. However, in contrast to the mainly Red-Sea shells used at Ba`ja, only a few cowries (n=16) and nerite shells (n=5) were uncovered in that cave (Mienis 1988).

Future research will be able to make 3D reconstructions of these sophisticated ornamentations. All beads were recorded, labelled and scanned individually. Ten layers of beads were documented, from which the location of almost all beads can be determined (Fig. 82B-E).

The cross-like mother-of-pearl pendant (F.no. 110414, Fig. 85) is so far unique for the Levantine Late PPNB communities. It resembles a larger similarly cross-shaped pendant from the collective Burial CG11.³⁷ Use-wear traces clearly indicate its intensive use (see Benz *et al.* 2020). On the left and right as well as on the lower branch of the cross, non-perforated drillings were made, as if they should imitate the perforations of the larger example, but the risk that the tiny piece would break was anticipated and therefore the drillings were not completed. The two cross-shaped pendants contrast with the other ring-shaped so-called “paillettes” uncovered at Ba`ja (in Burials CG7, CG11, and DG1) and Basta (Gebel and Hermansen 2001; Gebel *et al.* 2004, 2022b). A similar diamond-shaped mother-of-pearl button, as in the ornament of the child Loc. CR28.2:122b, is known from Basta, once more underlining the close cultural and exchange networks which existed between both communities (Hermansen n.d.).

Besides the ornaments, as mentioned in the stratigraphic section two large blocks of yellow ochre were deposited immediately east of each skull of both children (Loc. CR28.2:122a-b,

³⁷ A very similar but fragmented pendant was uncovered in 2021 but due to the on-going analyses could not be considered here.

Fig. 81B). Additionally, close to the southwestern border of the pit, a white very polished quartz pebble (F.no. 117856, Fig. 81A-B) was uncovered beneath the grave cover.

Immediately above one of the white Ordovician sandstone slabs (Loc. CR28.2:117) and close to the northern border of the burial, two halves of a small bowl (F.no. 111825) were found separated from each other by *c.* 5cm, embedded in the brown-reddish sand layer Loc. CR28.2:115C (Fig. 86). Both pieces matched perfectly well and showed no abrasion at the edges. It can thus be suggested that the small bowl was broken deliberately, shortly before/ during/ or shortly after the burial. Traces of an impact from a stroke were not detected macroscopically. A red stripe, at first supposed to be red pigment, turned out to be a natural inclusion in the crème-coloured limestone.

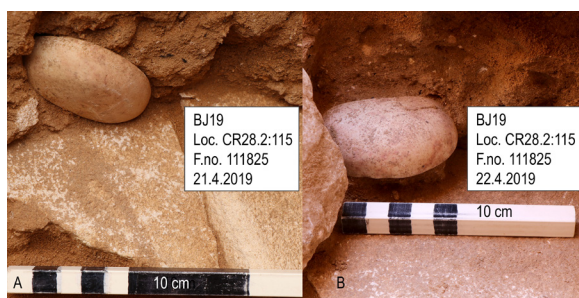


Fig. 86 A small bowl (F.no. 111825) was found broken in two pieces (A-B) immediately above the northernmost slab of the grave cover (Loc. CR28.2:117). (Photos: M. Benz, Ba`ja N.P.)

Use of pigments: The use of red pigment has not been observed, but two lumps of large yellow ochre were deliberately placed left and right of the skull of the firstly interred individual. Microscopic analyses of beads and bones will have to prove whether they were coloured with pigment. As mentioned above, the choice of ornaments was very specific, especially concerning the selection and combination of colours. Shells – possibly all white and light crème-coloured – largely dominated the body garment of the firstly interred individual, whereas the decoration of both children in the hip area was the most colourful assemblage so far uncovered in Ba`ja, including various shades of red, pink-purple, orange to turquoise, green, olive, brown, grey and of course white from mother-of-pearl buttons and Conidae beads.

Use of fire: There is no clear indication that a fire was made either in or outside the burial.

Samples: see Appendix 2

Comments: In layer Loc. CR28.2:109, immediately above and adjacent to the burial pit, a high number of grinding tools was discovered (F.nos. 116042, 116052, 116060, 116064[3x], 116065[2x], 116066[2x], 116085[2x], 116132, 116146[3x], and 116168[2x]), along with a stone vessel fragment (F.no. 116810); they represent parts of the rapidly collapsed ceiling and walls but most probably are not in relation to the burial.

Future excavations have to clarify whether the floor Loc. CR28.2:114 consisted of two superimposed floors, as the situation in the grave pit Loc. CR28.2:111 suggested, and whether the stones Loc. CR28.2:119 were from a sub-construction of this floor or from a pit filling (for a detailed discussion see the following section on the “burial ritual”).

Moreover, the pit filling (Loci CR28.2:115A-C) above the white deliberately destroyed sandstone slabs does not represent a normal room debris, but consists partly of the same sand – though a bit more compact – than the lower pit filling (Loci CR28.2:120/121). The temporal distance of this pit filling above the white stone slabs to the lower grave filling is impossible to determine. Very thin dark layers embedded in sub-layer C, immediately above the grave covering slabs may suggest an open surface for some while. It cannot be excluded that the sediment collapsed into the pit, only after the corpses had decayed. However the similarity of layer Loc. CR28.2:115A to the lower pit filling was striking. The analyses of the micromorphological sample might help to clarify this question in the future.

For the time being with the stratigraphic observations at hand, it is impossible to decide whether the grave was reopened or not, *i.e.*, an identification as multiple or collective remains to be discussed. Irrespective of these stratigraphic uncertainties, it must be mentioned that Burial CG9 is the second most lavishly decorated burial. However, in contrast to the Burial CG7 (“Jamila”), the grave construction is rather simple and the beads are very varied and colourful. The cross-shaped pendant relates this burial to the individuals of the collective burial CG11 in Room CR17, where two further cross-shaped mother-of-pearl pendants were found.

Table 48 Objects found in the grave pit Loc. CR28.2:111. Identification of stone raw materials must be considered as preliminary; the identification was not done microscopically, but in the Department of Antiquities (Wadi Musa) with reference to a sample of XRF-analysed beads by the Geological State Department Freiburg; *1[sic] erratum in the Masterfile; wrongly recorded there as [754], *2 due to some broken cowries their absolute number is uncertain.

Objects	Field Numbers	Description, Raw Material, Measurements mm: l length, h height, w width, th thickness, d diameter, med medial, prox proximal, dis distal, pres preserved, av average, dp diameter of perforation
Object in Loc. CR28.2:115A		
1x Miniature stone vessel (Gebel forthcoming)	111825	Oval crème-coloured limestone miniature bowl with red pigment colouration in the stone, production and use-wear traces run over the colouring, broken in two halves, without any abrasion on the breaking edges; l 67.2, w 61.4, h max. 22.9, th rim 2.5, middle 6.7; weight: 74.0 g
Objects in the Grave Filling Loc. CR28.2:120		
2x Yellow ochre stones 1x Quarzitic pebble	NN 117856	Left and right of the child's (Loc. CR28.2:122a) head Close to the southwestern border of the grave pit Loc. CR28.2:111
Objects Related to Burials Loc. CR28.2:122a-b/123a		
4x MOP buttons and 1x pendant; numbers in square brackets refer to the ID given in the field. ³⁸	110413 [127] 110414 110416.1[229] 110416.2[474]*1 110417[308]	Flag-shaped button, MOP, two perforations (one broken); l 11.9, h 8.4, th 1.5; weight: 0.1g Cross-shaped pendant with serrated edges on all four branches of the cross; MOP, two parallel horizontal perforations on the upper edge of the vertical branch; on lower part of the vertical branch four, and on each end of the horizontal branch two unfinished, non-perforated drillings; use-wear traces on the two perforations on the top. l 28.2, w 20.6, th 2.0, dp 1.8; weight: 1.0g Rhomboid shaped button; l 15.35, h 17.31, th 1.07, dp 2.1; weight: 0.4g Diamond shaped button; l 15.17, h 16.4, th 1.22, dp 2.2; weight: 0.3g Half-circle shaped button, with serrated horizontal border; l 10, h max. 5.1, th not measured, too fragile; weight: <0.1g
1153x Beads: except for dislocated beads, every item was numbered with a number or letter; individual numbers have to be checked in the catalogue (see Alarashi and Benz this volume: Appendix 1)	110825	<u>Shell beads:</u> 243x <i>Tridacna</i> sp. beads of barrel, cylindrical, rhomboid and diamond shape 73x Nerites and 71x mini-nerites 264x Cowry*2 and 4x mini-cowry 118x Beads made from the abraded top of the spire of Conidae 1x Dentalium? 4x Indet. shells/ white carbonate beads 15x Coral/ sweet-water carbonate beads (?) <u>Stone beads:</u> 193x Disc-shaped limestone beads 1x Flat red limestone bead 75x Disc-shaped marly limestone beads 28x Disc-shaped sandy limestone beads 20x Disc-shaped (calcareous) sandstone beads 7x Volcanic (?) stone beads 32x Chrysocolla 2x Indet. "greenstone" beads 1x Translucent silicified/ quartzitic cylindrical bead (feldspar, gypsum or fluor/ hydroxyapatite?) 1x Indet. dark purple spherical bead (silicate?)

Like in the double Burials CG2, CG5, and CG8, in this burial two 3-4 year-old children were combined with secondarily buried infant

³⁸ The cross-like pendant was found by J. Gresky on the height of the chest of the older child, before recording of the beads had started and therefore had received an individual field number (110414), but was not labelled within the corpus of the beads F.nos. 110825.1-1153.

bones. Unfortunately, this burial has not been sampled for histotaphonomic studies, but for the other double Burials CG2, CG5, and CG8 differences of bioerosion suggest that, although two individuals were buried in one pit, probably at the same time, they were treated differently before interment. In the case of Burial CG2 and CG8 primary burials were combined with other rather complete infant

skeletons, whereas in Burial CG9, primary interments of children were combined with secondarily buried infant remains. This recalls the situation in Burial CG5 (see above), where the infant bones may have been stored in a basket (Reifarth *et al.* this volume).

Burial ritual: Considering the above made observations and uncertainties, the burial may either have been a multiple burial (Scenario a-b) with all individuals interred during one event, or a collective burial (Scenario c-d) opened one or more times (Table 49). Several scenarios can be imagined. We will focus here only on the description of possible reopening events, with all other steps abiding more or less to the ritual given in Table 50.

If it should turn out that there was no further burial in the room, the probability would increase that the large stone slab Loc. CR28.2:112 was originally covering Burial CG9 and then intentionally removed later.

Scenario a: The almost perfect preservation of the adornments suggests that there was no reopening at all, meaning that all four subadults were buried in one event, combing in a multiple burial primary and secondary interments.

If there was a reopening, several scenarios can be imagined:

Scenario b: a partial reopening with the removal of the large sandstone slab and the redeposition of the small slabs into the burial pit,

without touching the individuals at all – for what ever reason.

Scenario c: The grave was originally intended for an unadorned infant, as evidenced by the scattered bones of the infant (Loc. CR28.2:123b). It was either reopened for the burial of the 3-4 year-old child (Loc. CR28.2:122a) who was beneath the other individuals at the time of the excavation, or for the burial of all other individuals (Loci CR28.2:122a-b-123a). If this was the case, the infant bones (Loc. CR28.2:123b) had already been deflated and isolated, and had been pushed to the side (north- and possibly northeast). The infant bones of Loc. CR28.2:123b that were found on top of Loc. CR28.2:122b should have re-entered the grave with the grave re-filling of the pit. The fact that the decoration of all other subadult individuals is largely intact makes it unlikely that a second reopening took place after this interment. Overall, this scenario appears unlikely due to the positioning of the isolated infant bones (Loc. CR28.2:123b) above the child (Loc. CR28.2:122b) with no bones underneath, as well as because of the homogeneity of the burial fill.

Scenario d: The grave originally was for the child Loc. CR28.2:122a and possibly for the secondary burial of the infant Loc. CR28.2:123a who was so closely related to it, making a contemporaneous interment very probable. The reopening then had to be made very carefully, depositing the two other individuals (Loci CR28.2:122b-123b) partly on top and to the west of it (either in one or

Table 49 Different possible scenarios for the supposed multiple Burial CG9.

Multiple Burial		Collective Burial	
Scenario a)	Scenario b)	Scenario c)	Scenario d)
Burial of Loc. CR28.2:122a with Loc. CR28.2:123a, slightly later Loc. CR28.2:122b, scattering isolated bones Loc. CR28.2:123b on top of 122b	Sequence of interment similar to Scenario a)	Burial of Loc. CR28.2:123b; for the cover see Scenario a) or b); reopening with dislocation of the infant bones;	Burial of Loc. CR28.2:122a (possibly with Loc. CR28.2:123a); for the cover see a) or b)
Covering the burial with small white sandstone slabs, depositing the two halves of the stone vessel on top; covering with further sediment	Covering the burial first with a large sandstone slab and on top, with small white sandstone slabs	Removing the defleshed Ind. Loc. CR28.2:123b; Depositing Loc. CR28.2:122a (possibly with CR28.2:123a) Depositing Loc. CR28.2:122b	Reopening, depositing Loc. CR28.2:122b and CR28.2:123b
no reopening	Reopening, dislocation of the large sandstone slab, redepositing the small deliberately broken slabs and stone vessel fragments; the corpses remained untouched	Scattering Loc. CR28.2:123b partly on top of Loc. CR28.2:122b; refilling the pit with grave earth, covering with white sandstone slabs and depositing the two stone vessel halves.	Refilling the pit with grave earth, white sandstone slabs and the stone vessel halves

Table 50 Sequence of events related to Burial CG9, if it were a multiple burial. For the legend see Table 5, lines between square brackets and written with grey characters indicate that there is only little evidence or that it is hypothetical.

Event	Activities
1.1-2	Creating or choosing the space close to the southern wall Loc. C10:68, immediately west of the southern window opening in wall Loc. CR28.2:126 and north of the wall opening Loc. C10:68A, which was already blocked at that time
2.2*	Preparing the corpse(s) of the child/ children for the burial by adorning them with bead-decorated loin cloth/ clothes; decorating Individual Loc. CR28.2:122a additionally with a garment decorated on the chest and a cape decorated with cowries and nerite beads. Preparing the isolated infant bones Loc. CR28.2:123a, perhaps putting them in a decorated bag/ wrapping it in a decorated cloth
2.3.1	Cutting a pit (Loc. CR28.2:111) through the floors Loci CR28.2:110 and CR28.2:114; removing the plaster between the southern wall and the burial pit, possibly to create a flat support for the grave's covering slabs
3.2	Fixing the southern border with a small sub-rectangular white slab, possibly as a support for a larger slab
4.1-4	Placing the child Loc. CR28.2:122a first in the pit (for alternatives see Table 49), the head gear slipping off the head during interment
5.2	Placing two lumps of ochre, one to the left and one to the right side of her/ his head; the one to the west of the head rested on the beaded cape
4.1-4*	Placing infant Loc. CR28.2:123a next/ on top of his/ her right shoulder; putting some sediment on the child and depositing child Loc. CR28.2:122b with its back against the left side of Individual CR28.2:122a, both children having their heads in the south. Scattering isolated infant bones (Loc. CR28.2:123b) on top of Loc. CR28.2:122b. Further isolated infant bones were recorded east of individual CR28.2:122a, but could not be attributed clearly to one or the other infant
5.*	Putting a white quartzitic pebble (F.no. 117856) in the burial pit near its southwestern edge; either before or shortly after interment of the corpses
6.1	Sliding of limestone gravel (Loc. CR28.2:121) into the pit from the borders of the cut-through floor Loc. CR28.2:114; filling the grave pit with reddish-brown almost sterile sand (Loc. CR28.2:120)
6.5*	Destroying the prepared or available oval Ordovician sandstone slabs (Loc. CR28.2:117); covering the whole pit rather loosely with five slabs (one had already been used to fix the southern border)
6.7*	Depositing two halves of a small limestone bowl, deliberately broken, on top of the northern most white sandstone slab (this might also have happened some time after the burial)
6.4*	[Closing the grave with a large slab? (it is rather unusual that the large slab should have been above the smaller slabs, but if the grave was not reopened and the small slabs had not been removed to reach the large sandstone slab, this must have been the case)]
7.	No marking of the grave was observed. (If the burial was reopened the sequence would have restarted at point 2.3.1, with reopening the existing burial) [Possibly, after some while the large grave covering slab, Loc. CR28.2:112, was removed from this or from another burial, see 6.4*]

several events). In this case, the reopening should have happened very shortly after the first burial before the organic tissues of the bead decorations had decayed, since hardly any of the beads was dislocated from this garment. Instead of re-covering the pit again with the large slab, only the small white slabs were re-deposited in the grave.

In light of the homogeneity of the sand filling (Loc. CR28.2:120) below the small white sandstone slabs, Scenario b or no reopening at all as in Scenario a seem to be most probable. However Scenario d cannot be excluded, whereas an almost complete relocation of the burial content (Scenario c), should have resulted in more mixed sediment.

Deposition of Human Bones in Room CR34: the Collective Burial CG12

Burial CG12 (Loc. C1:170) was discovered in 2003 and excavated in 2005 by Julia Gresky and Alexandra Kozak (Fig. 87; Gebel *et al.* 2006: 16-18). Although the excavation was completed in Room CR34 down to the floor (Loc. C10:170F/400), human remains were found to extend beneath the buttress (Loc. C10:64) in the eastern part of the room, as confirmed by a section cleaning in 2016. Due to the limitations of the *Household and Death Project*, anthropological investigations were not possible, and only a brief description of the initial infield identifications and archaeological observations can be presented here.



Fig. 87 An accumulation of human bones was uncovered on the floor Loc. C10:170F/400 in 2003 and excavated in 2005 (Stage A). (Photo: H.G.K. Gebel, Ba`ja N.P.)



Fig. 89 Human bones in the upper layer of the burial surrounded by ashy sediment in Layer Loc. C10:133. (Photo: H.G.K. Gebel, Ba`ja N.P.)

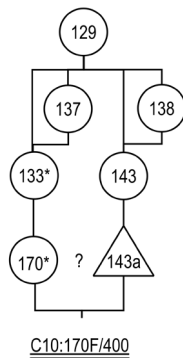


Fig. 88 Preliminary Harris Matrix of the collective Burial CG12. For the legend see Fig. 4. (Graph: M. Benz, Ba`ja N.P.)

Location: The collective Burial CG12 occupies almost the complete Room CR34, except for the western-most part (Fig. 2). Room CR34 is immediately south of Room CR28.1, with which it shares the wall Loc. C10:68/65, and north of Room CR35 where the three burials, CG1 (collective), and CG10 (single, male adult), and CG8 (double subadult) were located. Room CR34 was separated from Room CR35 by the wall Loc. C10:78. Access was possible through Room CR35 via the wall opening Loc. C10:78A. In the blocking of this opening

a humanoid figurine of the es-Sefiye type was uncovered (Gebel *et al.* 2006: 15). Whether this symbolic artefact was related to the burials in Room CR35 or to the collective Burial CG12, or whether it represents an independent magic behaviour of a later occupation phase in connection with the blocking of the opening (see Gebel 2002), must remain an open question. Interestingly, this wall opening was at almost the same level as the other wall openings in Rooms CR35 and CR36.

Preliminary stratigraphic observations: The following stratigraphic observations must be considered as preliminary (Fig. 88, Tables 51-52). Without further anthropological investigations (as it was done for Burial CG1) the sequence of interments remains unclear (Figs. 93A-D). The corpses of this burial were placed directly on top of a former terrazzo-like plaster floor (Kinzel 2013: 144). This is in contrast to the collective Burial CG1 in the southern neighbouring Room CR35 and to most of the single or double burials of Ba`ja. Only in Room CR17 was a similar deposition immediately on the floor of a room observed. However, in Room CR17 the

Table 51 Loci related to the collective Burial CG12.

Locus	Description
C10:129	Soft yellowish-brown (10YR5/6) sandy sediment with inclusions of smaller stones (10-15cm) and a concentration of bones in the eastern room part
C10:133	Greyish and brown sediment with lenses of ashes, inclusions of charcoal, small stones (<15cm) and animal and human bones. Probably equal to Loci C10:137 and C10:143, and part of the burial ritual of Loc. C10:170
C10:137	Soft dark brown sandy sediment with inclusions of some smaller stones (<15cm); probably equal to Loci C10:133 and C10:143.; NE corner of CR34
C10:138	Small thin lens/ patch (thickness c. 2cm) of consolidated yellowish-brown silty sediment/ loam in the NW-corner of Room CR34
C10:143	Compact yellowish-brown sandy sediment, western part of Room CR34
C10:143a	Small single row "wall" segregating Loc. C10:143 from Loc. C10:170; identification unclear
C10:170	Collective burial, resting on floor Loc. C10:170F/400, continuing beneath buttress Loc. C10:64; concentration of animal bones in ashy layer in SW corner of CR34 (=Loc. C10:143) and mixed with a few human bones; possibly covered with fist-sized angular, subangular stones (=Loc. C10:129)
C10:170F/ 400	Red stained (?) plaster floor, lichen and manganese precipitations on subfloor construction

Table 52 Measurements of levels for the collective Burial CG12.

Location	▼ (UE) m a.s.l.	▲ (LE) m a.s.l.
C10:129	1165.35-34 ³⁹	1165.11-1165.07
C10:133 (upper part, E)	1165.11-1165.05	c.1165.05
Long bone (upper part, W)	1165.06-1165.03	c. 1164.90
C10:133 (lower part)	1165.01-1164.91	
C10:137	1165.06	c. 1164.94
C10:138	1165.06	1165.90
C10:143 (upper part)	1164.94-1164.91	1164.90-1164.87
C10:143 (lower part)	1164.90-1164.87	?
C10:170	c.1165.05	1164.89-1164.84
C10:400	1164.89-1164.84	

sequence of burials had started with 'normal' sub-floor burials and only in a later phase more corpses were placed on top of the floor. To our knowledge, this is not the case in Room CR34, where at least the excavated portion of the floor appears to be intact.

According to preliminary anthropological in-field observations, the corpses were piled up in several events, with some skulls being displaced to the northern part of the room. Some isolated human bones in the upper layer (Loc. C10:133) were surrounded by ashy sediment (Fig. 89). Patches of less compact silt (Loc. C10:137) in the NE corner next to Loc. C10:133 and yellowish compact sediment (Loc. C10:138) in the NW corner may represent different filling

events above the human bones, at the same time or slightly later than Loc. C10:133. Beneath this layer, the densely packed human bones appeared (Loci C10:170A-E, Fig. 93A-D). The sediment surrounding the bones was recorded to be "free of ash and contained almost no charcoal" (Gebel *et al.* 2006: 19).

Lumps of very thinly, horizontally layered sand depositions on top of the bones, especially in the north-eastern part of the room, indicate that the corpses and skeletons were exposed to incoming water for some while. Accumulation of fine silt inside one of the skulls confirms that sediment was washed in the heap of bones after the organic tissues had decayed (Fig. 90). It seems that the bones were covered only after a certain time with up to fist-sized unworked stones. This stone cover possibly corresponds to the lower part of layer Loc. C10:129, which was described as a "loose yellowish-brown soil" with "especially in the eastern part, [...] a high concentration of

³⁹ All levels in this table have been adopted from the corrected levels by C. Purschwitz combined with information of the stratigraphic section drawing of 2016.



Fig. 90 Fine silt sediment washed in and dried after decomposition of the soft tissue inside Skull N°21. (Photo: J. Gresky, Ba'ja N.P.)



Fig. 91 The stony layer Loc. C10:129 that covered the whole Room CR34 above the human bones. (Photo: H.G.K. Gebel, Ba'ja N.P.)



Fig. 92 A Stage C of the collective Burial CG12 with the supposed "wall" at the western border separating a concentration of animal bones from the human bones, B completed excavation of the collective Burial CG12 on the floor Loc. C10:170F/400 with the remain of the small "wall" in the southwestern corner (Loc. C10:143a). (Photo: H.G.K. Gebel, Ba'ja N.P.)

bones [...] mixed up with smaller stones (about 10-15 length/ diameter)" (diary 2.9.2003 p. 4).

The levels of the ashy layer Loc. C10:133 slope considerably down to the west, almost to the top of floor Loc. C10:170F/400 (Table 52). This suggests that the human bones were not

deposited throughout the entire room, but rather only in the eastern and middle part. Additionally, traces of red pigment were not found extending to the western border but only for approximately 130cm from the eastern profile. In the western part of the room, a concentration of animal bones (Loc. C10:143) was discovered.

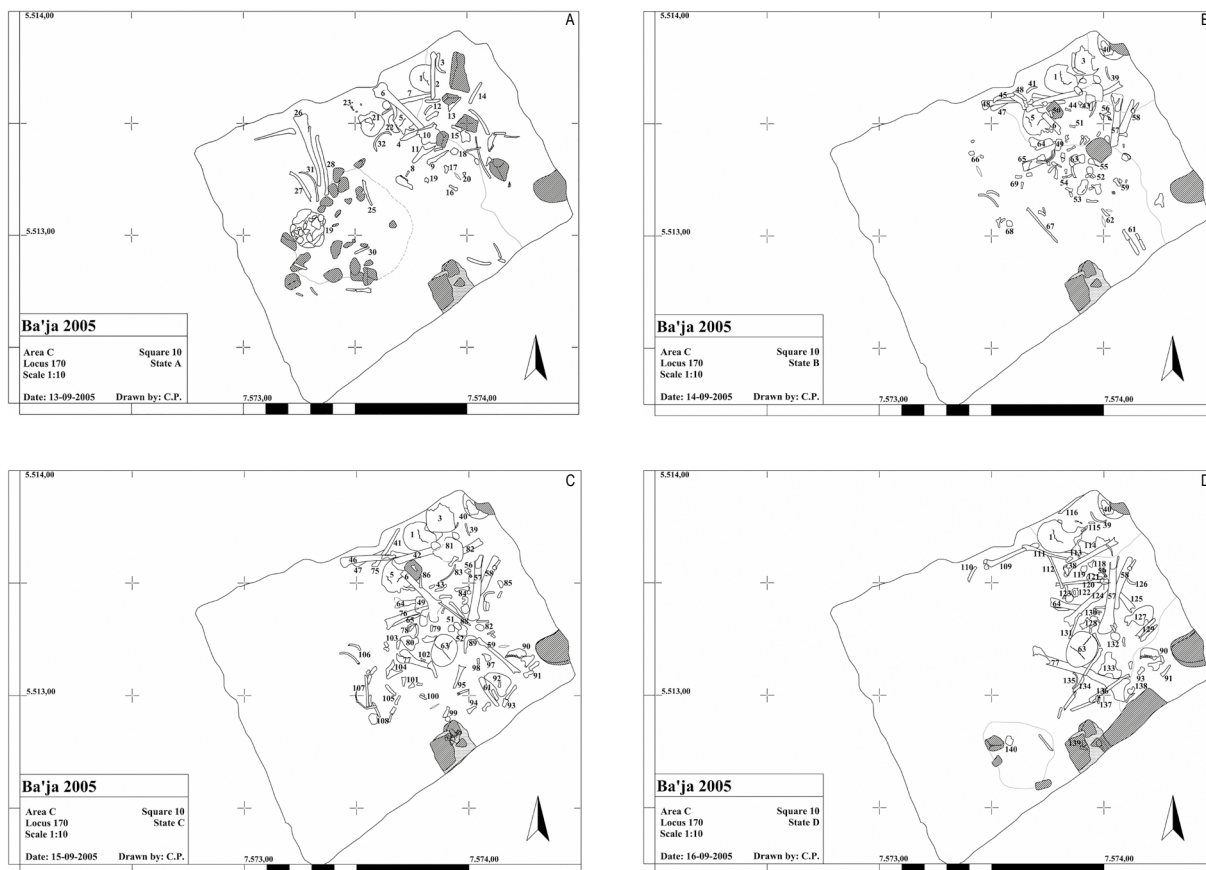


Fig. 93 Four stages (A-D) of the excavation of the collective Burial CG12. (Drawings: C. Purschwitz, Ba'ja N.P.)

Both layers, the human as well as the animal bones were covered by the above-mentioned “yellowish-brown” sandy sediment (Loc. C10:129, Fig. 91). In the eastern profile, it seems that at the bottom of this layer, immediately above Loc. C10:133, a layer of unworked stones separated the human bones from the layer Loc. C10:129. It thus remains an open question as to whether this stone layer in the lower part of Loc. C10:129 was related to the closure ritual after the deposition of the last individual, or whether the stones were deposited for other reasons. Unfortunately, it is impossible to clarify whether these stones covered only the human bones or the entire surface of Room CR34. If the latter was the case, the accumulation of animal bones (Loc. C10:143) in the southwestern corner of the room may have also been part of the burial ritual. The excavators report that the animal bones were separated from the human bones by a small “wall” (Loc. C10:143a, Fig. 92A-B; see also Kinzel 2013: Table 3.19C). However, according to the photos there is no wall visible, but loose stones around the animal bones. It cannot be excluded that the supposed wall was in fact the accumulation of stones at the lower

western edge of the stone layer (Loc. C10:129), *i.e.*, that the animal bones were deposited only after the burial had been covered. The stratigraphic relationship of both Loci C10:170 (the pile of human bones) and C10:143 (the animal bones) remains unclear.

Except for the supposed small single-row “wall” no constructional elements could be observed in relation to this burial.

Human Remains: In 2005, the remaining human bones were completely excavated in four levels (Fig. 93.A-D; F.nos. 58002, 58003). Since it was not possible to restudy them within the framework of the *Household and Death Project*, the preliminary field records are repeated here for the sake of completeness, keeping in mind that they were based on in-field observations: “In the NE part of the collective burial, many non-articulated human remains were embedded in a yellowish-brown sediment; only one upper and one lower arm were found in anatomical order. Among the bones, one skull was placed directly in the NE corner and looking towards the east; the related thorax – most probably

articulated – rests underneath Butress 64. (The cervical vertebra and a right clavicle could be seen, indicating that the corpse was placed on its back). The chin must have rested on the chest. The other non-articulated post-cranial remains seem to belong to the 6 skulls found, and they may represent two children (6-14 years), one woman, and three men.” (Gebel *et al.* 2006: 17-18)

Stratigraphic observations in 2016 show that the bones of this collective burial had been piled up towards the east and southeastern corner of the room forming a small hump, which was covered by the above-mentioned layer of stones (Loc. C10:129). According to the diary records, it was possible to distinguish two layers of human and animal bones (Loci C10:133, C10:170).

It is evident that without a comprehensive identification of the bones and bone fragments, and their attribution to specific individuals, it is impossible to fully understand the burial processes in detail. Therefore, evaluating the ritual associated with this burial is outside the scope of the present publication.

Objects related to Burial CG12: Besides the (almost?) complete absence of constructional elements for this burial, the rarity of “grave goods” in this room is also striking (Table 53). The only type of “grave good” were 12 arrowheads that are said to be found concentrated in one part of the burial, with three of them laying next to an upper leg (Fig. 94). In contrast to many other burials, not a single bead has been recorded in this burial. Only one cowry was discovered in the covering layer Loc. C10:129, which might have been dislocated from the burial. Besides flints, two fragments of



Fig. 94 Concentration of three arrowheads and a small patch of ash and charcoal next to an adult long bone. (Photo: J. Gresky, Ba`ja N.P.)

grinding stones were also uncovered. In the sediment of Loc. C10:133, there were a sandstone ring fragment, animal bones, and flints. In contrast to the very low number of findings, the number of animal bones is unusually high, mixed with the human remains in Layer Loc. C10:170 (Prust this volume: Table 2). Animal bones of the upper layers of this burial were not analysed within the *Household and Death Project*, because their attribution to the burial is uncertain. However, of course, they should be considered together with the human bones within a future project.

Use of red pigment: Pieces of red pigment and red colouration were found on the bones and on many stones of the small grit of the floor (Fig. 94). The sandy sediment mixed with the bones displays a horizontal layering pattern, indicating that it was most likely deposited through subsequent weathering events. These events may also have caused the red colouring of the floor, due to either coloured corpses or cloths that were buried on top of this floor. It must thus remain an open question whether red liquid was poured or sprinkled over the corpses or the natural result of decay and the washing out of coloured clothing or bodies.

Use of fire: While there is no conclusive evidence that fire was used in the burial process, sediments in the upper layer surrounding the human bones contain charcoals and patches of ashy sediment. These materials could be remnants of ordinary household waste or the remains of a ceremonial feast. The animal bones mixed with the human remains did not appear to be unusual in any way.

Comment: In conclusion, this collective burial appears to have involved minimal time and effort in its construction and contained an exceedingly low number of de-/excommodified objects and object types. While the situation in Room CR34 is similar to that of the upper layers in the collective burial in Room CR17, it is unusual in that the deposition of corpses in CR34 lacks the rather high number of artefacts present in CR17. It is worth to note that the dearth of “grave goods” might be related to the age of the buried individuals. Based on current research, it appears that children were more often buried with elaborate ornaments compared to adults, with the exception of “Usaid” (Burial CG10), who was buried with a significant amount of “grave goods”, unlike most other adult burials.

Table 53 Objects related to the collective Burial CG12, *not considered for statistical analyses since attribution to the grave is uncertain.

Objects Related to Burial CG12, Loc. C10:170		
Objects	Field Numbers	Description, Raw Material, Measurements
excavation stages from top to bottom A-E are given in square brackets		mm: l length, h height, w width, th thickness, d diameter, med medial, prox proximal, dis distal, pres preserved, av average, dp diameter of perforation, frgm. fragment
12x Arrowheads [1x in A, 3x in A1, 3x in B, 3x in C, 2x in E]	52026a-l	Leaf-shaped Amuq points (Gebel <i>et al.</i> 2006: Fig. 8); up to l max. 63, w max. 13; 52026-l is broken at the transition shaft to body; the others are pres completely
Animal bones	54019, 54021-27	Almost exclusively domesticated goat/ sheep bones with 2 MNI of gazelle (see Prust this volume: Table 2)
Human	58001, 58003	Not analysed
Objects Related to Layer Loc. C10:129 Covering the Human Bones of Burial CG12		
Flints general	42009, 42044, 42071	No information recorded
Animal bones	44012-13	Not analysed
1x Cowry	48000*	Not available for analyses
2x Grinding stone objects (Gebel forthcoming)	46056.1	Mano end fragment, white sandstone, lateral flaking into working face I, natural depressions on convex side; w mean 103, th max. 41.
	46056.2	Mano end fragment, red sandstone, calcareous incrustations and lichens on breakage area and working face I; w mean 73, th max. 35.
Objects Related to Layer Loc. C10:133⁴⁰ Covering the Human Bones of Burial CG12 in the SE Corner Below Loc. C10:129		
1x Sandstone ring	41227	Frgm.
Flints	42006, 42011	Including one arrowhead
Animal bones	44016, 44035, 44041, 44048, 44073, 44094	Not analysed Not analysed, mixed with human bones
Objects Related to Layer C10:143 Animal Bones in SW Corner of Room CR34 Below Loc. C10:129		
1x Bead	40802*	<i>Tridacna</i> sp.
Animal bones	44039	Not analysed
1x Sandstone ring frgm.	Not recorded	
Flints	Not recorded	
Objects Found After Removing Backfill in 2016⁴¹		
1x Sandstone ring	91234	Frgm.
1x Shaft-straightener	91808	
Flints	92061	Indet.
Animal bones	94034, 94073, 94089	Indet.
Palaeobotanical sample	97436	From lowest level (not contaminated)

⁴⁰ Loc. 133 (which is according to new labeling: Loc. C10:133): “greyish to dark brown soil, traces of charcoal and ashes. Mixed up with stones up to 15cm length/ diameter and bones. The most significant of these bones is a 46cm long probably human long bone, which was lying in the SE part of the locus, embedded in an ashy soil, which is predominant in an area of about 40cm diameter around the bone...During the removal of the locus more animal and probably human bones appeared. Among these seem to be 2 skulls and another human long bone.” (Diary Heidi Underbjerg/ Line Thorup 3.-6.9.2003, Loc. 133, p.5)

⁴¹ Most probably dislocated, not considered for analyses.

The age categories of the buried individuals are also striking. Whereas in all other collective burials remains of infants were uncovered, in Burial CG12 only two older children (6-14 years) and four adults were buried. The rather high amount of animal bones underlines the different character of this burial. Although it is possible that valuable organic materials, such as textiles, were not preserved, it appears that these individuals were buried with less elaborate grave decorations and according to less costly rituals. Even the grave cover, if present, seems to be lacking in care and resembles ordinary room fillings.

The meaning of these four differences to many other burials – 1) hardly any grave construction, 2) hardly any “grave goods” but a high number of arrowheads, 3) many animal bones, and 4) a specific selection of older children and adults – remains speculative. Strontium analyses may provide clues as to whether they had grown up at the site and its surroundings.

Whether the ashy sediment, in which some bones of the upper layers were embedded, was related to the use of fire during the burial ritual, or whether the bones had been dislocated from somewhere else, remains enigmatic. The striking absence of charcoal in the lower burial filling (Loc. C10:170) does not support the idea that fire was used during the burial ritual, but rather that it was a later association, due to the mixing with the upper ashy layer Loc. C10:133 (Fig. 94; see also the observations made by Prust this volume). The style of the arrowheads (Gebel *et al.* 2006: Fig. 8) clearly points to a Late PPNB context, underlining the chronological attribution of this burial to the later Late PPNB occupation phases, in accordance with its stratigraphic position partly beneath the buttress Loc. C10:64.

The Collective Burial CG1 in Room CR35

The Burial CG1 (Loc. C10:152) was discovered in 2001, and the first human bones were encountered in 2003. However, the burial was excavated only in 2005 by Julia Gresky and Alexandra Kozak. Identification of the bones within the frame of the *Household and Death Project* was done by Susan Klingner, Zentrum für Anatomie Göttingen (see Appendix 3).



Fig. 95 The collective Burial CG1 as it was uncovered in 2003 with a layer of stones and grit on top of the stone slab. (Photo: H.G.K. Gebel, Ba’ja N.P.)

Location: The location of the burial pit in Room CR35 is similar to that of many other burials (Figs. 2, 95). It is in a niche/NE-corner of the room surrounded by protecting walls Loc. C1:78, with the window opening Loc. C1:78A close to the burial, and Loci C10:32 and C10:407. As mentioned above (see CG10), Burial CG1 is immediately east of the single male Burial CG10 (Table 54).

Stratigraphy and grave construction: As mentioned above (see Burial CG10), the stratigraphic relation between the two adjacent Burials CG1 and CG10 remains unclear (Fig. 96). The grave pit (80 x 60-70cm) was cut through the floor Loc. C10:146a/403 (Fig. 97). If it was later than Burial CG10, it was also dug through the grave cover (Loc. C10:146b) of Burial CG10 into the paleosol. It was about 40cm deep (Gebel *et al.* 2006: 15). No constructional elements were observed in the grave pit. However, one large sandstone slab (c. 80 x 44 x 4.5cm) that was oriented in NNW-SSE direction was found in the middle of the grave pit, hardly covering all the bones (Fig. 50). It was broken in two pieces, most probably due to the pressure from above and the void beneath, which was caused by the decaying corpses. On the eastern side of the covering slab, a concave fragment of a stone vessel (F.no. 47825) was discovered leaning against the eastern border of the burial pit. The fragment was found positioned almost vertically, with its concave side stained in red facing the northern part of the large slab. It is possible that this fragment originally rested horizontally on the grave, but may have slipped into the pit due to the decay of the corpses. A small limestone (11 x 17cm) was close to it, which was – according to the excavator – also deliberately placed on top of the burial. Some up-to-fist-sized stones and remains of angular to subangular grit were found in the sediment



C10:146a/403/89

Fig. 96 Harris Matrix of the collective Burial CG1. For the legend see Fig. 4. (Graph: M. Benz, Ba’ja N.P.)

(Loc. C10:147) that covered the grave; these remains were probably washed into the pit, or had slipped into it from the plaster floor Loc. C10:146a/403 (Fig. 95). The only artefact in this almost sterile sediment was a fragmented white sandstone mano (F.no. 46407). The sequence of interments will be described in the next section (Figs. 98-99).



Fig. 97 The grave pit Loc. C10:147 of the collective Burial CG1, after the completion of the excavation in 2005. (Photo: H.G.K. Gebel, Ba'ja N.P.)

Human remains: MNI 6 individuals (F.no. 58000):
 Individual I⁴²: neonatus (perinatal; not identified in the photos and drawings)
 Individual II: infans Ia 2 years ± 8 months (yellow)
 Individual III: infans Ia 3 years ± 8 months (purple)
 Individual IV: young adult 21-25 years, possibly male (green)
 Individual V: juvenile 14-17 years, male ≥ female (turquoise)
 Individual VI: young adult 18-22 years, possibly male (blue)

According to the identifications in the laboratory by Susan Klingner, human remains of at least two young adults (Individual IV [green] and VI [blue], both probably male), one juvenile (Individual V [turquoise], male ≥ female), two subadults of about 2 and 3 years (Individuals II-III [orange and purple]) and one newborn (Individual I, not identified in the photos and drawings) were buried in the collective Burial CG1 (see Gebel *et al.* 2006: 15; see Appendix 3). Thanks to the identification of the bones, the documentation by Julia Gresky, and the drawings of Christoph Purschwitz, a sequence of the burial events can be reconstructed at least for the juvenile and adult individuals.

The dislocation of many bones let Gebel *et al.* (2006) suggest that the burial was a collective burial (Fig. 99). The sequence of depositional events seems unusual for a collective burial, because the juvenile individual

⁴² The designation has been adopted from the field records.



Fig. 98 Three selected stages of the human bones: A Layer C, B Layer G, and C Layer H. For the drawings of all layers see Fig. 99. (Photos: H.G.K. Gebel, J. Gresky, Ba'ja N.P.)

Table 54 Loci related to the collective Burial CG1.

Locus	Description
C10:89	"Thin layer of ashy soil on top of a 5-7mm thick stamped floor, underneath is a thin (1cm) layer of subangular yellowish stone" (Diary H. Underbjerg 2001); stamped clay floor with possible burning activities, possibly identical to Loc. C10:146a/403
C10:146a	=C10:403 see Burial CG10; most ancient limestone grit plaster floor with stone sub-construction
C10:147	Pit in the northern corner of Room CR35, cut through the plaster floor Loc. C10:403=C10:89=C10:146a
C10:147a	Fill of pit Loc. C10:147; loose brownish-yellow (10YR5/7 to 10YR6/8) silty sediment with some limestone inclusions (rounded edges, <1.5cm). The upper part of the fill was devoid of finds except for a sandstone mano fragment (F.no. 46047)
C10:148	One large sandstone slab, broken in two halves (c. length 76cm x width 44cm, thick 4.5cm), due to pressure from the above fill; possibly collapsed due to the decay of corpses beneath; a red stained stone vessel fragment (F.no. 47825) on top of Burial Loc. C10:152
C10:152	Human remains, Layers B-H

Table 55 Levels of the collective Burial CG1.

Location	▼ (UE) m a.s.l.	▲ (LE) m a.s.l.
Loc. C10:89 (floor=C10:146a=C10:403)	1164.88-1164.84	
Loc. C10:146a/403	1164.94 ⁴³	
south	1164.92	
north	1164.82	
Loc. C10:147 grave pit	1164.88-1164.84	1164.33
Loc. C10:148 covering stone slab	1164.60	
Loc. C10:152	1164.45	1164.33

(Individual V) who was found resting at the bottom of the pit, was the best preserved (Fig. 100B), whereas the young adult individuals on top (Individual IV and VI) were deposited later and dislocated (Fig. 100C-D). However, several arguments speak in favour of at least one reopening of the grave.

According to the stratigraphy (Tables 54-55), the following sequence of depositions of the human bones can be suggested: Individual V was buried at first and the infant bones of Individual II and possibly of Individual III⁴⁴ were scattered around him. Since not a single identified infant bone was discovered beneath Individual V, it is very improbable that the burial was originally conceived as a collective/ double burial for the infants (Individual II and Individual III) who were

then dislocated during the burial of Individual V. Partly on top of the infant bones of Individual II and on top of Individual V, Individual VI was deposited later (Fig. 100C). The reopening of the grave was possibly the reason for the dislocation of the skull of the juvenile Individual V and for the absence of his right upper arm. The skull's dislocation indicates that the bones must have been disarticulated, and that there must have been a void, at least until the reopening of the grave, so that it was possible that parts of the skull were dislocated next to the right elbow and the occipital skull fragment next to the left lower arm of Individual V.

At last, Individual IV (Fig. 100D) was deposited. Even if at first sight it seemed that Individual IV may have been pushed to the borders of the grave pit, and may represent a disturbed, more ancient burial, this is contradicted by the position of bone N° 8 and the right tibia (N°22) of Individual IV, which rest above the bones (N°18 and N°69) of Individual VI. Furthermore, the left leg of Individual IV rests on top of Individual V's left arm, torso, and the disarticulated occipital skull fragment.

⁴³ All measurements taken in 2016 in CR34 had to be corrected for +8cm

⁴⁴ The bones of the newborn Individual I were not identified in the photos and drawings. As it seems from the records these bones were scattered among all layers or uncovered only in the sifted sediment.

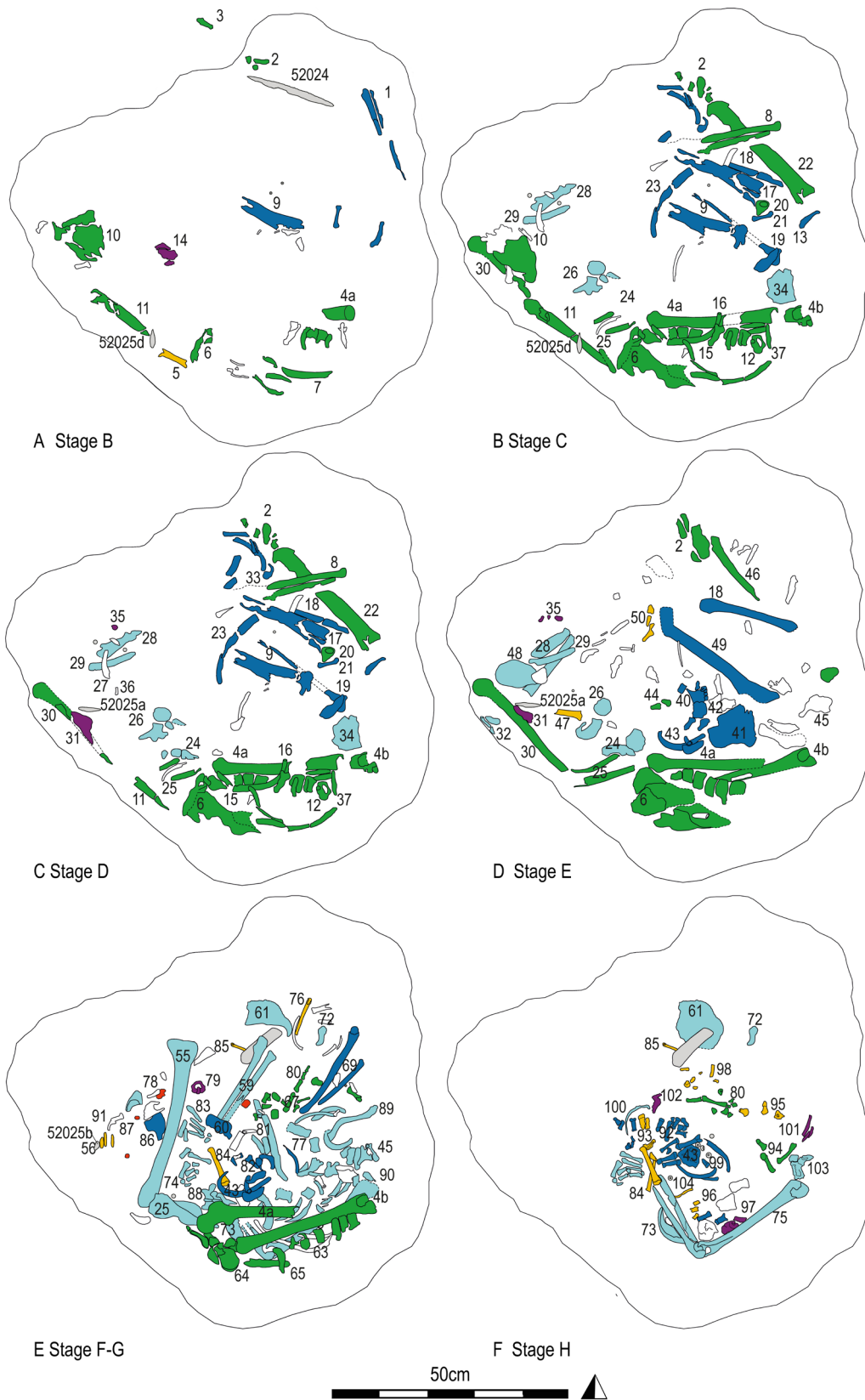


Fig. 99 The sequence of excavation layers of the collective Burial CG1. Layer B (top) to Layer H (bottom). Yellow=Individual II, purple=Individual III, green=Individual IV, turquoise= Individual V, blue=Individual VI, white=indet. bones, grey=artefacts, red=red pigment. (Drawings: C. Purschwitz; digitalisation: M. Renger, based on data by: J. Gresky, S. Klingner, Ba'ja N.P.)

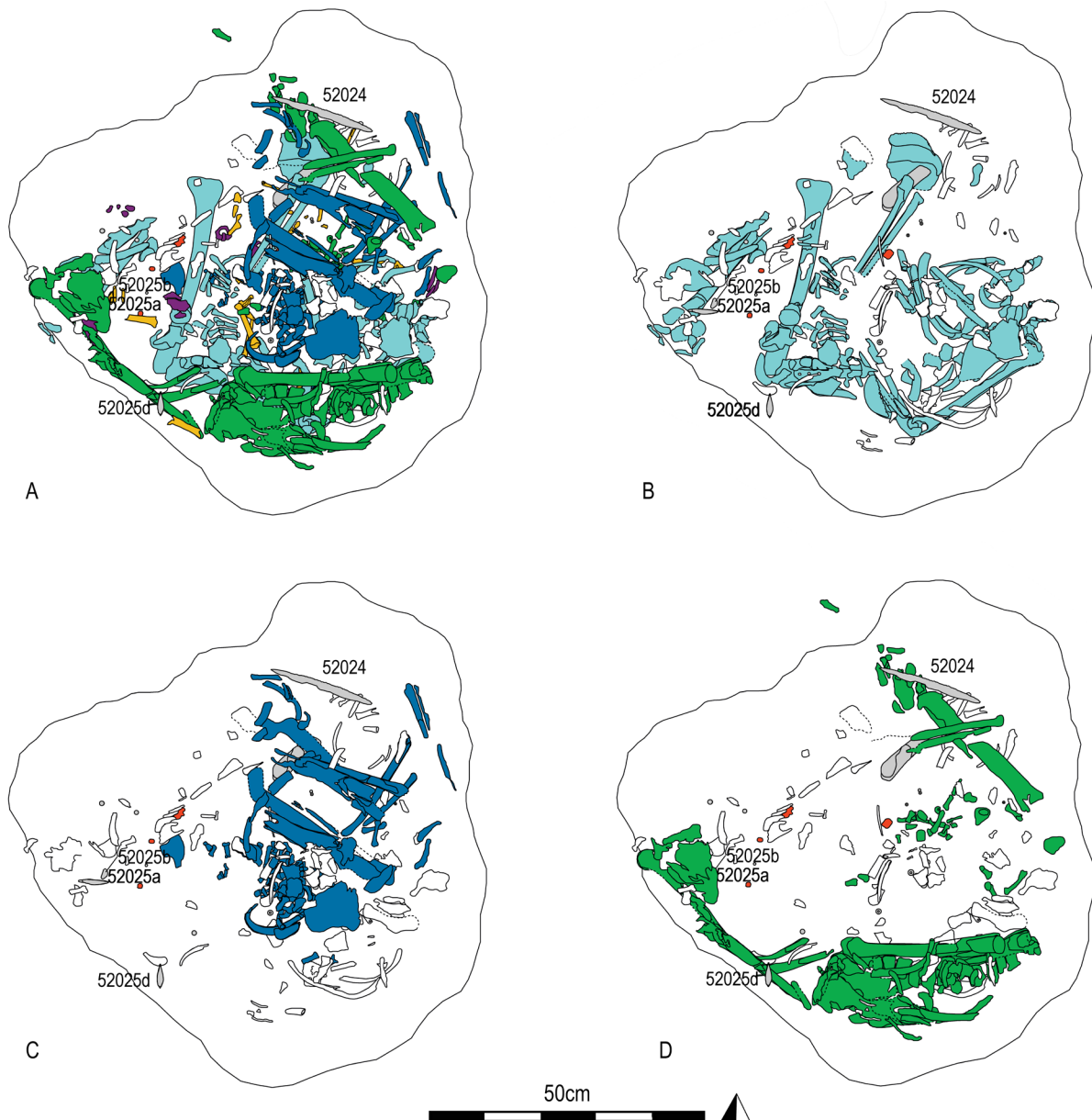


Fig. 100 A all individuals, B Individual V buried in a supine position with the legs flexed to the right side. His hands were resting on his lap. The skull was dislocated to the north and to the southwest of the pit, C Individual VI was buried on top of Individual V, possibly wrapped in some kind of cloth or mat, D Individual IV was buried at last. For the legend see Fig. 99. (Drawings: C. Purschwitz; digitalisation and colouration: M. Renger, based on data by: J. Gresky, S. Klingner, Ba'ja N.P.)

In conclusion, it appears that a primary burial of a juvenile (Individual V), along with possibly several secondary infant bones, was reopened once or twice to deposit two additional young adults (first Individual VI and then Individual IV). The disarticulated state of the bones of these two later individuals suggests that they were likely secondary burials.

The bones of Individual VI cluster neatly together, including skull and body fragments,

even though many bones are missing. The presence of many finger and toe bones is puzzling, because they are normally missing in secondary burials. It is possible that the bones of Individual VI were buried in some kind of mat on top of Individual V.

In contrast, the bones of Individual IV were partly disarticulated, positioned around the southwestern, southern, and eastern edges of the pit. The left leg and the torso were in such

an extremely flexed position that defleshing or drying had probably been at an advanced stage, also suggesting some kind of binding. The upper right and the left arm as well as the left shoulder were separated from the torso and deposited at the southwestern border of the pit. The right tibia was deposited at the eastern border and the right femur was missing. This separated position and the missing of large bones may indicate that Individual IV was dislocated and deposited in pieces in the grave pit. However, again, many finger and toe bones are present what is in contradiction to the disarticulation. The skull of this individual was missing completely.

Given that the individuals were interred in non-acidic silty sand (see Haddow this volume), it is reasonable to suggest that some form of treatment or delayed burial may have caused the very poor preservation of the bones.

Position and orientation: Only the orientation and position of Individual V can be reconstructed (Fig. 100B). The juvenile, possibly male individual was resting on its back with his legs in a semi flexed position bent to the right side, with the femur being in a 90° angle to the torso. His arms were slightly flexed with both hands on his lap. The head was originally in the east and the pelvis in the west. The skull appeared to be in a slightly raised position, resting against the eastern edge of the pit. It had become dislocated and scattered, likely during decay in an empty space or when the burial was reopened. This position mirrors the position of the young adult buried next to him in the adjacent single Burial CG10 and of the female individual buried in TU7G1, except for the position of the right lower arm of the woman that was found beneath the spine.

Objects related to Burial CG1: A stone vessel fragment (F.no. 47825) – formerly used as a grinder for red pigment – and a piece of limestone (11 x 17cm) were part of the grave cover Loc. C10:148. There were also some artefacts found mixed with the bones, but they could not be attributed to a specific individual (the excavation stages are indicated in square brackets in Table 56). In the uppermost part of the burial pit, a flint dagger (F.no. 52024) was found near to the northeastern corner of the grave pit. It resembles the two other daggers from the collective Burial DG1 and the single adult Burial CG10 (Gebel *et al.* 2022a, Gebel a this volume). In the latter case, the dagger was found embedded in the grave cover. In contrast to the

two other exemplars that were both damaged or broken the dagger of Burial CG1 was complete. Beads were uncovered in almost all layers, but could not be analysed within the *Household and Death Project*. Moreover, a bone spatula (“hair slide”) broken in several parts *in situ* and another unidentified bone (?) object rested on the skull of Individual V (Gebel *et al.* 2006: 16; Figs. 100H-101). Due to the dislocation of the skull, the spatula probably entered the grave only later, unless it was attached to the skull and dislocated with it. Four arrowheads were discovered in the grave. Two of them were broken. It was possible to identify three of them according to the drawings and photos. They were concentrated in the northwestern and western area of the pit, perhaps associated with Individual IV and V (Fig. 100B-G).

In excavation Stage H, some white chalk-like limestones were uncovered aligned in the southwestern part of the pit. They are not local to the site and it seems that they were put in the grave intentionally (Fig. 98C), similarly to the chalky stones in the western part of the Burial CG7 (“Jamila’s” tomb). Additionally, a white pebble was discovered near the *os parietale* of Individual V (N°73), resembling the quartzite pebble found in Burial CG9.

Use of pigments: Pigment analyses by D. Všíanský show that the pigment on the stone vessel fragment consisted of kaolinite, quartz and hematite (on the importance of the colour red see Gebel b this volume), almost identical to the composition of small lumps of red pigment which were found in several graves of the site (XRF analyses by M. Gerlitzki and M. Martin,



Fig. 101 A rather large bone spatula that was broken *in situ* was found on top of the dislocated skull (N°61, Fig. 99F) of the primarily interred Individual V. (Photo: J. Gresky, Ba'ja N.P.)

Table 56 Objects related to the collective Burial CG1. Compiled after Gebel *et al.* 2006, field documentation and find lists, *not considered for statistics due to uncertain and incomplete identification.

Objects Related to Burial CG1		
Objects excavation stages from top to bottom A-H are given in square brackets	Field Numbers	Description, Raw Material, Measurements mm: l length, h height, w width, th thickness, d diameter, med medial, prox proximal, dis distal, pres preserved, av average, dp diameter of perforation; frgm. Fragment
Object Found in the Grave Cover (Loc. C10:148)		
1x Concave limestone vessel ^[+] (for all groundstone artefacts see Gebel forthcoming)	47825	Stone bowl frgm. (wall transition to bottom), fine crystalline limestone (marble); concave surface stained completely red c. l 250, w 205, th 48 (in field measurements Bo D. Hermansen); weight: c. 6000g
Object Found in the Upper Grave Filling^[**] (Loc. C10:147)		
1x Grinding stone	46047	Mano end fragment, white sandstone, big flakings at end (natural?), remains of charcoal; w mean 120, th max. 60
Objects Mixed With the Human Bones (F.no. 5800)		
1x Flint dagger [B]	52024	Description see Gebel a this volume; l 209
4x Flint arrowheads	52025a [D/E] 52025b [F] 52025c 52025d [B/C]	Complete Prox and dis end broken Broken at the transition body/ dis end, dis and prox end complete Complete
6x Bone beads: 3x close to Bone N° 99=Individual VI [H]; 1x close to Bone N°75 [H]; 2x close to bone N°28=Individual V [C] 15-16x almost unidentified beads [C/ D/ E/ F/ G] ^[***]	40801 ^[****] NN*	No information available: "coral-limestone-bone bead" (Find list 2003) "1 [N]erita (?) and 1 coral (?) bead" (Diary, B.D. Hermansen 8.9.03); "mineral/ shell beads" [H] (Gebel <i>et al.</i> 2006); according to the photos: min. 1x "greenstone" bead [E], north of bone N°26; min. 3x brown-blackish disc beads east of bone N°9 [B] and south of bones N°18/69 [F] associated with Individual VI.
1x Bone spatula "hair slide"	NN	Not analysed in the frame of the <i>Household and Death Project</i>
1x Sandstone ring fragment [D/ E]		
Pigment [A]	47811	Red pigment; NB: yellow pigment has been recorded in [F], but was not sampled, "greenish pigment" was recorded but probably due to geochemical processes.

+ "The pigment bowl fragment was found in late PPNB Ba`ja on top of an intramural collective burial's skeletons (c. 7200-7000 BCE), if I remember well resting with the bottom upwards, pigment depression down [cf. photo 2003: Serie AII: 42 and 43]; it was placed in the pit rather vertically with the concave red stained side facing the northern part of the covering stone slab, immediately west to it. The piece is a fragment broken off – in a rectangular fashion – from a larger shallow limestone bowl so that the new artefact's dimensions include the former central oval depression of the bowl. The piece/ depression then served as a pigment palette, respectively a burial pigment palette. The oval depression contains strong pigment/ stain residue while the flattish concave narrow side may have served for pouring off the liquid colour/ stain (less heavily pigmented when compared with the depression). The two other long sides and the other narrow side of the depression are steeper and less pigmented, too." (digital comm. by H.G.K. Gebel to D. Všíanský; 14.1.2019)

** "This locus was formerly considered to be identical with virgin soil. It is basically completely void of finds with the single exception of a fragmentary grinder. The soil is very soft and very fine to silty with the colour brownish yellow to yellowish brown (10YR5.5/7). It also contains some limestone inclusions in the size range ≤1.5cm with rounded and subrounded edges. The dimensions of this locus are roughly 120 x 115cm" (diary 6.9.03).

*** A cowry bead (F.no. 40803) was found in Loc. C10:139 just above the grave cover of Burial CG1; it might either have been dislocated from Burial CG10 or more probably, because of the hermetic sealing of Burial CG10, from the collective Burial CG1 (see diary B.D. Hermansen 4.9.2003).

**** On the same day 8.9.03 as the coral/ limestone bead (F.no. 40801) was found, a nerite shell was also recorded by Bo D. Hermansen, but it has not been retained in the find list. None of the beads found in this collective burial could be studied, because they neither have a find number, nor is it clear where they have been stored.

pers. comm.). Traces of red pigment were found on the bones, as well as in the burial pit.

Use of fire: No evidence of fire was found within the burial, although pieces of charcoal were discovered in the sediment filling the pit. Traces of fire and ashes were observed near the southwestern edge of the pit, but they were likely related to Burial CG10.

Samples: see Appendix 2

Comments: The remarkably good articulation of the first buried individual is unusual for collective burials (Duday 2009: 72), where older interments are typically displaced to gain space for more recent burials. The close similarity in body position of the juvenile male Individual V

(in Burial CG1) with the young adult male buried in the adjacent single burial (CG10), and to the isolated female burial (TU7G1) in the entrance area of the site, is striking and poses many new questions. Moreover, both Burials CG1 and CG10 contained the exotic flint daggers, even though in both cases these rare artefacts were not attributed to the buried individuals directly. What if Burial CG1 was – at the beginning – also conceived as a single burial? What was the relationship of Individual V to the secondarily buried individuals? All these questions cannot be answered, due to the extremely poor preservation of the bones that are neither suitable for aDNA nor for isotope analyses. The meaning of the scattered infant bones remains even more enigmatic. The absence of the right upper arm and the dislocation of the skull of Individual V

Table 57 Sequence of ritual events for the collective Burial CG1. For the legend see Table 5, lines between square brackets and written in grey indicate that there is only little evidence or that it is hypothetical.

Event	Activities
1.1-2	Choosing the northeastern niche in Room CR35 which was protected by three surrounding walls or benches; to the west it may have been adjacent to Burial CG10, if Burial CG10 was not built later close to Burial CG1
2.2*	No preparation of the corpses was evident, except for a few ornaments, most beads were scattered all over the grave and can be attributed to certain individuals only for a few cases (see above)
2.3.1	Cutting a pit through the floor Loc. C10:146a (=C10:403) and possibly through the grave cover of Burial CG10 (Loc. C10:146b) into the paleosol; depositing some white chalk-stones in the pit
4.1-4	Placing the juvenile male(?) Individual V first in the pit; scattering isolated infant bones of at least three individuals in the pit either during this event or immediately before the burying of Individual VI (see below)
5.2*	Grinding red colour and distributing red and yellow pigments in the pit, especially on top of Individual IV, <i>i.e.</i> , after the reopening
5.3*	[Possibly lighting a fire (Loc. C10:401) at the southwestern corner of the pit (the temporal relation to Burial CG1 remains unclear, see also Burial CG10). A part of the floor (Loc. C10:89) south of the burial is said to be burned too.] ⁴⁵
5.*	Depositing an egg-shaped white pebble in the burial pit near its southwestern edge; this may have happened before the deposition of the corpse; depositing beads and two arrowheads in the burial. An unambiguous attribution of the objects to one individual is possible only for a few bone beads. A broad bone spatula was found on top of the skull fragment of Individual V but whether this was the original association remains unclear
4.1-4	Reopening the grave after articulations of Individual V had been disconnected; perhaps scattering isolated infant bones before interment of the more or less disarticulated bones of Individual VI; dislocation of the skull of Individual V, taking off his right upper arm; somehow later – the temporal distance is unknown – arranging the isolated body parts of Individual IV at the pit's borders in the eastern, southern and western area, partly on top of Individuals V and VI
5.*	Two arrowheads (F.nos. 52025a and 52025d) were found on top of Individual IV's left arm; depositing the dagger at the northeastern edge of the pit; scattering further beads
6.2	Filling the grave pit with brown-reddish silty sand, including a few charcoal pieces (Loc. C10:147); no rubefaction of the stones inside the grave has been recorded
6.4	Closing the grave with a large slab (Loc. C10:148) and the stone vessel fragment, which had been used for grinding red pigments
6.6-8	Covering the pit with up to fist-sized stones and grit (Loc. C10:147) embedded in brown sediment, not as hard as in Burial CG10; adding a small white sandstone mano fragment in the grave's upper filling
7.	No marking of the grave was uncovered

⁴⁵ Diary 2001 C10 entry 27.9. page 24.

attest to at least one reopening. The presence of the toe and finger bones of both adult Individuals IV and VI remains puzzling and should inspire us to imagine even more the complex, multi-staged treatment of dead bodies (Hermansen 2017; see also the histological studies by Scott Haddow this volume).

Burial ritual: Even though the evidence for a collective burial is scanty for the reasons given above, we think that the burial was reopened, at least once. The sequence of events is therefore presented in Table 57 as if it were a collective burial.

A Sequence of Collective Burials in Room CR17

The lower part of Room CR17 was utilised as a collective burial for an extended period, with at least three, and potentially more, distinct phases of interment.⁴⁶ Only the upper part of the sepulchral sequence was excavated in the frame of the *Household and Death Project*. Human remains from one of the lower deposits of the excavated sequence were radiocarbon dated to the first third of the 7th millennium BCE (MAMS 42486: 7929±29BP; 7027-6686 cal BCE). However, the specific layout of unexcavated installations and pits, as well as a single adolescent burial excavated in 2021, suggest that the burial sequence started with subfloor burials, and that this room still keeps more secrets than it reveals (Fig. 102). This is particularly noteworthy given that a thorough

⁴⁶ Results of the 2021 autumn season cannot be considered here anymore but confirm the use of Room CR17 as a burial ground for a long time.

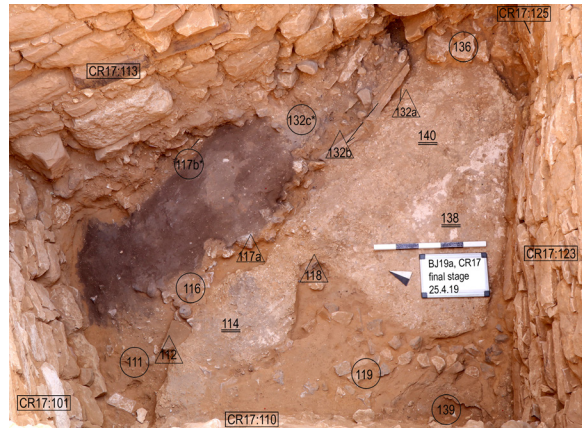


Fig. 102 The terrazzo-like plaster floor (Loc. CR17:114/138) and the hump-like feature (Loc. CR17:140) were cut through by several pits (Loci CR17:117a, CR17:118 and CR17:111) and a channel-like installation in the east (Loc. CR17:132a). In the south it continues beneath wall CR17:123. Note that the black soil in the northeastern corner is an artefact of the excavation due to brushing of the ashes from Loc. CR17:132c. For the legend see Fig. 4. (Photo: M. Benz, Ba`ja N.P.)

analysis of the human bones was unfeasible during the limited time frame, as there was no supplemental budget available and access to the laboratories at the German Archaeological Institute was largely restricted for most of 2020. It is hoped that a future project will be able to provide these means. The results can give only a first, very rough approach to this complex sequence of deposits and handling of human remains. Despite these limitations, Room CR17 represents another significant example of the diverse treatments of corpses and skeletons during the Late PPNB. It underscores that within this evident diversity recurring patterns and similarities to other burials do exist.

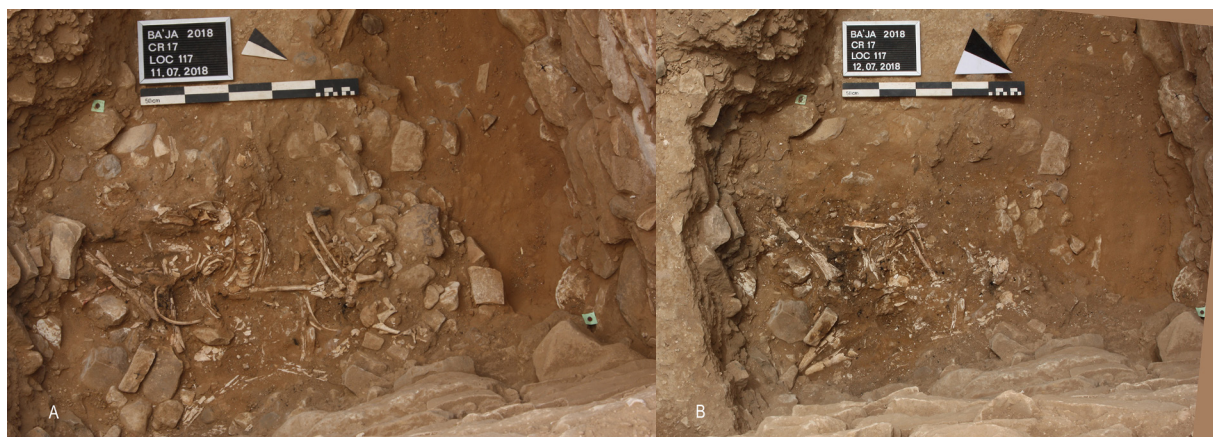


Fig. 103 Rectified photo of: A upper and B lower layer of human bones in pit Loc. CR17:117a with the baulk in the southern part. In 2019 and 2021 excavations continued showing that this pit was the northern-most part of one of the earliest burial events in Room CR17. (Photos: M. Benz, Ba`ja N.P.)

Table 58 Loci related to the sequence of collective Burials CG11. For the stratigraphic relations see Fig. 113, for all finds see Table 60. Loci of 2018 that were not clearly identified with loci of 2019 are written in italics.

Locus	Description
CR17:101	Northern wall of Room CR17, running SW-NE; with clear joints to walls Loci CR17:110 and CR17:113
CR17:109	Room fill deposit; compact brown (10YR4/3) silty sand mixed with stones of various sizes (up to 0.30m) and inclusions of charcoal, above Loc. CR17:124; contained the unifacially retouched handle of a supposed knife/ dagger F.no. 102042 (Gebel <i>et al.</i> 2022a, Gebel a this volume)
CR17:110	West wall of Room CR17, running NW-SE with a clear joint to wall Loc. CR17:101, comprising several constructional events
CR17:111	Pit cut through Loc. CR17:114/138 along the western part of the N-wall Loc. CR17:101
CR17:112	Pit filling loose silty reddish sand (only the upper part excavated)
CR17:113	East wall (NW-SE); appears to be contemporary with Loc. CR17:101 according to the similar foundation level
CR17:114	=CR17:138; terrazzo-like plaster floor with white plastering, E-W max. 135cm and SE-NW max. 160cm (area of Loc. CR17:138 – southern central part of the room, faint traces of red colouration on the northwestern part=Loc. CR17:114)
CR17:115	Ashy layer containing human and animal bones, many charcoals, 10YR5/3; (merged with CR17:128), in the SE corner of Room CR17
<i>CR17:115</i>	Ashy layer, comprising charcoals, immediately above Loc. <i>CR17:116</i> , not identical with Loc. CR17:115
CR17:116	Light brown, very compact silt containing many stones with few material: flint, animal bones, bone artefacts, pieces of plaster, in 2019 uncovered in the western part of the room
CR17:116E	A row of stones set directly under the foundation stones of wall Loc. CR17:113; on top of pit Loc. CR17:132; on the outside, the stones are packed in a light brown, very dense and compact sediment; inside, a loose, dark ashy layer containing human bones – including a cranium – and small pieces of yellow and red ochre. This fill can be part of the deposit of Loc. CR17:130
<i>CR17:116</i>	Yellowish sandy sediment with many compactly laid angular and subangular stones (c. 10-15cm), probably identical with Loc. CR17:136
<i>CR17:117a</i>	Pit cut through Loc. CR17:114/138, continuing beneath wall Loc. CR17:113 to the east. E-W c. 1.25m +x?, N-S c. 2.15m.
<i>CR17:117b</i>	Human bone remains
CR17:118	Pit cut through floor Loc. CR17:114/138; in the south-western part of CR17
CR17:119	Pit fill of Loc. CR17:118 comprising densely packed stones which in the upper part surround Loc. CR17:139; burial cover.
CR17:123	Western part of southern wall of Room CR17, preserved up to its original height, built on Loc. CR17:114/138; meets Loc. CR17:125 with a clear joint.
CR17:124	Plaster floor
CR17:125	Eastern part of southern wall of Room CR17, possibly a more ancient buttress (?); meets wall Loc. CR17:123 with a clear joint.
CR17:127a	Burial pit; touching the wall Loc. CR17:123; dimensions N-S: 80cm; E-W: 50cm; containing human and animal bones; anthropological observations (by J. Gresky) suggest, that human long bones of Loc. CR17:115 (2019) may be related to long bones of Loc. CR17:127a
CR17:127b	Sediment ashes and loose silt; seems to be limited by a row of stones; very similar to/ perhaps related to Loc. CR17:115; MNI 2 subadults; for discovered artefacts see Table 60
CR17:130	According to the photos this locus comprises two layers: the upper layer is very ashy and contains many up to 10 x 10cm large stones and only a few bones. It is possibly identical with Loc. <i>CR17:115</i> (2018) and seems similar to Loc. CR17:116 and abuts to it, except that it contains more charcoal and ash. The lower layer of this locus has only a few charcoals, many disarticulated human and animal bones in the upper part, and only human bones in the lower part. The layer is sloping down to the NE, thicker to the east (c. 30cm) and thinner to the west (c. 5-10 cm); it contained pieces of red and yellow ochre. In the centre of the room, a zone of dark ashy soil contained a human mandible with yellow ochre. This lower layer was possibly related to the heap of human bones (Loc. CR17:131/135) in the southwestern corner
CR17:131	Human remains relabeled/ identical with Loc. CR17:133 and separated from the surrounding sediment Loc. CR17:135
CR17:132a	Pit cut through the plastered hump Loc. CR17:140 and floor Loc. CR17:138, extension: N-S c. 2.15, E-W c. 60cm, continues to the north, identical with Loc. <i>CR17:117a</i>
CR17:132b	Two, possibly three large stone slabs at the NW border of the pit, limiting the western border of Loc. CR17:132a
CR17:132c	Pit filling of very loose and thin, greyish sediment, containing mostly ashes and human bones, possibly identical with <i>CR17:117b</i> (2018)

Table 58 continued

Locus	Description
CR17:133	Dense concentration of human bones along wall Loc. C10:123 in the SW corner of Room CR17; embedded in Loc. CR17:135, comprising Loc. CR17:131; some kind of sorting of human bones was observed by J. Gresky with long bones and skulls and mandible being grouped together; mostly of adults but also some subadults and one complete infant skeleton; reddish soil and pigment on the bones, yellow ochre next to a skull and red pigments on its mandible and inside the skull
CR17:134a	Heterogenous, brown-grey soil mixed with grit, small pieces of red pigment, few charcoal inclusions, and few lithics. It did not extend in the entire room but was only recognised in the western part, interpreted as grave cover
CR17:134b	Uneven surface, similar to Loc. C10:134a, containing a lot of grit (S.D. [16.4.2019] describes some stones as of natural type, "some others result from the crushing of stones and are white brilliant"), possibly an intentional cover of the burial within a short time, explaining the "good" conservation of bones in connection and the presence of a complete infant
CR17:135	Soft to hard sediment (close to wall Loc. CR17:123, 10YR5/6) in which the human remains Loc. CR17:133 are embedded; comprising red pigment and pieces of yellow ochre; note that the red pigment on one of the skulls is of the same taint as the red colour on the stone vessel fragment (F.no. 116808)
CR17:136	Reddish-brown layer of silty sand containing densely packed stones of medium size; c. 15-20cm, containing, besides various artefacts, human and animal remains, charcoal, and a piece of red pigment, may be a leveling layer or floor sub-construction; possibly identical with Loc. CR17:116 (2018)
CR17:137	Sediment in the western part of Room CR17: three zones of sediment: SW: heterogeneous (compact and soft zones, with stones) including the remains of a human baby; centre: reddish compact silty sand (possibly identical to Loc. CR17:136?); to the east: a band of dark ashy brown and soft soil with a mix of charcoal and grit contained some human bones (rib, metacarpal, tibia), traces of red pigment spread in a small area with no specific pattern, most probably identical to CR17:115 (2018)
CR17:138	=CR17:114; no red colouration was observed on Loc. CR17:138
CR17:139	Pit cut through floor Loc. CR17:114/138; in the western part of CR17, ovoid: L:35cm; W (continues below wall Loc. CR17:110):18cm; slight depression plastered with mud mixed with small gravels; seems to be covered by Loc. CR17:119
CR17:140	Slightly elevated hump plastered with reused limestone and flint grit from a terrazzo-like floor; c. 0.30m x 1.50m; remains of red colour on the surface, extension (E-W) in the southern part of Room CR17 (length:150cm; large:30cm), seems to continue to the north but its limits are unclear due to damages, rises approx. 10cm above floor Loc. CR17:138; its function is unclear. As a thin white plaster covers both loci, they likely were constructed at the same time. Loc. CR17:140 is not preserved at the base of buttress Loc. CR17:125, therefore their stratigraphic relation remains unclear
CR17:142	Wall opening in wall Loc. CR17:123, blocked in a later phase; height: 50cm, width: 40cm

The first human remains were uncovered in 2018 (F.no. 108003). A pit filled with partly articulated but also dislocated human and animal bones was uncovered in the north-eastern part of this large room, adjacent to and partly continuing beneath wall Loc. CR10:113 (Gebel *et al.* 2019); the baulk that was left for stratigraphic reasons in 2018 was excavated during the spring season in 2019 by Julia Gresky, with Sarah Dermech and Christoph Purschwitz as trench supervisors (Gebel *et al.* 2020). All human remains of the 2019 spring season from Room CR17 were recorded under (F.no. 118013). The reconstruction of burial events and the documentation given here is mainly based on the comprehensive documentation and preliminary report by Sarah Dermech.

In the following chapter, the sequence of burials will be described from the most ancient to the most recent evidence, by combining the results given in the preliminary reports (Gebel *et al.* 2019, 2020) with further stratigraphic

documentation from the diaries (Table 59) and photos. The comparison of these data allowed us to synchronise the results of both excavation seasons and to gain some new insights, identifying the three and possibly four major burying phases. Due to the ongoing analyses, only an overview can be given, and the artefacts discovered are mentioned only briefly with the description of the burial phases. A compilation of all small artefacts found in relation to burials in Room CR17 is given in Table 60 and Fig. 114 (see Gebel *et al.* 2019, 2020).

Handling the dead: So far, the most ancient evidence of a deposition of corpses comes from the eastern part of the room. It comprises a pit (Loc. CR17:117a and CR17:132a) that extends for at least 125cm to the west from wall Loc. CR17:113, and continues under this wall (Fig. 103A-B). The pit was cut through the terrazzo-like white plaster floor Loc. CR17:114/138 and through a hump-like structure Loc. CR17:140 that was covered by the same plaster and ran more or less parallel

Table 59 Levels for the sequence of collective Burials CG11 in Room CR17. Levels in italics were taken in 2018, regular font during spring season in 2019.

Location	▼ (UE) m a.s.l.	▲ (LE) m a.s.l.
CR17:109	1165.82-1165.76	
CR17:110		1165.83-79
CR17:113		1165.60-58
CR17:114 identical with CR17:138	<i>1165.46-44</i>	
CR17:115 (≠ CR17:115 [2018])	1165.76-1165.65	
<i>CR17:115 (2018), probably identical with CR17:130</i>	<i>1165.60-44</i>	
CR17:116 (≠ CR17:116 [2018])	1165.75-1165.69	
<i>CR17:116 (2018), probably identical with CR17:136</i>	<i>1165.54-39</i>	
CR17:116E	1165.66-1165.52	
CR17:117a burial pit		
CR17:117b (upper layer of bones)	1165.48-36	
(lower layer of bones)	1165.40-31	
the pit slopes down to the east		
Identical with CR17:132c		
CR17:119	<i>1165.42-1165.35</i>	
CR17:123 west		1165.35-32
CR17:124 west	1165.81	
East	1165.75	
CR17:125		1165.52
CR17:127	1165.84-1165.74	
CR17:128	1165.66	
CR17:130	1165.69-52	
CR17:131/133/135	1165.66-53	
Stone vessel	1165.56	
CR17:132b	1165.45-43	
CR17:132c	1165.44-36	
CR17:134a	1165.56-53	
CR17:136	1165.56-49	
CR17:137	1165.50-41	
CR17:138	1165.45-35	
CR17:139	1165.37-29	
CR17:140	1165.45-39	

to the western border of Loc. CR17:132a. The pit assumed a bow-shaped form in its southern segment. However, its northern perimeter was likely destroyed by a more recent, unexcavated pit, Loc. CR17:111, due to the potential risk of destabilising the northern wall of the room.

In the northern part of this pit, human remains (Loc. CR17:117b, F.no. 108003) of at least two subadults and one possibly male adult were uncovered. The possibly female adolescent (15 years ± 36 months) was leaning with her back against the western border of the pit. Her cranium was missing, but the mandible had fallen on the chest and was found turned upside down. Her legs were turned to the left side. On top of her legs, the stretched legs of an adult individual were uncovered with the feet turning up at the northern border of the pit. Scattered isolated remains of a 9-10 year-old child, *i.a.* a mandible, long bones and a scapula, were also found in the pit, as well as a red stained isolated but complete finger. A few animal remains of domesticated sheep and goat were also uncovered (see Prust this volume). In the southern part of this pit (Loc. CR17:132c) further long bones and other isolated bones were recorded, but they were not found in articulation. The long bones appear to be arranged parallel to the stone slabs (Loc. CR17:132b) along the southwestern perimeter. However, it remains unclear whether these stone slabs belong to this pit or demarcate the boundary of the plastered hump, Loc. CR17:140, and will require further investigation in future excavations. While the bottom of the pit was reached in the northern segment in 2018, the fill in the southern area remains partially excavated. The only artefacts clearly associated with the human bones were a small cowry shell with remnants of red pigment, a flint arrowhead, and two blades, in addition to animal bones (Table 60).

In the southwestern part of the room, the pit Loc. CR17:118 was cut through the plaster floor Loc. CR17:114/138 (Fig. 102). It was covered



Fig. 104 The stone cover (Loc. CR17:116) of the northern part of the burial pit Loc. CR17:117 (see also Fig. 108). (Photo: M. Benz, Ba`ja N.P.)

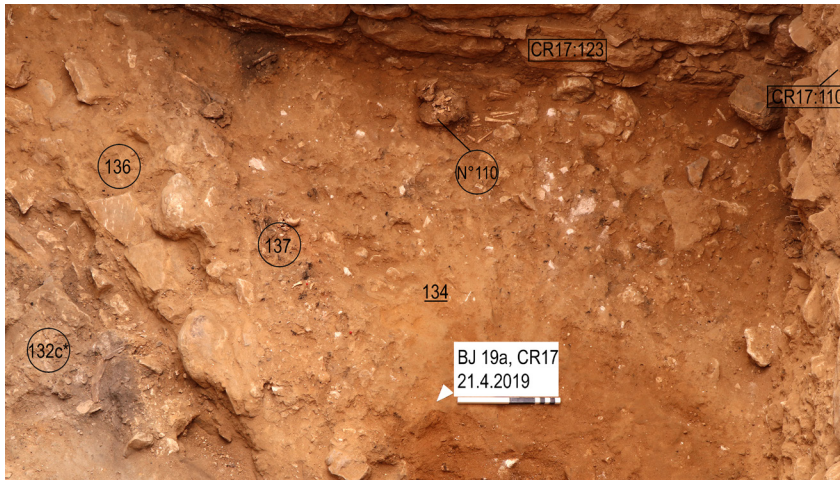


Fig. 105 The infant N°110 in the burial Layer CR17:137 represents the beginning of a long sequence of interments in the southwestern corner (see Figs. 107-108). For the legend see Fig. 4. (Photo: M. Benz, Ba`ja N.P.)



Fig. 106 The MOP cross-shaped pendant *in situ* in the northern most part of the ashy zone of Loc. CR17:137. (Photo: S. Dermech, Ba`ja N.P.)

in its upper part by a dense layer of stones (Loc. CR17:119), quite similar to the stone package (Loc. CR17:116/136) on top of Burial Loc. CR17:117/132 (Fig. 104). Beneath the stones, an ovoid structure (Loc. CR17:139) filled with very loose sand and some isolated human bones was uncovered. Excavations in 2021 confirmed that this was a further burial pit, but it was impossible to accomplish its excavation.

The eastern burial Loc. CR17:117/132 and most of the remaining area in the south was covered by a 15-20cm thick layer of densely packed angular and amorphous stones (10-15cm) embedded in a reddish-brown silty sediment (Loc. CR17:116 [2018], Fig. 104). To the south and west this layer was most probably identical to the stone layer (Loc. CR17:136), containing also some human and animal bones as well as various artefacts. On top of the burial Pit CR17:117a, this layer had collapsed into the pit, but in the southern part it was quite even. This leveling

layer sealed the most ancient documented burial phase in Room CR17. The rather high number of unidentified animal bones (NSP 40 identified: 240 unidentified) possibly indicates a high rate of fragmentation, and that the surface was at least temporarily used as a floor.

The second major phase of burial events started with an infant burial (N°110) on top of layer Loc. CR17:136. The entire well articulated skeleton of this infant was uncovered adjacent to the southwestern wall Loc. CR17:123 (Fig. 105). It was attributed to layer Loc. CR17:137. This layer is, in fact, made up of three zones: In the southwest, it contains the baby burial, in the centre, it is identical with Loc. CR17:136, and in the east it probably corresponds to the lowermost remains of Loc. CR17:133/135, which seem to be in some kind of gully, bordered by a row of aligned stones (Fig. 105). In this eastern part, beside various shell beads, a mother-of-pearl cross-shaped pendant (F.no. 110412) was uncovered (Figs. 106, 114). Unfortunately, it was impossible to relate this unique ornament to a specific individual. Intense use-wear marks, such as polishing, scratching, and abrasion, are visible especially on the borders of the perforations, indicating the object's frequent use and likely binding. The presence of red pigment on the object may either be remnants from its original use or from pigment used during burial rituals.

Contrary to previous interpretations, it now appears that – from a stratigraphic point of view – the burial of infant N°110 was cut through the floor (Loc. CR17:134a) from a higher level, but it was not situated underneath the floor. The compact stone layer Loc. CR17:116/136 was thus rather a leveling sub-construction for

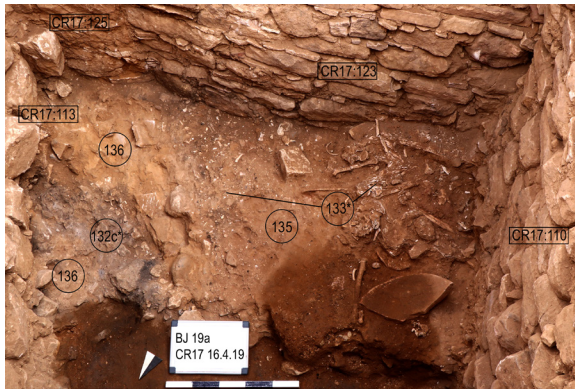


Fig. 107 The heap of disarticulated bones (Loc. CR17:131/133) in the southwestern corner of Room CR17 associated with a large stone bowl fragment. For the legend see Fig. 4. (Photo: M. Benz, Ba'ja N.P.)



Fig. 108 In the upper part of the burial sequence Loc. CR17:131, the two stone rows, which marked the eastern border of the burial, were still well preserved (indicated by the dashed black line). For the legend see Fig. 4. (Photo: M. Benz, Ba'ja N.P.)

the floor Loc. CR17:134a, on top of which the long burial sequence Loc. CR17:131/133/135 (including the eastern ashy part of CR17:137) was piled up (Figs. 107-108).

The majority of the human remains from the second major burial phase (Loc. CR17:131/133) were found concentrated in the southern and southwestern sections of the room, arranged in a heap atop the clay floor (Loc. CR17:134a) in a mostly disarticulated state. Most of the skulls and long bones were pushed to the southern wall Loc. CR17:123 and to the western part, continuing beneath the later built western wall Loc. CR17:110. The burial area was bounded to the east by two partially overlapping parallel rows of stones, which ran from the southeastern corner of the room to the northwest, following a path similar to that of the more ancient plaster hump (Loc. CR17:140; Fig. 108).

The identification of the lower layer of Loc. CR17:130 with human bones as Loc. CR17:133 (in the centre of Fig. 108) was only possible after the excavation. During the field season, it was considered as CR17:130, but the documentation shows that it is the same layer of disarticulated bones as in the southwestern corner of Room CR17 (=Loc. CR17:133). Note also the reddish-brown sediment with stones on Loc. CR17:132c. It is identical with Loci CR17:136 and CR17:116 (2018). However, identifying the precise burial sequence for the remains of the second major phase is a task for the future (see Table 58, Fig. 113). The human remains consist of many disarticulated bones from adults and subadults, and an almost complete newborn (in prone position, in an E-W direction) who was partly covered by the western wall Loc. CR17:110, as well as an adolescent (skull N°100), and an infant (skull N°101). Close

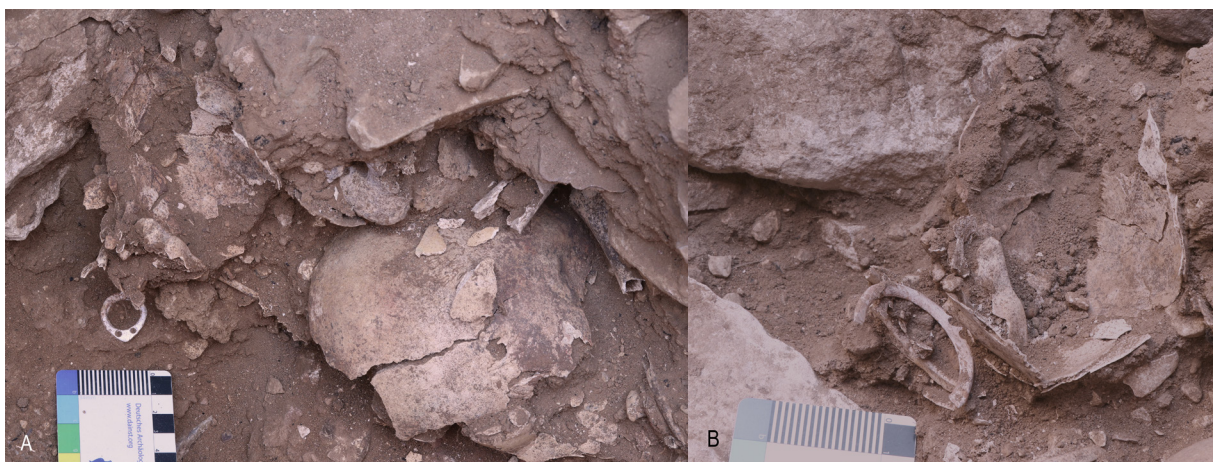


Fig. 109 A-B The *in-situ* position of the two MOP pendants close to the infant skull N°101. (Photos: J. Gresky, Ba'ja N.P.)



Fig. 110 The upper layers of the burial Loc. CR17:130, possibly identical with Loc. CR17:115 (2018), in the upper part, disarticulated human remains were uncovered which were mostly pushed to the southern walls of the room. (Photo: M. Benz, Ba`ja N.P.)



Fig. 111 The concentration of disarticulated human bones in the lower layer of Loc. CR17:127 in the centre and Loc. CR17:115 (2019) in the eastern part. Note the large lumps of yellow ochre in the southeastern corner in Loc. CR17:115. For the legend see Fig. 4. (Photo: M. Benz, Ba`ja N.P.)

to the latter skull and the chest of this infant, two mother-of-pearl, pointed-oval shaped ring pendants (“paillettes”, F.nos. 110410.1-2) were uncovered (Figs. 109A-B, 114). Traces of red pigment and yellow ochre were also recorded. Immediately to the north of this heap of bones, a fragment (about a third) of a large flat round stone bowl (F.no. 116808) was found (Fig. 107). It was stained completely red on its bottom. Traces of red colour were also found on an adult skull. In total, 47 shell beads were scattered in this burial phase, with a concentration close to the wall Loc. CR17:123. Furthermore, two Byblos projectile points, one of which was recorded in the southwestern corner, and three blades/ blade fragments were uncovered. A 14cm white sandstone disc could have served as the pre-form for a sandstone ring. For all further finds see Table 60 and Fig. 114. The heap of bones was concealed by recycled plaster (Loc. CR17:134b), and the excavator reported that certain stones may have been intentionally crushed to improve their gleaming white appearance.

Above this cover (Loc. CR17:134b), the third and final significant stage of burials was documented (Fig. 110). It encompassed the upper section of Loc. CR17:130, as well as the slightly more recent Loci CR17:115/127a/b. Loc. CR17:130 stretched from the southeast corner of the chamber and extended to the centre, resting on a compact base of stones measuring up to 10 x 10cm in size. In the northeast, this layer was likely identical with the ash layer Loc. CR17:115 (2018), but it was only very thin there. It did not exist in the western half of the room where the levelling layer Loc. CR17:116 (2019) was uncovered.

The only adult individual – a man – whose *pars petrosa* provided valid aDNA sequences was found in this layer, beneath the eastern wall Loc. CR17:113 (Skourtanioti and Feldman this volume).

Finds of layer Loc. CR17:130 include many objects that would be unusual in other burial contexts – such as a high number of stone tools (comprising besides other objects, a blade, a flint celt [F.no. 112072], two limestone celts [F.no. 105801] and a scraper), fragments of two stone rings (F.nos. 111201, 111210), and an unworked marine mollusc (F.no. 110006, Fig. 114). Only the red and yellow pigments and two Amuq-type projectile points (F.nos. 112053, 112111) are more characteristic for sepulchral contexts. It is worth to be mentioned that a basal fragment of a blade-based flint dagger (see Gebel *et al.* 2022a, F.no. 102042) was found immediately above Loc. CR17:115 (=Loc. CR17:130) in Loc. CR17:109 in 2018. Besides the sandstone ring fragments, the function of which remains disputed (Al Nahar 2014; Milevski *et al.* 2022; *cf.* Gebel 2010), and the poorly preserved mollusc, no other adornments were recovered.

The ultimate stage of interment comprises Loci CR17:115 and CR17:127, with the latter consisting of two components: Loc. CR17:127a, the burial pit, and CR17:127b, the grave filling. The upper strata of Loc. CR17:115 are situated higher than the base of the eastern wall Loc. CR17:113, indicating that the wall was likely constructed before this burial phase (Table 59, Fig. 113), as no foundation trenches have been identified along any wall to date. The layer Loc. CR17:115 extended from the



Fig. 112 The top layer of human bones (Loc. CR17:127). It represents the latest use as a burial ground of this area. Loc. CR17:128, another concentration of disarticulated bones in the southeastern part, turned out to belong to the upper part of Layer Loc. CR17:115. For the legend see Fig. 4. (Photo: M. Benz, Ba'ja N.P.)

southeastern part to the central area of the room, whereas Loc. CR17:127a/b was concentrated exclusively in the centre (Fig. 111). Both Loci CR17:115 and CR17:127b contained ashes and charcoal commingled with isolated human bones, including those of an approximately two year-old infant (bones N° 13, 14, 18), one of three individuals from whom aDNA was preserved (see Skourtaniti and Feldman this volume). Whereas in Loc. CR17:115 the bones seem to be more scattered and pushed to the south, the disarticulated human bones of Loc. CR17:127b – with few exceptions – formed a cluster in front of the southern wall.

Loc. CR17:115 contained ground stone and flint artefacts as well as animal bones and chunks of yellow ochre (Fig. 111) but hardly any ornaments, except for two small mother-of-pearl buttons (F.nos. 110400, 110403, Fig. 114). F.no. 110400 was attributed to Loc. CR17:128, which was later merged with Loc. CR17:115, and F.no. 110403 was found by sieving sediment 50-100cm east of Loc. CR17:127, which corresponds to Loc. CR17:115. In Loc. CR17:127, the only stone bead (chrysocolla?) (F.no. 110800) of the whole burial sequence and a unique, flat, perforated sandstone platelet (F.no. 111806) were uncovered immediately north of the bones (Fig. 111). Two stone vessel fragments with a red stained surface were recorded in the upper part of Loc. CR17:127b (F.no. 116811, 116813, Fig. 112). The flint objects might indicate that finds were partly mixed with finds of domestic use from the layers above. Interestingly, almost all of them were made of local raw material, except for one blade and a flake (Table. 60). The whole

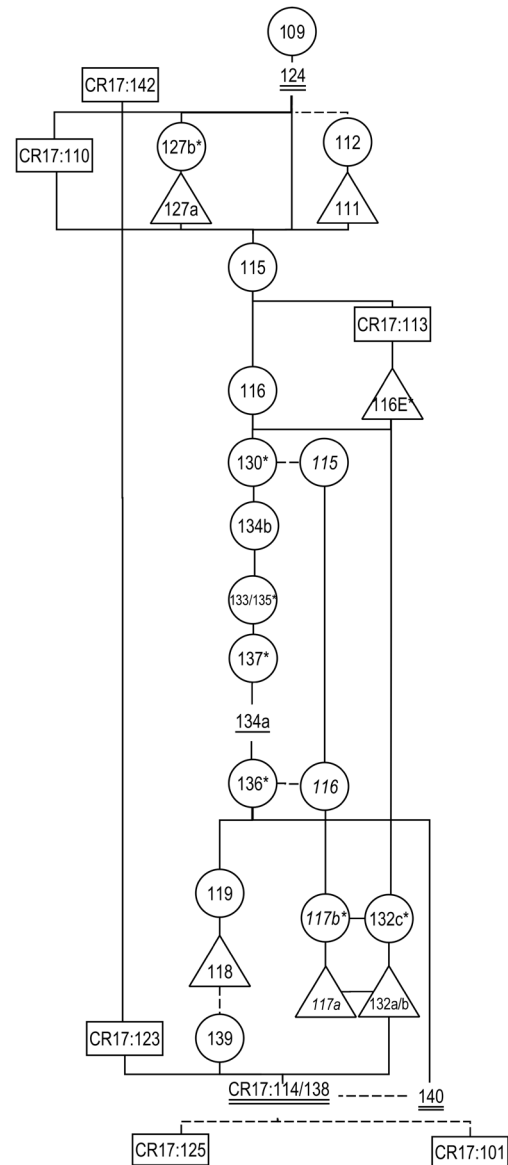


Fig. 113 Harris Matrix on the various burial events in Room CR17. For the legend see Fig. 4. (Graph: M. Benz, Ba'ja N.P.)

burial sequence was covered by a plaster floor Loc. CR17:124. The discoveries on top of this floor unequivocally indicate that the space was utilised for domestic purposes (Gebel *et al.* 2020: Table 4). Particularly, the high rate of unidentified animal bones suggests that the area served as a trampling floor. Of the 307 fragments recovered, only 26 were identifiable to the species level. The remaining fragments (NSP 281) were not sufficiently distinctive and failed to provide a definitive identification (see Prust this volume). Whether this layer represents a burial cover or a domestic floor remains an open question. However, there is no clear evidence for any post-funeral practices performed atop the burial.

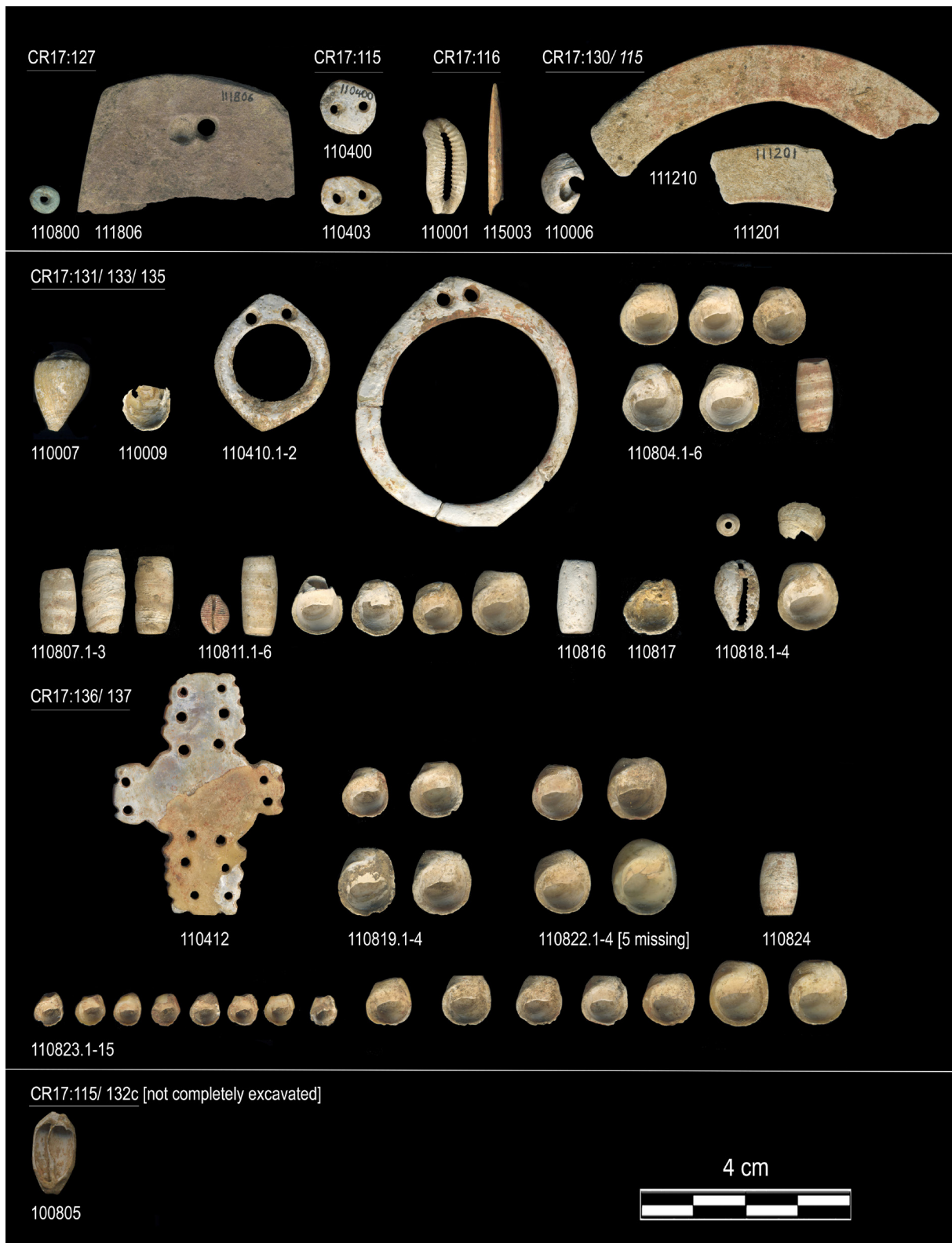


Fig. 114 Compilation of small artefacts and ornaments from the sequence of collective Burials CG11 in Room CR17. (Photos: H.G.K. Gebel, Ba'ja N.P.)

Table 60 Objects related to the sequence of collective Burials CG11 in Room CR17. Compiled and completed after Gebel et al. 2019: Table 2, 2020: Table 4.

Objects Related to the Sequence of Collective Burials CG11⁴⁷		
Objects	Field Numbers	Description, Raw Material, Measurements mm: l length, h height, w width, th thickness, d diameter, med medial, prox proximal, dis distal, pres preserved, av average, dp diameter of perforation, av average; g grammes, frgm. fragment, FRMG flint raw material group, CTE core trimming element, BTE blade trimming element, MOP mother-of-pearl
Objects Related to Burial Loc. CR17:127		
1x Stone bead	110800	Chrysocolla (?), disc-shaped, th 1.6, d 5.8, dp 1.4; weight: 0.1g
1x Sandstone platelet	111806	Brown-grey fine grained sandstone, frgm. sub-rectangular shape, 1 biconical drilling on the short border, 2 nd unfinished drilling, pres l 40.9, w 28, th 3.97, dp 4.6, weight: 7.5g
9x Chipped lithic artefacts	112070	1x Blade, FRGM 3d, l 30.7, w 20.2, th 3.6; 1x Bidirectional blade, complete, FRGM 3d, l 67.2, w 11.3, th 3.7
	112106	2x Flakes FRMG 1, 3d; 1x non-parallel sided blade, complete, FRGM 3d, l 36.6, w 16.8, th 7.6; 1x Bidirectional blade, complete, FRGM ident., l 45.4, w 13.1, th 2.7; 1x bidirectional blade, complete, FRGM 3d, l 44.8, w 12.7, th 2.7; 1x CTE, FRGM 3d
	112109	1x Bidirectional blade, tip broken, FRGM 3d, l 40.1, w 12.5, th 3.3
Animal bones	114032, 114091	Almost exclusively domesticated goat/ sheep and a few unidentified mammals, no wild animals
2x Stone vessel frgms. with red stained surface	116811	Rim frgm., pres <30%, partly natural shape, sandy limestone; h of rim: 48
	116813	Rim frgm., pres <30% of a large shallow round vessel/ plate; Disi sandstone, flat base, red pigments on interior, in the area of fracture and on the wall; pres h 54;
Objects Related to Deposit Loc. CR17:116, Including Loc. CR17:116E		
4x Chipped lithic artefacts	112063	1x BTE, FRMG 4, th 2.7
	112074	1x CTE, FRMG 4, l 22.4, w 11.60; 1x bidirectional blade, complete, FRMG 2, l 36.3, w 12.3, th 4.6
	112091	1x Microdebris, FRMG 3d
Animal bones	114007 ⁴⁸ , 114029, 114059, 114072, 114075	Domesticated sheep and goat, but also 2x frgm. wild ass, 1x frgm. gazella cf. gazella, 1x frgm. fox
1x Bone artefact	115003	Bone point
Pieces of red plaster	117007, 117010	
1x Fossil with red pigment	117824	Natural stone with fossils and possibly natural traces of colouration
1x Various minerals	117825	?

⁴⁷ For all information on groundstones see Gebel forthcoming, for all information on lithics see Purschwitz forthcoming, for all information on animal bones see Prust (this volume), and on ornaments see Alarashi and Benz (this volume: Appendix 1).

⁴⁸ Erroneously attributed to Loc. CR17:109 in the masterfile, which was above Loc. CR17:124.

Table 60 *continued*

Objects	Field Numbers	Description, Raw Material, Measurements
Objects Related to Burial Loc. CR17:115		
2x MOP buttons	110400 ⁴⁹	Sub-round button with two parallel perforations, l 10.7, w 9.5, th 1.4, weight: 0.3g
	110403 ⁵⁰	Ovoid, 2 perforations, dp 2.34, l 12.12, w 7.19, th 1.81; weight: 0.2g
1x Small stone object	111824	1x Polisher, flint nodule, heavily abraded cortex, red pigment remains, small lateral flakes; l 57
10x Chipped lithic artefacts	112025	1x Scraper, FRMG 45
	112047	1x Byblos Point, FRMG 5a, l 35.4, w 12.1, th 3.8, weight: 1.4g; 2x blanks, FRMG 3d, 7; 2x NFT, FRMG 3d; 2x Microdebris, FRMG 3d,2
	112052	2x Microdebris, FRMG 3b
Animal bones	114018, 114028, 114051	Mostly domesticated goat/ sheep, 2x unidentified bird bone frgms. and 1 fox frgm.
3x Groundstone tools	116046	1x Mano frgm., quartzitic sandstone; l not pres, w 95, th 42
	116152	1x Frgm. of reused mano as pestle or pounder, rectangular sections, traces of red pigment on both narrow sides, arcose sandstone, w 64, th 49 1x Complete weight, pestle shaped (quadrangular section); biconical perforation, arcose sandstone, l 131, w 60, th 59
Pieces of red plaster	117033	
1x Chunk of yellow ochre	117805	
Objects Related to Burial Loc. CR17:130, Including Finds From Loc. CR17:115 (2018)		
1x Unworked (?) marine mollusc	110006	Conidae (?), abraded naturally (?), l 11.3 w 7.2, weight: 0.4g
1x Sandstone ring	111201	2x Frgms. of white sandstone ring, traces of red pigments, pres l 23.11, w 11.4, th 2.33, reconstructed d inside 60, d outside 8.2-8.4.
1x Stone ring	111210	1x Frgm. of schisttype mineral? ring, traces of red pigments, close to wall Loc. CR17:123
6x Chipped lithic artefacts	112048	1x Scraping tool (CTE), FRMG 3d, l 47, w 41.8, th 14.6; 1x parallel sided, unidirectional blade, FRMG 3d, l 58.7, w 14.4, th 6; 1x Flake, FRMG 2n
	112053	1x Amuq point, complete, traces of red pigments, FRMG 4, l 46.6, w 12.2, th 3.6, weight: 1.6g
	112072	1x Celt, complete, with red pigment in smoothed edge area/ upper third, blackish traces – most likely – from hafting, FRMG 10, l 117.4, w 47.6, max. th 35.5, weight: 225g,
	112111	1x Amuq point, complete, traces of red pigment, FRMG 6, l 36.6., w 10.2, th 4.7., weight 1.4g
Animal bones	114060	2x Frgms. domesticated sheep/ goat; 1 unidentified frgm. medium-sized mammal
2x Celts	105801	Polished frgms. of limestone; on top of the burial belong to CR17:115
Piece of red plaster	117009	
Pigments	117814	Red pigments and yellow ochre associated with a mandible in the centre of Loc. CR17:130

⁴⁹ Originally attributed to Loc. CR17:128 which was later merged with CR17:115.

⁵⁰ Found by sieving “50-100cm” east of CR17:127 [=CR17:115] beneath CR17:124, wrongly attributed in the field to Loc. CR17:109, which is above (!) CR17:124.

Table 60 *continued*

Objects	Field Numbers	Description, Raw Material, Measurements	
Objects Related to Burial Loci CR17:131, CR17:133, and CR17:135			
2x Unworked marine molluscs	110007	1x Conidae, l 15.5, max. d 9.6, weight: 1.2g	
	110009	1x <i>Nerita</i> sp., broken, unclear whether perforated or not, from inside the "african" skull	
2x MOP "paillettes" (related to newborn N°101)	110410.1	1x Complete elliptical-oval shaped ring, pointed end on one side with a double perforation, d outside 22, d inside 14.5, dp 2.4, weight: 1.1g	
	110410.2	3 Frgms. of 1x elliptical-oval shaped ring, pointed end on one side with a double perforation, d outside 40, d inside 30, dp 2.8, weight: 2.0g	
21x Shell beads	110804.1-5	5x <i>Neritae</i> , av weight: 0.38g	
	110804.6	1x <i>Tridacna</i> sp., barrel-shaped, with traces of red pigments, l 12.7, max. d 6.9, dp 2.6, weight: 1.0g	
	110807.1-3	3x <i>Tridacna</i> sp., barrel-shaped, 1) l 16.4, max. d 7.2, dp 2.5, weight: 1.3g 2) l 15.1, max. d 7.2, dp 2.3, weight: 1.1g 3) l 12.6, max. d 6.7, dp 2.3, weight: 0.9g	
	110811.1	1x Cypraeidae (mini), back abraded, red stained, l 4.2, w 2.2, weight: <0.1g	
	110811.2	1x <i>Tridacna</i> sp., barrel-shaped, l 15.5, max. d 7, dp 3, weight: 1.1g	
	110811.3-6	4x <i>Nerita</i> sp., av weight: 0.3g	
	110816	1x <i>Tridacna</i> sp. barrel-shaped, poorly pres, l 14.1, max. d 7.2, dp 2.9, weight: 1.1g	
	110817	1x <i>Nerita</i> sp., weight: 0.3g	
	110818.1	1x Conidae, disc-shaped bead d 4.4, weight: <0.1g	
	110818.2	1x <i>Nerita</i> sp., not measured, poorly pres	
	110818.3	1x Cypraeidae, back abraded, l 13.1, w 8.3, weight: 0.1g	
	110818.4	1x <i>Nerita</i> sp., weight: 0.3g	
	3x Flint artefacts	112090	1x Microdebris, FRMG indet.
		112092	1x Byblos point, FRMG 2, l 33.9, w 8.7, th 3.1 weight: 0.6g
112093 [beneath infant N° 101]		1x Byblos point, FRMG 45, l 56.7, w 10.1, th 3.1, weight: 1g	
Animal bones	114071, 114073	Besides very few domesticated sheep/ goat frgms., several bones of commensals (<i>Rattus rattus</i>)	
1x Stone vessel frgm.	116808	Fine crystalline limestone, very finely smoothed, rim and bottom of a shallow possibly round plate, red pigments on the base from use on red floor, also on the interior, red pigments extend on breakage; not clear if intentionally broken, pres h 62-82, th wall and rim 37, th bottom 12, d c. 400-450	
Pieces of red and white plaster	117016	Possibly from reused terrazzo like floor for the burial cover or wall plaster (between Loci CR17:131 and CR17:132)	
	117018	Very sticky material close to two mandibles	
	117031	Piece of red plaster attached to stone	
Pigments and various minerals	117826	?	
	117827	Red pigments	
	117849	Red pigments from SW corner beneath infant N° 101	
	117850	Red pigments from inside and outside "the skull"	
	117851	?	

Table 60 *end*

Objects	Field Numbers	Description, Raw Material, Measurements
Objects Related to Loc. CR17:136/137		
1x MOP ornament	110412	Cross-shaped ornament, two antithetical longer branches with 2 rows of 3 parallel drillings on each branch and 2 very short branches with 2 parallel drillings respectively, the border of the branches are serrated, the middle of the cross is oval, intensive use-wear traces, possibly from strings and traces of red pigment on one side; l 45.8, w 33, dp. 2.3-3.1, th 3.1, weight: 4.9g
25x Shell beads	110819.1-4	4x <i>Nerita</i> sp. perforated with traces of red pigment, av weight: 0.4g
	110822.1-5	5x <i>Nerita</i> sp. perforated with traces of red pigment, av. weight: 0.47g
	110823.1-15	8x <i>Nerita</i> sp. (mini) perforated with traces of red pigment, av. weight: 0.05g, 7x <i>Nerita</i> sp. (normal size) perforated, av. weight: 0.33g
	110824	1x <i>Tridacna</i> sp., barrel-shaped, traces of red pigment, l 12.3, max. d 7.1, dp 2.6, weight: 1.0g
11x Chipped lithic artefacts	112107	1x Blade, FRMG 3d; 1x bidirectional blade, complete, FRMG 5a, l 50.1, w 17.7, th 4.3; 3x Flakes, FRMG ident.; 2x CTE (scraper), FRMG 5d, 10; 3x microdebris FRMG 2x 3d, 1x 10
	112110	1x Bidirectional blade, complete, FRMG 3d, l 34.4, w 9.8, th 2.7
Animal bones	114086, 114087, 114089, 114092 ⁵¹	Identified animal bone frgms. (NSP 40), almost all domestic sheep/ goat but also 1 frgm. of <i>Gazella</i> ; due to high fragmentation many unidentified bone fragments (NSP 240)
1x Stone disc	115814	Disi sandstone, d 140
1x Grinding stone	116187	End frgm. of mano, Disi sandstone, unfinished
1x Pigment	117855 ⁵²	Red pigment
Objects Related to Loci CR17:132c and CR17:117b (2018)		
1x Shell bead	100805	1x <i>Erosaria nebrites</i> (see Alarashi and Benz this volume: Appendix 1) completely red stained, dorsal face abraded
8x Flint tools	102041	1x Flake, FRMG 3b, 1x microdebris, FRMG 3b
	102048	1x Bidirectional blade, complete, FRMG 2t l 49.9, w 8.3, th 2.1, weight 0.9
	112071	2x Microdebris, FRMG 3d, 4
	112094	1x Microdebris, FRMG ident.
	112108	1x Jericho point, tip broken, FRMG 2, l 48.1, w 11.1, th 4.9, weight: 2.5g; 1x Bidirectional blade, FRMG 2, l 44.8, w 18.7, th 4.4
Animal bones	104031, 104044, 104051, 104052 114074, 114088	A few animal bone frgms.: domesticated goat/ sheep including a horn core; possibly also wild goat and one frgm. of <i>Gazella Gazella</i> / goat/ sheep and 1x fox frgm.
Pieces of red pigment	107816	

Samples: see Appendix 2

Radiocarbon dated samples:

see Table 61

⁵¹ Erratum in Gebel *et al.* 2020: Table 2

⁵² Erratum in Gebel *et al.* 2020: Table 2

Comments: Our post-excavation investigations have led us to suggest that there were at least three major burial phases, with potentially several burial events in the southern and eastern sections of Room CR17. Excavations conducted in 2021, which will be reported on by Gebel *et al.* forthcoming, have confirmed the likelihood of more ancient subfloor interments. The burial sequence is primarily characterised by secondary, as well as by disturbed, and

Table 61 Results of the radiocarbon date of the so far, most ancient burial phase (Loc. *CR17:117b* [2018]).

Lab ID MAMS	Sample ID	¹⁴ C Age [yr BP]	δ ¹³ C AMS [‰]	Cal BCE 1-σ	Cal BCE 2-σ	C [%]	Material
42486	BJ18 107223 ⁵³	7929 ±27	-25,3	6981-6696	7027-6686	61,0	Small twig <i>juniperus</i>

dislocated primary burials, but the two more ancient phases also contained well preserved primary burials.

The so far most ancient phase comprises a large pit in the eastern part of the room. It continues beneath the eastern wall Loc. *CR17:113*. Since it is not fully excavated, comments on the burial goods are preliminary, but it seems that there are rather few ornaments compared to the subadult Burials *CG7* and *CG9*.⁵⁴ The second and – so far – main phase of human deposits is above the leveling stone layer (Loci *CR17:116* [2018] and *CR17:136*). It is concentrated in the southwestern corner of Room *CR17* and extends far into the centre. It seems to be delimited by the hump like feature (Loc. *CR17:140*) and a double row of stones. The Loci *CR17:131*, *CR17:133*, *CR17:135*, and *CR17:137* (central part) belong to this main phase. Most of the human remains come from this concentration, including mainly bones of adults but also of subadults, and especially primary (?) infant interments. It seems that most of the bones were sorted and/ or pushed aside, but even for the well articulated infant skeletons it cannot be excluded that they were buried secondarily. More precise information about the pre- and peri-burial practices of the corpses can only be obtained through further taphonomic studies (see Haddow this volume).

aDNA analyses gave positive results for two individuals: a male skull in the southeastern corner in Loc. *CR17:130* and the accumulation of isolated infant bones (N^o 13, 14, and 18) in front of the southern wall, embedded in Loc. *CR17:127*. There existed no genetic relation, neither between these two individuals, nor between them and the infant of the double Burial *CG8* (see above), but the aDNA of the

⁵³ The locus was erroneously recorded by the 14C Lab as Loc. *CR17:109*, the correct provenience is *CR17:117b*.

⁵⁴ Excavations in 2021 discovered a burial of an adolescent, with about 100 ornament elements of unique but also common bead and pendant types, including a mother-of-pearl pendant identical to the mother-of-pearl cross-shaped pendant (F.no. 114014) from Burial *CG9*.

male adult skull provided interesting insights into the genetic relations between his parents (see Skourtanioti and Feldman this volume).

The stratigraphic sequence of burials will not only allow us to determine the chronological sequence more precisely in the future, but it may also help identify typological specificities through meticulous recording of the sequence. Currently, it appears that during the main phase of Burial *CG11*, mineral, mother-of-pearl and shell ornaments were used to decorate the dead, which is consistent with other burials such as *DG1*, *CG3*, *CG6*, *CG7*, *CG9*, and *CG10*. In contrast, only two shells and two mother-of-pearl buttons were uncovered in the upper layers, along with stone objects like the pendant and white sandstone rings, as well as a single chrysocolla (?) bead. The relatively low number of ornaments in the latest burial phase is particularly noteworthy.

The finds from the main phase are significant due to their close typological relationships with other burials. The bead and ornament types are remarkably standardised, with pointed ovoid-elliptical mother-of-pearl rings (“paillettes”) being especially noteworthy. These rings, which are typically associated with infants, come in two types: larger ones with an outer diameter of approximately 4 cm, and smaller ones. The meaning of these two types remains enigmatic. While the cross-shaped pendant is unique, its typology is similar to the smaller exemplar found in Burial *CG9* (F.no. 114014), suggesting that the artisan had a clear template in mind for the object’s design (Fig. 85).

The close typological similarity is not only evident in the objects themselves but is also reflected in recurrent events associated with the burial ritual, which have been observed in other burials as well. A detailed description of the burial events is beyond the scope of this chapter, as the anthropological investigations are ongoing and fieldwork is still required. Nonetheless, some aspects can be mentioned briefly:

- 1) Handling of corpses: There is increasing evidence to suggest that in the collective burials, and possibly even in the double and

- multiple burials, primary and secondary burials were combined. Additionally, it is possible that the corpses either received special treatments, were “stored” elsewhere, or reburied at a later time (see also Burials CG1 and CG9),
- 2) the prominent use of fire during this burial sequence is consistent with several observations made for other burials,
 - 3) the intentional fragmentation and deposition of fragmented artefacts, particularly fragments of stone vessels, is a common practice observed during the two most recent phases,
 - 4) during the first burial phase, burials were covered with either a thick layer of stones or reused terrazzo-like plaster floor as in many other burials at Ba`ja. In the main phase, which included the large accumulation of bones (Loci CR17:131, CR17:133, and CR17:137), finely crushed gravels were added to enhance the white appearance of the cover. Even in the floor Loc. CR17:124, which marked the termination of use as a burial ground, fine gravels were identified in the photos, suggesting it might have also represented a poorly preserved terrazzo-like floor. Such floors dissolve rather quickly when affected by water, as can be seen in the difference of preservation between the firm plaster cover of Burial CG10, which was well preserved in 2003 but had only fragments remaining in 2016. In the floor of Loc. CR17:114/138, white plaster similar to that of Burials CG7 and CG10 was observed,

- 5) finally, the use of red pigment that was intensively used in many other burials (for the meaning of the colour red see Gebel b this volume) has been recorded here too. However, in the upper layers, the use of large lumps of yellow ochre appears to be increasingly frequent, as observed in Burials CG5, CG9, and DG2.

Concerning the radiocarbon date of the so far, most ancient burial phase (Loc. *CR17:117*) in Room CR17, a more in-depth interpretation is given in Purschwitz and Benz forthcoming. It dates to a rather late phase of the Late PPNB or even to the PPNC (7027-6686 BCE 2σ; Table 61), similar to the radiocarbon dates of Burials CG8 and CG10 (Table 27). Due to the nature of the sample – a small twig –, an old wood effect can be excluded. It is important to note that the excavation of this room is ongoing, and while it may not continue much deeper, the use of this space as a burial ground only dates back to the second major occupation phase (Gebel *et al.* 2020). Further excavations are necessary to understand the original use of the space. Taken together, this long burial sequence offers significant potential for future research, providing insights into archaeoanthological questions over possibly several generations during the turn of the 8th to 7th millennium BCE, as well as for typology and chronology. It also provides invaluable evidence for the reconstruction of collective identities of the burying groups, not only due to the long duration of repeated burial phases on the same spot, but also for the identification of changes within strong and long-lasting traditions.

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Appendix 1

Link: <https://www.exoriente.org/baja/archive/>

Appendix 2: List of all samples taken per burial

Note that the sequence of samples corresponds to the sequence of the burial descriptions in the empiric part, starting with the single and double burials proceeding from east to west. For the collective and multiple burials, to our knowledge, no samples were recorded for Burial CG12.

CG2:

- Samples 117229 Charcoal sample, Loc. CR5:52, level: 1165.60 m a.s.l.
117230 Charcoal sample, Loc. CR5:52, level: 1165.65 m a.s.l.
117232 Charcoal sample, Loc. CR5:48, level: c.1165.80 m a.s.l.
117247 Charcoal sample, Loc. CR5:53, charcoal between human bones
117404 Palaeobotanical samples, Loc. CR5:52, three bags
BAJ011 a-DNA sample, Loc. CR5:53 (see Skourtanoti and Feldman this volume)
BAJ012 a-DNA sample, Loc. CR5:54 (see Skourtanoti and Feldman this volume)
MA-204353 Sr sample, Loc. CR5:54, Toothnr.: 26 (see Knipper *et al.* this volume)

CG3:

- Samples 117421 Palaeobotanical samples, CR5, Loc. CR5:50A, 2 bags
117719 Sediment samples, CR5, Loc. CR5:50A, ashy layer, next to the right wrist
a5 Histotaphonomic sample (see Haddow this volume)

CG4:

- Samples 117237 Charcoal sample, Loc. CR6:45, from grave filling immediately beneath sandstone slab
117238 Charcoal sample, Loc. CR6:49, from directly above the skeleton
117417 Palaeobotanical samples, Loci CR6:49 and CR6:47, grave filling, two bags
BAJ009 a-DNA sample (see Skourtanioti and Feldman this volume)
MA-204352 Sr sample, Loc. CR6:48, Toothnr.: 47 (see Knipper *et al.* this volume)
a4 Histotaphonomic sample (see Haddow this volume)

CG5:

- Samples 117024 Plaster samples, Loc. CR6:30,
117216 Charcoal sample, Loc. CR6:19, above grave, level: 1165.70 m a.s.l.
117227 Charcoal sample, Loc. CR6:22, from grave pit
117228 Charcoal sample, Loc. CR6:23a-b
117226 Charcoal sample, Loc. CR6:27, in silty sand below skull
117424 Palaeobotanical samples, Loc. CR6:23, one small bag from the lower half of burial pit.
117419 Palaeobotanical sample, Loc. CR6:27, fill of Loc. CR6:22 = Pit of Burial CG5 and upper layer of CR6:22
117804 Various minerals, from wall Loc. C22:10, pigment(?) on stone just above burial
BAJ010 a-DNA sample (see Skourtanioti and Feldman this volume)
MA-204350 Sr sample, Loc. CR6:23a, Toothnr.: 36 (see Knipper *et al.* this volume)
b3 Histotaphonomic sample, Loc. CR6:23b (see Haddow this volume)
b4 Histotaphonomic sample, Loc. CR6:23a (see Haddow this volume)

CG6:

- Samples 117225 Charcoal sample, Loc. CR6:36, just below the southern grave cover
117245 Charcoal sample, Loc. CR6:39, lower part of the layer
117246 Charcoal sample, Loc. CR6:39, top of the layer, level: 1165.38 m a.s.l.
117401 Palaeobotanical samples, Loc. CR6:36
117418 Palaeobotanical samples, Loc. CR6:32
117420 Palaeobotanical samples, Loc. CR6:25
117700 Sediment samples, Loc. CR6:43 export, analysed by Geol. State Department Freiburg. Quartz and kaolinite pH 7.32 (see Haddow this volume)
117701 Sediment samples, Loc. CR6:43
117804 Various minerals, Loc. C22:10, pigment on stone just above burial Loc. CR6:23, analysed by D. Všíanský, possibly natural colouring (pers. comm. H.G.K. Gebel)
117815 Various minerals, Loc. CR6:41, analysed by Geological State Department Freiburg, no mineral but congregation of sand sediment: quartz and kaolinite
117843 Various minerals, Loc. CR6:38, piece of red pigment (Dig House Beidha)
117844 Various minerals, Loc. CR6:38, analysed by Geological State Department Freiburg, no mineral, but congregation of sand sediment: quartz, illite, goethite
117845 Various minerals, Loc. CR6:36, red pigment from grave earth beneath grave slabs
117854 Various minerals, Loc. CR6:28, possibly painted limestone, red paint (Dig house Beidha)
BAJ008 a-DNA sample (see Skourtanioti and Feldman this volume)
b2 Histotaphonomic sample, Loc. CR6:41a (see Haddow this volume)
a3 Histotaphonomic sample, Loc. CR6:41a (see Haddow this volume)

CG7:

- Samples 107016 Plaster samples, Loc. C1:65, soil/ sand with imprints of natural plant remains
107236 Charcoal sample, Loc. C1:58, room fill west of Burial CG7, 1165.08 m a.s.l.
107237 Charcoal sample, Loc. C1:61, lowest room fill on plaster floor, 1164.89 m a.s.l.
107228 Charcoal sample, Loc. C1:61, from plaster floor collapse
BAJ004 a-DNA sample (see Skourtanioti and Feldman this volume)
MA-204351 Sr sample, Loc. C1:46, Toothnr.: 47 (see Knipper *et al.* this volume)
b5 Histotaphonomic sample, Loc. C1:46 (see Haddow this volume)

CG8:

- Samples 97422 Charcoal sample, Loc. C10:405, uppermost layer, juniperus twig frgm.
97419 Charcoal sample, Loc. C10:405, burial fill, after flotation, single sample
97414 Charcoal sample, Loc. C10:405, burial fill, single sample
97432 Palaeobotanical samples, Loc. C10:405, grave filling charcoal, Pistacia atlantica/ khinjuk (n=8 frgms.); juniperus (n=22 frgms.)

BAJ001 a-DNA sample, Ind. I (see Skourtanioti and Feldman this volume)
BAJ002 a-DNA sample, Ind. II (see Skourtanioti and Feldman this volume)
MA-172897 Sr-sample, Ind. II, Toothnr.: 75 (see Knipper *et al.* this volume)
a2 Histotaphonomic sample, Ind. I (see Haddow this volume)
b1 Histotaphonomic sample, Ind. II (see Haddow this volume)

CG10:

Samples 97004 Plaster sample painted, Loc. C10:146b
97007 Plaster sample, Loc. C10:146b
97015 Plaster sample, Loc. C10:146b
97411 Charcoal sample, Loc. C10:408.7, from sieved grave filling Loc C10:408.7
97415 Charcoal sample, Loc. C10:408.4, above the large stone slabs (= MAMS30314)
97416 Charcoal sample, Loc. C10:408.4, above the large stone slabs
97439 Palaeobotanical sample, Loc. C10:408.5, no macro remains identified in the wet-sifted grave filling
MA-172898 Sr sample, Loc. C10:408.8, Toothnr.: 48 (see Knipper *et al.* this volume)
BAJ003 a-DNA sample, Loc. C10:408.8, Toothnr.: 27 (see Skourtanioti and Feldman this volume)
b6 Histotaphonomic sample (see Haddow this volume)

DG2:

Samples No samples were taken in the field
BAJ003 a-DNA sample, Loc. DR19:110 (see Skourtanioti and Feldman this volume)
a1 Histotaphonomic sample (see Haddow this volume)

DG1:

Samples all from Loc. D11/12/21/22:26:
27135 Plaster sample
37060 Plaster sample
27478 Charcoal sample
37828.110 Pigment sample (dark red-brown piece of pigment)
37827.122 Pigment sample (dark red-brown piece of pigment)
37727.135 Pigment sample (dark red-brown piece of pigment)
37827.217 Pigment sample (yellow ochre)

CG9:

Samples 117244 Charcoal sample, Loc. CR28.2:115B
117720 Sediment sample, Loc. CR28.2:120
117900 Micromorphological sample, Loci CR28.2:115A-C
BAJ013-BAJ015/BAJ025-BAJ027 a-DNA samples, Loc. CR28.2:122a/122b/123a (see Skourtanioti and Feldman this volume)
MA-204354 Sr sample, Loc. CR28.2:122b, Toothnr.: 26 (see Knipper *et al.* this volume)

CG1:

Samples 47200 Charcoal sample not analysed; no precise location.
47811 Red pigment sample
MA-204364 Sr sample, Loc. C10:152H, Ind. VI, Toothnr.: 46 (see Knipper *et al.* this volume)
MA-204365 Sr sample, Loc. C10:152H, Ind. VI, Toothnr.: 48 (see Knipper *et al.* this volume)

CG11:

Samples 107226 Charcoal sample, Loc. CR17:115 (2018) = CR17:130 (2019), near the hand of skeleton
107225 Charcoal sample, Loc. CR17:117b (2018), direct next to humerus Ind. 1
107227 Charcoal sample, Loc. CR17:117b (2018), next to the bones (foot)
107235 Charcoal sample, Loc. CR17:117b (2018), lowest part (Planum 3)
117203 Charcoal sample, Loc. CR17:127, burial – outer border of stones
117222 Charcoal sample, Loc. CR17:116, at the border between Loci CR17:130 and CR17:116
117224 Charcoal sample, Loc. CR17:130, between stones under the foundation stone of Loc. CR17:113
117231 Charcoal sample, Loc. CR17:130, next to mandibula in the corner

- 117223 Charcoal sample, Loc. CR17:131
 117235 Charcoal sample, Loc. CR17:132, related to long bones visible in the section under the wall
 Loc. CR17:113
 117236 Charcoal sample, Loc. CR17:134a, from directly under the stone plate
 117233 Charcoal sample, Loc. CR17:135, corner of walls Loci CR17:123 and CR17:110
 117239 Charcoal sample, Loc. CR17:135, under the "african" skull
 117248 Charcoal sample, Loc. CR17:136, close to wall in the SW corner
 117249 Charcoal sample, Loc. CR17:137
 117250 Charcoal sample, Loc. CR17:137 – between Loc. CR17:136 and wall Loc. CR17:123
 117251 Charcoal sample, Loc. CR17:137 – above floor Loc. CR17:138, close to wall Loc. CR17:123
 117409 Palaeobotanical samples, Loc. CR17:115, east of Loc. CR17:127
 117410 Palaeobotanical samples, Loc. CR17:115, ashy layer at south wall behind the left hand
 117411 Palaeobotanical samples, Loc. CR17:115
 107418 Palaeobotanical samples, Loc. CR17:115 (2018)=Loc. CR17:130 (2019), ashy layer lc
 117415 Palaeobotanical samples, Loc. CR17:124, between grinding stone Loc. CR17:126 and Loc. CR17:127
 117416 Palaeobotanical samples, Loc. CR17:127
 117423 Palaeobotanical samples, Loc. CR17:136, from southwest corner, on top of Loc. CR17:138
 BAJ005-006, BAJ016-024 for individual numbers (see Skourtanioti and Feldman this volume)
 MA-205643, MA-204356-204363 for individual numbers (see Knipper *et al.* this volume)

Appendix 3: Identification and morphological analyses of human remains from the collective Burial CG1, Loc. C10:152 by Susan Klingner (in German)

Link: <https://www.exoriente.org/baja/archive/>

In the context of the *Household and Death in Ba`ja* Project, the bones from the collective Burial CG1 were identified and individually analysed by Susan Klingner, Zentrum für Anatomie, University of Göttingen. Through this process, it was possible to reconstruct a plausible sequence of interments in the collective Burial CG1 (see Fig. 99A-F; for a preliminary report on the collective Burial CG1 see Gebel *et al.* 2006). Fig. 99A-F is based on the identification of bones by Klingner.

MNI: 6; identification mainly according to hand bones, long bones, and skull, with a possible additional, juvenile individual (unidentified hand, tibia and femur fragments).

Age (yrs=years, mths=months): Ind. 1: 0yrs ± 1mths (according to bone size), Ind. 2: 2yrs ± 8mths (according to bone size and dental development), Ind. 3: 3yrs ± 12mths (according to bone size and dental development), Ind. 4: 23 ± 2yrs (according to bone size and morphology), Ind. 5: 16 ± 4yrs (according to bone size and morphology), Ind. 6: 20 ± 2yrs (according to bone size and morphology).

Sex (f=female, m=male, indet. = indeterminate):

Ind. 1: indet., Ind. 2: indet., Ind. 3: indet., Ind. 4: m>f (pelvis, long bones), Ind. 5: m=f (postcranium), m ≥ f (pelvis), Ind. 6: m>f (skull, postcranium).

Preservation: very poor; due to the poor preservation, the identification of bones must be considered uncertain. Samples for radiocarbon dating, ancient DNA (aDNA), and stable isotope analysis of carbon and nitrogen (C/N) did not yield valid results due to the insufficient amount of collagen present in the samples. For the results of strontium isotope analysis see Knipper *et al.* this volume.

Reference:

- Gebel H.G.K., Hermansen B.D. and Kinzel M.
 2006 Ba`ja 2005: a two-storied building and collective burials. Results of the 6th season of excavation. *Neo-Lithics* 1/06: 12-19.

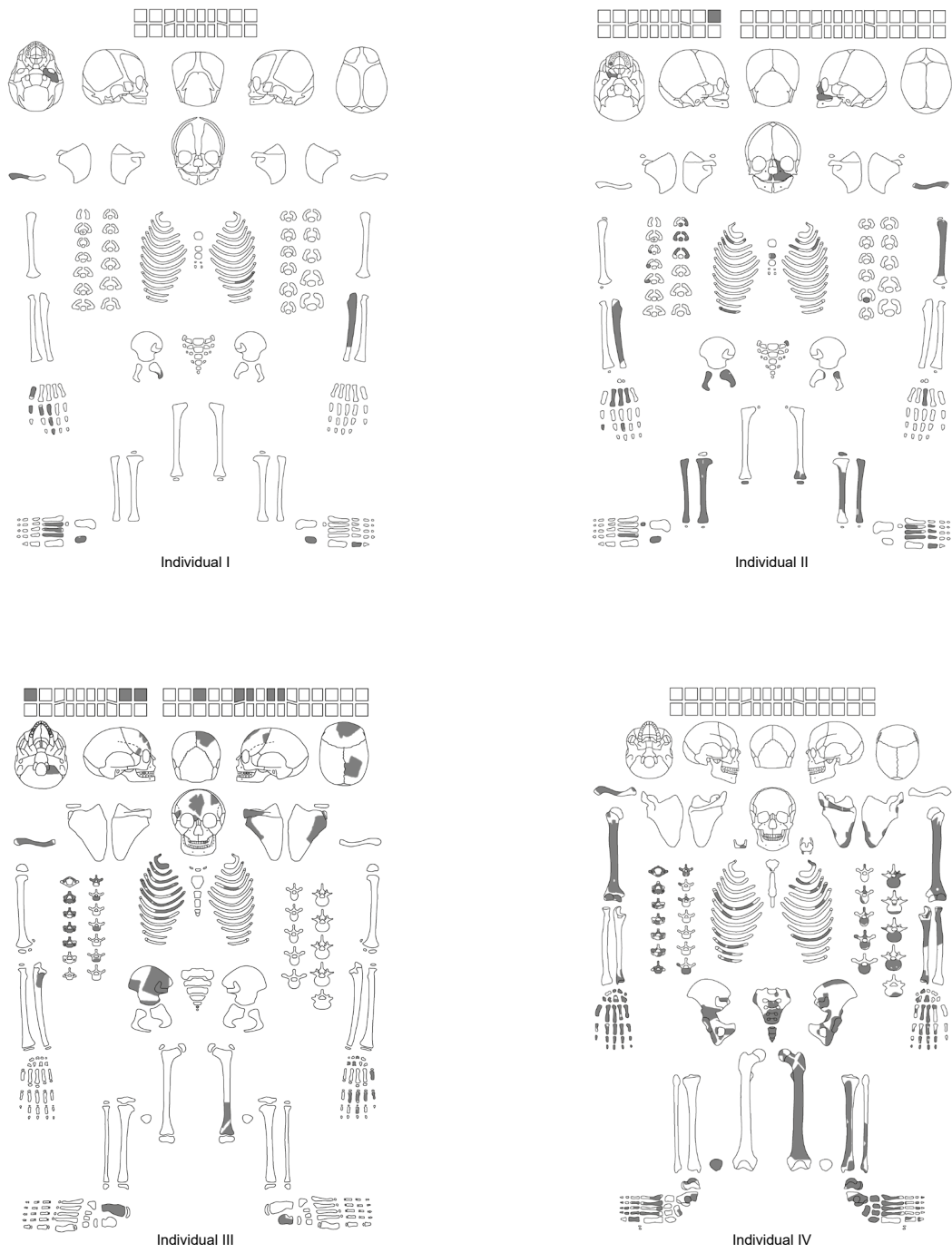


Fig. S152-1
 The six identified individuals from the collective Burial CG1, Loc. C10:152.

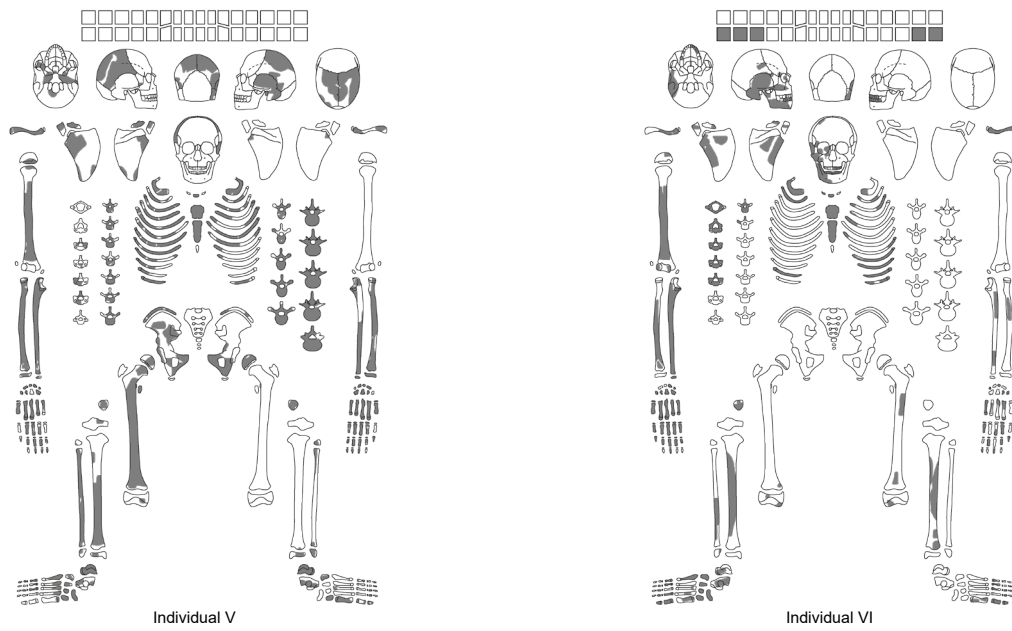


Fig. S152-1 *continued*

Appendix 4: Stable Isotope C/N-Analyses: a report on negative results by Sandra L \ddot{u} sch and Gabriele Arenz

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