Discussion

Comprehensive quantitative analysis of ornament distribution by context (tumulus, tumulus construction type, find place) and anthropological factors is presented in **Table 8.1**. As mentioned in the introduction, the graves were found heavily robbed and were not completely excavated. Therefore, all observations made on ornaments in the quantitative, construction and anthropological sections below should be seen as tentative and not as characteristic of a given period and region, nor of tumulus type or anthropologically defined group.

1 Quantitative Analysis [Table 8.1]

Two thousand two hundred and forty-six beads, pendants and their fragments have been recorded at El-Zuma. Faience beads ($n = 1956$) overwhelmingly predominate this assemblage, making up 88.4% of it. Stone beads ($n = 162$) account for 7.2% and glass beads ($n = 93$) for 4.1%. The remainder is represented by 18 beads of mollusc shell, 14 ostrich eggshell beads, 1 coral, 1 glazed steatite, and 1 unidentified specimen.

Among jewellery items, 6 bells, 1 cupola, 3 rings (including a toe-ring), 2 earrings, 1 pin, 2 rosettes, 3 crosses, 1 fly shank-bead, and 1 badge were recorded. The remaining jewellery survives mostly in the form of fragmentary pieces and they are included in **Table 8.1**.

The number of ivory containers ($n = 6$), gaming pieces ($n = 8$) and dice ($n = 2$) has been estimated based on preserved fragments. Additionally, six fragments of intarsia are thought to have come from a game board, while one knob made of metal and carnelian was part of a toilet box.

2 Construction Approach (Tumulus Types I, II, III)

No beads were found in T.14 (type II) and T.19 (type III). All bead materials, South Indian/Sri Lankan glass bead imports included, were noted in all three tumulus types. Long square biconical carnelian beads were recorded in two type II tumuli (T.9, T.24).

In general, jewellery was found mainly in type I tumuli, the majority of it (chains and crosses, cabochons, bells, etc.) in T.4. Jewellery was missing from the remaining tumuli or else survived in the form of a few items or rather

fragments. Thus, bells (T.13, T.15, T.16) and an iron cross (T.16) were recorded in type II tumuli, and the only three rings found at the site (including one toe ring) all came from a type III tumulus (T.21). A fragment of chain was also found in a tumulus of the same type (T.10).

Gaming set remains were recorded in two tumuli ascribed to type I (T.4 and T.7).

3 Contextual Approach

Ornaments were not discovered in one specific place. They were found on the surface, in shafts, tunnels and burial chambers. In six tumuli, ornaments were found solely in the burial chamber (T.8, T.11, T.16, T.17, T.25, T.27). The richest in finds was T.4. Beads were discovered in its shaft and tunnel, the latter also yielding jewellery and gaming set remains; there were no finds in the burial chamber. Likewise, no finds were recorded in the chambers of T.3 and T.22; however, items were found in a tunnel, a robber pit, and a shaft.

Although only a few beads were found close to the first pillar of T.7, beads, jewellery and gaming set remains came to light in the tunnel of this tumulus.

4 Anthropological Approach

The sex of eight individuals from El-Zuma has been conclusively determined (see Volume I, Chapter 6). Females were recorded in T.1, T.25, T.26, and T.28, and males in T.10, T.17, T.21, T.22, T.27. No skeleton was found in T.12. In general, no particular bead material can be attributed to a given sex/age group. South Indian/Sri Lankan glass bead imports were noted in tumuli with both male and female burials. Large ostrich eggshell beads appeared solely in one female grave (Z28/15, Z28/17), and in one case (Z28/15) they were found near the skull. Similar specimens were recorded as a bracelet from grave 11 at site 47 in El-Kassinger Bahry. The grave was that of a mature female (Then-Obluska 2014, Cat. 213, 214). A mature/senile female in Meroitic grave 7 at site 14 in Hagar Sail also had a bracelet/anklet of large retouched discs (Then-Obluska 2014, Cat. 138).

A toe-ring was found with a male burial in T.21. A chain fragment was found with a male burial in T.10. Tumulus 4,

in which a gaming set and gold and silver jewellery were found, contained the bones of a probable male.

5 Remnants of Beadwork, Leatherwork and Jewellery

This section provides some remarks on the function of these objects, whose position in relation to body remains was clearly indicated in the fieldwork reports. Discussion on the possible function of the remaining ornaments found in El-Zuma is given above in the sections on material analysis.

Only in three graves were beads found in a place that might indicate what item of beadwork they had been part of. Some beads were found near the skull (Z20/8—faience beads, Z28/15—ostrich eggshell, stone, faience, and glass beads) or near the skull and skeleton (Z16/19–23—ostrich eggshell, stone, and faience beads). They were probably parts of necklaces; however, they may also have been part of a circlet, or even a bracelet if the hands were positioned next to the individual's head. Unfortunately, their state of preservation does not allow for conclusive identification.

In one grave, faience beads (Z13/30) were found close to a leather case (Z13/15) (see Chapter 18.2, Cat. 34, and Fig. 18.5, this volume), and it was suggested by the excavators that they may have been part of the case decoration. While leather bags or wraps with beads inside have been recorded in post-Meroitic Nubia (Säve-Söderbergh 1981, 38, object 19/1:15; Pellicer Catalán and Llongueras Campaña 1965, 61–62, Fig. 36:6, 17, Pl. XIX:3), as have beads sewn on to textiles or leather headbands, wristbands, and garments (Williams 1991; Żurawski 2010, Fig. 40; Longa 2011, 503), no leather cases decorated with beads have been reported so far.

A copper alloy cupola Z13/29 with the rim bent inwards was most probably a fitting for the leather case next to which it was found. Leather containers with metal fittings have previously been noted at Nobadian sites (Bates and Dunham 1927, 37–38, Nos 6, 15a–e, Pl. LXVII).

A copper alloy bell was found in the vicinity of the skull and an iron cross was found near the skull and skeleton in T.16. Both items may have been part of a necklace.

One of two bronze rings was found on a foot phalanx of the individual buried in T.21, thus evidencing a toe-ring with a male burial in El-Zuma.

TABLE 8.1 Contextual and quantitative overview of ornament remains according to tumulus construction type and anthropological factors

	Tumulus no.	T.1	T.3	T.4	T.5	T.7	T.8	T.9	T.10
	Tumulus construction type	I	I	I	I	I	I	II	III
	Sex	no data	no data	no data	M(?)	M(?)	F(?)	M(??)	M
	Age				30–50	25–45	35–45	25–30	30–40
Context	Chamber	*^			*		*	*	*^
	Tunnel	*^		*^+	*	*^+			
	Shaft			*	*			*	
	Robber pit		*						
	Surface								
Beads*	Mollusc shell	2		2		10			
	Coral								
	Ostrich eggshell				1				
	Stone			20		3		5	2
	Glazed stone								
	Faience		1	585	13	10	1	74	80
	Glass and metal-in-glass			31	1			1	
	Unidentified								
Beads Total		2	1	638	15	23	1	80	82
Jewellery remains^	Earring	1		1					
	Ring			1					
	Bells	1		2					
	Cupola								
	Chain			2 fr.					1 fr.
	Pin			1					
	Rosette			2					
	Fly shank-bead			1					
	Fittings			c. 120 fr.					
	Cabochons (agate, carnelian, glass)			50					
	Settings			32 and some fr.					
	Badge					1			
	Cross			2					
Gaming set remains+	Containers			6 in fr.					
	Pieces			2 in fr.		6 in fr.			
	Dice			2 in fr.					
	Intarsia			1?		6 fr.			
Other	Plaque								
	Wood fragments			5 fr.					
	Token?				1				
Toilet box lid knob				1					

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T.11	T.12	T.13	T.15	T.16	T.17	T.18	T.20	T.21	T.22	T.24	T.25	T.26	T.27	T.28	Total
II	II	II	II	II	III	III	III	III	III	II	II	II	III	III	
?	no skeleton	M(?)	F(?)	M(??)	M	F(?)	M(??)	M	M	F(?)	F	F	M	F	
16-18		30-40	21-24	16-24	40-50	50+	50+	35-40	35-45	15-18	24-35	45-55+	35-45	40-55	
*	*	*^	*	*^	*	*	*	*^	*	*	*	*	*	*	
		*	^			*	*	*	*	*		*		*	
	*						*								
							*								
1													3		18
											1				1
		3		2				1		1				6	14
		7		6	17	5	2	91		3			1		162
													1		1
12	1	230	3	67	62	59	217	139	12	11	72	14	100	193	1956
	21	2			8					2			13	14	93
											1				1
12	23	242	3	75	87	64	219	231	12	17	74	14	118	213	2246
								2							2
			1	2											3
		1													6
															1
															3
															1
															c. 120 fr.
															50
															32 and some fr.
															1
				1											3
		1													