CHAPTER 1
INTRODUCTION

From furniture to food, animals to architecture, manuscripts to musical instruments, most objects have been miniaturised at one time or another. In the Near East miniature images have been documented from as early as the Neolithic[1]. Perhaps it is as Ben Jonson said: »In small proportions we just beauty see«[2]. In *The Savage Mind*, C. Lévi-Strauss agreed: »All miniatures seem to have intrinsic aesthetic quality« and questioned whether miniatures »may not in fact be the universal type of the work of art«[3]. Modern writers have also noticed the »almost universal appeal« of miniatures with their ability to variously induce »wonder and amazement«, »intrigued awe«, »comforting familiarity« and »enchantment«[4]. From 1997–2001 the German Archaeological Institute (*Deutsches Archäologisches Institut* hereafter referred to as the DAI) excavated over 3,000 mortuary miniatures from the 1st millennium BC Sabaean ʾAwām cemetery of the ʾAwām sanctuary in the Mārib oasis, 135 kilometres northeast of Ṣanʿāʾ, Yemen[5]. Of these 3,000 or so mortuary miniatures, 1,006 miniatures are made of stone and 126 of metal. It is this body of over 1,000 stone and metal mortuary miniatures that constitutes the core of this study. Prior to the excavation of the ʾAwām cemetery, and in common with many sites in the Near East, miniature finds in South Arabian archaeological contexts were typically fragmentary. Even though miniaturization as a technique is well known in Near Eastern archaeology there has been little examination of the extent to which miniatures as a class of objects are able to contribute to an interpretation and understanding of the culture to which they belong. Generally they are underutilised as an explanatory tool when compared to other small find groupings such as seals, coins, jewellery, beads, figurines or scarabs. However, a link into the culture of a time and place can be and needs to be made through the material culture of all recovered objects. Like all objects miniatures are part of the materiality of a culture and represent cultural relationships, intentions and practices that are constructed for a specific time and place. I. Hodder has pointed out that »… material culture has a meaning which goes beyond the physical properties of an object, and derives from the network of social entanglements and strategies within which the object is embroiled«[6]. Therefore objects are sites for the social construction of reality. They are part of a whole range of devices used by groups and individuals to actively construct and negotiate social power and economic relationships in a given time and place. There are no random objects, only cultural objects with cultural functions which leave behind echoes of their past to be deciphered. As L. Meskell put it »… humans create their object worlds … there are no a priori objects; they require human interventions to bring objects into existence«[7]. The study of miniatures can provide a valuable resource that deepens and refines our understanding of a culture as they have their own system of symbols and values that derive from and are integrated into the originating culture's »social entanglements and strategies«[8]. While the study is

1 Moorey 2003, 16.
2 Jonson 1640, 435 no. 27.
3 Lévi-Strauss 1966, 23.
4 Langin-Hooper 2015, 62.
5 Hitgen 1998; Hitgen 2000; Hitgen 2002; Hitgen 2005 b; Vogt – Gerlach – Hitgen 1998/99, 139–143; Gerlach 1999; Gerlach 2002; Gerlach 2003; Gerlach 2005; Bessac – Breton 2002; Japp 2002; Japp 2005; Japp 2005; Nebes 2002; Röring 2002; Röring 2005.
6 Hodder 2003, 73. See also Hodder 2012.
7 Meskell 2004, 3.
8 Hodder 2003, 73.

based on an artefact repertoire and therefore provides a typology of those objects, it also attempts to look at what echoes, if any, the stone and metal miniature repertoire has left behind about its past ›social entanglements and strategies‹, about its origins and roles in South Arabian miniaturization in general and Sabaean mortuary miniaturization in particular. Specifically the study aims to document the stone and metal mortuary miniature corpus from the ʾAwām cemetery, explore both miniature and full size comparanda for the stone and metal repertoires, analyse antecedents to miniaturization in South Arabia and its relationship to other Near Eastern regions, and understand as far as is possible, the function/s and symbolic values of the miniatures as grave goods in 1st millennium BC Sabaʾ.

1 Overviews

1.1 Mortuary Studies

Interpretation in archaeology is often dependent on evidence from mortuary contexts. Mortuary rites are performed by the living for the living, so such contexts provide a fundamental link to social organisation and cultural rituals through the presence or absence of cemetery organisation, grave architecture and size, inscriptions, grave goods and skeleton treatment. Decisions taken about the burial place and associated rituals are important and are proxy indicators for much cultural information. But mortuary contexts are difficult if not treacherous contexts, often being »a hall of mirrors, representations of representations«[9]. First, because they are often plundered, destroying stratigraphic and chronological information, but secondly and more importantly, because they are symbolic environments in which the meanings of objects are indirect and heavily idealised. They tell us about how people thought life should be led not how it actually was led, »the community of the dead may well be very different from the communities of the living«[10]. The use and abuse of mortuary contexts in deciphering the past is well known and has given rise to a considerable amount of scholarly literature in archaeology about burial populations, grave goods, landscapes of internment and the appropriate interpretative paradigms[11]. Indications of social organisation and especially indications of status, power, rank, gender, kinship, and age are looked for and analysed through mortuary material culture. As M. Parker Pearson has put it, »one of the main ways in which we interpret past societies is through recovering the material traces of those practices associated with the remains of the dead«[12]. By the 1970s functionalist behavioural explanations in archaeology and anthropology gave way especially in north America to the so-called New Archaeology or processual archaeology and its search for so-called universal laws or middle range theories regarding human behaviour[13]. Mortuary studies became caught up in the new approaches which, while providing correctives to A. L. Kroeber's[14] view that there was little relationship between mortuary and wider social traditions, suggested a direct reflective approach between mortuary material culture and social organisation[15]. Post-processualist approaches to archaeology replaced this view with a reflexive, contextual approach[16], and current views of mortuary studies[17] tend to favour a more transformative view of the relationship between mortuary treatment and social position, a reflexive rather than reflective approach, allowing for »contradictory tendencies between lived and idealised notions of social structure«[18]. Mortuary rites and sites are now interpreted as images of *idealised* social organisation that play a crucial role in the construction of differentiated social identities, memorialising identity and status among the dead, confirming and reinforcing

9 Parker Pearson 2003, 9.
10 Parker Pearson 2003, 114.
11 Kroeber 1927; Binford 1962; Saxe 1970; Binford 1971; Bottéro 1980; Goldstein 1981; Pader 1982; Parker Pearson 1982; Shanks – Tilley 1982; Tsukimoto 1985; Shanks – Tilley 1987; Cannon 1989; Morris 1992; Parker Pearson 1993; Campbell – Green 1995; Hodder 2003; Parker Pearson 2003; Cohen 2005.
12 Parker Pearson 2003, 3.
13 Binford – Binford 1968; Binford 1971; Binford 1987.
14 Kroeber 1927.
15 Saxe 1970; Binford 1971; Goldstein 1981.
16 Hodder 1982 a–c; Hodder 2003; Hodder – Hutson 2003.
17 Parker Pearson 2003; Cohen 2005; Brück 2006.
18 Parker Pearson 2003, 23.

social identity and differentiation among the living. Summarising P. J. Ucko's (1969) research, M. Parker Pearson (2003) spelt out the practical implication for mortuary studies: »The presence of grave goods does not necessarily imply belief in an afterlife; the orientation of a buried corpse might not reflect ideas about the direction of the other world; cremation need not imply any belief in the existence of a soul after death; and dynastic tombs need not indicate royalty«[19].

Where mortuary studies in Yemen are concerned, while a variety of grave types has been uncovered little is known about mortuary practices. Bronze Age tombs from the fourth to the 2nd millennia BC have been documented and connected to similar types in the Sinai, Saudi Arabia and Oman[20]. Turret tombs[21] near the edges of the Ramlat al-Sabʿatayn from the fourth and the 2nd millennia BC[22] but also dating to the 1st millennium BC at al-Makhdarah near Ṣirwāḥ are known. Hypogeum tombs at al-Sawdāʾ from the early 1st millennium BC[23], Kharibat al-Ahjar near Dhamār from the early 1st century BC[24] and from Qāniʾ between the 2nd to 5th centuries AD[25] are also documented. However, not surprisingly the most common South Arabian graves are pit graves and cists such as are found near Madīnat al-Ahjur (al-Ḥadāʾ) or typically dug into the sides of Wadis such as in the Wadi Ḍuraʾ. Other grave types documented include cave or rock chamber tombs such as those in the Ḥaḍramawt at Ḥurayḍah, Shabwah and Raybūn and others containing partially mummified bodies at Shibām al-Ghirās[26]. The final type of grave is the one that is of interest to this study. These are the monumental, multi-storied, mortuary structures of the ʾAwām cemetery from which the miniature repertoire was excavated. This type of mortuary structure is also found at the Ḥayd bin ʿAqīl necropolis at Tamnaʿ and it is this necropolis that has documented the greatest quantity of mortuary miniatures after the ʾAwām cemetery. Along with the pottery miniature corpus[27], the ʾAwām cemetery miniature repertoire is the only miniature collection, mortuary or otherwise of any size and diversity currently available with which to reference Sabaean and South Arabian miniature and mortuary material culture.

1.2 Stone and Metal Vessel Studies

There has been little research in South Arabia devoted to stone and metal vessels. Currently for example, there is no study of materials and industries such as realised by P. R. S. Moorey for Mesopotamia[28]. In a way this is surprising as Yemen is well provided with abundant stone, especially limestone and travertine, suitable for building and decorative purposes as well as mineral deposits including gold, lead, nickel and copper[29]. However, on the other hand perhaps the lack of stone and metal research is not so surprising as Yemen is an area where archaeological work started later than many other regions and where continued excavation programs and archaeological research have been difficult to sustain. Therefore analysis of stone used in buildings, ornamentation or vessels is still in its infancy in South Arabian archaeology. Studies exist of the use of stone, mostly limestone, in Sabaean buildings often as an adjunct to architectural analysis[30] and there is some literature albeit usually from an art historical point of view often concentrating on individual stone ornaments, but there has been little focussed discussion of the use of stone in South Arabian vessels. The lack of a critical mass of recovered stone vessels for study has undoubtedly contributed to the situation. Therefore the typical overview of stone vessels found in other jurisdictions[31] has not yet been possible in South Arabian archae-

19 Parker Pearson 2003, 21.
20 Steimer-Herbet 1999; Steimer-Herbet 2001; Braemer – Cleuziou – Steimer 2003; Steimer-Herbet 2004; Steimer-Herbet – Davtian – Braemer 2006.
21 de Maigret 1996.
22 Braemer *et al.* 2001; Steimer-Herbet – Davtian – Braemer 2006, 263.
23 Vogt 2002, 182.
24 de Maigret – Antonini 2005.
25 Sedov 2001, 34.
26 Anonymous 1984; Abd-el-Halim 1990; Bāsalāma 1997.
27 Japp 2002.
28 Moorey 1999.
29 Marcolongo 2005, 398–399 figs. 4. 5.
30 Hitgen 1998; Vogt – Herberg – Röring 2000; Bessac – Breton 2002, 117–119; Gerlach 2002; Röring 2002; Röring 2005; Harrell 2007; Kirnbauer 2007; Schnelle 2007; Weiss – Koch – Gerlach 2007.
31 Warren 1969; Aston 1994; Sparks 1998; Sparks 2003; Bevan 2007; Sparks 2007.

ological studies. Likewise the archaeological examination of copper-base artefacts in South Arabian archaeology is also in its infancy and there is no sure knowledge yet of copper sources or of alloying techniques. Most of the few fragmentary and isolated studies of South Arabian metal work have used an art historical or epigraphical approach[32] typically concentrating on major and unique finds. As a result and with some notable exceptions, there has been little analysis of artefacts such as bronze vessels, jewellery, tools and weapons[33]. The ʾAwām cemetery miniature material provides an opportunity to document a corpus of stone and metal artefacts and to incorporate them into current South Arabian archaeological research.

1.3 Terminology: ›Miniature‹ and ›Model‹

Given the fragmentary and often ambiguous recognition of miniatures in the archaeological literature, the use of ›miniature‹ has been reserved for those artefacts designated as such in excavation reports and publications. ›Small‹ describes those artefacts in excavation reports and publications whose dimensions approximate the maximum dimension of the ʾAwām miniature corpus. The study uses ›miniature‹ in preference to ›model‹ even though the term ›model‹ is sometimes used instead of or interchangeably with ›miniature‹ in the literature. ›Model‹ has most often been used in Near Eastern contexts when describing the small everyday scenes, often found, for example, in Egyptian[34] or sometimes Phoenician tombs[35]. It is also used to describe model clay furniture[36], and models of buildings such as houses[37]. In South Arabia, examples of model temples[38] and possibly houses[39] are also known. In Egyptian archaeology the term can also refer to full-scale dummy vessels such as the New Kingdom jars of wood that copied stone jars[40]. There is no evidence to suggest recognition of ›miniature‹ or ›model‹ as emic categories in South Arabia. Modern usage of the term ›model‹ implies a wider category of objects such as architectural building models that are beyond the purview of this discussion. Usage of ›model‹ rather than or as well as ›miniature‹ would therefore more likely confuse than explicate the following study given that the discussion is centred on a narrow group of tiny vessels and a small number of personal items, tools and weapons.

2 Miniaturization

Miniaturization is well attested in the archaeological literature with early mentions of model tools made by W. M. F. Petrie in his 1909 *The Arts and Crafts of Ancient Egypt*[41]. A survey of miniatures in the literature shows their ubiquitous nature across both time and place including Asia[42], the Americas[43] and Europe[44]. E. Haerinck and B. Overlaet[45] noted their presence in nearly all domains including the magical and religious as well as the profane. There is a particularly significant presence in Greece with miniaturised versions of standard Greek and Hellenistic vessel forms recovered from a range of sites[46]. Sometimes thousands have been reported in votive deposits from sanctuaries[47] such as 5,000 from the Megalopolis road sanctuary, 7,000 at Metroon in Athens and 14,000 from the so-called sanctuary of Persephone at Lokroi Epizephyrioi[48]. In the Near East, Egyptian models and miniatures are perhaps the best documented[49]. At one Old Kingdom site,

32 Segall 1958; Ryckmans – Vandevivere 1975.
33 ʿAqīl 1991; ʿAqīl – Antonini 2003; Weeks *et al.* 2009.
34 Tiradritti 1999, 93. 101–103. 108–111. 113–119; Agnese – Re 2001, 125.
35 Moorey 2003, 59.
36 Cholidis 1992; Beck 1993.
37 Shaw – Nicholson 1996, 293.
38 Darles 1997, 135.
39 Du Ry 1969, 246.
40 Allen 2006, 21.
41 Petrie 1996, 75.
42 Ghosh 1989; Hiebert 1994.
43 Meighan 1976; Finsten 1995; Bray 2003; Hendon – Joyce 2004.
44 Blake 2005; Tomaž 2005.
45 Haerinck – Overlaet 1985, 407.
46 Payne 1940; Dunbabin 1962; Hayes 1984; Stillwell – Benson 1984; Hayes 1992; Carey 2001.
47 Stroud 1965; Bookidis 1969; Pemberton 1989.
48 Dunbabin 1962, 290.
49 Petrie 1937; Spencer 1982, no. 10; Bárta 1995; Petrie 1996; Schiestl 1996; Arnold 1999; Hope 2001; Allen 2006; Odler – Dulíková 2015.

Abū Rawāsh, around 45,000 miniature objects were recorded in three seasons[50]. While miniatures are also documented in the rest of the Near East they are somewhat fragmentary in both recovery and analysis. Of nearly 2,000 2nd millennium BC Levantine stone vessels catalogued by R. Sparks[51] only four miniatures were identified. Nevertheless, miniatures have been recovered from Mesopotamia[52], Iran[53], Afghanistan[54] and the Levant[55] where they have been documented from as early as the Neolithic and Chalcolithic[56]. Apart from South Arabia, stone and pottery vessel miniatures are known on the Arabian Peninsula from the 3rd to the 1st millennia BC and up to the 7th century AD from at least Saudi Arabia[57], the United Arab Emirates[58] and Oman[59].

Generally speaking miniatures are rarely dealt with in a systematic or in-depth way in archaeological literature. This is not to say they are absent from the literature as the previous paragraph attests. On the contrary they are relatively easy to find but mainly as fragmented mentions, with little or no discussion of them beyond noting their presence, although sometimes even this is absent[60]. Where documentation is present, it is typically brief vague mentions and at times disorganised contextual reporting with little information relating to individual pieces. A. Green commented on the »… too few, secondary and ambiguous«[61] context details published for Mesopotamian miniatures in trying to analyse the miniatures from the 6G Ash Tip at Abū Ṣalābīkh. In some cases it is almost impossible to designate pieces as miniature or not as dimension information is lacking. Sometimes even if dimensions are documented, there has been little attempt to attend to the thorny issue of whether the tiny artefact documented is a miniature or a tiny but full sized vessel. Two reports can be used to exemplify this lack of discussion. The Hazor excavation reports described pottery and small finds from the Early Bronze Age through to the Persian period in the Levant[62] and therefore there was an opportunity to provide a diachronic overview of the use of miniatures at the site. However, apart from the listing of approximately 60 miniatures in the various excavation reports[63] there was little analysis of miniature use over time in the reports even given Y. Yadin's acknowledgement of the importance of miniatures as votive vessels »inherent in Palestinian temple assemblages in general«[64]. Likewise, F. W. James and P. E. McGovern reported miniature vessels as »very common in temple contexts«[65] from the Middle Bronze Age to the Iron Age in Palestine. At Beth She'ān at least 17 miniatures were recovered, parallels published and a time range for their use from the Middle Bronze through the Iron Age suggested but little analysis of their function beyond their likely use as »small, symbolic offerings«[66]. Perhaps such a situation came about partly because of the often fragmentary find nature of miniatures. Another reason for the lack of serious archaeological attention paid to miniatures may be that as conservative long-lived forms they are more difficult to date and therefore less easy to interpret than other classes of material culture. Additionally, they are ambiguous artefacts mostly found in symbolic environments such as temples, sanctuaries and graves. Consequently miniatures are typically mentioned in the literature without accompanying analysis that incorporates them into their wider cultural »social entanglements«[67].A powerful motivation to analyse miniatures as an ensemble seems to

50 Allen 2006, 20.
51 Sparks 1998.
52 Mallowan – Rose 1934; Woolley 1934; Tobler 1950; Delougaz 1952; Hansen 1973; Hansen 1978; Woolley – Mallowan 1976; Curtis 1979; Green 1993; Oates – Oates – McDonald 2001.
53 Deshayes 1963; Deshayes 1965; Moorey 1971; Voigt 1983; Haerinck – Overlaet 1985; Perrot – Madjidzadeh 2005.
54 Haerinck – Overlaet 1985.
55 Ben-Dor 1950; Yadin 1958; Yadin 1961; Katz – Kahane – Broshi 1968; Yadin 1989; James – McGovern 1993; Sparks 1998; Bourke *et al*. 2000; Richard 2000; Bourke *et al*. 2003; Routledge 2004; Sconzo 2006; Sparks 2007.
56 Tadmor 1990; Moorey 2003; Levy – Kansa 2006.
57 Burkholder 1984.
58 Vogt 1985; McSweeney – Méry – Macchiarelli 2008.
59 Yule – Weisgerber 2001.
60 Green 1993, 2 n. 3.
61 Green 1993, 114.
62 Yadin 1958; Yadin 1989.
63 Yadin 1958, pls. 88, 17. 18. 21. 22; 89, 14; 93, 4. 5; Yadin 1961, pl. 269, 1–21.
64 Yadin 1989, 256.
65 James – McGovern 1993, 178.
66 James – McGovern 1993, 178–180.
67 Hodder 2003, 73.

be related to the quantity of miniatures uncovered on sites. It is for this reason that most of the literature relating to miniatures published from the Near East and nearby areas comes mainly from either Greece or Egypt. While Greek miniature recovery in itself is beyond the purview of this discussion, the great quantities of miniatures uncovered in Greek sanctuaries has motivated some analysis of their definition and function[68]. Work on Egyptian miniatures has placed them within an Egyptian »symbolic and visual language of ritual practice«[69] with them being common as a standard part of temple and tombs including tomb foundation deposits. Between them, M. Bárta, S. Swain, R. Schiestl and S. Allen have provided a diachronic overview of the ubiquitous use of models and miniatures from early Dynastic Egypt to the New Kingdom[70]. In Jordan, J. Notroff and S. Richard have also provided recent analyses of miniaturization[71]. There is also a growing body of work, albeit small, theorizing about miniatures and miniaturization[72]. While such works signal the start of a more serious attempt to examine the phenomena, most miniature repertoires, even large ones, still tend to be understudied. Bárta has pointed out that »No great attention has been paid to the miniatures so far despite the fact they form a substantial body within the corpus of the pottery from the Old Kingdom«[73] and according to Allen[74] miniatures have only been studied as part of their overall context at four Old Kingdom sites. In the South Arabian context most of the above points hold true. Miniatures are documented from a range of sites including Ṣirwāḥ[75], Ḥarām and al-Ḥuqqah[76], Wadi al-Jūbah[77], Hajar ibn Ḥumayd[78], Tamnaʿ[79], Ḥurayḍah[80] and the Mārib oasis[81]. South Arabian miniatures have also been published by Y. Calvet and C. J. Robin[82] from the Louvre and by P. M. Costa[83] from the Ṣanʿāʾ National Museum. However, the only literature that considers miniatures currently in the South Arabian context beyond merely mentioning them is that associated with the ʾAwām cemetery[84] including some research focused exclusively on the miniature corpus[85]. The other site where miniatures were discovered in sufficient quantities to expect full investigation was at Tamnaʿ by the American Foundation for the Study of Man (AFSM), but the general inadequacy of both the early excavation and the reportage has prohibited all but superficial cataloguing of finds[86]. While recent well-controlled Italian excavations at Tamnaʿ and resultant publications have helped fill the gap as regards new material culture from the site, there is currently little South Arabian archaeological literature that considers issues to do with miniature definition and function.

2.1 Miniature Definition

Table 1.1 outlines the definition of miniature that will be followed in this study. Where considered in the literature the question of miniature definition is usually dealt with through assigning a dimension boundary, although some studies also link dimension and function[87]. However, where dimension is concerned there are two problems with its use as a defining tool. The first problem is that there is no real consensus in any jurisdiction about what such a dimension should be. In her study of miniatures from the Lower Ohio River Valleys in North America between 1000–1500 AD, H. B. Carey[88] set a dimension boundary at less than 12 cm in height and body diameter. At Neolithic Čatež-Sredno polje,

68 Dunbabin 1962, 290–291; Jacobsen 1969; Stillwell – Benson 1984, 309; Stibbe 1994, 34. 49, although cf. 19–20. 54; Hammond 1998, 18; Ekroth 2003; Barfoed 2015.
69 Allen 2006, 19.
70 Bárta 1995; Swain 1995; Schiestl 1996; Allen 2006.
71 Notroff 2011; Richard 2012.
72 e. g. Bailey 2005; Kohring 2011; Knappett 2012; World Archaeology 2015.
73 Bárta 1995, 15.
74 Allan 2006, 20.
75 Sarah Japp personal communication 2009.
76 Seipel 1998.
77 Toplyn 1984; Glanzman 1994.
78 van Beek 1969.
79 Cleveland 1965.
80 Caton Thompson 1944.
81 Albright 1958; Robin – Vogt 1997; Seipel 1998; de Maigret – Avanzini 2000; Simpson 2002; Japp 2008.
82 Calvet – Robin 1997.
83 Costa 1978.
84 Hitgen 1998; Hitgen 2005; Vogt – Gerlach – Hitgen 1998/99, 139–143, Gerlach 1999; Gerlach 2002; Gerlach 2003; Gerlach 2005; Japp 2002, Japp 2005 a–b.
85 Japp 2002; O'Neill 2010.
86 Albright 1952; Albright 1958 a–b; Jamme 1952; Jamme 1953; Phillips 1955; Jamme 1958; Cleveland 1965.
87 Haerinck – Overlaet 1985, 408–410.
88 Carey 2001, 15.

Definitional element	Comment
Copy of the full size original	This constitutes the necessary condition in the definition of a miniature. If a tiny object does not have a full scale original it is not a miniature. Not all tiny shapes are miniatures.
Dimension	This constitutes the sufficient condition in the definition of a miniature but one size does not fit all as vessel dimensions are culturally determined. A copy of a full size original must be a reduced-scale copy. Where absolute dimensions are concerned the only requirement is that the miniature is smaller than the original. In the ʾAwām cemetery most miniature dimensions were less than 5 cm.
Function	Function is not a necessary part of defining ›miniature‹. Function is important to the sort of role the miniature plays in a specific cultural context. Miniature function varies widely and includes the utilitarian, although most are symbolic. Miniatures are found in settlement, temple and mortuary contexts, although mostly in the latter two contexts.

Table 1.1 Summary of what constitutes the definition of a miniature

miniature size was interpreted as usually not more than 6 cm in diameter and height[89]. C. M. Stibbe[90] defined miniature Laconian lakainai as between 2–3 cm in height while L. A. Hammond[91] used 10 cm³ as a dimension boundary for those miniature Tegean vessels without known full sized models. For Bárta[92] Old Kingdom vessels with either a width or height of around 10 cm were defined as miniature. S. Richard's[93] miniature cups from the Early Bronze IV site of Khirbet Iskander in Jordan had diameters of 6–7 cm and miniature jar forms a height of 4.5–9.5 cm. J. Hassell defined the mainly 1st millennium BC cuboid incense burners from Tell Jemmeh in Palestine as miniatures »where at least two of the three measurements are less than 3 cm‹[94]. Where the South Arabian stone and metal miniatures from the ʾAwām cemetery are concerned their dimensions range from 0.9 – c. 11.0 cm in diameter and 0.6–6.89 cm in (full profile) height. Such dimension variations may be entirely appropriate to each of the particular material cultures studied, as dimension may be culturally specific with both dimension and the amount of reduction employed to produce a miniature variable across time, culture and artefact class. However, such variations present a problem in using absolute dimensions as the defining criteria of miniature across different cultures. The second problem is a practical one relating to consistency. When trying to establish at what exact height or diameter an object is either a small or miniature vessel, it is very much the case that one archaeologist's miniature may well be another's small vessel even within a single cultural horizon. There are often confusions about what may be called a miniature, both between and within sites and possibly from day to day by the same archaeologist especially when distinguishing between miniatures, and tiny and small but nevertheless full size vessels. Green[95], for example, pointed out in the Abū Ṣalābīkh excavations in Iraq, that a jar with a height of 7.1 cm was termed miniature while another of 6.9 cm was not without any apparent good reason for

89 Tomaž 2005, 263.
90 Stibbe 1994, 34.
91 Hammond 1998, 18.
92 Bárta 1995, 15.
93 Richard 2000, 401. 405–406.
94 Hassell 2005, 139.
95 Green 1993, 111.

the difference. This difficulty was mirrored in the ʾAwām cemetery excavation database also. The necessarily subjective nature of different excavators' definitions and the resultant difficulties encountered in consistency make it difficult to provide a reliable, clear cut definition of a miniature even within the same culture.

The impossibility of providing an absolute boundary between miniatures and ›not-miniatures‹ may also be due to another reason. There is no evidence beyond the existence of the miniatures themselves for an indigenous construction of ›miniature‹ as an emic category of meaning. Vessels were made in a variety of sizes which existed along a continuum and distinguishing ›miniature‹ may be no more than to construct an abstract notional class out of a range of differentially sized vessels. A cursory examination of Near Eastern sizing traditions shows that size graduation within artefact classes was frequent. T. E. Levy and E. Kansa[96] noticed both a trimodal range from small to large and from miniature to full size among the pottery vessels at Chalcolithic Gilat. As well as miniature/model and full size, Allen[97] described reduced-scale vessels in Old Kingdom assemblages suggesting a range of sizes was used from miniature through reduced-scale to full size. In the South Arabian context this is noticeable across a range of artefact forms. For example, a bronze chalice in the ʾAwām repertoire with a height of 3.3 cm is paralleled by a small surface find from Wadi Ḍuraʾ with almost twice its height of 6 cm[98] and a full sized parallel piece from Wadi Ḍuraʾ with a height of 21.7 cm[99]. The shallow carinated bowls from Wadi al-Jūbah also seem to possess a graduation in diameter size from a miniature of 7 cm through a small to medium size of 13–25 cm to a large size of 29–30 cm[100]. The small rounded shoulder jar is also present in two sizes, a small diameter of *circa* 11–16 cm, and a large diameter of *circa* 21–29 cm[101]. In Mesopotamian Sumerian and Ninevite 5 burial traditions, whole ›sets‹ of vessels of different sizes were placed inside one another in the grave[102], and L. Ch. Watelin[103] showed size graduation at 3rd millennium BC Kish. While future research may uncover an emic categorisation of miniature it is currently not known in South Arabian archaeology. In other Near Eastern archaeological literature, there are only rare examples of attempts to uncover emic understandings of miniaturization. Allen[104] argued that model and miniature vessels were seen by the Egyptians as »two distinct types, though overlapping in both form and use. Size was not the determining factor«[105]. However, the lack of textual sources to support her view makes it difficult to confirm this as an example of indigenous categorisation rather than a useful secondary interpretative insight. In a second example, J. Moon[106], Green[107] and J. N. Postgate[108] studied miniature vessels and figurines from the Early Dynastic 6G Abū Ṣalābīkh Iraq ash tip. One hundred and twenty-one pottery miniatures were found in the ash tip at Abū Ṣalābīkh although other miniatures were found across the site[109]. Their archaeological context was explained and Mesopotamian comparanda presented based on miniatures recovered from the Ḥalaf to the Neo-Assyrian periods[110]. Along with the human and animal figurines that were also found in the ash tip, the miniature vessels were interpreted as substitutes for offerings[111]. Postgate[112] showed in his analysis of the different distinctive representative functions of the 3rd millennium BC figurines found at Abū Ṣalābīkh, the interpretative possibilities if indigenous textual and archaeological records allow. By using admittedly later period 2nd millennium BC Kassite texts, he was able to uncover emic distinctions in function between anthropomorphic and zoomorphic figurines. Inscriptions on the Abū Ṣalābīkh figurines and on a later period similar deposit, allowed him to hypothesise that human figurines represented a specific person, while animal figurines represented an instance of a class, not a specific animal. Min-

96 Levy – Kansa 2006, 395. 428.
97 Allen 2006, 23.
98 Breton – Bāfaqīh 1993, 31 no. 41 pls. 15, 55; 28, 85.
99 Breton – Bāfaqīh 1993, 30 no. 39 pls. 8, 16; 28, 84.
100 Glanzman 1994, 137.
101 Glanzman 1994, 169.
102 Black – Green 1992, 61.
103 Watelin 1934, pls. 1. 2 and XIX, 1–3.
104 Allen 2006, 20–22.
105 Allen 2006, 20.
106 Moon 1987, 170–172.
107 Green 1993, 111–124 figs. 4, 1–10.
108 Postgate 1994.
109 Green 1993, 111.
110 Green 1993, 8. 111–124.
111 Green 1993, 20.
112 Postgate 1994.

iature vessels were placed in the same category as animal figurines and interpreted as substitutes for an undifferentiated class of objects, in this case full size vessels. Perhaps the origins of miniaturization lay in the need, whether economic, ritual or propaganda or a combination of such factors, to go from the real to the full size symbolic to the miniature. For example, over time South Arabian dedications of real people to the temple were replaced with dedications of statues representing the person[113]. In Egyptian mortuary contexts real food was gradually replaced by replicas and large expensive stone vessels were replaced by ›dummy‹ vessels of wood and then finally by miniatures.

Therefore whether the smallest objects were conceptualised in the same way as the modern construct of miniature is unclear as is its relevance to indigenous conceptions of material culture. However, if the term ›miniature‹ is used because it provides a useful analytical or interpretative category it should at least be used in accordance with its modern definition. Defining a miniature is a little like defining time. We all know with absolute certainty what it is until we try to define it. Formal dictionary definitions of miniature and miniaturization are reassuringly clear cut. The New Shorter Oxford English Dictionary defines a miniature as an »image or representation on a small scale. adj. represented, designed etc, on a small scale; much smaller than normal; tiny« and to miniaturise is to »produce in a smaller version; make small« with miniaturization as »the process or an instance of miniaturising something«[114]. The existence of something reproduced at a reduced scale is inherent in the modern meaning of ›miniature‹. This is a useful definition as it enables a crucial distinction to be made between miniatures and other similar sized tiny, but nevertheless full size objects such as ointment pots or cosmetic jars, as well as between small and miniature objects. G. R. Edwards noted many tiny or small vessels are not necessarily miniatures as they are not small copies of larger vessels but »rather are of the size required for their purpose«, which, for him in the context of Hellenistic Corinth, was as ointment pots[115]. Allen also noted small vessel use as cosmetic jars in Egypt »whose size is a reflection of their function, contents, and use as personal items«[116]. Diminutive containers or storage jars could also contain pigments, beads, herbs or seeds[117]. A decorated stone jar, diameter 2.2 cm and height 4.0 cm, from Tepe Gawra was described as a kohl jar by the excavators[118]. E. G. Pemberton[119] showed in her study of Corinth that some tiny shapes had practical functions, such as perfume bottles, vials or containers for oils, condiments or other substances. Therefore not all tiny shapes are miniatures, as many objects are not copies of larger objects but a tiny object of a certain size in its own right. Tiny and small objects are miniatures only if they are a reduced scale copy of an original larger object. In their discussions of Early Dynastic Abū Ṣalābīkh and Hellenistic Corinthian miniatures, Moon[120] and Edwards[121] both made the point, *viz.* that it is the copying of an original object in a smaller dimension that defines a miniature. »This section is not meant to be a collection of all pots under a certain size, but of those small vessels which seem to be a deliberate miniature version of a larger form. It must be admitted that larger forms are in fact not known for all of them«[122]. The existence of a larger full size object is a necessary condition for a miniature and lessens some of the often arbitrary nature surrounding what constitutes a miniature by reducing reliance on dimension as the sole defining criterion for miniature. However, there are some difficulties with this definition archaeologically. It is not always possible to uncover the complete range of full size shapes that miniatures copy as the above quote from Moon shows, so some tiny and small objects may need to have a provisional miniature status until confirmation is possible. There is also evidence to suggest that at least in some cultures miniatures may at times be copies of long-lived forms necessitating the extension in time of the search for original prototypes[123]. Some ambiguity may also remain about what constitutes a miniature where reduced scale copies of an

113 Ryckmans 1993, 358–363; Sedov 2005 b, 55.
114 The New Shorter Oxford English Dictionary (1993).
115 Edwards 1975, 2 n. 6.
116 Allen 2006, 21.
117 Barnett 1973, 110; Baxter 2005, 48.
118 Rothman 2002, 332–333 no. 797 pl. 9, 797.
119 Pemberton 1970, 293 n. 49.
120 Moon 1987, 170.
121 Edwards 1975, 2 n. 6.
122 Moon 1987, 170.
123 Allen 2006, 19. 22.

original full size object are produced in more than one reduced size. In this case, miniatures could be expected to have the largest reduction within an artefact class of a particular culture. In general, it is only by situating miniatures as part of their own cultural horizon through contextual and culturally specific analysis that an accurate interpretation of them can be made.

2.2 Miniature Function: Toys

Without doubt the most frequently addressed issue in the literature is miniature function. Given the problems associated with using dimension alone as a defining tool, it is not surprising that function has often been used to define a miniature. The actual functions miniatures either performed or have attributed to them performing across time and place in the literature are innumerable. As M. E. L. Mallowan and J. C. Rose have put it concerning miniature vessels: »It is hardly necessary to enumerate the variety of uses to which miniature vessels might have been put«[124]. The three miniature functions considered here are as children's toys, symbolic objects and utilitarian objects. R. W. Park noted the same general functions for miniatures in his ethnographic account of the Inuit in North America and Greenland, *viz.* as toys, mortuary vessels and what he called »the paraphernalia of shamans«[125]. However, the two most frequently cited functions in the literature are as toys and symbolic objects.

As toys, miniatures are educative and socialising play tools for children. Early mentions of miniatures typically saw them as toys because they were small, non-utilitarian and often not well made. As a result they were seen as suitable »only« for children on the assumption that »small pots equal small people«[126]. Figurines also suffered the same fate[127]. F. Keller expressed a late 19th century view about miniatures that was typical of this particular interpretation. »These miniature vessels are so carelessly and clumsily made that one is led to imagine that they may have been nothing but children's toys«[128]. Much the same position was put in the early 1950s about Hellenistic miniatures: »At a sanctuary numerous small votives were often dedicated, of which the significance remains obscure. In this deposit a surprisingly large number of miniature objects appeared, looking like children's toys rather than serious adult offerings«[129]. However, recent research has shown that equating crudely made and tiny vessels with children is not a secure way of identifying toys in the archaeological record. The revival of interest in exploring childhood in the archaeological record has brought renewed interest in miniature interpretation as part of a re-examination of childrens' material culture. J. E. Baxter[130] and others[131] have sought to explore material culture associated with childhood, and small objects including miniatures are necessarily a part of that analysis[132]. Baxter has defined a miniature as »… a smaller version of another object differentiated only by size and often the resulting lack of a commensurate function with the larger object«[133]. She has also commented that »Small objects found in archaeological contexts that do not have larger-sized counterparts should not be considered miniatures«[134] as it is not possible to be sure that they are not full size, albeit small, objects and therefore interpretation as toys not assured. Identification of toys can also be made through ethnographic accounts of childhood play combined with archaeological research[135] such as excavating children's graves[136], and investigating pottery production techniques such as measuring extant fingerprints on artefacts[137]. E. A. Bagwell[138] and P. L. Crown[139] have

124 Mallowan – Rose 1934, 72.
125 Park 1998, 275.
126 Carey 2001, 5.
127 Moorey 2003, 59.
128 Keller 1878, 603.
129 Thompson 1952, 150.
130 Baxter 2005.
131 Hammond – Hammond 1981; Iijima 1987; Lillehammer 1989; Sofaer Derevenski 1996; Huskinson 1996; Moore – Scott 1997; Park 1998; Kamp *et al.* 1999; Sofaer Derevenski 2000; Kamp 2001 b.
132 Donnabhain – Brindley 1989–90; Marangou 1991; Sillar 1994; Santina 2001.
133 Baxter 2005, 47.
134 Baxter 2005, 47.
135 Park 1998.
136 Wacher 1978, 245.
137 Kamp *et al.* 1999.
138 Bagwell 2002.
139 Crown 1999; Crown 2001; Crown 2002.