

# Conical Cups: From Mystery to History

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**ABSTRACT** The paper examines the appearance, diffusion, and ensuing massive utilization of conical cups for the information the phenomenon may provide about Minoan culture and history. Among the topics discussed are 1) the origin, sources of inspiration, and distribution of conical cups in the Prepalatial and Protopalatial periods; 2) their diffusion outside the central Cretan zone to the whole of Crete and much of the Aegean world during the course of Middle Minoan III; 3) their multiple uses in Late Minoan I and the information each may provide with respect to Minoan cult practices, belief systems, and governance; and 4) the significance of the appearance of enormous numbers of conical cups throughout Crete, the Cyclades, the Dodecanese, and sites on the Anatolian coast in the context of the pervasive Minoanization of sites in Late Minoan I.

## INTRODUCTION

“What did you do with the cups that are conical? / What did you do with those conical cups?” wondered Jack Caskey, in an exchange of humorous light verse with George Huxley during the 1966 excavation season (Caskey and Huxley 1979, 3).<sup>1</sup> Caskey at Hagia Eirene on Kea and Coldstream, Huxley, and Hope Simpson at Kastri on Kythera were astounded by the sheer quantity of the conical cups appearing in their excavations. At Hagia Eirene the largest structure, House A, contained over 8,000 conical cups, including 820 from one basement storage room and 550 from the adjoining room (Cummer and Schofield 1984), and every other house on the site contained further large numbers. At the time of the final LM IB destruction, House A alone contained about 25 cups per person for the estimated population of 250–350 people at the small one-hectare settlement (Schofield 1990, 205; Wiener 1990, 129–133). On Kythera great numbers were found both in the excavation of the settlement at Kastri and in the subsequent excavation of the peak sanctuary of Hagios Georgios (Coldstream 1972a, 280–281, 285, 294; Sakellarakis 1996, 87; pers. comm. of 13 June 2008). For Knossos from MM IA to LM IIIC, Warren estimates a total of one million conical cups (Warren 1993, 219). The intervening 45 years since the Caskey–Huxley exchange have produced much new evidence from excavations, plus information from

chemical analysis of residues and from examination of changes over time in techniques of production. We begin by examining the history of the appearance and diffusion of the conical cup in Crete and the Aegean.

## THE ORIGIN OF CONICAL CUPS IN THE PREPALATIAL PERIOD

An early version of what have been called conical cups makes its first known appearance in Crete in Early Minoan II in the tholos tombs at Lebena on the south coast of central Crete. The numbers of cups increase in the tombs’ upper EM III–MM I levels (Warren 2004). During EM III–MM I ceremonies often take place in added outer chambers, in some cases after the round ossuaries were closed. Individuals were now buried in separate larnakes or pithoi (McEnroe 2010, 32). These changes suggest that larger numbers of the community now participated in the rituals. Cups are now sometimes found inverted and in rows, perhaps an indication of offerings to the specific deceased, the ancestors in general, or chthonic deities.

Conical cups on present knowledge are restricted to central Crete from the Prepalatial through the Old Palace period. Considerably larger numbers of cups begin to appear at sites in the Mesara plain by Middle Minoan IA, as shown by the approximately 1,000 conical cups from the Kamilari tholos tomb (Branigan 1970, 59, who notes that the deposit may begin at the end of EM III). Branigan believes the tomb served as a communal burial place for hundreds of individuals, with small numbers of cups used in toasting rituals with each burial. The Apesokari II tholos of the same period produced 413 conical cups plus many sherds (Vavouranakis 2010). At Phaistos in the area of the later palace, the conical cup also becomes the most common pottery shape at the end of EM III–beginning of

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<sup>1</sup> It is a pleasure to dedicate this paper to Jeremy Bentham (Jerry) Rutter, friend, colleague, and proofreader extraordinaire. His study and publication of Aegean Bronze Age pottery in all phases and areas has made a signal contribution to the field of Aegean prehistory in general. I am especially grateful to Dorothea Arnold for information and citations regarding Egyptian conical cups and use of the potters’ wheel; to James Wright for intensive peer review and many constructive suggestions; to Philip Betancourt, Carl Knappett, Christine Lilyquist, Iphigenia Tournavitou, and Peter Warren for counsel, comments, and corrections; and to Jayne Warner, Erin Hayes, Jason Earle, and Rebecca Hahn for editorial assistance and suggestions.

MM IA (Todaro 2005, 44–45). Conical cups from the necropolis at Hagia Triada dated to MM IA unsurprisingly resemble those from Phaistos. At Knossos the “egg cup” or rounded goblet is the predominant pottery shape throughout the Prepalatial period and MM I. In EM III–MM IA conical cups do appear in Tholos Tomb B and Building 6 at the Phourni cemetery at Archanes in north-central Crete (Sakellarakis and Sapouna-Sakellarakis 1997, 169–179, 202–205). In this respect as in regard to funerary architecture, the Phourni cemetery serves as a meeting point for the customs of various areas of Crete.

One MM IA deposit just below the MM IB palace at Phaistos differs from the funerary deposits from the Mesara tombs, however, for it gives the appearance of a single-event deposit containing large numbers of animal bones along with conical cups. The nature of the deposit is suggestive of large-scale animal sacrifice and/or feasting. We may wonder whether the event celebrated the creation of a larger polity and/or labor mobilization in connection with the construction of the great MM IB palace (with regard to feasting in general at Phaistos, see Girella 2007; 2008). It is worth noting in this connection that the practice of mass feasting at what later became the Central Court of the palace apparently began before the end of the Final Neolithic period. Italian excavations under the Central Court at Phaistos have revealed evidence of what the excavators believe was a single feast with so many animal bones in the debris that the participation of a large portion of the populace of the Mesara plain and regions beyond appears likely (Todaro and Di Tonto 2008, 186–188). If so, then the area of what later became the Central Court of the palace at Phaistos may have been considered sacred space a millennium earlier.

#### THE QUESTION OF INSPIRATION FROM ABROAD IN USE, SHAPE, OR TECHNIQUE

Pot-making traverses “a continuum from hand-modelling to full exploitation of the wheel, with innumerable intermediate gradations” (Foster 1959, 102, cited in Knappett 1999, 114). Foreign inspiration has been suggested for one or several aspects of the conical cup phenomenon. Watrous has put forth the case for Near Eastern inspiration for the large-scale use of conical cups in cultic feasting ceremonies as part of a package of Near Eastern palatial practices including writing, administrative practices, monumental architecture, cultic iconography, worship on mountaintops, and new vase shapes at the beginning of the Old Palace period (Watrous 1987). In the ancient Near East the overwhelming predominance of a single vessel type began in, and persisted throughout, the fourth millennium B.C. in the form of the beveled-rim bowl of the Uruk culture. Beale (1978, 305) identified four aspects of their appearance as noteworthy: the method of manufacture, the sheer

numbers, the large concentrations within or near temple or administrative precincts, and the frequency with which they are recovered unbroken or in large clusters. Various uses have been suggested—as ration bowls for troops and workers, as bread molds (Goulder 2010, 355, with references), or as presentation bowls for offerings, including specifically offerings of token amounts of some commodity, probably most often grain, to the gods or a priest-king at a temple, shrine, or temple administrative center (Beale 1978, 305). (On later Lydian sites, mass-produced handleless cups are sometimes called “yogurt bowls.”)

By the Ur III period (approximately coterminous with EM III–MM IA in Crete, just prior to the construction of the first palaces), the conical cup form has supplanted the beveled-rim bowl as the common mass-produced vessel in Mesopotamia. Evidence that it was used as a presentation bowl in religious ceremonies comes in the form of votive statues of figures carrying such cups found in temples (Beale 1978, 307–308) and the appearance in the temple precinct at Ur of a group of such cups still containing animal bones and vegetable matter (Beale 1978, 307). A clay tablet dated to the 18<sup>th</sup> century B.C. from the Assyrian-controlled site of Chagar Bazar in northeast Syria near the Turkish border describes how, on a single “day of purification,” 2,770 people each gave a measure of bread and beer to the temple at the site (Beale 1978, 308). Techniques of manufacture in the Near East, particularly with respect to the use of the wheel, are discussed by Roux (2003) and Roux and Courty (1998). Knowledge of Syrian/Canaanite potting practices may have been transmitted to Egypt during the 13<sup>th</sup> Dynasty and/or the Second Intermediate Period (D. Arnold, pers. comm.). Whether Near Eastern method of manufacture or ritual practice with respect to conical cups was imported to Crete as the Watrous thesis might suggest remains a matter of conjecture.

A stronger case can perhaps be made for Egypt as the source of inspiration, not only with regard to shape and function (Fiandra 1973, 91, citing Egyptian stone vessels), but also as to method of manufacture, both at the outset and as the technique of mass production develops over the course of 500 years (see below). Small conical cups/bowls appear in numbers in Egypt by the 3<sup>rd</sup> Dynasty, c. 2650 B.C. By the 5th Dynasty, c. 2475–2300 B.C., the low, block-like slow wheel has appeared and is depicted in wall paintings (Arnold 1993, 46–49; D. Arnold, pers. comm. of 19 April 2005). During the 6<sup>th</sup> Dynasty and the First Intermediate Period, the presence of a central spiral on the cups indicates that they have been placed on a wheel during the process of manufacture (Arnold 1993, 51–52; D. Arnold, pers. comm. of 19 April 2005). In EM III–MM IA (but perhaps mostly in MM IA, if in the central Phaistos-Knossos zone that period begins in the 21<sup>st</sup> century B.C.) Egyptian stone vases, scarabs, and faience are not only imported but

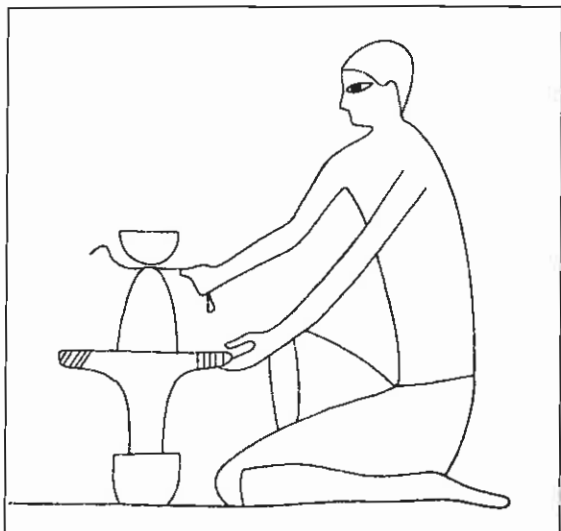


Fig. 1. Depiction of a Middle Kingdom Egyptian potter's wheel from the Tomb of Amenemhet at Beni Hasan (after Arnold 1993, fig. 7).

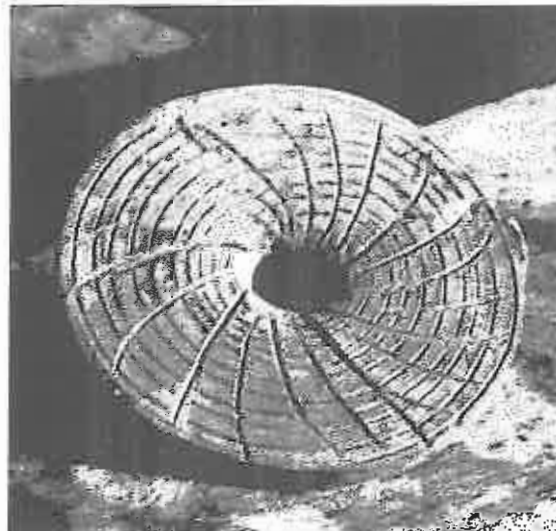


Fig. 2. Middle Minoan IB potter's wheel from Malia, Crete (after Hampe and Winter 1962, fig. 60).

also imitated locally. The use of the drill, both in the manufacture of stone vases and seals, may derive from Egyptian example. Minoan seal manufacture clearly followed Egyptian examples in the use of ivory and faience and in the adoption of button, cylinder, and scarab shapes (Palmer 1994, 40; Aruz 2008, 53, 55–56, 83). Over 50 Egyptian objects have been recovered from EM or borderline MM contexts. The rapidity with which Minoans learn to imitate the technique of Egyptian blue glaze, even if the results are fugitive and therefore not up to the Egyptian standard, shows a knowledge of Egypt beyond that indicated by the copying of imported vases and scarabs. Egyptian hieroglyphs are the likely source of inspiration for the Minoan Hieroglyphic script. By the early 19<sup>th</sup> century B.C., the expression “Horus Keftiu” appears on a stele of Sesostris II. An Egyptian literary text of admonitions of uncertain date, but probably no later than the reign of Amenemhet III in the latter half of the 19<sup>th</sup> century B.C., and perhaps earlier, and generally thought to refer to events of the First Intermediate Period, refers to “embalming oils which chiefs use as far as Keftiu” (Papyrus Leiden 334). If Keftiu refers specifically to Crete in this period, then these texts provide early evidence of links to Egypt.

By at least late in the reign of Sesostris I around 1925 B.C. (and hence overlapping the beginning of the Cretan Old Palace period), a somewhat higher and more slender wheel stem is introduced. Dorothea Arnold has noted that the depiction of this wheel in the tomb of the nomarch Amenemhet at Beni Hasan closely resembles a MM IB wheel found in the excavation at Malia in Crete (Arnold 1993, 46; D. Arnold, pers. comm. of 19 April 2005; Hampe and Winter 1962, 117; Evely 1988, 94). One detail is of particular interest: the oblique parallel lines observable on the

wheel-top in the painting find their analog in the incised lines on the Minoan wheel (Figs. 1 and 2). Shortly thereafter a more advanced wheel is depicted in the 12<sup>th</sup>-Dynasty tomb of Djehutihotep at Bersha, with a tall stem and a separate wheel-top. By the reign of Sesostris III, c. 1880–c. 1845 B.C., Minoan Kamares ware vessels are found in at least five sites in Egypt, and are locally imitated at Kahun and Haraga (Fitton et al. 1998), two sites in Lower Egypt located near the pyramids of Sesostris II and Amenemhet III. Whether the vessels were made by Egyptian or Minoan potters, and whether knowledge of potting methods was exchanged in the process of imitation, is of course an open question. Such an exchange would not be surprising, particularly in light of the earlier transfer of craft knowledge with regard to the method of faience production.

Rutter and Zerner (1984) suggest that the use of the wheel in the production of pottery came to Crete from the Greek mainland. The careful study of material from Kythera by Kiriati (Broodbank and Kiriati 2007) concludes instead that from MM IA onward the flow of innovation was moved outward from Crete. It seems likely that what is true in general applies as well to the adoption of the wheel: a complex civilization arose in Crete at the beginning of the second millennium B.C. because Crete was far enough away and sufficiently populous to escape the destructions in the mainland and the Cyclades in EB III, but close enough to Egypt and Western Asia to receive light from the East.

Information about the function of conical cups in Egypt is provided by two alabaster offering tables from the reign of Amenemhet III which depict conical cups, along with other offering containers and various offerings, carved into

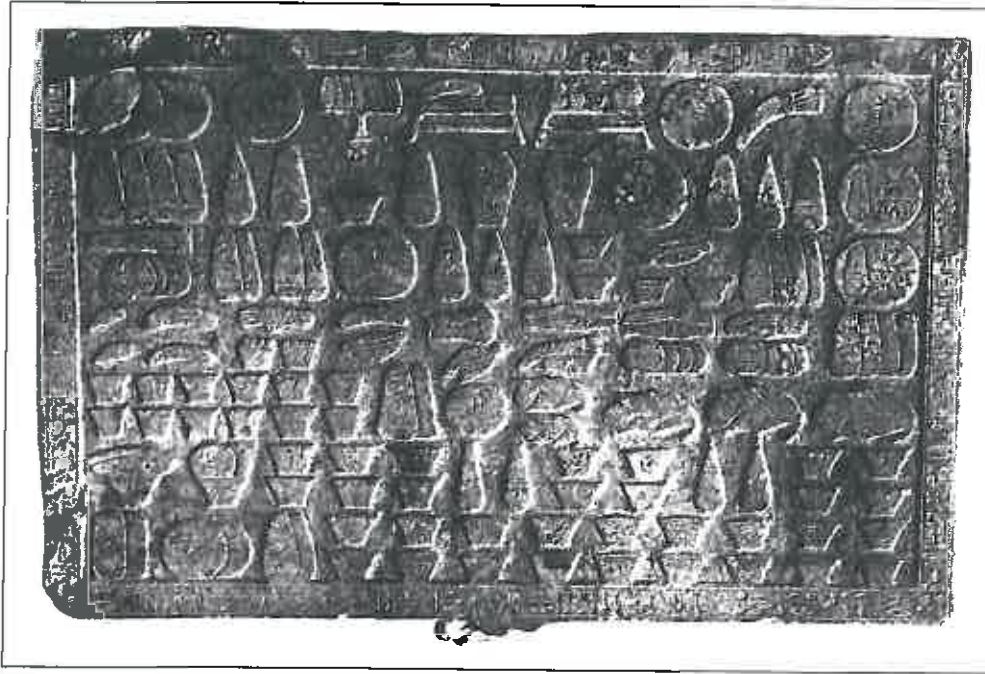


Fig. 3. Offering table from the tomb of Amenemhet III at Hawara (after Kamal 1909, pl. VII).

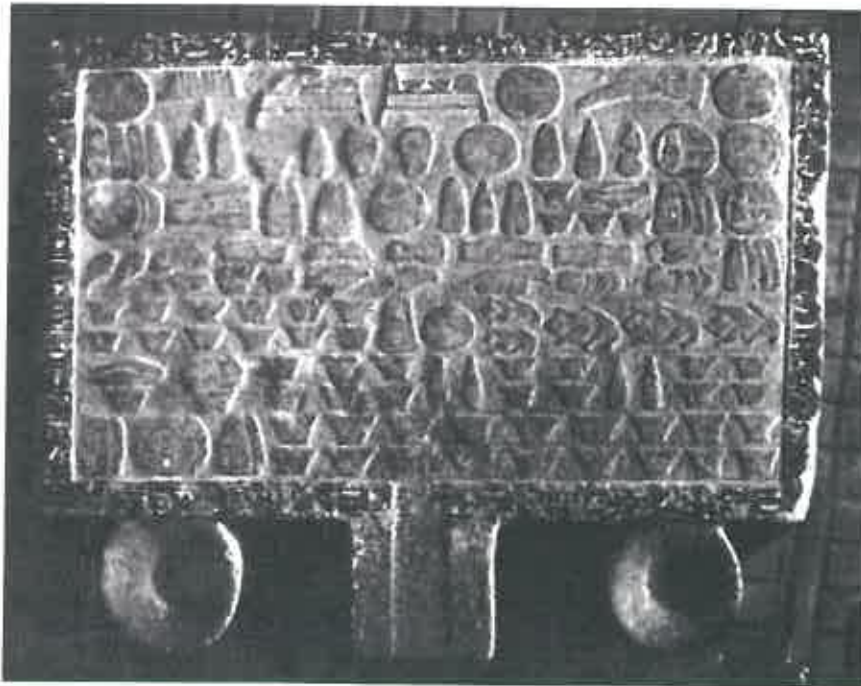


Fig. 4. Offering table from the tomb of princess Neferwptah at Hawara (from Iskander 1965, fig. 5, reprinted by permission of the Wenner-Gren Foundation for Anthropological Research, Inc., New York, NY).

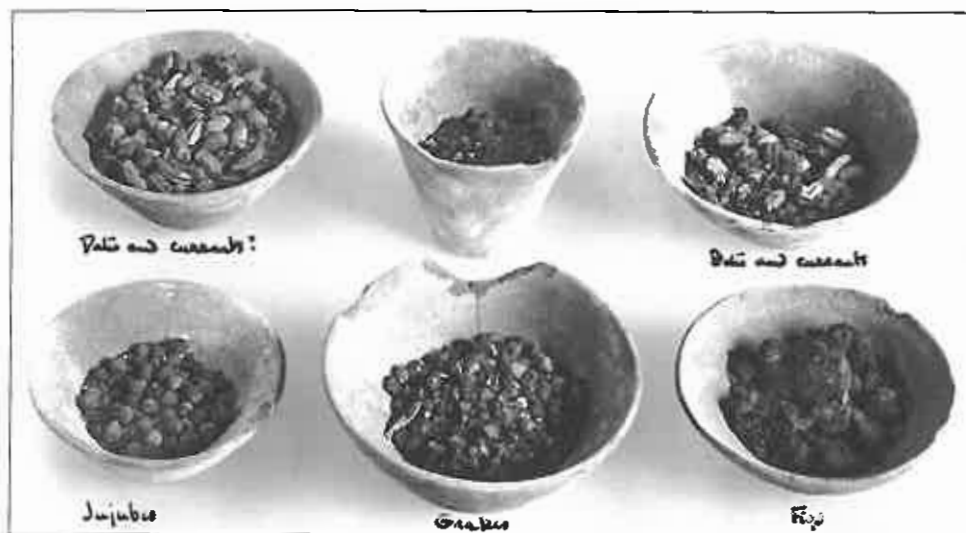


Fig. 5. Conical cups from the Hatshepsut Temple foundation deposit (courtesy of the Metropolitan Museum of Art, photo by Harry Burton).

the stone (Figs. 3 and 4). One of the tables has carved into the stone the names of various offerings of food, drink, and fumigant (Petrie 1890, 8, 17, pl. V; Kamal 1909, T.1, 10–15; Iskander 1965, 183; Fig. 3). The date of the offering tables should fall between c. 1840 and c. 1790 B.C., in Minoan terms sometime around the end of MM IIA/beginning of MM IIB.

By the end of the New Palace period (LM IB) in Crete and the reign of Hatshepsut in Egypt, a time of close contacts as indicated by the depiction of Minoans bringing Minoan prestige objects on the walls of the tombs of Egyptian viziers of the period, the closeness in appearance of Egyptian and Minoan conical cups is striking, to the point that visiting Minoan archaeologists once misidentified conical cups from the Hatshepsut Temple deposit in the Metropolitan Museum in New York as Minoan imports. The Egyptian conical cups from the Hatshepsut Temple foundation deposit are generally 6–7 cm in height and 13–14 cm in diameter, larger than most contemporaneous Cretan examples (4–5 cm in height, 8–9 cm in diameter—see below), and contained food offerings including “dates, raisins (or grapes that had dried), figs, jujube berries, grain, and fat (or butter perhaps),” as shown in Fig. 5 (C. Roehrig, pers. comm. of 20 September 2010). In addition, miniature conical cups c. 5 cm in diameter appear in Egypt in foundation deposits of temples and royal tombs, probably symbolic votives rather than containers (C. Lilyquist, pers. comm. of 17 October 1989), perhaps finding a counterpart in a Neopalatial ritual deposit at the Kato Syme sanctuary in the form of elaborate chalices with miniature conical cups attached both inside and outside the bowls (Lebessi and Muhly 1990, figs. 10–11). Small numbers of miniature conical cups along with other miniature vessels were found at the peak sanctuary of Hagios Georgios on Kythera.

In sum, it appears likely that the introduction of sailing vessels by MM IA at the latest opened Crete to technologies and cultural influences from Egypt and the Near East in a number of areas (Wiener forthcoming), that the process continued throughout the Bronze Age, and that the pottery wheel and the mass production of vessels which it permitted was one part of this process.

#### THE OLD PALACE PERIOD

The Old Palace period sees a major expansion of conical-cup production in south-central Crete together with changes in the technique of wheel-making (Knappett 1999). The number of sites at which cups appear increases significantly and the numbers of cups enormously. For example, the Phaistian settlement at the major site of Monastiraki in the fertile Amari Valley contained a great number of the early type (Kanta 1999, 388). The massive preponderance of the shape and the new techniques of production arrive later in the Knossian zone in north-central Crete. At Knossos the predominant shape of handleless cup in MM IB is the egg cup or rounded goblet, with conical cups appearing in relatively small numbers in MM IIA, but trailing off in MM IIB (C. Knappett, pers. comm. of 1 November 2010; see also MacGillivray 1998, 83; Momigliano 2007; Macdonald and Knappett 2007). A further difference with respect to utilitarian vessels between the Mesara and the Knossos zone in MM IIB is worth noting. In the Mesara such vessels are made with the same core as more complex pottery shapes. Van de Moortel (2002, 195) notes that “epitomising the unusual quality of these Mesara vases are the well-made, thin-walled conical cups from Phaistos and Kommos with their extremely fine fabrics,” whereas “Knossian utilitarian vessels of the MM IIB phase betray little care (Popham 1974, 186; MacGillivray 1998, 82; Van de Moortel 1997, 474–



480).” In the next phase following the MM IIB destructions marking the end of the Old Palace period, conical cups everywhere decline markedly in quality, as noted below.

There is little or no sign of conical cups outside the central Cretan zone in the Old Palace period. The closed MM IIB destruction deposit at Quartier Mu at Malia contains masses of pottery and a pottery workshop, but not a single true conical cup (Poursat and Knappett 2005, esp. 107 and 229–232). Similarly, there are almost none in the large-scale secondary burial funerary deposit at the Hagios Charalambos Cave in the Lasithi plain (Betancourt et al. 2008).

### THE MIDDLE MINOAN III TRANSITION

With the destruction of the palace at Phaistos at the end of MM IIB which brings the Old Palace period to its close, the Knossos palace becomes the epicenter of Crete and of the conical cup, until in LM I the shape becomes ubiquitous. In an open area around what Evans called “the Shrine of the Double Axes” in the southeast area of the palace, so many conical cups appeared in a deposit which spanned MM IIIA and B that the workmen called the area the Kapheneion, or “coffeehouse” (Evans 1928, 308). At Phaistos the abortive MM IIIA reconstruction horizon contained large numbers of conical cups, perhaps part of a foundation deposit (Girella 2008, 169; 2007, 143–144). Conical cups now appear at Palaikastro on the east coast of Crete (Knappett and Cunningham 2003, 111–142). Apart from the major habitation sites, conical cups of various shapes and sizes appear in numbers at the peak sanctuary on Mt. Juktas above Knossos in MM IIIA and B (Simandiraki 2002, 266), at the peak sanctuary of Vrysinas near Rethymnon, in the Kamares Cave, and at the major, remote shrine of Kato Syme, which now experiences a monumental restoration and major expansion after the earthquake damage at the end of MM IIB (Lebessi and Muhly 1990; Girella 2008, 172). Funerary rituals in Mesara tholoi (Apesokari, Kamilar) now begin to require greater numbers of conical cups.

The trend over time toward greater uniformity of shape and reduction in size begins in this period. In MM IIIA conical cups tend to be large and shallow as compared to later examples, but by MM IIIB they are more steeply sloped and generally somewhat more uniform, although Girella (2007; 2010) is able to distinguish eight separate shapes at Hagia Triada. They are also generally smaller in size, particularly at Knossos, with a capacity in many cases of c. 150 ml (C. Knappett, pers. comm.). Most importantly, it is in this period that the practice of large-scale production and use of conical cups expands exponentially to encompass all of Crete and most Aegean islands, reaching Thera, Kythera, and Melos (plus Miletus on the Anatolian coast) in MM IIIA and other islands in MM IIIB (Knappett and Hilditch forthcoming).

In contrast to the Old Palace period with its multiplicity of vessel shapes and generally high standards of production and decoration of vessels, the appearance of vast numbers of poorly made conical cups as the overwhelmingly predominant form of pottery in MM III signals the arrival of a new pattern of consumption as well as production. Their forming and often their firing are rough and careless and the cups are fragile (Fiandra 1973, 90; Van de Moortel 2002, 195–198; see also general discussion in Van de Moortel 1997, 664–669). By the beginning of MM IIIB, most fineware pottery suffers a marked decline in quality and labor investment per vessel as well. Van de Moortel (2002, 197) observes that

utilitarian vases from the Mesara and Knossos in the MM III phase are similar in their low level of care. Conical cups from the Mesara are as a rule so badly made, with irregular shapes and highly variable wall thicknesses, that they suggest a poor control over lifting in addition to inadequate care.... Many were cut off the hump in clumsy fashion, and as a result some have holes in their bases. The fact that those mistakes were not mended and that those clumsy cups were fired and distributed represents a significant departure from Protopalatial practices in the Mesara.

Various explanations have been proposed for the decline in quality of pottery production. The marked increase observable in the numbers of copper and bronze objects of various types in this period (Matthäus 1980; Dickinson 1994, 137; Rehak and Younger 2001, 417) suggests the possibility that the palatial elite may have lost interest in the quality of clay vessels. In MM IIIB and LM I the quality of Minoan pottery recovers and reaches new heights of decorative achievement, but the number of undistinguished conical cups still increases dramatically. The impetus for the mass production and use of conical cups, beginning in MM IIIA and increasing dramatically in MM IIIB, should be sought in the changing nature of the Neopalatial society, governance, and ritual, topics discussed in the following section.

### THE APOGEE OF THE CONICAL CUP IN LM I

It is the omnipresence of the conical cup in vast numbers throughout Crete, the Aegean islands, the Dodecanese, and the Minoan sites on the Anatolian coast in mature LM I in particular (Wiener 1984; 1990; 2008; forthcoming) that commands our attention and requires explanation. Conical cups everywhere now have a capacity of c. 100 ml and a height most commonly of c. 4–5 cm. Their uniformity in size, shape, color, and method of manufacture throughout the Minoan world is striking (Knappett and Hilditch forthcoming; Van de Moortel 2002, 200–203;

Berg 2000, 13, 20). The uniformity suggests commonality in function and ritual.

J. Davis and H.B. Lewis have proposed in connection with the Kean deposit that the adoption of a method of mass production and the standardization of conical cup production was the result of a need to meet competition by cutting costs (Davis and Lewis 1985). A single pottery workshop could easily have supplied total Kean demand, however. (Galaty 2007 and Hruby 2006 in their analyses of the fine wares in pantries 18–22 at the Palace of Nestor at Pylos conclude that one potter produced all of the more than 6,500 vases. See also Shelton 2010; Wiener 2007b.) Moreover, conical cups everywhere appear to be formed from local clay (with extremely rare exceptions, perhaps the result of a few conical cups having been used as jar stoppers for vessels in transit); accordingly, there seems little possibility of inter-site competition either. As Minoan ceramic art reaches its peak, the humble conical cup becomes yet more humble (Gillis 1990). Competition cannot explain the appearance throughout the Minoan world, and at sites ranging from grand palatial centers to small settlements, of vast numbers of such uninspiring cups. Rather the answer lies in the perceived need at all sites for great numbers of these vessels.

#### THE FUNCTIONS AND SIGNIFICANCE OF CONICAL CUPS IN THE MINOAN WORLD OF LM I

We return, therefore, to the question posed in verse by Jack Caskey “What did you do with those conical cups?” The short answer is surely “everything.” Conical cups were used as receptacles for liquids and in some cases vegetable matter, as lamps, as rhyta, spindle whorls or loomweights (when pierced at the bottom with holes), perhaps as incense burners, as containers for pigments, paints (Schofield 1990, 205) and perhaps dyes (Rupp and Tsipopoulou 1999, noting the cloth ideogram on two conical cups from Petras-Siteia), as repositories for pieces of pumice from the Theran eruption presumably left as cult offerings, and for any odd purpose that came to mind, such as forming the breasts of at least two of the large terracotta statues of women found at the Temple at Hagia Eirene on Kea (Caskey 1986, 70, pl. 32).

Such multiplicity of uses, however, cannot in itself explain the presence of such vast numbers. What were their principal purposes? Certain uses suggested for the mass-produced vessels of the Near East may be eliminated from consideration with respect to LM I conical cups, given their small size. It is hard to imagine, for example, that LM IA conical cups could ever have been used for the regular distribution of rations to workers, a function suggested (but not widely accepted) for Mesopotamian beveled-rim

bowls, and also for the larger Mycenaean IIIA2 conical bowls found stacked at Petsas House at Mycenae, each capable of holding c. 250 mg of grain (about one cup in standard measure) (Shelton 2010, 195–196). Rather we must look elsewhere to a variety of purposes and activities marked by greater social inclusion.

#### *Funerary Use*

Funerary use of cups in large numbers continues in LM I, for example at Poros Tomb II 1967 (Muhly 1992, 102, 185–186; Dimopoulou 1999, 29), Myrtos-Pyrgos (V. Hankey, pers. comm., cited in Wiener 1984, n. 36), Kythera (Huxley, Trik, and Coldstream 1972; Coldstream 1972b; Bevan et al. 2002), in the grand tholos tomb at Myrtos-Pyrgos where 64 reburied male skulls were accompanied by masses of conical cups (Hankey 1985), and in the enigmatic Building 4 at the Phourni cemetery above Archanes (Sakellarakis and Sapouna-Sakellarakis 1997, 223–229). Indeed, large numbers of conical cups continue to appear in Minoan burials in LM IIIA1 such as those in Tomb B at Episkopi in the Pediada (Kanta 1980, 268–269), in contrast to the mainland-type Cretan burials of LM II–III A1. The presence of upturned conical cups at many sites including Hogarth’s House at Knossos, Hagia Triada, Vorou, Kamilari, Archanes and Hagios Kyrillos (Maggidis forthcoming), sometimes said to contain the residue of vegetable matter, in funerary as well as in possible non-funerary contexts, suggests a possible intent to provide sustenance to the departed. The Kamilari tholos held over 500 conical cups, upturned and placed in rows. Texts and physical evidence indicate that leaving offerings for the spirit of the departed was a common practice in the earlier and contemporary Near East and Egypt and that in Egypt conical cups were employed in great numbers for the purpose. Soles believes that his excavations at Mochlos plus other evidence indicates that Minoans practiced ancestor worship and that the rites, which required the use of conical cups, occurred at the time of secondary burial (Soles 2001, 235). Continuing use in funerary rituals, even when added to the many miscellaneous uses of conical cups previously noted, seems insufficient in itself, however, to explain the production of such vast numbers of cups.

#### *Token Hospitality?*

Accordingly we turn to examine the myriad modalities for provision of hospitality to the living. At Petras-Siteia, 900 complete cups and fragments of at least 200 more were found near an entrance on the ground floor of the palace and more than 700 fallen from the upper floor above the monumental staircase. Rupp and Tsipopoulou (1999) have suggested that the conical cups were employed to offer “token hospitality” to visitors. Girella has made the same suggestion regarding token hospitality in connection with a conical cup deposit at Galatas (Girella 2007, 146, 156–

157). It should be noted, however, that the ground-floor deposit at Petras contained a number of other vessel types and many animal bones, suggesting the remains of dining and perhaps feasting. At Skinias Monophatsiou west of the great sanctuary at Kato Syme, a LM IB building contained 35 conical cups in a heap at the grand entrance, and 550 cups plus a vast number of conical cup sherds in one interior room which was used exclusively for the storing of conical cups. The adjacent room contained nothing but jugs (S. Mandalaki, pers. comm. of 2005). On Mochlos large numbers of conical cups were found scattered a short distance from Building B.2, identified by the excavator as the town's ceremonial center (Soles 2008, 152–155, cited in Brogan and Koh 2008, 129–130). Whether the large numbers of conical cups often found near entrances to buildings were used to offer token hospitality (in the form of water, olives, grapes, nuts, or other foods or alcoholic beverages [see Platon 1971, 194–197 regarding conical cups filled with olives and grape seeds]); whether the contents were consumed by arriving visitors or offered to divinities or the spirits of the ancestors; or whether instead the cups were stored near entrances awaiting use in outdoor feasting and/or cultic ceremonies or transport to cultic sites; or were intended for a combination of these purposes, is undeterminable.

### *Cultic Ceremonies and Major Feasts*

We come now to the heart of the matter: the massive use of conical cups in cultic ceremonies and in putative large-scale feasting, perhaps itself generally cultic in inspiration and sometimes tied to a cultic calendar.

Conical cups appear in great numbers at peak sanctuaries and other clearly cultic locations. They were found at Troullos above Hagia Eirene on Kea, and especially at Hagios Georgios on Kythera, which produced 1,781 complete cups or bases and sherd evidence for a likely minimum of 40,000 more, given the 163,436 conical cup sherds counted. The totals represent cups of MM III as well as LM I and cups of various sizes, including some decorated cups (Tournavitou 2009, 222–224 and pers. comm. of 27 November 2010; see also Coldstream 1972a, 280–281, 285, 294; Sakellarakis 1996, 87). Conical cups/sherds comprised over 90% of the pottery found. Tournavitou (2009, 215, n. 16) notes that the frequency of appearance of a vessel form is “a significant pointer to its indispensability or importance in cult.” Small numbers of miniature conical cups along with other types of vessels in miniature appear, perhaps left as dedications. Of course standard-size conical cups may have been deposited as dedications as well, with or without contents. Sherds from tripod cooking vessels comprise the second-largest sherd category at the peak sanctuary (7.16%), perhaps used for food preparation on the peak since the site of Kastri is 4 km away over moun-

tainous terrain. Tournavitou summarizes the peak sanctuary evidence as follows. “Massive depositions of handleless conical cups inside buildings or in open-air contexts such as chasms or rock fissures, often in association with burnt layers and food remains, are one of the commonest features of peak sanctuaries in Crete, especially at Juktas, but also at Atsipades, Petsophas, Vrysinas, Kophinas, and Spili Voritsi” (Tournavitou 2009, 227, n. 49).

The numbers of cups and of bronze and copper figurines found on Hagios Georgios suggest that it received dedicants from areas of the Minoan world beyond Kythera. At the peak sanctuary of Vrysinas, the conical cups (mostly MM III) included five different fabrics, suggesting that the visitors came from different locations (Tzachili 2003, 331). Unfortunately, without texts to inform us we cannot say whether the enormous numbers of cups at Hagios Georgios and other peak sanctuaries were used to provide liquid and solid refreshment to parched and hungry climbers, to make dedications, to hold intoxicating beverages for those participating in cultic ceremonies, perhaps including ceremonies of “enacted epiphany” (Hägg 1986; Marinatos 1993, 175–180; Matz 1958), or for all these purposes.

Cave sanctuaries also contained large numbers of conical cups. Skoteino Cave in the Pediada, for example, contained cooking pots and many other vessels indicative of communal dining in a cultic setting (Tyree, Kanta, and Robinson 2008; Girella 2007, 150). At the great ritual center of Kato Syme, sizable numbers of burnt bones of sheep, goat and deer were found, together with libation tables and various forms of elaborate vessels (Rehak and Younger 2001, 435). The great masses of conical cups found at Kato Syme may have been used or deposited by non-elite visitors, perhaps coming from a broader area than in the Old Palace period. Excavation at the Stratigraphic Museum Extension site at the western part of the city of Knossos revealed thousands of conical cups in an area with marked indications of cultic activity (Warren 1991, 321). At Nirou Chani hundreds of diminutive LM IB conical cups were found in a small walled enclosure under a doorway which once separated two rooms, the smaller filled with ash and the larger containing four enormous ceremonial double axes. Most of these miniature conical cups held lumps of pumice, perhaps constituting a votive deposit connected to the eruption of Thera (Platon 1947, cited in Hood 1978, and Wiener 1984). Conical cups containing pumice were also found at Zakros and Mochlos (Platon 1971, 196–197; Soles 2004, 5). Cups appear regularly as well in foundation deposits of buildings, along with various cultic paraphernalia (see below).

Cups clearly appeared in some quantities in cultic contexts, but the enormous numbers of conical cups which appear in the archaeological record require that we consider



their probable use in large-scale feasting, apart from the likelihood of a cultic aspect to all feasts.

### Feasting

There is of course a vast anthropological literature regarding the subject of feasting (see, e.g., Clarke 2001; Hayden 2001; Pauketat et al. 2002; Schmandt-Bessart 2001). We may divide feasts into three broad categories: mobilization feasts, special event feasts, and cultic ceremonial feasts. Mobilization feasts may include annual events such as mobilization for harvests/rewards for work performed (Girella 2008; Dietler and Herbich 2001; Dietler 1996; Halstead 1999; the well-known Harvester Vase may depict such an occasion); mobilization for special purposes such as the construction of the palaces, surrounding structures, cult centers, and roadways connecting them; and military mobilization. Dietler (1990, 365) has emphasized the importance of drinking festivities as a mechanism of labor mobilization in the small-scale societies he has studied. Those participating typically expect that in return for their labor they will receive protection, useful information, mechanisms for adjudication of disputes, and access to critical but scarce goods such as metal. Of course Knossos in LM I was much more than the center of a small-scale society and employed highly labor-intensive techniques of construction which would have required the presence of a large workforce (McEnroe 2010, 78). Military mobilization feasts have their own literature. In many pre-state societies, male drinking rituals served as a means whereby local paramount elites could recruit a following of warrior companions (Treherne 1995, 110, with regard to the Middle Bronze Age in Central Europe and Scandinavia). Later feasts may have continued a practice begun in EM III and MM I. The *Iliad* and *Odyssey* provide vivid descriptions of warrior feasts.

Special-event feasts of many types are attested in the anthropological literature (Wright 2004). Births, rites of passage, marriages, deaths, inauguration of construction of buildings, and installations of rulers are obvious examples. (A later Mycenaean tablet from Pylos may refer to a feast to honor a new wanax—see Bendall 2008, 79–80; Palaima 2004, 103.) The existence of foundation deposits including large numbers of conical cups under palatial and other structures is common. They occur at Hagia Triada and Phaistos, where separate deposits at the time of the abortive rebuilding at the beginning of MM III and at the time of the construction of the New Palace in LM IB have been noted (Girella 2007, 145–147). At Archanes a large square stone slab at the base of the staircase was filled with conical cups (Sakellarakis and Sapouna-Sakellarakis 1997, 97). Foundation deposits including conical cups appeared in a house on the Acropolis ridge at Knossos (Catling, Catling, and Smyth 1979, 77); at houses to the west of the palace (War-

ren 1991); and at many of the houses built after the MM III destruction at Kommos, where the deposits typically contained a small number of conical cups, a pouring vessel, and a rhyton (Betancourt 1990, 46–48, and pers. comm.).

Finally we turn to what may be termed large-scale state feasts. Of course not all major cultic ceremonies need involve feasting and not all feasts need involve cultic rituals. Given the omnipresence of religion in Minoan life as indicated by peak, cave, spring, and other sanctuaries, cultic installations at all known major structures, and the pervasive depiction of cultic activity in all media, it would appear likely, however, that feasting was frequently connected to cultic observance. Annual religious festivals which included the presence of the whole population are known from Early Dynastic Mesopotamia (Pollock 2003, 25). With respect to Crete, possible evidence in this regard may exist in the form of the proposed solar orientation of the palaces and other significant structures such as Building 1 at Palaikastro (Shaw 1973, 58–59; Goodison 2001, 83–87; Cunningham and Sackett 2009, 86). Soles (1995) has proposed that Knossos in the Neopalatial period served as the “cosmological center” of the Minoan world. If the great feasting events were calendrical, then it seems likely that they were celebrated simultaneously throughout the Minoan world, including at sites on the Cyclades, Dodecanese, and Anatolian coast.

By mature LM IA we observe the striking standardization in size, shape, and method of manufacture of conical cups from Knossos, Malia, Hagia Triada, Kommos, and the Cyclades (Van de Moortel 2002, 203), further strengthening the impression of uniformity of cultic ritual and feasting practice throughout the Minoan world. The production of conical cups appear to exist in a symbiotic relationship to the occasions of their use by large numbers of participants, for it is the large numbers of users which require their existence and the method of mass production which makes such large-scale drinking/feasting feasible. As Minoan Crete under the hegemony of Knossos grew in power, wealth, technology, trade connections, numbers and quality of weapons, and the ability to muster large numbers, its cosmology and rituals spread throughout the Aegean.

“Who may eat what with whom is a direct expression of social, political and religious relations” (Feeley-Harnik 1981, 2), to which we may add “and who may participate with whom in cultic activity and in what manner.” Who, then, used the various classes of cups at the great state cultic events? At Phaistos the area of the palace provides evidence of feasting activity utilizing finely made and decorated vessels in one area and crude conical cups in another (Girella 2007, 143–144, 147). At the palace at Zakros a larger percentage than usual of the conical cups were decorated and better made, perhaps because (given the limited hinterland of Zakros) the rural population of

the area was small and the cup-users were primarily involved in trade/exchange with the East and Egypt (Wiener 2007a, 234–235). As the honoree of this volume has observed with respect to the pottery assemblage from Kommos, “the often very high quality and exotic nature of the pouring and drinking vessels in question further suggest that these festive occasions were attended by the elite members of the society, although the far greater frequencies of more utilitarian versions of these same functional types indicate that the hypothetically higher-ranking users of these exotic vessels were heavily outnumbered at these social gatherings by less privileged members of the society” (Rutter 2004, 72). The separation on Hagia Triada tablet 31 of conical cups into four classes numbering 3000, 400, 300, and 10 respectively, discussed above, is consistent with this view. Differing ranks of workers and warriors would surely have participated in our putative mobilization feasts. With respect to calendrical and other great cultic occasions, heads of clans or guilds, military/naval ranks, landholders, scribes, skilled craftspeople, less skilled workers if attached to or mobilized by the palace, and cultic personnel are among the obvious possibilities. A large segment of the population may have been invited to certain events. The large number of seals and sealings recovered in Crete, themselves only a fraction of the number which once existed, suggest that there existed a significant number of stakeholders in the society.

### COLONIAL CUPS?

We began with the wonderment of Caskey and Huxley at the masses of conical cups found on Kythera and Kea, where by LM I there is little trace of any continuing Cycladic presence. Are the cups, along with other massive evidence of the Minoanization of daily life (Wiener 1990 and forthcoming) an indication of Cretan colonization? In MM IIIA where conical cups first appear in large numbers in the Knossian zone of north-central Crete, their production begins as well on Kythera, Melos, Thera, and Miletus. “This is a dramatic development as plain wares of this kind are not at all part of the local Cycladic traditions. Moreover, these Minoan-style plain wares are wheel-fashioned, the first use of this technique in the Cyclades for such vessels” (Knappett and Hilditch forthcoming). On Thera as well as Kea, the first and primary use of the wheel is for the production of conical cups. Knappett and Hilditch conclude that “it seems that from its very inception [in its final form in MM IIIA] that the conical cup is also a colonial cup, used as part of the strategies of Cretan elites to extend the colonialising influence over the southern Aegean.”<sup>2</sup> Even on Thera, where uniquely in the Cyclades there is evidence for a significant continuing Cycladic presence in the types and decoration of ceramic fine wares, conical cups appear

in large numbers in each building complex. Approximately 700 conical cups lined the shelves of Room 6 of the West House, next to Room 5 with its iconic miniature wall painting of maritime and martial scenes.

The presence of masses of conical cups contributes significantly to the picture based on multiple sources. For example, literacy arrives in the form of the Minoan Linear A script which is employed in administration in the same manner as it is on Crete, as shown by its appearance on sealings, tablets, roundels, and pots, and the use of ligatured logograms and fractions. Evidence of administration in the Minoan Linear A script is found on Kythera, Melos, Thera, and Kea, at Miletus on the Anatolian coast, and on Samothrace. At Akrotiri on Thera, recent excavations have produced 58 complete or almost complete sealings and fragments of more, made by 14 Minoan-type seals, all from one room in a major building. Both parcel nodules believed to have been applied to parchment documents and direct-object sealings are present as in Crete. The clay used in all of the sealings comes from a single clay source in Crete. Included are sealings made by the same magnificent large gold rings as made the seal impressions found in the later LM IB destructions at Hagia Triada and Sklavokambos in Crete, indicating continuity of administration at a very high level over at least three generations. One Cretan sealing was found in a wooden box with Cretan-style balance weights. One Theran tablet in local clay displays the Linear A logogram for female sheep followed by the number 46, while another carries the ligatured logogram for textiles followed by a quantity of 200 or more, indicative of local administration in Linear A. The complete absence of any indication of local script or of non-Minoan seals or sealings reinforces the picture of an overarching Minoan system of administration, different from whatever local methods may have existed previously (Karnava 2008).

While a local Theran ruler of non-Cretan ancestry would surely have had strong motivation to adopt Minoan script, weights, customs, and cult, the thoroughgoing Minoanization of so many aspects of daily life, of ways of making and doing, including the making of conical cups, strongly suggests the presence of a major Cretan component in the Theran community. In any event, those who provided, and probably most of those who used, the masses of conical cups found on Thera and the other Minoanized sites in the Cyclades, Dodecanese, and the Anatolian coast were participating in ceremonies universal throughout the Minoan world, a common set of behaviors and ritual which preserved the cohesion of Minoan culture and society for centuries. The humble conical cup, whose appearance in such great numbers on Kea and Kythera so astounded Caskey and Huxley, remains the clearest evidence of the pervasiveness of Minoanization in the Aegean.

<sup>2</sup> I am extremely grateful to the authors for allowing me to see and quote their work prior to publication.

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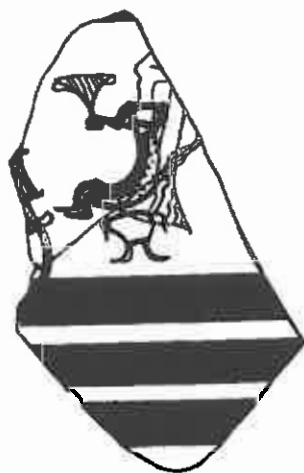
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Papers presented to Jeremy B. Rutter  
on the occasion of his 65th birthday

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