

BRONZE AGE REPRESENTATIONS OF AEGEAN BULL-GAMES, III *

Introduction

Aegean bull-games have long exercised the imagination; Evans was the first to publish comprehensive studies of them¹, but others followed: S. Reichel in 1909; A. Xenaki-Sakellariou in 1958; O. Lendle in 1965; A. Ward in 1968; and most recently S. Laser in 1987². In 1976 I published a study of bull-leaping in the *American Journal of*

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The following abbreviations will be used:

AM, AT, HM, NMA and Sk respectively for Ashmolean Museum, sealing from Aghia Triada (D. LEVI, "Le cretule di Hagia Triada", *ASAtene* 8-9 [1925-6], 71-156), Herakleion Museum (HMm = metal, HMP = pottery, HMs = sealings), National Museum, Athens and sealing from Sklavokampos (S. MARINATOS, "Το Μινωϊκόν Μέγαρον Σκλαβοκάμπου", *AE* 1939-1941, 69-96);

CMCG = A. XENAKI-SAKELLARIOU, *Les cachets minoens de la collection Giamalakis* (ÉtCrét X, 1958);

CS = V.E.G. KENNA, *Cretan Seals with a Catalogue of the Minoan Gems in the Ashmolean Museum* (1960);

IMMERWAHR, *AegPtg* = S.A. IMMERWAHR, *Aegean Painting in the Bronze Age* (1990);

KFA = S. HOOD & M.A.S. CAMERON, *Sir Arthur Evans' Knossos Fresco Atlas* (1967);

KSPI = M.A.V. GILL, "The Knossos Sealings: Provenance and Identification", *BSA* 60 (1965), 58-98;

KZ = sealing from Kato Zakros (no in D.G. HOGARTH, "The Zakro Sealings", *JHS* 22 [1902], 76-93 and/or in D. LEVI, "Le cretule di Zakro", *ASAtene* 8-9 [1925-6], 157-201);

Masters/Groups

III = J.G. YOUNGER, "Aegean Seals of the Late Bronze Age: Masters and Workshops III. The First-Generation Mycenaean Masters", *Kadmos* 23 (1984), 38-64;

IV = J.G. YOUNGER, "Aegean Seals of the Late Bronze Age: Masters and Workshops IV. Almond- and Dot-Eye Groups of the Fifteenth Century B.C.", *Kadmos* 24 (1985), 34-73;

V = J.G. YOUNGER, "Aegean Seals of the Late Bronze Age: Stylistic Groups V. Minoan Groups Contemporary with LM III A1", *Kadmos* 25(1986), 119-140;

VI = J.G. YOUNGER, "Aegean Seals of the Late Bronze Age: Stylistic Groups VI. Fourteenth-Century Mainland and Later Fourteenth-Century Cretan Workshops", *Kadmos* 26 (1987), 77-73;

MycPictV-P = E.T. VERMEULE & V. KARAGEORGHIS, *Mycenaean Pictorial Vase-Painting* (1982);

YOUNGER, *Bull-Leaping* = J.G. YOUNGER, "Bronze Age Representations of Aegean Bull-Leaping", *AJA* 80 (1976), 125-137.

1 *PM* III, 203-232.

2 A. REICHEL, "Die Stierspiele in der kretisch-mykenischen Cultur", *AM* 34 (1909), 85-99; CMCG, 85-89; O. LENDLE, "Das kretische Stiersprungspiel", *Marburger Wincklemann-Programm* 1965, 30-37; A. WARD, "The Cretan Bull Sports", *Antiquity* 42 (1968), 117-122; S. LASER *Sport und Spiel, ArchHomT* (1987), T75-78. There are two other articles that deal exclusively with this subject, but I have not seen them: R. PEREZ, "Ringkampf mit dem Stier", *Merian* XII 8 (1959), 43 (published in Lisbon); and R. HARRISON, "The Bull Cult in Ancient Crete", *History Today*, April 1978.

Archaeology that identified three major types, or schemata, of depicting the sport, and these I modified slightly in a minor article in 1983³. I'd like to take the opportunity here to reassess bull-leaping, to identify it as a part of a larger cycle of activities involving bulls, and to try to characterize these bull-games within the wider context of Minoan society.

There are many representations of people having sport with bulls and these cover almost the whole Bronze Age, from EM III to LM/LH IIIB; we can arrange these representations in a narrative sequence because some of them combine aspects of these sports. I envision the following sequence of events. Minoans seem to have selected bulls or hunted them, to have ridden them informally, to have deliberately made them angry, to have leapt them, and to have sacrificed them. The three sections of this paper (text, catalogue, illustrations) are designed to work in different but complementary ways. The illustrations are few and do not repeat those items that already have appeared illustrated in my 1976 article; the catalogue gives primary data; and the following text provides a loose commentary.

Preliminary Activities

From the iconographic evidence, it is apparent that bulls and cows were domesticated⁴. The Quiet Cup (B, NMA 1759)⁵ from the Vapheio Tholos depicts a man tying a rope around the left hindleg of a provoked bull (perhaps to keep him back from the pair of bovines in front), implying that some bulls were considered more or less domesticated and worthy of being safe-guarded. The unfinished stele (Nafplion Mus. 13576) found over Mycenae Shaft Grave A⁶ depicts a man fighting off a lion attacking his bull and the lentoid CMS II 3.9 (item 46) may refer to the same danger.

But other bulls were apparently left alone as more or less wild⁷. The most detailed scenes occur on the Vapheio Violent Cup (item 1) and the Katsamba ivory pyxis (item 2 [Pl. LXa]), both of which show men clad in activity clothing (to be defined below) energetically engaging bulls in the open fields (contrast the men with bulls in a field on *MycPictV-P* IV.32); the gold cup provides olive trees, the pyxis depicts palms. Quite a few other representations seem to insist on the net that is detailed on the cup, strung low

3 YOUNGER, *Bull-Leaping*, 125-137 and "A New Look at Aegean Bull-Leaping", *Muse* 17 (1983), 72-80.

4 I am grateful to T.G. Palaima for drawing my attention to his 1992 study "The Knossos Oxen Dossier: The Use of Oxen in Mycenaean Crete. Part I: General Background and Scribe 107", in *Mykenaiika. Actes du IXe Colloque international sur les textes mycéniens et égéens organisé par le Centre de l'Antiquité Grecque et Romaine de la Fondation Hellénique des Recherches Scientifiques et l'Ecole Française d'Athènes* (Athènes, 2-6 octobre 1990), *BCH Suppl.* XXV (1992), 463-474. Palaima takes Linear B BOS (unsexed) conventionally to mean "ox(en)", a word that is defined in the dictionary to mean castrated bulls, but since he assumes BOS to mean uncastrated bulls, he suggests an alternative reading for BOS ta; instead of "BOS ta-ro" (i.e., contrariwise, BOS as "ox", uncastrated = "tauros"), he suggests "ta-to-mo" (i.e., σταθμῷ) "at the farmstead" or "at pasture".

5 E. DAVIS *The Vapheio Cups and Aegean Gold and Silver Ware* (1977), 256-257 & *passim*, cat. 103; Sp. MARINATOS & M. HIRMER, *Crete and Mycenae* (1960), pls. 182-185.

6 G.E. MYLONAS, *Ὁ Ταφικός Κύκλος Β' τῶν Μυκηναίων* (1972-1973), 33-34, pl. 12.

7 In pre-classical Crete, cattle may have been of two sorts, a domesticated type and the species *Bos primigenius* (descended from aurochs; S. DAVIS, *The Archaeology of Animals* [1987], 69, 127, 131, 135 fig. 6.7), large and strong, standing at more than 1.50 m. at the shoulder; when the last *Bos primigenius* died in 1627 in Poland, the term aurochs was transferred to buffalo and the like. *Bos primigenius* has been identified from hoof bones excavated at Khandia (E. & B. HALLAGER, in the Discussion that followed their paper at this Conference). We should make a distinction between the large bulls being leapt on rings and frescoes as being the *bos primigenius* and the smaller, domesticated variety in numerous poses on seals and as a young sacrificial victim on the Ayia Triadha Sarcophagus.

between two trees. Another strung net was probably painted on the tiny rock crystal plaque (item 116). Such nets were probably logical out-growths of the low corral around a shade tree, like the one depicted on the north wall of the Akrotiri West House⁸ -- very much like modern Greek sheep pens today. Apparently the idea was for youths to chase after the wild bull, capture his attention (perhaps by poking him with the spear that one fellow carries on the ivory pyxis), and provoke him to charge where he eventually would run into a net, get tripped and toppled.

Bulls were also harmed. Just as lions and agriamias are often depicted as hunted and occasionally wounded by an arrow (e.g., the lion on CMS I 277 from Rutsi), a spear (e.g., the lion on CMS I 112), or a sword (e.g., the lion on CMS V 680), so also bulls are wounded (e.g., by a lance on CMS II 2.60) or at least threatened (e.g., by a sword on CMS V 630) by such weapons. Some bulls therefore might have been allowed to roam *ferile* so they then could be hunted. One seal, CMS V 497 from the Temple at Ayia Irini in Keos, however, depicts a wounded bull sinking to its knees with several darts in its withers. These darts resemble the Spanish *picas* used to enrage the bull and thereby enliven the bullfight. It is doubtful, however, that such darts were commonly used for that purpose since no representation of bull-leaping includes either them or any other weapon.

The process of capturing the bull also provided the opportunity to practice riding and leaping it. That this opportunity was, however, spontaneous and not controlled is clear from the several representations in which these amateurs get tossed off violently. One such individual looks like he is being trampled on the Vapheio cup (item 1); the fine gold amygdaloid from Rutsi (item 5) shows a youth clinging to the horns while the bull whips his head about; but the Knossos relief vase fragment (item 6) may depict a more successful venture. Fallen leapers, presumably amateurs, were occasionally depicted thrown and lying prone on the ground below the bull in flying gallop (see item 88, which includes the amateur leaper above). Apparently this impromptu bull-riding or leaping was dangerous and well enough attested to establish this *topos*. The ivory plaque from Mycenae Grave Circle B (item 26), depicts one youth running away, his companion thrown on the ground below the bull, but adds the Sacral Knot impaled by a blade that also appears on the Vapheio Ring (CMS I 219), perhaps implying a sacred context even for such impromptu bull-leaping.

Two terracotta rhyta, one from Porti (item 7 [Pl. LXc]) and another from Koumasa (item 9), also show impromptu leapers clinging to the horns; the one from Koumasa has a whole gang of three clinging to the horns and muzzle, probably trying to drag the bull down by force. But the whole effect of these impromptu bull-sports is that of adolescent bravura, though it could also have provided a spirited prelude to bull-leaping as a controlled sport. One might think here of the humorous antics of rodeo clowns who toy with and tease the bulls before they are ridden to exhaustion by the professionals.

There are other representations that emphasize the netted bull, perhaps as a metaphor for the bull-games themselves. Several terracotta bull-rhyta are decorated with a net-pattern; two also depict the horns sawn flat⁹ (items 15 & 17; as does the rhyton from Porti, item 7 [Pl. LXc]) -- undoubtedly to lessen the danger of bull-leaping. That these bulls were intended eventually for a sanctuary seems implied by the occasional addition of a garland around their necks, garlands being *de rigueur*¹⁰ on people when approaching or

8 C. DOUMAS, *Wall Paintings of Thera* (1992), pls. 26 & 28.

9 Sawing off the tips of the horns must have required some skill and care, for unlike deer antlers which are completely dead bone covered by skin, bull horns consist of living bone (the horn core) covered by tissue (the corium) and finally by a thin layer of keratin (the horn proper) -- DAVIS (*supra* n. 7), 59.

10 J.G. YOUNGER, "Representations of Minoan-Mycenaean Jewelry", *EIKON. Aegean Bronze Age*

in sanctuaries.

And a series of lentoids close to the Cretan Popular Group (items 20-23) repeat the image of a bull apparently caught in a net, his head averted -- perhaps the turn of the head was to imply that the bull was tamed, stunned, or dead.

Bull-Wrestling

While actual bull-leaping has elicited the most interest, bull-wrestling¹¹ or bull-grappling has also been recognized as a separate but related part of the entire cycle of Aegean bull-games. A series of seals conventionalizes the act of bringing the bull literally to its knees. On these, a wrestler kneels (items 28 [Pl. LXd], 29 [Pl. LXe], 30, 31 [Pl. LXf], 33), one arm bringing the head around and down; another wrestler (item 32 [Pl. LXg]) stands before the flank of the bull, the one arm bringing the head around and down while the other arm loops under the bull's near hind-leg, thus immobilizing the animal. The result must have been very much like the way cowboys in the USA immobilize a calf just before they truss ("hog-tie") it. The formality of the pose and the few variations allowed in the representations make it likely that bull-wrestling was practiced in a formal setting, perhaps along with and at the same general time as bull-leaping.

Bull-Leaping

The formal sport of bull-leaping¹², however, is depicted with such regularity that it has been possible to reconstruct the basic sequences the artists were copying. Evans took as his model the bronze group said to be from Rethymnon (the group may not be authentic), and reconstructed a sequence in which the leaper must have grabbed hold of the bull's horns, anticipating that the bull would toss its head obligingly back so the leaper could be flipped over the bull's head (*cf.* the Tell ed Dab'a fresco, item 104), landing feet-first on the bull's back and finally jumping neatly off. Two rings, now extant only in impression (items 36 & 42), depicted the addition of a rear assistant to help the leaper alight steadily. Significantly, the few representations that fit Evans's sequence all date early in the Late Bronze Age (**Appendix I**), and none of these has a context later than LM IB. Six seal impressions depict this scheme clearly, while the Katsamba pyxis (item 2 [Pl. LXa]) and a scene on the Boxer rhyton (item 3) vividly portray the difficulties and dangers of this method.

Most depictions, however, follow a different sequence, what I have called the Diving Leaper Schema, in which the leapers apparently approached the bull from an elevated position and dived down the bull's neck so that they landed hands-first on the bull's shoulders, then somersaulted over to land feet-first on the ground behind the bull. This Schema demands an equally obliging bull that must charge an elevated platform on which the leaper is standing. And while no example depicts this elevated stand unambiguously, a couple may imply that the concept did exist. Several representations depict a frontal assistant; most of these are so fragmentary that only the assistant and the bull are preserved, but the Taureador Fresco (item 57 [Pl. LXIa]) is complete enough to imply that the leaper could have stood on the frontal assistant's shoulders to gain the necessary

Iconography: Shaping a Methodology. Proceedings of the 4th International Aegean Conference/4e Rencontre égéenne internationale, University of Tasmania, Hobart, Australia, 6-9 April 1992, Aegaeum 8 (1992), 261-3.

11 CMCG, 87-88 Type IIIb; YOUNGER (*supra* n. 3), 125, n. 1.

12 YOUNGER, *Bull-Leaping*.

height. On the Priene cushion seal (item 49) the elevated stand looks like a hollow box. And in modern Portugal, there is a bull-leaping festivity where the bulls are let to dash free in the streets while amateurs set up chairs on which they stand to hurl themselves over the bull's backs.

For this Schema we have frontal and back assistants and a long series depicts the leap itself almost second by second. Two Kato Zakro sealings (item 50, 51) and a stone rhyton fragment (item 48) show the leaper touching the shoulders, other seals (*e.g.*, item 55), rings (*e.g.*, item 61), even a pictorial sherd (*e.g.*, item 59) complete the push-off. Several other representations, especially frescoes (items 76, 78 & 79), give us the leaper landing on the ground behind the bull -- the Pylos fresco fragment (item 76) may actually show two leapers alighting in succession. If so we can imagine several bull-leapers to have leapt in tandem, one quite quickly after the other (*cf.*, items 63 & 106).

It is also worth emphasizing that most depictions of bull-leaping belong to the Diving Leaper Schema, almost 30 examples. The earliest of these seem dateable (**Appendix I**) in LM IB/LH IIA¹³, but they continue into LM III A and, in Mycenaean Pictorial Vase-Painting, into III B. It is therefore likely that the Diving Leaper Schema increased in popularity as Evans's Schema declined. The former may actually have replaced the latter after LM IB to become the preferred method of representing bull-leaping.

Bull-Vaulting

The third way of depicting bull-leaping is the Floating Leaper Schema, the 20 representations of which all depict one common conventional image: the leaper hangs poised above the bull, one hand holding onto the bull's neck, the other usually supported on the bull's horn, the legs out horizontally. The best known representation is the Tiryns fresco (item 97 [Pl. LXIb]), but there is a whole series of lentoids belonging to one stylistic group, the Tamvaki Group (items 94-96, 101, 102), as well as few other seals (*e.g.*, items 87-91, 96, 97 [Pl. LXIb]), and a late larnax from Tanagra (item 84). Since the representations date continuously from LM I to III B (**Appendix I**), it is possible that the Floating Leaper Schema does not depict an alternative bull-leaping schema but rather another athletic maneuver altogether, that of bull-vaulting. In bull vaulting, one would run toward the flank of a bull, grab a horn, and vault over its back to the other side. The maneuver may have been practiced primarily by men (item 97 [Pl. LXIb]), the Tiryns fresco, however, depicts a white-painted vaulter, presumably a woman.

A lentoid from the Akona tholos (item 100) depicts a Floating Leaper over an agrimi, which of course opens up the possibility that leapers vaulted other animals besides bulls, perhaps to keep them from becoming too confident about predicting bovine behavior. But, if so, this lentoid is the only such indication of this practice. Even more interesting, however, is that the agrimi has a pair of vertical lines incised across its belly, lines that are not paralleled in other depictions of agrimia and should not be anatomical indications -- might they be some kind of girth allowing the leaper to get a secure grip? And if so, then perhaps this particular representation depicts a type of practice vault.

Unclassifiable Representations

In addition to classifiable representations of bull-leaping there are several that cannot be assigned to any of the three major methods of depicting the sport, usually due to

13 One of the Tell Dab'a frescoes, item 103, appears to depict Diving Leaper pose 3, but the hands are wrong; see the commentary to this fresco below.

their fragmentary state of preservation. Many relief fresco fragments found at Knossos consist of galloping bulls with associated limbs of leapers like those from the North Entrance (item 108) and others from the great East Hall (item 111). It is possible, too, that the Lily Prince reconstruction (item 112) includes the torso of an alighting leaper. A recently discovered ring (item 63) from an excavated chamber tomb at Olympia seems to adapt the fresco fragment from Knossos, item 106, without much understanding; I wonder about its authenticity.

Locations for Bull-Leaping

Since many bull-hunting and bull-capture scenes also show informal bull-leaping and bull-wrestling, it seems clear that all these types of bull-sports were linked. Whether there was any prescribed specific sequence is doubtful, but it should be clear that a bull was obtained, probably from the wild, and that bull-wrestling, bull-vaulting, and bull-leaping were part of the bull-games after the animal was captured. One can imagine a series of festival days that began with youths capturing a bull with gusto and exuberant bull-follies, then a period when the bull was brought to the palace area, and then one or more days of wrestling, vaulting, and leaping.

Where bull-leaping took place has exercised quite a few scholars, and there are two main candidates: the central courts of the palaces and arenas outside perhaps fenced off for the occasion.

The evidence for locating bull-leaping in the central courts is circumstantial. Only one representation, the cushion seal from Priene (item 49), associates the formal leap with architecture¹⁴. On this seal the leaper seems to dive onto the bull's neck from an elevated object that both Kenna and Boardman¹⁵ both identify as a cistern at which the bull drinks, an identification that would go well with the two other representations that depict a leaper taking advantage of a preoccupied bull; compare the Praisos lentoid (item 86) and the relief vessel fragment from the Knossos Minoan Unexplored Mansion (item 6).

Graham¹⁶, however, views the object on the Priene seal (item 49) from which the leaper appears to spring as a practical piece of bull-leaping furniture, and compares its rectangular shape to the stepped platform in the northwest corner of the Central Court at Phaistos. In favor of Graham's identification, the zig-zag decoration of the object on the seal recalls the similarly painted, stuccoed niches flanking the nearby north entrance to the court at Phaistos. Graham also points out that at Phaistos the entrances to the palace rooms were at times closed off from the central court, while at Mallia the spaces between the columns of the porticoes and those preceding the flights of stairs leading to the second storey were filled in either with brick walls or with removable fences¹⁷. Graham has

14 HMs 143, a sealing from the Room of the Egyptian Beans at Knossos, is illustrated in *PM* IV p. 564 fig. 532 and restored as having a man watch a recumbent bull from behind a barrier; the sealing actually depicts the man leaning towards the bull with a dangling leash in his hand that is the source of the misunderstood barrier. Two representations depict bull-games over an ashlar masonry dado (a Knossos sealing [item 45] and the Archanes ring [item 61]), but most dados are decorative: e.g., KZ 123 (item 41), Pylos sealings (item 44 & 71), Sk 4 (item 66). Ashlar dados are common on both rings, e.g. HMm 989 from Archanes (*Archaeology* 20 [1967], 276-281 fig. 13), and sealstones, e.g. *CMS* XII 137 and 249, and do not necessarily denote architecture, though they may on *CMS* XII 249 (item 124), which depicts a bull tethered to a tree, perhaps in a temenos.

15 *CS*, 118, s.n. 202, and J. BOARDMAN, *Greek Gems and Finger Rings. Early Bronze Age to Late Classical* (1970), 99, s.n. pl. 58.

16 J.W. GRAHAM, *The Palaces of Crete* (1969), chapter IV.

17 O. PELON, "Le palais de Malia et les jeux de taureau", *Rayonnement Grec. Hommages à Charles Delvoye* (1982), 45-57 examines these barriers in detail.

interpreted such blockages as barriers from behind which spectators could view the bull-games in safety. Knossos sealing HMs 143 might depict such an occasion, though the fragmentary impression seems instead to preserve a man standing in front of a recumbent bull and holding a lowered double leash.

There are other objections to Graham's interpretation. The Priene seal seems to portray a box, and since the bull seems to look over its top and into it, the box should be hollow and not a solid platform like the one built into the north-west corner of Phaistos's central court. Also too, it is unlikely that a bull will charge into a corner, although once aroused, a bull will charge almost anywhere, even against the barricade behind which its tormentor has dashed for safety, as happens in the rodeos in the USA and in Spanish bull-fights. A real obstacle to interpreting the Phaistos stepped platform as a bull-leaper's stand is that when it was excavated an elaborate terracotta sacrificial tray with fixed vessels, amongst other items, was found on it¹⁸. It would seem, therefore, that the stepped platform might have served as an altar, at least in its final use; the platform of course could have served several functions, and perhaps at other moments it served as a bull-leaper's stand as well. As for the barriers, they could just as easily have worked the other way, preventing a festive rabble within the court from invading the offices and private quarters of the palace.

There are three other possible pieces of evidence for locating bull-leaping in the central courts. In the central court at Mallia there are two objects: a square bothros near the center and a spherical stone in the middle of the north-west corner. The bothros contained much evidence of burning and four unfired bricks placed vertically in a rectangle. O. Pelon¹⁹ thinks of this bothros as a burning place for sacrificial victims and comes close to identifying them as the bulls used in bull-leaping; if the bricks in the bothros were to support a sacrificial table, the table might just be level with the central court and therefore present not too much of a hazard in the way of bull-leapers or the bulls.

The stone remains a puzzle; half-sunken, it protrudes from the floor of the court and its north-west side presents a hollow. I suggest that leapers may have run at this stone and then used it as a kind of springboard to project themselves above a bull's lowered head. When I take Duke University students to the palace, I have them try it out and they can hurl themselves quite high into the air. Another object that has been adduced as evidence for bull-leaping in the central courts is the large limestone slab (item 128) located just beyond the north-west corner of the central court at Gournia. But the identification of this slab as a bull "slaughtering" stone depends on a circular argument: if bull-leaping took place in the Central Court, then the slab could have been used for sacrificing the bull conveniently and immediately after being leapt.

The fact that some central courts were paved, however, offers the most compelling evidence against placing the games there, for on such an unyielding surface galloping bulls could damage their hooves and leapers who fell could be killed. Such injuries not only would have slowed the tempo of the event, but if the context of the bull-games was religious, would also probably have been interpreted as bad omens.

It is of course possible that there were other formal settings for bull-leaping, though again there is little solid evidence. The Dance in the Grove and Grandstand frescoes place

18 R. PARIBENI, "Scavi della Missione Italiana a Phaistos", *MonAnt* 14 (1902-1905), fig. 17, pl. xxix.2 and xxxi.2, cited in M.P. NILSSON, *The Minoan-Mycenaean Religion and its Survival in Greek Religion* (2nd ed., 1950), 117-118, figs. 34 & 60. On top of the stepped platform were found, in addition to the large libation table, "fragments of others, fragments of three painted animal figures, and a vessel in the form of a horse."

19 PELON (*supra* n. 17).

some ceremony in an open area framed by trees and paved with causeways, but the ceremony/ies there cannot demonstrably be associated with bull-leaping and if the causeways are like those extant they and the probable presence of surrounding paving again make another infelicitous surface for galloping bulls and landing leapers.

Instead of locating bull-leaping in formal settings, the representations either depict no setting whatsoever except for the odd dado or groundline (see fn. 14), or indicate an outdoors location. Several seals include plants in their bull-leaping scenes (items 45, 65, 86, 98, 100), and a few frescoes locate their charging bulls among plants (items 105, 107; cf. 116). That some seals include plants is not surprising; most seals lend a composition balance or provide an axis by including a plant or tree as filler. Two bull-leaping frescoes from Knossos include vegetation: a large tree in front of a small galloping bull on item 105, and olive trees, possibly shrubs, and wavy terrain²⁰ on item 108. And compare items 1 and 2 [Pl. LXa], the Vapheio Violent Cup and the Katsamba pyxis, both carrying compositions that may have been inspired by frescoes. But the vegetation in some scenes may also function artistically. The oversized tree on the wall fresco item 105 probably defines the left border; the shape of the tree's leaves may come from similar trees on seals (see, for instance, CMS V 597 [item 55] and CMS I 79 [item 65]). And on the relief fresco (item 108), the olive behind the bull (i.e., in the far plane) centered over the bull's back serves to focus attention on the animal (compare the similar tree on the gypsum slab British Museum A56 from the Treasury of Atreus at Mycenae²¹) and stabilize its flying gallop pose.

Thus, the plants on the bull-leaping seals and frescoes may not be taken any more literally than the Sacred Knot on the Archanes ring (item 61), the figure-8 shield on the lentoid CS 341 (item 102), or the Impaled Triangle on the amygdaloid CMS I 137 (item 33).

In addition, many of the frescoes with bulls seem to provide no topographical setting whatsoever, focusing all attention on the charging bull surrounded by a monochrome void background: the complete Tiryns fresco (item 97 [Pl. LXIb]), the almost complete Knossos Taureador frescoes (item 57), and the more fragmentary Knossos frescoes (items 47, 78, 79, 106), the Mycenae frescoes (items 52 & 79), and possibly the Pylos fresco (item 77) and the Tanagra larnax (item 85).

One final indication of setting may be given in the Knossos fresco item 107; if the fragment with the crowd of men is to be associated with the bull, it is possible that the scene took place in some kind of theatrical setting, but the two fresco fragments may not belong together.

I conclude that bull-games could have been located in the central courts, but the evidence is not conclusive, and logic seems to prefer an open arena outside the architectural complex. Some of the artifactual evidence, including representations and architecture could support a formal setting within the central court, but most of the evidence seems to favor an informal setting more generally outdoors. I imagine an open field, like that excavated north-west of the Palace at Knossos with traces of a grandstand

20 The wavy terrain is a large version of the conventional ogival canopy of pot painting. Compare A. FURUMARK, *Mycenaean Pottery I: Analysis and Classification* (1972), Motif 13.3, dated to LM IIB, a date close to Kaiser's for the fresco. Kaiser also illustrates another example of this type of wavy terrain, apparently unrelated in style, from an unspecified place at Knossos (B. KAISER, *Untersuchungen zum minoischen Relief* [1976], 286, fig. 463L).

21 PM III, 192ff., fig. 133; G.E. MYLONAS, *Mycenae and the Mycenaean Age* (1966), 121; I. SAKELLARAKIS, "Das Kuppelgrab A von Archanes und das kretisch-mykenische Tieropferritual", *PZ* 45 (1970), 158 fn. 119; J.G. YOUNGER, "The Elgin Plaques from the Treasury of Atreus: Evidence for a New Reconstruction of the Facade", in W. SCHIERING ed., *Kolloquium zur Ägäischen Vorgeschichte* (Schriften des Deutschen Archäologen-Verbandes IX [1987]), 138-150.

along the Royal Road ²², and perhaps a fenced earth arena, like those for the modern bull games in Spain and the southwestern USA. A painting by Rudolph F. Zallenger, originally for a series of articles in *Life* magazine and reproduced in the Time-Life book, *The Epic of Man* ²³, depicts the sport taking place in just such an arena.

Bull-Leapers

We also know little about the bull-leapers themselves. The several frescoes agree in showing both red- and white-painted leapers, the latter presumed to be female though frontal views show no breast development; one of these white-painted leapers, item 79, wears a hair band, which is only worn by women ²⁴. If females, then, they must be athletically spare maidens ²⁵. The male leapers too should be young, for complicated gymnastic maneuvers are most easily performed by adolescents.

All leapers wear the typical outdoors activity garb, familiar from the Harvester Vase and bronze statuettes: a tightly cinched belt above a type of breechcloth consisting of a belt from the front of which bunched cloth was brought down like a sheath to cover the genitalia, passing up between the buttocks to tuck under the belt in back and hang over it to spread out as a backflap to cover the buttocks. Although Evans ²⁶ called these briefs the "Libyan Sheath", this type of breechcloth is generally described under broader classifications, the ζῶμα or Schurz ²⁷.

The ringed belts cinch the waist tightly and sometimes consists of one roll (e.g., the many sealstones like items 60, 64-67) but more often of two separated by a short waist (e.g., items 57 [Pl. LXIa], 62, 78, 79, 82). The double belts very much resemble the separate ringed necks on stone rhyta ²⁸, and the ostrich-egg rhyta and silver jug from Mycenae ShGrs IV and V. These ringed belts are all attested only for the Diving Leaper Schema; few representations in Evans's Schema show the belted breechcloth, and the only one to do so, the bronze group from Rethymnon (item 40) depicts no belt.

The top of the codpieces may be rounded for the women on the Taureador fresco (item 57 [Pl. LXIa]) or peaked for the man on the same fresco (and restored for the Knossos fresco, item 78). The Taureador fresco also depicts frontal sheaths with an added flounce at the bottom (perhaps indicating the presence of a front-flap as well), both for the

22 *JHS*, AR 1972-3, 26-29.

23 *The Epic of Man* (1961), 138.

24 YOUNGER (*supra* n. 10), 258-260, 275.

25 N. Marinatos does not think these white-painted leapers are female, but rather special men, perhaps unskilled: "The Bull as an Adversary: Some Observations on Bull-Hunting and Bull-Leaping", *Αριάδνη. Αφιέρωμα στον Στυλιανό Αλεξίου* V (1989), 23-32; and "The 'Export' Significance of Minoan Bull Hunting and Bull Leaping Scenes", *Ägypten und Levant* 4 (1994), 89-93. At the 6th Cretological Congress S. DAMIANI-INDELICATO, "Were Cretan Girls Playing at Bull-Leaping?", suggested that the white-painted leapers were the same person as the red-painted one but at different times, before and after the leap. I follow P. Rehak, who questions (*AegeaNet*, 12 October 1994) the idea that color conventions, so rigidly adhered to elsewhere, should suddenly mean something different only in bull-leaping; instead white-painted people should always be female in the Aegean.

26 *PM* IV, 22 and figs. 12d & e on p. 23.

27 E. SAPOUNA-SAKELLARAKE, *Μινωϊκόν Ζῶμα* (1971), 110-115, type Z (e.g., figs. 10 nos. 121-124 and 13 nos. 131a-g & 133); S. MARINATOS, "Kleidung, Haar- und Bart-Tracht", *ArchHomm* IA (1967), 22-24 types (p. A23 fig. 3) c, d, & g; H.-E. GIESECKE "Kretische Schurze", *OpAth* 17 (1988), 91-98 cf. types IIc and IV a/b (see his fig. 11).

28 E.g., P. WARREN, *Minoan Stone Vases* (1969), P480, 481, 488b, and the Harvester Vase; H. TZAVELLA-EVJEN, "The Ring of the Queen", in R. HÄGG & G.C. NORDQUIST eds., *Celebrations of Death and Divinity in the Bronze Age Argolid. Proceedings of the Sixth International Symposium at the Swedish Institute at Athens, 11-13 June, 1988* (1990), 171-174.

male leaper and the isolated female fragments. Four athletes wear tight shorts ²⁹; the wrestler on item 26, the vaulting Floating Leapers on items 86 & 100, and the possible athletes on item 118; it is likely, then, that wrestlers and vaulters wore the tight shorts while the bull-leapers themselves wore the breechcloth.

Bull leapers wore close-fitting shoes ³⁰, all depicted as solid and apparently supple like leather moccasins. From these shoes, tall sock-like projections encase the ankle (items 79, 82, 117); sometimes they are decorated with horizontal stripes up the calf (item 97 [Pl. LXIb], the Tiryns fresco). A fragment of a standing ivory figurine from Knossos, the Southern Borders area ³¹, carries part of a foot wearing a sandal with intricate lacing that extends up on to the ankle at least; perhaps this sandal and the leaper's moccasins are similar.

A few figures also have their hands wrapped (items 57 [Pl. LXIa] & 78, both hand fragments) or wrists wrapped (item 57 [Pl. LXIa], the woman rear assistant).

For jewelry, the men wore a loose necklace or, more probably, a garland (depicted as a smooth rope on item 78 or as a string of lilies on item 112, if she is a leaper), while a woman could also wear the loose undifferentiated necklace coupled with a beaded necklace (item 79). Arm bands are worn by women (items 47, 57 [Pl. LXIa], both women frontal assistants, and 79) and by other athletes (the Tell Dab'a frescoes 103 & 104, and the Mycenae male figure 114 if he too is a leaper); bracelets are also worn by women frontal assistants (items 47, 57 [Pl. LXIa]) and by a Tell Dab'a athlete (item 104); and one athlete wears an anklet (item 109).

Men are usually depicted wearing their hair short, cap-like, both in fresco (item 97) and in other media, although three red-painted leapers in fresco, presumed therefore to be men, wear their hair long (items 57 [Pl. LXIa], 76 [PY fresco], 78). White-painted leapers in fresco, presumed therefore to be women, all wear their hair long (items 47, 49, 57 [Pl. LXIa], 79, 106). Other leapers wear their hair long but we cannot judge their sex because the amount of paint preserved is inadequate (items 105, 107, 116), or the nature of the medium does not permit color distinctions (items 1, 3 [Pl. LXb], 38, 40, 65, 67, 71, 72), or the fresco follows non-Aegean color conventions (item 104).

A single woman is preserved wearing a blue hair band over her forehead (item 79).

While E. Davis ³² does not identify the Akrotiri girls as wearing their hair long until they are women, perhaps brides, R. Koehl ³³ does recognize adolescent male youths with hair worn long, down to their waists, as aristocratic, and specifically cites the Taureador leaper along with the Chieftain Cup Youth ³⁴. It is possible, therefore, that at Knossos, the sequence of hair styles for aristocratic girls developing into women was different from that in Akrotiri, and resembled more that established by Koehl for boys.

The Tell ed Dab'a Frescoes

The Tell Dab'a miniature frescoes (items 103 & 104) are unusual in several details.

First the compositions. Fresco 104 seems to depict one of the initial positions of Evans's Schema with the leaper anticipating the positions taken by the leapers of the items 35 & 36. From the top of the neck he grasps on to the underside of the neck with

29 E. SAPOUNA-SAKELLARAKE (*supra* n. 27), 1971: type Qb (p. 121).

30 S. MARINATOS (*supra* n. 27), A32.

31 *PM* II, 727, fig. 455.

32 E. DAVIS, "Youth and Age in the Thera Frescoes", *AJA* 90 (1986), 399-406.

33 R. KOEHL "The Chieftain Cup and a Minoan Rite of Passage", *JHS* 106 (1986), 99-110.

34 See YOUNGER (*supra* n. 10), 288.

both arms unlike any leaper in any depiction of bull-leaping. His legs may curl over his back; they certainly do not stretch out behind him the way they would if he were executing a Diving Schema. The bull's head, slightly lowered as in items 35 and 38, is turned toward us *en face*; there are a few parallels for leapt bulls with frontal faces (items 58, 60, 63, 65 in Evans's Schema, and, in the Floating Schema, items 92-94, 99, and 100), but all but one of these belong to the late Tamvaki Group (datable to LM III A:1). The only early leapt bull with frontal face is item 65, Sklavokambos sealing no. 4, in the Vapheio Bull Cup Group datable to LM IB/LH IIA.

It is possible that the frontal face may have been a popular thematic peculiarity either of the Tamvaki Group³⁵ or of its period. But it is also possible that frontal bull faces, whatever the period, convey a special meaning, like frontal faces in the Classical period that convey extreme messages, that of uncommon beauty, apotropaic terror, anguish, and impending death³⁶. In fact, since the bull's tongue sticks out from its mouth³⁷, it seems likely that the bull is facing or has faced his death and the scene is therefore not one of bull-leaping but of bull sacrifice.

Fresco 103 seems to depict a leaper in a Diving Leaper Schema, pose 3: having completed his somersault, he prepares for landing, but there are two things wrong here: both hands of the leaper are depicted against the flank of the bull and his thumbs are positioned forward, towards the bull's head -- this particular pose is unique and impossible. Compare the progression of the leaper from item 62 to item 64, where it is clear that, as the leaper begins to land, his thumbs move from pointing toward the bull's hindquarters to pointing towards the bull's head only when the arms fling up for balance; in no Diving Leaper Schema are both arms placed against the flank or are the thumbs pointing towards the bull's head while the arms are still down perpendicular to the bull's back.

Another peculiarity concerns the costumes, including the jewelry. On fresco 103, the codpiece and backflap are depicted oddly thick, as if seen in three-quarter profile, and his belt is unusually narrow. In fresco 104 the athlete wears a sealstone on a bracelet. This is the twelfth depiction of sealstones in an Aegean setting³⁸, the only one of a cushion seal

35 Frontal bull faces are common on seals belonging to the entire Spectacle-Eye Group, of which the Tamvaki Group is a subgroup; see *Master/Groups V*, 136 (Spectacle-Eyes F), 136-7 (the Tamvaki Group), and 138 (the Group of the Nafplion Bucrania).

36 See the forthcoming study by L. MORGAN in *CMS Beiheft 5, Proceedings of the Fourth International CMS Symposium*. Frontal bull faces, or bucrania, are common on seals from the Middle Minoan period on (P. YULE *Early Cretan Seals* [1981], M 3A1-3 belonging to the Mallia Workshop [MM II] and M4; J.G. YOUNGER, *Bronze Age Aegean Seals in their Middle Phase [ca. 1700-1550 B.C.]* [*SIMA* 102, 1993], 25-26; and J.G. YOUNGER, *The Iconography of Late Minoan Mycenaean Sealstones and Finger Rings* [1988], 188-192). Occasional seals carry the faces of other animals: cats (possibly as a reference to the Hieroglyphic and Linear A signs that, in Linear B, represent the syllable "ma"; YOUNGER [*supra*, this note 1993], 26), boars (YOUNGER [*supra*, this note 1993], 25 and YOUNGER [*supra*, this note 1988], 191-192), lions (YOUNGER [*supra*, this note 1988], 187-188), and the rare stag or bird (YOUNGER [*supra*, this note 1988], 191 & 192).

37 I am grateful to Dr Peter Misch for having pointed this out to me at the Conference; it had entirely escaped my attention.

38 J.G. YOUNGER, "Non-Sphragistic Uses of Minoan-Mycenaean Sealstones and Rings", *Kadmos* 16 (1977), 147-149; YOUNGER (*supra* n. 10), 272-273; and P. REHAK, "The Aegean 'Priest' on CMS L.223", forthcoming in *Kadmos*. The depictions (all lentoid seals except Tel Dab'a's cushion seal) are:

women
the Mycenae "Grain Goddess" -- inside of right wrist
the Ayia Triadha Sarcophagus (female) yoke-bearer -- both? wrists
two, possibly three, Ayia Triadha (female) charioteers -- left wrist
the woman in the Knossos terracotta shrine -- both wrists

(all the rest are lentoids), one of two depictions with the seal worn on the right wrist (it is extremely common to wear seals or rings at the left wrist, both depicted and in the tomb), and the only one worn by a problematic bull-leaper. In addition, if the leaper is male, then this depiction again falls into a minority pattern -- most sealstone-wearers are women.

Another peculiarity of fresco 104 is its maze-background. A plaster fragment from Knossos depicts a similar maze-pattern (*PM* I 357, fig. 256, n. 1), perhaps a floor fresco, as M. C. Shaw has suggested³⁹, but only at Akrotiri does a "wall-paper pattern" fill the background (e.g., a diaper-net in the upper zone in the House of the Ladies; and harvested crocus plants surrounding the "Goddess" and crocus-pickers on the upper floor of Xeste 3, room 3a); in both situations, the figures are life-sized.

In view of these peculiarities, it seems better to exercise caution about the scenes depicted, the circumstances under which the frescoes were painted, and about the nationality of their painter(s). Moreover, the recent speculation that the miniature frescoes were painted to make homely the palatial quarters of a Minoan princess married off to a Hyksos prince to cement some sort of alliance sounds distinctly quaint and old-fashioned, especially since recent scholarship has begun to emphasize the importance of Minoan women in their own right and their role in society and administration.

Bull-Sacrifice

What happened after the process bull-leaping is unknown. I imagine that sacrificing the bull would have formed a fitting close to the bull-games. The sacrifice of bulls is well illustrated and has received much attention⁴⁰; it undoubtedly occurred often during several kinds of rituals, including funeral rites and perhaps hero/ancestor worship⁴¹. And there are some pieces of circumstantial evidence for relating bull-sacrifice to the bull-games. The garlands around the netted bull-rhyta should indicate the sacral character of captured bulls, emphasized by the loose garlands that some athletes wore; the Phaistos bull-leaping stand (if that's what it was) also had a sacral character at times, as the sacrificial tray found atop it testifies. And the frontal face of some bulls may imply they were destined for death.

Assuming then that the leapt bull was also sacrificed, we can illustrate the sacrifice with another series of representations that include leading the bull behind a chariot, accompanying it to a shrine, either apparently voluntarily (item 121; cf. 122) or on a leash (item 123 [Pl. LXIIa]), leashing it to a tree (items 124 & 125; sacred, no doubt, in a temenos) or to the shrine itself (item 125). Sacrificing the bull required that it be laid out

a female terracotta statuette from Mycenae, N. Cyclopean Wall -- both wrists
Knossos fresco fragment HM Box q v.3 with woman's arm -- wrist not identifiable

men

the Ayia Triadha Sarcophagus (male) lyre-player -- left wrist
the Knossos "Cup Bearer" -- left wrist
the "Robed Priest" on *CMS* I 223 -- left wrist (in impression)
Tel Dab'a bull-athlete -- right wrist (cushion seal)

unknown

Pylos fresco fragment 13 M nws -- wrist not identifiable

39 M.C. SHAW, "Bull and Maze: a Minoan Fresco from Egypt", *AJA* 98 (1994), 331 (abstract); and *AegeaNet*: 10 March 1994.

40 See SAKELLARAKIS (*supra* n. 21) and C.R. LONG, *The Ayia Triadha Sarcophagus. A Study of Late Minoan and Mycenaean Funeral Practices and Beliefs* (SIMA XLI, 1974), chapter VIII, 61-71.

41 The Ayia Triadha sarcophagus (LONG [*supra* n. 40]) juxtaposes, on the Back Side, the sacrificing of a bull in front of a shrine with, on the Front Side, offerings before a statue in front of a building that might be a tomb or shrine.

on a large stone slab (item 129) or a raised table (item 127)⁴². If the slab was long or the table had four or more pairs of legs, the bull could be laid out completely on it⁴³. The large number of supports for these long tables probably implies that they were of wood⁴⁴. So too the shorter tables with either two (items 13-15, 17) or three (items 9b & 133; compare item 130 with interior struts and CS no. 332) stout legs with flaring feet; the table depicted on the Berlin lentoid (item 132) implies an exceptionally elaborate table with legs shaped like bucrania.

But the tables that were short and supported on only two pairs of legs may have been of stone, like the extant table top and incurved bases from Archanes (item 127); these depictions carry the bull trussed. The bull was laid prone on the table with its legs folded up under its chest; presumably, the bull needed to be trussed, as is the small bull or calf on the Ayia Triadha Sarcophagus. If the table was narrow, the animal's legs were made to straddle the table, and each front and back leg on each side were then tied at the hock (items 13-15, 17)⁴⁵; otherwise, as on the Ayia Triadha Sarcophagus, the bull was laid on its side, its fore- and hind-legs brought together and tied. The bull was then stabbed at the top of the neck with a sword (item 132) or had its throat slit with a bucket placed below to catch the blood (item 134 [Pl. LXIc])⁴⁶. No depiction implies that a

42 See SAKELLARAKIS (*supra* n. 21), fig. 9 for a synopsis of the representations of sacrificial tables. The platform in the west room of Anemospelia is published as if it were a sacrificial platform.

Raised rectangular platform of rubble masonry, Archanes, Anemospelia (Length and Width about the same as the Archanes Table Top, item 127; H preserved ~0.35 m.; I. SAKELLARAKIS & E. SAPOUNA-SAKELLARAKI, *Archanes. Archanes Excavations* [1991], fig. 131; MM III [or LM IB context?]).

On this platform was found the flexed body of a youth, possibly having been killed by the hunting lance with the frontal boar's head incised on it; if so, this suggests more a hunting accident (*cf.* the murder of Atys, son of Croesus, by Adrastus, as told by Herodotos, I 34-36) than a sacrifice. Perhaps the Anemospelia sanctuary is a hospital instead.

Add other representations of sacrificial (?) tables: item 133; CMS V Supp. 1A no. 59, a glass lentoid from Milatos with two quadrupeds on a table or altar; and the sealing HMs 153 from the Queen's Megaron at Knossos (KSPI, R89) which may depict part of a three-legged table above a scene that includes one standing man and one (kneeling?) man wearing a boar's tusk helmet. Compare the sealing HMs XZ (KSPI, R70) from Knossos, perhaps impressed by a cylinder, that depicts a man standing in front of an altar (part of a slaughtering table?) and the contorted (arched above the man?) agrimi; also see the fragments of terracotta figurines from Mycenae (A. TAMVAKI, "Some Unusual Mycenaean Terracottas", BSA 68 [1973], 207-265) that may represent similar tables.

Å. ÅKERSTRÖM, "Mycenaean Problems", *OpAth* 12 (1978), 69-86 reconstructs Persson's so-called 'slaughtering table' found in Dendra's T. 2, the "Cenotaph", as a stand for a wooden coffin with the so-called 'menhirs' attached to it as sacrificial tables -- a slightly more satisfactory reconstruction, though not entirely so, since he does not include all the 'menhirs' from the tomb; Åkerström does, however, provide the better date of LH III A:2 for the tomb.

43 For the pose compare CS 332, a lentoid from Archanes portraying a boar on a three-legged sacrificial table; and CMS I 236 and HMs 212/213 = KSPI, R6 both of which depict a bull in this position but no table; the stone rhyton fragment from Knossos HM 258 [PM I, fig. 507] depicting the folded forelegs of a bull or agrimi right on a pylon-box probably reflects a scene like that of the agrimia reclining on top of the shrine on the Kato Zakro Sanctuary rhyton.

44 Might the four unbaked bricks sunk in the square bothros, the so-called 'altar', in the center of Mallia's Central Court have supported such a wooden sacrificial table?

45 For trussed bulls in Egypt, see W.S. SMITH, *Interconnections in the Ancient Near East* (1965), figs. 45 from Theban Tb 143, and 141.

46 These final stages resemble the reconstruction by I. Sakellarakis & E. Sapouna-Sakellarakis ("Drama of Death in a Minoan Temple", *NatGeogMag* 159.2 [February 1981], 204-222) of the human sacrifice in the shrine at Anemospelia, Archanes. There, however, it was a youth who was sacrificed with a type of lance previously thought to be used in boar hunting; compare a similar lance head from the LM III A:2-B tomb at Ayios Ioannes T. 1 (BSA 47 [1952], 256 and 261, fig. 8). While much of the Archanes shrine pottery is MM III, some seems LM I; the cushion seal (illustrated on p. 221 of the National Geographic article) to

double ax was used to these or any other animals⁴⁷.

Butchering would then follow probably by such a cleaver as is depicted above the bull on CMS I 75 and below the lion on 287a or by a knife like that used by the robed figure gutting the belly of a large boar on the oddly shaped bead CMS I 80 from Mycenae.

The head of the bull seems to have received special treatment. Certainly bucrania are an important image and a common icon, enough so that they should have a study of their own -- this, however, is not the place for one, but a few examples will suffice to remind us of their importance. Bucrania, perhaps *en face* for reasons discussed above, appear as the main theme on pottery (cf. a LM I amphoroid pithos from Pseira and later Mycenaean Pictorial vases)⁴⁸, as handle-protomes for kraters (e.g., the Warrior Krater⁴⁹) and larnakes, as bases for mounting double-axes, and as integral images on seals (see above, fns 34 & 35). Finally, the pair of silver niello cups, one from Enkomi and the other from the Dendra tholos, should remind us of the haunting power of these bull faces⁵⁰.

Bull skulls have been found, de-horned (e.g., items 141 & 145) -- perhaps another bit

the Group of the Isopata Ring (probably LM I; see J.G. YOUNGER, "Aegean Seals of the Late Bronze Age: The First Generation Minoan Masters", *Kadmos* 22 [1983], 134-135), and the type of frontal boar's head engraved on the Anemospilia lance head (illustrated on p. 206 of the National Geographic article) also appears on five LM Ib sealings from Kato Zakro (Hogarth, KZ 62-66).

47. I thank P. Rehak for this observation.

48. For the Pseira vase, see MARINATOS & HIRMER (*supra* n. 5), pl. 18; for the Mycenaean Pictorial vases, see *MycPictV-P*, III.23 [LH III A1], and XII.21 [LH III A2?]. For representations of more or less realistically depicted bull-faces on painted pottery, see: *MycPictV-P*, VIII.13 [LH III A2], XII.27 [LH III A1]; K. DEMAKOPOULOU ed., *The Mycenaean World. Five Centuries of Early Greek Culture, 1600-1100 BC* (1988), 160, no. 119; *MycPictV-P*, V.102 [LH III B].

49. *MycPictV-P*, XI.42; cf. XI.59; see p. 130 and n. 9.

50. NMA 7336. Silver cup with wishbone handle and a gold lining for the interior and, from the Dendra Tholos, pit II, the "Queen" (A.W. PERSSON, *The Royal Tombs at Dendra near Midea* [1931], 14-15, 38, 48-49, pls. I, 12-15; LH III A1 context; DAVIS [*supra* n. 5], 284-286, cat. no. 120):

H. 5.5; D. 15.7, Wt 209 gr

Gold and niello inlays on the exterior of five varied bull-faces with fuzzy faces between two pairs of horizontal bands top and bottom; the wishbone handle, neatly set between two bull faces, is decorated with niello rings and, on the raised boss, a gold rosette (now missing).

Cyprus Mus. 4.207. Silver cup with wishbone handle, from Enkomi OT. 2 no. 4207 (LCyp II [14th century] context; H.-G. BUCHHOLZ & V. KARAGEORGHIS, *Prehistoric Greece and Cyprus. An Archaeological Handbook* [1973], no. 1684; DAVIS [*supra* n. 5], 314-316, cat. no. 140; G.A. CHRISTOPOULOS & J.C. BASTIAS ed., *History of the Hellenic World. I. Prehistory and Protohistory* [1970], 359):

H. 6; D. 15.7

Gold and niello inlays on the exterior of six varied bull-faces with fuzzy foreheads and faces, separated by pairs of addorsed lotos flowers, all between a row of gold dots at the rim above and, below, an arcade of ten arches over octofoil rosettes; the wishbone handle, decorated with niello rings and, on the raised boss, a gold rosette, was awkwardly placed so that its right support is riveted over a bull's eye.

The painted pot (*MycPictV-P*, 54: V.102) "is a near copy of the bull's head metal bowls of Enkomi and Dendra, closer to the former, the stiff compartments of black inner contour corresponding to the niello inlays on the bold faces of those farouche masterpieces of metalwork. The context of the Enkomi bowl would suit the tentative date of this stirrup jar -- not necessarily when it was made, for the Dendra example, far more formal, is probably a hundred years earlier -- but the period when it or others like it may have been on exhibit, somehow available to influence the images of pot painters in search of new themes."

According to DAVIS (*supra* n. 5), 286, the Dendra "cup may be also part of the Minoan repertory, but executed at Midea"; the Enkomi cup (Buchholz thinks the shape & handle distinctively Cypriot and therefore the Dendra cup was exported to the Argolid) was probably also Mainland but of Minoan manufacture.

of circumstantial evidence linking bull-sacrifice with bull-leaping -- at Knossos and elsewhere, and immured in the blocking wall of the inner chamber of Tholos A at Archanes-Phournoi. But even more interesting are the three possible representations of bull-heads suspended from a chain (items 146 [Pl. LXIle], 147 [Pl. LXIIf], 148). At Tomba tou Skourou there was found (item 139) an "unusually large bull's skull [that] had been trimmed of its back and lower jaw so a priest could slip it over his head as a ceremonial mask." And this brings up the possibility that the people-monsters depicted often on seals are really people with animal-masks. Most people-monsters are the familiar Minotaurs, but there are others not well known: monsters with the bodies of men and the heads of a lion, an agrimi, even a stag ⁵¹.

Bull-Games as Ceremony

As to their social context, it seems logical that these formalized bull-games ending with bull-leaping and, probably, bull-sacrifice might have been too special to have occurred every month, but they are also too elaborately organized to occur only sporadically. On the one hand, the adolescent gymnasts would have to practice formal bull-leaping for a considerable time; on the other hand, their older trainers would be familiar with the sport and in shape themselves for an even longer time. These conditions, plus the very popularity of the sport, should imply a regular occurrence but one not too frequent to become humdrum. Once a year might satisfy the logical requirements. The event should also take place when bulls were no longer needed for stud services, and this requirement could be satisfied if the bull were captured and trained after the mating season -- perhaps this is implied in the Vapheio Quiet Cup. We could expect, therefore, bull-games to take place annually in the early Spring. If the adolescent bull-leapers with long hair are indeed aristocratic and not slaves or entertainers, is it possible that the bull-games contributed to a palatial ceremony of coming-of-age ⁵²?

Finally, it has long been noticed how pervasive bull imagery is at Knossos and how elsewhere there is only a pale reflection of this imagery. Bull-leaping in relief frescoes decorated the major entrances into the Central Court, item 108 at the North Entrance and item 112 at the South Entrance; others come from the northern areas of the West Wing (items 109-111). And bull-leaping in painted wall fresco decorated rooms near the Court of the Stone Spout area north of the East Wing (items 47, 57 [Pl. LXIa], 78, 79).

Three other areas at Knossos produced frescoes with bulls. On the east wall of the West Porch (south of the West Court), there was found, in situ, the raised forehoof and

51 Minotaurs (N. SCHLAGER, "Minotauros in der ägäischen Glyptik", *CMS Beiheft 3* [1989], 225-237), Lion-Men, Caprid-People, etc., appear on seals; see J.G. YOUNGER, *The Iconography of Late Minoan Mycenaean Sealstones and Finger Rings* (1988), 211-215, & 252-253; add the Minotaur on CMS V Supp. 1B.159.

52 PM IV, 22, implies something of the sort when he notes that women leapers also wear the "Libyan sheath" and then concludes that they "had to first undergo a kind of sexual transformation, by divesting themselves of all articles of feminine dress except their head-gear and necklace, and by adopting the sporting costume of the male performers, including the universal exterior sign of the masculine sex ...". According to modern theories on the gender of pre-adolescents (see, for instance, M. GOLDEN, *Children and Childhood in Classical Athens*, 25-30; and L. DEAN-JONES, *Women's Bodies in Classical Greek Science*, 41-47), Evans's statement should actually be reversed: in most cultures children have an ambivalent gender, a mix of the masculine and feminine, and while passing through various age grades they gradually divest themselves, sometimes literally, of one gender in order to allow the other to assume prominence. Aegean bull-leapers are no different; they (and other pre-adolescent youths) wear their hair long (feminine) and a codpiece (masculine).

part of the hide of a bull running in flying gallop to left, as if towards the entrance⁵³. The other two bulls were standing at rest, perhaps awaiting sacrifice. The south wall of the Throne Room Anteroom preserved the hind-leg (end) and hoof of a bull resting to left on a light colored marble-ized dado over a solid band⁵⁴. And another standing bull comes from the Upper Hall of the Double Axes⁵⁵, where, on the lower part of North wall in the entrance section was found, in situ, "a bull's foot resting on the ground with shoots of vegetation on either side".

In stark contrast, the bull imagery on the Mainland in Mycenaean painted media seems restricted to one image per place: one bull-leaping fresco at Tiryns (item 97 [Pl. LXIb]), Mycenae (item 82, possibly 114), and Pylos (item 77); there are Mycenaean pictorial vases depicting bull-games, and these similarly come from one place each: a krater from Kition (item 77), another from Pyla-Verghi (item 81); a Pictorial sherd from Mycenae (item 73), one from Enkomi (item 117), and a third from Hala Sultan Teke (item 59); and a painted sarcophagus from Tanagra (item 84). A few other objects depicting bull-games come from the Mainland, and these are probably Minoan: an ivory plaque from Mycenae Grave Circle B (item 25), the Vapheio Violent Cup (item 1; with all respect to E. Davis who argues that it is Mycenaean in manufacture), a stone pyxis fragment from Athens (item 48) carved in the shallow technique like the Chieftain Cup. At Mycenae, the

53 Evans (*PM* IV, 893-894, fig. 873, and II, 674ff. figs. 428 & 429) and Immerwahr both remark that there were traces of three periods of painting but the fresco could not be saved: IMMERWAHR, *AegPtg.* Kn No. 29: "LM III [possibly late renewal] but "too much decayed and flaky to be either preserved on the wall or successfully removed". The fresco has survived, however.

The West Porch fresco is first described in Duncan Mackenzie's DayBook:

p. 69L

Wednesday 16th May (1900).

The W. face of the long gypsum wall forming the W. wall of the palace which has been traced as far N. as to behind the 12th gallery as far

S. as to behind the 1st began yesterday (s. 53) to show wall-fresco just

behind the 1st gallery. On further examination this after-noon

and removal of the soil from the face of this wall a design began to

appear with traces of a bull (a foot with hoof and part of the)

spotted body in profile left i.e. N. Below the design was a band?

of white and below this reading to the floor alternating squares of yellow,

pink and blue with submatic stratum? in the colour meant

possibly to imitate different coloured fine stone facing.

Immerwahr also describes the fresco: above the marble-izing dado "was a dark narrow band, and, in the creamy white field above, the fore-foot of a galloping bull, while on a separate piece, higher up, a brown spot of the bull's side was visible". According to the plan *PM* II, fig. 427, the length of painted wall portion seems to be ca. 5.40 m., but, if the arrows on the plan relate to the *in situ* fragments, then the total length of the bull would have been about 2.50 m. Immerwahr notes "Three layers of plaster, each showing a lifesize bull in violent action".

In August 1993 and May 1994, Paul Rehak and the author examined the hoof on display in the Herakleion Museum (first fresco encountered at the top of the south stairs), labeled as coming from the Throne Room Anteroom, and have identified it as the West Entrance bull hoof instead: it is a blue/black fore-leg with brown hoof lifted off the ground (two wide horizontal bands, yellow/white over orange/red); two previously positioned hooves can be seen indicating the hoof was changed twice before its present position and size. Similar changes can be seen in other frescoes, for instance item 97, the Tiryns bull-leaping fresco.

54 *PM* IV, 892-893 fig. 872, p. 904, labeled above bench on the plan in fig. 877; IMMERWAHR, *AegPtg.* Kn No. 30: LM II/III. According to Evans's plan (fig. 877), the total available wall for the fresco is 5.30 m.

55 *PM* I, fig. 240, north wall west of the polythyron, L. ca. 2.40 m.: "remains of painted plaster"; *PM* III 294, fig. 189, "about three metres East of [the north] doorway ... a painted plaster fragment was found still attached to the wall ... (LM II). it depicted the fore-foot of a bull set on a ground with upstanding shoots of vegetation ..."; *PM* III, 339 fig. 225 provides a sketch of the fresco fragment *in situ*, but the bull's hoof cannot be made out; *PM* IV, 892.

Treasury of Atreus incorporated early gypsum bull reliefs, perhaps bull-game scenes, and these must have come from Knossos itself ⁵⁶.

No doubt we have these singletons due to the accidents of preservation, but their small number contrasts markedly with the much greater number of representations at Knossos and the virtual dearth of representations elsewhere: Knossos is basically cluttered with bulls, the rest of Crete has yielded a relative absence of bull imagery, and sites on the Mainland and in Cyprus seem to have produced one image per site, as if that one were a pointed political reference to the Knossian ritual of bull-leaping. As Immerwahr correctly noted ⁵⁷, "This theme of taureadors had never been popular in mainland painting ..., and it is doubtful that the sport was ever practiced there ...", an observation that should be extended to Tell Dab'a, too.

Even in Crete, outside the Knossos area, there is a paucity of bull-game imagery -- the Boxer Rhyton (item 3 [Pl. LXb]) from Ayia Triadha (probably a Knossos product ⁵⁸), the terracotta netted bull-rhyta from Mochlos (item 16), Porti (item 7 [Pl. LXc]), and Pseira, and the Bronze Group (item 40) said to come from Rethymnon. Bull-games seem undoubtedly therefore a Knossian sport, and, if so, the barricades in the Central Courts at Phaistos and Mallia, and the artifacts possibly associated with bull-leaping at various places (the platform at Phaistos, the spherical jumping stone and sacrificial table stand in the Central Court at Mallia, and the stone slaughtering table near the Central Court at Gournia) may all reflect the splendor of Knossos at one remove from that center or may have nothing to do with bull-games whatsoever.

Bull-games, including bull-leaping, may have been a feature that simply marked Knossos apart from the other Cretan centers ⁵⁹. But it is obvious that most every Mycenaean center needed to have at least one reference to it. What this Mycenaean nod in the direction of Knossos signifies, however, is still not known, but if the sport marked an important coming-of-age for Knossian youths and maidens, it might have attracted Mycenaeans (like Theseus?) who took home with them a souvenir of their participation, much as this American scholar cherishes his T-Shirt saying "Universität Heidelberg".

John G. YOUNGER

56 A. EVANS in *RA* ser. 5, 29 (1929), 176; YOUNGER (*supra* n. 21).

57 IMMERWAHR, *AegPrg*, 157.

58 WARREN (*supra* n. 28), 139 suggests a Knossos workshop responsible for most, if not all the stone relief vases; KAISER (*supra* n. 20), 177-182, notes two major stylistic groups, the Group of the Harvester Vase and the Group of the Boxer Rhyton. These two stylistic groups would comprise almost all the Cretan stone relief vases, except the Chieftain Cup, which belongs in its own category based on its shallow and inept engraving.

59 The same conclusions have been drawn by P. REHAK and E. & B. HALLAGER in this volume.

CATALOGUE

Note: All figures are assumed to have short hair, unless otherwise stated.

A. BULL-CATCHING (also see item 139)

Composite scenes with bull-hunting and bull-horn riding

- 1 NMA 1758. Gold cup A (the Violent Cup) from the Vapheio Tholos (LH IIA context; C. TSOUNTAS, *AE* 1889, cols. 129-171, pl. 9.1; DAVIS [*supra* n. 5], 1-50 and 257-8, no. 104; MARINATOS & HIRMER [*supra* n. 5], pls. 178-181):
Middle scene: a bull left, head down under its chest, is caught in a net tied to two trees. The scene to the left adds the men.
Left scene: a bull in flying gallop left, *en face*. On the horns, a man or a woman with long hair upside-down; below, a man supine, head left, his hands both left hands⁶⁰ (contrast item 53).
- 2 (Pl. LXa) Ivory pyxis from Katsamba T. Eta (HM 345; LM III A context; S. ALEXIOU, *Υστερομινωικοί Τόφοι Αιγέως Κνωσού [Κατσαμιά]* (1967), 55-6 and 71-5, frontispiece and pls. 30-3; J.-C. POURSAT, *Les ivoires mycéniens. Essai sur la formation d'un art mycénien* [1977], 166, 168, 178, pl. X.3 and 4):
At right, a bull charges left, probably in a flying gallop, leaper on the horns. At left, in front of the bull, two men run left looking back toward it; the first man may wave a folded net, the second brandishes a spear at the bull's head. Two palm trees flank the scene, a bird flies left above, and rocky terrain fills the background.
On style, Alexiou (*supra*, this no. 75) dates the pyxis to LM IB; Poursat agrees. Both scholars see fresco inspiration, though the scene would also suit a gold cup like the Violent Cup B from Vapheio. Both top and bottom of the scene are truncated; missing at top are the crowns of the palm trees and the tip of one bird wing and at bottom the lowest parts of each man's supporting leg and all four legs of the bull including its hindquarters. The rim of the lid probably supplied the missing parts at the top of the frieze while the rim of a separate base may have supplied the missing parts at the bottom, though the base rim would have to have been fairly tall to have provided enough room for the bull's outstretched hindlegs. Has the pyxis been cut down from a taller vessel?

Man caught on the horns

- 3 (Pl. LXb) HM 342, 498, and 676. The Boxer Rhyton from Ayia Triadha, room 11 (LM IB context); KAISER (*supra* n. 20), 26-28 (HT 2); K. MÜLLER, "Frühmykenische Reliefs aus Kreta und vom griechischen Festland", *AM* 30 (1915), 242-336, fig. 3; MARINATOS & HIRMER (*supra* n. 5), pls. 106-107; WARREN (*supra* n. 28), 85; *PM* I, fig. 508, III, figs. 157 and 343:
Zone 2 depicts two bulls, one in back of the other, in flying gallop left. The second bull preserves the leaper who seems to wear long hair and may therefore be male or female⁶¹. The artist positioned the bull and leaper in such a way that the bull horn appears to gore the leaper's buttocks. Such may have been his intention, though a somewhat humorous and cruel one perhaps, but if it was, this representation is the only one extant to depict a gored leaper; it is more likely that the bull's horns (no other fragment of the vase preserves a set of bull's horns for comparison) had been sawn short (*cf.* items 15, 17, 141, 145) and the leaper is therefore merely passing over them. Given both the repetitive and formulaic nature of all the scenes on the vase, best appreciated in Müller's illustration, and the similarity between this scene and the others on those sealings that depict Evans's Schema, it is likely that the artist of the Boxer Rhyton merely followed a convention for both the bull and leaper that resulted here in an awkward juxtaposition.
- 4 CMS II 3.66. Lentoid of agate from Sellopoulo T. I (LM III A2-B context), attributed to the Spectacle-Eye Group C (*Masters/Groups* V, 134):
Stag runs right, regardant in PT 6, R. Above and below is a man prone.

60 W.W. DEGRUMMOND, "Hands and Tails on the Vapheio Cups", *AJA* 84 (1980) 335-337; *cf.* the two right hands of the fresco "Mykenaia", YOUNGER (*supra* n. 10), 280 #40.

61 P. Rehak, however, points out that all stone relief vessels depict only men.

Bull caught in a net

- 5 CMS I 274. Amygaloid of gold from Rutsi Tholos 2 (LH IIA-IIIa context), attributed to the Vapheio Cup Group [*Masters/Groups* IV, 56]:
Bull right, head down below chest, hindleg up as if to scratch the head; a net covers the forequarters.
A man below, before the bull (*i.e.*, on the near side of its flank) right, hangs on to the bull's horns?
Below, rocks; at right, a tree.
- 6 HM no. unknown. Fragment of a serpentine piriform? rhyton from Knossos, a rubbish tip north of the Unexplored Mansion. (LM II? context; *JHS*, AR 1972-3, 58 fig. 38; KAISER [*supra* n. 20], 16-17, fig. 5; M.R. POPHAM, *The Minoan Unexplored Mansion at Knossos* [1984], 234 NP [No Provenience] 5, pl. 215,7):
Bull runs right in a flying gallop, a net stretched across its body; above, the two feet of a leaper, who apparently holds on to the bull's horns.

Bull-Horn Riding (also see the Katsamba pyxis, item 2, above)

Early Middle Minoan Terracotta Rhyta from the Messara

- 7 (Pl. LXc) Hmp 5052, from the Porti Tholos (EM III-MM context; S. XANTHOUDIDES, *The Vaulted Tombs of Mesará* [1924], 62, pls. VII & XXXVII #5052; *PM* I, fig. 137a, II, fig. 155; MM IIIa; C. ZERVOS, *L'art de la Crète néolithique et minoenne* [1956], fig. 285; *CMCG*, 85-89, IIIa.2; MARINATOS & HIRMER [*supra* n. 5], pl. 14 below; K. FOSTER, *Minoan Ceramic Relief* [*SIMA* LXIV, 1982], 81-82, 109; MM I):
Two? people cling to the horns from the back (right horn is missing), the figure preserved wears a waistband; the bull's body is covered by a net.
- 8 Hmp 21929. From Iuktas (FOSTER [*supra* no 7], 81-82, 109; MM I-II):
Fragment of a bull's head with "part of a human figure clutching its right horn".
- 9 Hmp 4126, from the Koumasa Tholos (XANTHOUDIDES [*supra* no 7], 40, pls. II & XXVIII #4126; *PM* I, 189-190, 188 fig. 137 b-d; A. EVANS, "The 'Tomb of the Double Axes' and Associated Group, and the Pillar Rooms and Ritual Vessels of the 'Little Palace' at Knossos", *Archaeologia* 65 [1914], 90, 91 fig. 96; *CMCG*, 85-89, IIIa.1; K. BRANIGAN, *The Tombs of Mesara* [1970], fig. 18 second row, left; BUCHHOLZ & KARAGEORGHIS [*supra* n. 48], no. 1214 [giving wrong Hmp no]; LONG [*supra* n. 40], pl. 23 fig. 67; FOSTER [*supra* no 7], 81-82, 109; MM I):
Three people on the horns of a three-legged bull, one person, wearing a belt, on the muzzle of the bull and two cling to the horns from the back.

Late Bronze Age Representations; one man on the horns

- 10 HMs not located. Fragment of a sealing impressed by a lentoid? (*KSPI*, C42) from Knossos, East Wing (*PM* IV, 609, fig. 597Bn), not attributed.
Bull left.
- 11 HMs 500. Sealing impressed by an amygdaloid? (AT 56), from Ayia Triadha (LM IB context), not attributed.
Bull in flying gallop right.
Rocks above and below.
- 12 HMs 108. Sealing impressed by a ring? (AT 108), from Ayia Triadha. (LM IB context), attributed to the Vapheio Cup Group (*Masters/Groups* IV, 56):
Bull *en face* in flying gallop right, man upside down.
- 13 HMs 544. Sealing impressed by a ring? (AT 109), from Ayia Triadha (LM IB context), attributed to the Vapheio Cup Group (*Masters/Groups* IV, 56):
Similar to item 12, above.
One man on the horns, one fallen.

Netted Bulls

Terracotta rhyta depicting a net over the bull

- 14 Ayios Nikolaos Mus. no. unknown. From Pseira (LM IB context; *AJA* 97 [1993], 302)

"White bull with a net over the back and garlands around horns".

- 15 Hmp 5313. From Pseira (LM IB context; R.B. SEAGER, *Excavations on the Island of Pseira, Crete* [1910], pl. IX; *PM* II, 260 fig. 154b; BUCHHOLZ & KARAGEORGHIS [*supra* n. 48], no. 1222; P.P. BETANCOURT, *The History of Minoan Pottery* [1985], pl. 19 C; G. GESELL, *Town, Palace and House Cult in Minoan Crete* [SIMA XLVII, 1985], 193 fig. 93):
Net over the back; horns sawn.
- 16 HM no. unknown. From Mochlos T. XI (MM IA context; R.B. SEAGER, *Explorations in the Island of Mochlos* [1912], 60 fig. 29; *PM* II, 260 fig. 154a):
Gathered ropes over the back (net?).
- 17 NMA no. unknown. From Akrotiri, Sector Alpha, room 2 (LM IA context; S. MARINATOS, *Excavations at Thera III* [1970], 59-60, pls. A2 & 54; C. DOUMAS, *Thera, Pompeii of the Ancient Aegean* [1983], pl. 41):
Net over the back; horns sawn; feet placed together and attached to separate plinths.
- 18 Ayios Nikolaos Mus. no. unknown. From Pseira, several examples (LM IB context; personal communication from Professor Philip Betancourt):
Net over the back; horns broken and missing; garland around the neck.

Seals, all depicting a bull semi-couchant left, head down and averted; and all belonging to one stylistic group, The Group of the Netted Bull in YOUNGER ([*supra* n. 36, 1993], 177, ca. 1500-1450 B.C.).

- 19 CMS I Supp. 53. Lentoid of meteorite from Sounion.
- 20 CMS VIII 52. Lentoid of chalcidony.
- 21 CMS XI 128. Lentoid of haematite.
- 22 AM 1938.1018. Lentoid of haematite (CS, no. 236).
- 23 HMs 581. Sealing impressed by a lentoid (AT 61), from Ayia Triadha (LM IB context).

Fallen Leapers (see item 54, below)

- 24 CMS XIII 35. Cushion seal of light agate (Cambay?), unknown provenience, attributed to the Dot-Eye Mumps Group (*Masters/Groups* IV, 71) and probably served as the model for AM 1938.1114, a gold cushion seal in the forged Thisbe hoard.
Bull runs right in flying gallop, regardant, in PT 4, R; man prone below.
- 25 HMs 251 (*KSPI*, R9) Fragment of a sealing from Knossos, East Wing, impressed by a ring?, not attributed.
Bull in flying gallop right; below, a man prone right.
- 26 NMA 9562. Fragment of an ivory plaque from Grave Circle B, the earth fill of the triangular area between Tombs Alpha, Delta, and Rho (MYLONAS [*supra* n. 6], 23, pl. 11a, prefers Tb Rho for the plaque's original provenience; J.-C. POURSAT, *Catalogue des ivoires mycéniens du Musée National d'Athènes* [1977], no. 240, pl. XIX):
Bull in flying gallop right.
Below, a man prone, head right; at right, a man runs right, and, in front, a Sacred Knot before (*i.e.*, on the near side of) a vertical sword?
The complete plaque might have had room for a man on the horns.

B. BULL-WRESTLING (B-W)

Man kneels and pulls on one horn of the regardant bull, both right.

- 27 HMs 670. Sealing impressed by a lentoid (*KSPI*, C43), from Knossos, East Wing (*PM* IV, 609 fig. 597Bk; *CMCG*, 85-89, IIIb.2), not attributed.
Man seems to lean against the bull's head, which lowers below its head, and pulls on one horn, both right.
- 28 (Pl. LXd) CMS II 3.105, side b. Rectangular plate seal of dense cornelian from Kalyvia T. 7 (LM III A2 context; *CMCG*, 85-89, IIIb.3; YULE [*supra* n. 36, 1993], S8c, M1.47 [MM III]; M.A.V. GILL, "The Minoan 'Genius'", *AM* 79 [1964], 3, a late [LM III A?] artist copied a protopalatial design for the genius on side a), attributed to the Kalyvia Bull-Wrestler Group (YOUNGER [*supra* n. 36, 1993], 150).
- 29 (Pl. LXe) CMS I Supp. 35. Lentoid of burnt? agate, from Lykosura? (*CMCG*, 85-89, IIIb.4), not attributed, although it is possible it belongs near the Group of the Speared Deer from Iuktas (YOUNGER [*supra* n. 36, 1993], 176):

A branch or a sign above right.

- 30 CMS I 342. Sealing impressed by a lentoid, from Pylos (LH III B2-C context), not attributed.
The bull's head averted.

Drawing the bull's head down, under its chest (*cf.* KSPI, R28, a bull without the wrestler)

- 31 (Pl. LXf) HMs 239 and 241 & AM 1938.1080 (CS, 52S=KN Ws 1703). Three sealings impressed by a lentoid (KSPI, G5/G6), from Knossos, Magazines 7 and 8 (PM III, fig. 163; CMCG, 85-89, IIIb.1), not attributed but it belongs to an Almond-Eye Group or slightly earlier.
Man regardant? kneels and pulls on one horn? of the bull, both left.
- 32 (Pl. LXg) CMS I 95. Lentoid seal said to be of amazonite, from Mycenae T. 58 (CMCG, 85-89, IIIb.5), attributed to the Isopata T. 3 Group (*Masters/Groups* IV, 61):
Man regardant stands and, with one arm around the bull's neck and the other around its left hindleg, draws the two together; both man and bull left.

Man's head uncertain

- 33 NMA 1988. Fragments of a large ivory plaque from the Menidi Tholos (LH III B context; POURSAT [*supra* no 27], 148-149, no. 430, pl. XLV):
A frieze of men kneeling before bulls, both right and left, above a dado of spirals.
Man kneels and pulls on (one horn?) of the bull, both left.

Drawing the bull's head back

- 34 CMS I 137. Amygdaloid seal of cornelian from Mycenae T. 504 (CMCG, 85-89, IIIb.6), not attributed, but must belong to a Dot-Eye Group or slightly later.
Man stands behind the bull left, his legs out in front, although the original plan may have been for the man's left leg to have occupied the position the bull's left foreleg now does.
Impaled Triangle above at right.

C. BULL-LEAPING (B-L)

Note: * = Bull-Leaping entries already catalogued in YOUNGER, *Bull-Leaping*, their descriptions are not repeated here.

I. EVANS'S SCHEMA

A. Evans's position 2 1/2

- *35 Pigorini Mus. 71974; HMs 102; HMs 612, sealings impressed by the same ring, from Ayia Triadha (AT 145), Gourmia, and Sklavokambos (Sk 3) (all, LM Ib context; PM I, fig. 504a; YOUNGER, *Bull-Leaping*, I.3), attributed to the Vapheio Cup Group (*Masters/Groups* IV, 56).
- *36 HMs 396 (KSPI, L48), sealing impressed by a ring, from Knossos (PM I, fig. 504b; YOUNGER, *Bull-Leaping*, I.1), not attributed.
For a new photograph, see I. PAPAPOSTOLOU, *Ta Σπραγίσματα των Χανίων* (1977) pl. 46g.
The alighting leaper could also be a rear assistant.
- *37 CMS I 517, sealing impressed by a lentoid, from Knossos (YOUNGER, *Bull-Leaping*, I.2), attributed to the Wounded Bull Group (*Masters/Groups* IV, 66).
- *38 HMs 17, sealing impressed by a ring, from Kato Zakro (KZ 97; LM Ib context; PM I, fig. 504b; YOUNGER, *Bull-Leaping*, I.5), not attributed.
The leaper has long hair and could therefore be male or female. The bull runs in flying gallop right (PT 3, R) over a double groundline.
- 39 HMs 630, sealing from Sklavokambos, impressed by a ring or amygdaloid seal (Sk 6) (LM Ib context), attributed to the Vapheio Cup Group (*Masters/Groups* IV, 56):
Bull stands right, traces of the leaper above.
- *40 BM 1966-3-28/1, bronze group "from Rethymnon"; YOUNGER, *Bull-Leaping*, I.6. LONG (*supra* n. 40), 47, pl. 23 fig. 66, notes the similarity between the BM bronze group and the first bull simulacrum carried on the Front Side of the Ayia Triadha sarcophagus; WARREN, in his review of LONG's monograph (*JHS* 96 [1976], 235-6), draws attention to what could be traces, in red paint, of a bull-leaper above the simulacrum; personal inspection by both P. Rehak and the author identified these traces as positioning

lines for the simulacrum.

The leaper is attached to the bull both by long hair (therefore could be male or female) and by the feet firmly planted on the bull's back.

- *41 HMs 59, sealing impressed by a lentoid, from Kato Zakro (KZ 123; LM Ib context; *PM* I, fig. 504a; YOUNGER, *Bull-Leaping*, I.4), not attributed.

B. Evans's position 3?

- *42 HMs 189, sealing impressed by a ring, from Kato Zakro (KZ 189; YOUNGER, *Bull-Leaping*, I.7) (LM Ib context), not attributed.

Uncertain

- 43 HMs 502, sealing from Ayia Triadha, impressed by a ring or amygdaloid seal (AT 51) (LM IB context), attributed to the Vapheio Cup Group (*Masters/Groups* IV, 56); Bull in flying gallop right, faint traces of leaper above.

II. DIVING LEAPER SCHEMA

A. Front Assistants

- *44 CMS I 305, sealing impressed by a ring, from Pylos (LH III B2-C context), attributed to the Hollow Nose Group (*Masters/Groups* III, 54; YOUNGER, *Bull-Leaping*, II.3).
- *45 HMs 1001, sealing impressed by a ring, from Knossos (J.H. BETTS, "Some Unpublished Knossos Sealings and Sealstones", *BSA* 62 [1967], 44 no. 63), not attributed (YOUNGER, *Bull-Leaping*, II.1).
- 46 CMS II 3.9, lentoid from Knossos Palace, not attributed.
Bull walks right, man in front to left with his right hand up and left arm down; above, a lion runs right and attacks the top of the bull's head.
- *47 HM 34, Fresco from Knossos, Court of the Stone Spout (LM II context; *PM* III, fig. 146; *KFA*, pl. X.6 & XIIa; IMMERWAHR, *AegPtg*, Kn No. 23b; LM II/IIIA; YOUNGER, *Bull-Leaping*, II.2).
White-painted woman with long hair to right at left holds the horn (?) of a bull left; blue background.

B. The Approach

- *48 NM 7249, relief stone pyxis fragment from Athens, Acropolis (YOUNGER, *Bull-Leaping*, II.5; I. SAKELLARAKIS, "Mycenaean Stone Vases", *SMEA* 17 [1976], pl. XII.32).

C. Diving Position 1

- *49 CS 202, cushion seal "from Priene", attributed to the Vapheio Cup Group (*Masters/Groups* IV, 55; YOUNGER, *Bull-Leaping*, II.6);
Faint sketch lines to the right of the leaper's head might indicate long hair and, if so, the leaper therefore could be male or female.
- *50 HMs 12 from Kato Zakro and 625 from Sklavokambos, two sealings impressed by the same ring (KZ 96/Sk 5; *PM* I, fig. 504c; both, LM IB context, attributed to the Vapheio Cup Group [*Masters/Groups* IV, 56; YOUNGER, *Bull-Leaping*, II.8]).
- *51 HMs 516, sealing impressed by a ring (AT 110), from Ayia Triadha (LM IB context), attributed to the Vapheio Cup Group (*Masters/Groups* IV, 56; YOUNGER, *Bull-Leaping*, II.9).
- *52 Fragments of at least three fresco panels (for the third, on an ochre background, see item 81 below; IMMERWAHR, *AegPtg*, My No. 1b) from Mycenae, the Ramp House Deposit (LH I-II or, less likely, II-III A1 context; W. LAMB, "Excavations at Mycenae. III: Frescoes from the Ramp House", *BSA* 24 [1919-1920, 1920-1921], 189-199; G. RODENWALDT, "Fragmente mykenischer Wandgemälde", *AM* 36 [1911], 232-3, no. 1, pl. XI.1; M.C. SHAW, "A Bull-Leaping Scene in a Fresco from Mycenae: A New Reconstruction", *AJA* forthcoming; YOUNGER, *Bull-Leaping*: II.11).
Blue background -- LAMB (*supra*, this no), nos. 5 & 6, pl. VII.5 & 6, respectively; IMMERWAHR, *AegPtg*, col. pl. XVI.
a. Bull (two hooves) moves (not in flying gallop) left over a white ground above two registers of dentils (red against orange above black against blue).
b. Bull body; below (or above, if Lamb's plate is turned upside down) is a white-painted object, perhaps a

female leaper's finger and hand.

The fragment would make some better sense if it were turned upside down. Lamb herself seems aware of this for she comments that the bull's spots would look odd that way; *cf.*, however, the later *MycPictV-P*, VII.3, a krater or larnax fragment dated Early Pictorial, ca. 1410-1390 BC).

Red background -- RODENWALDT (*supra*, this no), p. 232-3 no. 1, pl. IX.1.

Bull moves probably left; above, a man's hand (bracelet or sealstone at wrist) positioned as if diving down the bull's neck to right, his hand about to touch the center of the bull's back.

- 53 AM AE 1569. Fragment of a conical rhyton of serpentine from Knossos (WARREN [*supra* n. 28], 85, Class 34A; KAISER (*supra* n. 20), FO unbekannt I, p. 31 and 166, fig. 29a):

Bull in flying gallop left; above, the leaper's outstretched hands, left and right nicely distinguished (contrast item 1); at the top left rises one of the horns?

D. Diving Position 2-2 1/2

- 54 CMS I 314, sealing impressed by a ring, from Pylos (LH III B2-C1 context), attributed to the Spectacle-Eye Group (*Masters/Groups V*, 135):

The published CMS drawing depicts a bull regardant running right in a flying gallop, a man lies prone below, and, above, another quadruped runs right of which only the forelegs and part of the chest are preserved. The top left of the sealing more probably preserves the upside-down torso of a bull-leaper with his hands stretched out toward the bull's head. The leaper may then have still been in the act of diving (Position 1), with his legs curved over the bull's head to the right, somewhat like the pose on CMS V 597 (II.10), or, more probably, he has completed the dive and is now in the act of alighting, with his legs thrown forward, to the left, as on CMCG, 357 (II.13), CS, 209 (II.18), and Kn HMs 250 (II.14). The addition of the prone man on the Pylos sealing is more typical of the Floating Leaper schema (see below, *e.g.*, item 88), though CS, 209 adds a dog below the bull in much the same position.

- *55 CMS V 597, lentoid from Mycenae, Temple or House with the Idols (LH III B2 context), attributed to the Misplaced Forelegs Group (*Masters/Groups VI*, 59) (YOUNGER, *Bull-Leaping*, II.10).

- *56 CMS V 674, re-shaped (like a half-cylinder) Near Eastern seal, from Thebes (LH III B1 context), attributed to the Spectacle-Eye Group (*Masters/Groups V*, 134; YOUNGER, *Bull-Leaping*, II.20).

- *57 (Pl. LXIa) HM 18. Frescoes, "the Taureador Frescoes", from Knossos, the Court of the Stone Spout (*PM III*, 209-218; IMMERWAHR, *AegPtg*, Kn No. 23: LM II/IIIA; YOUNGER, *Bull-Leaping*, II.15):

Blue Background (see item 78, below): minimum of 4 women, 2 men.

HM 18 (*KFA*, pl. IX & X.8). Bull runs left in flying gallop. A white-painted female front assistant with long hair holds the horns with her hands. A red-painted male leaper with long hair executes a back flip above. In back of the bull stands a white-painted female rear assistant with long hair and with both arms stretched out toward the leaper.

KFA, pl. X.7. Woman's head right.

Ochre Background (see item 79, below): minimum of 3 women.

HM 33 (*PM III*, 212, 232, fig. 164B; *KFA*, pl. X.1). White-painted woman's head right, hair not completely preserved.

HM 33 (*KFA*, pl. X.2). White-painted woman's hip and thighs to right.

HM no. unknown (*KFA*, pl. X.3). White-painted woman's legs to right.

HM no. unknown (*KFA*, pl. X.5). Outstretched bound hand.

- *58 CS 246, lentoid from the Peloponnese, attributed to the Tamvaki Group (*Masters/Groups V*, 137) (YOUNGER, *Bull-Leaping*, II.19).

F. Diving Position 3

About to Land

- 59 Cyprus Mus. no. unknown, fragment of a pictorial krater from Hala Sultan Tekke (LH III B; *MycPictV-P*, III.31; *AJA*, 82 [1978], 528 fig. 19).

Bull right; male leaper to left.

- 60 CMS X 141, lentoid of haematite, attributed to the Tamvaki Group (*Masters/Groups V*, 137):

Bull runs right; the head of the leaper above is bent down.

Stringhole horizontal.

- *61 AM AE 2237/1804. Gold ring said to be from Archanes (CS, pl. 20; YOUNGER, *Bull-Leaping*, 131 n. 24; *cf.* T.T. HOOPES, "A Cretan Gold Ring", *Bulletin of the City Art Museum of St. Louis* 32 [1947], 99-103), attributed to the Vapheio Cup Group (*Masters/Groups IV*, 56):

Bull runs left in a flying gallop. Leaper above. Sacred Knot in front of the bull and ashlar dado below. The St. Louis Art Museum once had a gold-plated electrotype copy of the ring prepared by E. Gilliéron, père. The bull's hard and ropey musculature, the unique representation of this pose, and the way, on both the Ashmolean original and the St. Louis copy, the hoop was completely finished, including the granulation, before it was inserted into the back of the bezel strongly suggests that the ring is a forgery. On the other hand, Gilliéron usually sold electrotypes only of authentic pieces (his electrotype of the Ring of Minos, *PM* IV, 947, now in the Ashmolean, was prepared solely for Evans and no further copies seem to have been made); perhaps, therefore, he knew the Archanes ring was authentic.

- *62 *CMCG*, 357, lentoid from Knossos, attributed to the Spectacle-Eye Group (*Masters/Groups* V, 134; YOUNGER, *Bull-Leaping*, II.13).
- 63 *CMS* V Supp. 1B.135. Gold ring from Olympia, Anthia ChT 4 (LH III A1 context):
Bull runs right in flying gallop, head down.
Above, two leapers: the first (at right) lies supine, one arm out and down as if to grab one of the bull's horns, his head and other arm unengraved; the second (at left) in Diving Position 3.
Herringbone dado below.
The ring seems peculiar in many respects, including technical (unique hoop design) and iconographic (it seems to follow closely the Knossos fresco fragment item 106, below); it may be a forgery, salted in the tomb to appear authentic.

Landing slightly to one side of the bull

- 64 *CMS* VII 108, lentoid from Crete, attributed to the Tamvaki Group (*Masters/Groups* V, 137) (YOUNGER, *Bull-Leaping*, II.16).
- *65 *CMS* I 79, amygdaloid from Mycenae ChT 44, attributed to the Columbia Group (*Masters/Groups* VI, 59; YOUNGER, *Bull-Leaping*, III.13):
The leaper wears long hair and therefore could be male or female.

Landing directly in back of the bull

- *66 *HMS* 613, sealing impressed by one ring (Sk 4), from Sklavokambos (LM Ib context), attributed to the Vapheio Cup Group (*Masters/Groups* IV, 56; YOUNGER, *Bull-Leaping*, IV.2).
- *67 *CMS* I 200, ring from Asine T. 1 (LH III A2 context), attributed to the Group of Bulls with Striated Necks (*Masters/Groups* III, 58; YOUNGER, *Bull-Leaping*, II.17):
The leaper wears long hair and therefore could be male or female.
- 68 *HMs* 108, sealing impressed by a ring (*KSPI*, O4), from Knossos, attributed to the Group of Bulls with Striated Necks (*Masters/Groups* III, 58; YOUNGER, *Bull-Leaping*, II.7).
- *69 *CS* 209, lentoid from Gythion, attributed to the Spectacle-Eye Group (*Masters/Groups* V, 134; YOUNGER, *Bull-Leaping*, II.18).
- *70 *HMs* 250, sealing impressed by a ring, from Knossos (*KSPI*, R8; *PM* I, fig. 504d), attributed to the Group of Bulls with Striated Necks (*Masters/Groups* III, 58; YOUNGER, *Bull-Leaping*, II.14, incorrectly cited as *HMs* 108).
- *71 *CMS* I 370, sealing impressed by a ring, from Pylos (LH III B2-C context), attributed to the Vapheio Cup Group (*Masters/Groups* IV, 56; YOUNGER, *Bull-Leaping*, II.22):
The leaper wears long hair and therefore could be male or female.
- *72 *CMS* I 152, amygdaloid from Mycenae T. 518 (LH I-II context), attributed to the Vapheio Cup Group (*Masters/Groups* IV, 56; YOUNGER, *Bull-Leaping*, II.21):
The leaper wears long hair and therefore could be male or female.
- *73 *NMA* 2675, pictorial rhyton fragment from Mycenae (LH III B2; *MycPictV-P*, IX.18.1; YOUNGER, *Bull-Leaping*, III.14).
- 74 *CMS* V Supp. 1A.171. Nine sealings impressed by a ring, from Chania (MM III/LM I Archive deposit), attributed to the Vapheio Cup Group (*Masters/Groups* IV, 56 s.n. Chania Mus. 1547 = Sk 5?):
A bull right in a flying gallop; in back of the bull, a leaper alights left?, one arm stretched behind him.
- *75 *HMs* 101, 497-499, 628 and 629, sealings impressed by the same ring, from Gournia, Ayia Triadha (AT 54) and Sklavokambos (Sk 2) (all LM Ib context), attributed to the Vapheio Cup Group (*Masters/Groups* IV, 56; YOUNGER, *Bull-Leaping*, AL.4).

ALIGHTING LEAPERS

- *76 Fresco from Pylos, a pit below the floor of the Wine Magazine (M.L. LANG, *The Palace of Nestor at*

- Pylos in Western Messenia, II. The Frescoes* [1969], 36 H 105, pls. 24, 116, 124, C; LH III B2-C context; IMMERWAHR, *AegPig*, Py No. 1: LH III A?; YOUNGER, *Bull-Leaping*, AL.5): Both alighting leapers are red-painted and therefore male, with long hair.
- 77 Pierides Coll. 234, bell krater from Kition? (LH III B1; *MycPictV-P*, V.48, dated Ripe I. Side A: bull walks right, head down, leaper alights at left, in back of the bull.
- *78 AM AE 1707. Fresco from Knossos, the Court of the Stone Spout (*KFA*, pl. A1: LM IA, IA-IB, II; IMMERWAHR, *AegPig*, Kn No. 23c: LM II/IIIA; YOUNGER, *Bull-Leaping*, AL.2). Same series as item 57, blue background, above. At lower left, the white hind legs of a bull left in a flying gallop; a red-painted male leaper with long hair, alights to right, his right arm thrown in back of him. Blue background.
- *79 AM AE 1708. Fresco from Knossos, the Court of the Stone Spout (*PM* III, 216, color pl. XXI; *KFA*, pl. A2 & X.4: LM IA, IA-IB, II; IMMERWAHR, *AegPig*, Kn No. 23d: LM II/IIIA; YOUNGER, *Bull-Leaping*, AL.3): Same series as item 57, ochre background, above. The bull presumably runs left. A white-painted leaper with long hair has just alighted, facing right, the right arm thrown back, the left arm out in front. She wears a hair band, a beaded and a loose necklace, and arm band, the codpiece, shoes and leggings. Ochre background.

REAR ASSISTANTS, in addition to the rear assistant attested on item 57 (the Taureador Frescoes)

- *80 HMs 1033, sealing impressed by a lentoid, from Knossos (BETTS [*supra* no 46], 32 no. 10; YOUNGER, *Bull-Leaping*, AL.1), not attributed.
- 281 Larnaka District Mus. no. unknown, Pictorial bell krater from Pyla-Verghi, T. 1. (LH III B1; *MycPictV-P*, V.51). Bull walks right, head down. In back, a man walking left holds the base of the bull's tail. *MycPictV-P*, 48 suggests he is an alighted leaper.
- 82 A fresco fragment from Mycenae, the Ramp House Deposit (LH I-II or II-III A1 context; LAMB [*supra* no 53], 192-3 no. 4, pl. VII.4); see item 52 above. Against an ochre background: the lower right portion, including the frame, of a scene depicting the legs of a woman left above a man preserved from his abdomen to his feet and wearing the breechcloth with codpiece and footwear.
- 283 HMs 35. Sealing impressed by an amygdaloid (AT 111), from Ayia Triadha (LM IB context), not attributed. Woman stands behind and a little in back of the bull left. She seems to draw the bull's head up with her right hand and holds a whip? with her left.

D. BULL-VAULTING (B-V = YOUNGER, *Bull-Leaping*, B-L III. Floating Leaper Schema; see item 6, above; CMS X 166 certainly imitates the Floating Leaper pose but the stag? being leapt is rather fat -- the seal might not be Bronze Age).

Body prone above

- *84 Thebes Mus. no. unknown. Larnax from Tanagra Tb 22 (AAA 1970, 184-197, fig. 16; *AD* 28, 1973, *Khronika*, pl. 221a; IMMERWAHR, *AegPig*, 155, 157 pls XXII & XXIII: XIIIth century B.C.; YOUNGER, *Bull-Leaping*, III.2): Reversed, bottom register.
- 85 CMS XII 284, lentoid of green jasper, once in the Seager Collection and therefore possibly from Crete, attributed to the Tragana Duelist Group (*Masters/Groups* IV, 64). Bull stands right, head down. The leaper, if such he is, floats stiffly prone above, also to right, and his left arm stretch out to touch the bull's neck.
- *86 CMS II 3.271, lentoid from Praisos, attributed to the Vapheio Cup Group (*Masters/Groups* IV, 56; YOUNGER, *Bull-Leaping*, III.12).

Body supine? above

- *87 CMS II 4.81, lentoid of serpentine, unknown provenience (CMCG, 85-89, II.4; reference in YOUNGER, *Bull-Leaping*, 132 n. 29), attributed to the Cretan Popular Group (YOUNGER [*supra* n. 46], 124): Bull runs left; above, a leaper.
- 88 CMS V Supp. 1B.48. Sealing impressed by a lentoid, from Mycenae, Panagia Houses rm 15 (LH III B

context):

Bull runs R in flying gallop.

Above, a man supine R above holds on to a horn with one hand; below, a man supine R, as if fallen (cf. item 54).

Body prone, both legs bent up

Bull head normal

- *89 CMS VII 109, lentoid with unknown provenience, attributed to the Dot-Eye Group (*Masters/Groups* IV, 73; YOUNGER, *Bull-Leaping*, III.3).
- 90 University of Missouri-Columbia inv. no. 57-8. Lentoid of pale brown agate said to have been found at Phigaleia (YOUNGER, *supra* n. 3 [1983]), attributed to the Columbia Group (*Masters/Groups* VI, 59): Bull steps left; leaper above; a front assistant holds the bull by its head.
- 91 CMS V 517, lentoid in a modern setting (reference in YOUNGER, *Bull-Leaping*, 132 n. 28), forgery? ⁶² Bull runs right in a flying gallop over a dado of half-rosettes; leaper above.

Bull with head thrown up

- *92 CMS I 408, lentoid from the Dimini tholos, attributed to the Dot-Eye Group (*Masters/Groups* IV, 73; YOUNGER, *Bull-Leaping*, III.5).
- *93 CS 248, lentoid with unknown provenience, attributed to the Spectacle-Eye Group (*Masters/Groups* V, 134; YOUNGER, *Bull-Leaping*, III.6).

Bull head *en face*

- *94 HM 1385 Metaxas Collection, lentoid from Aimonas Livadia, Crete (AAA 1973, 308-315 fig. 1), attributed to the Tamvaki Group (*Masters/Groups* V, 137; YOUNGER, *Bull-Leaping*, III.9).
- *95 CMS VII 257, lentoid with unknown provenience, attributed to the Tamvaki Group (*Masters/Groups* V, 137; YOUNGER, *Bull-Leaping*, III.11).
- *96 HMs no. unknown, sealing impressed by a lentoid (KSPI, U5), from Knossos, the Little Palace, attributed here probably to the Tamvaki Group (*Masters/Groups* V, 137; YOUNGER, *Bull-Leaping*, III.7).

Body prone above, one leg as if kneeling on the bull's back, the other out-stretched

- *97 (Pl. LXIb) Fresco from Tiryns (H. SCHLIEMANN, *Tiryns* [1886], pl. 13; IMMERWAHR, *AegPtg*, Ti No. 1: LH III B?; YOUNGER, *Bull-Leaping*, III.1): The leaper is painted white and should therefore be a woman, her hair flying away to left. The bull was preliminarily positioned twice (see fn 52).
- *98 CMS XI 167, lentoid with unknown provenience, attributed to the Island Sanctuaries Circle (*Masters/Groups* VI, 64; YOUNGER, *Bull-Leaping*, III.4).
- *99 CMS I 378, sealing impressed by a lentoid, from Pylos (LH III B2-C context), attributed to the Tamvaki Group (*Masters/Groups* V, 137; YOUNGER, *Bull-Leaping*, III.16).

Body prone above, one leg bent up at the hip, the other as if kneeling

- *100 CMS V 638, lentoid from Akona tholos I (LH III context), attributed to the Tragana Duelist Group

62 The sealstone, now in the Larissa Museum, was first published in 1959 but had long been in the possession of the Giannopoulos family. Buchholz doubts the authenticity of the piece (*Acta Praehistorica et Archaeologica* I [1970] 133ff.; I have not seen this article). If the sealstone is a forgery the forger may have worked either prior to 1930, but if so he would have to have had access to the major museums in order to study KZ sealing 154 (excavated 1902, published 1925-6) or CMS I 255 from the Vapheio Tholos (excavated 1888, published 1964) for the dado and, for the energetic pose for his bull and leaper, CMS I 408 from the Dimini Tholos (excavated 1886, published 1964), or after 1930 when Karo first published the Tiryns Treasure ring CMS I 179, again for the dado. The main problem, however, is that the bull's proportions are awkward; cf. the deliberately shortened and weakened hindquarters on the lead ring CMS V 267 (see item 115, below) to make room for another figure, perhaps an alighting leaper or a floating leaper (e.g., CS, no. 249).

(*Masters/Groups* IV, 64; YOUNGER, *Bull-Leaping*, III.15):

The leaper's lower leg looks as if it kneels on the stag's hindquarters.

Body prone above, one leg bent up at the hip, the other stretched back, bull head *en face*

- *101 CMS II 4.157, lentoid from Gourmes T. 1 (LM III B1 context), attributed to the Tamvaki Group (*Masters/Groups* V, 137; YOUNGER, *Bull-Leaping*, III.8).
- *102 CS 341, lentoid with unknown provenience, attributed to the Tamvaki Group (*Masters/Groups* V, 137; BOARDMAN [*supra* n. 15], pl. 124; YOUNGER, *Bull-Leaping*, III.10).

E. UNCLASSIFIABLE BULL-GAME SCENES (Uncl.)

Frescoes from Avaris, Egypt

- 103 Miniature fresco from Avaris (Tell ed Dab'a), Egypt (Hyksos period, late 16th century B.C.; O.T.P.K. DICKINSON, *The Aegean Bronze Age* [1994], 246 & 247, pl. 7.1 & fig. 7.1; note that the scale to fig. 7.1 should read "5 cms" not "10 cms");
Bull runs right (in flying gallop?); above, the leaper with long hair wears a kind of thin-belted breechcloth with thick front and back flaps as if seen in 3/4 profile, an armband on both arms, and shoes with calf-length socks. So far, the leaper appears to be in a Diving Leaper Schema, pose 3: having completed his somersault, he prepares for landing, but his hands point the wrong way and they both are depicted on one side of the bull against its flank.
- 104 Miniature fresco from Avaris (Tell ed Dab'a), Egypt (Hyksos period, late 16th century B.C.; *Archaeology* Jan/Feb 1993, p. 20, color illustration needs to be rotated 90 degrees counterclockwise)
Bull runs left, *en face* with tongue sticking out, against a maze-like background; the bull's head is ca. 4 cm. long.
The leaper has long hair and may be male or female; the yellow skin color makes it difficult to identify the sex but might have indicated an Asiatic⁶³. He (for convenience) has dived right onto the bull's neck and seems to be grasping its dewlap with his right arm; on his right arm he wears a blue armband (if metal, then silver) with a row of interlocking spirals and a cushion seal of lapis lazuli or blue glass at the wrist; he also has his sideburn shaved.

Wall frescoes from Knossos (Evans also suggested Bull-Leaping scenes for the Throne Room's Anteroom, south wall, west end [*PM* IV, 892-3, fig. 872, a bull's foot, redrawn several times at increasing sizes, to left over a dado of wavy vertical lines); compare the very similar fragment once thought lost but on display in the HM (see above and fn. 52) from on the east wall, north end, of the West Porch [*PM* II, 674-8, figs. 428 and the restored drawing 429, and IV, fig. 873]).

- *105 HM no. unknown. Fragment from the NW Treasure House, N. Border (*PM* II, 620 fig. 389; *KFA*, pl. VIII.2; LM II; IMMERWAHR, *AegPrg*, Kn No. 31; LM II/III; YOUNGER, *Bull-Leaping*, II.4).
Outlined feet (difficult to trace on the original) of a bull in flying gallop left; above left, traces of long hair? belong perhaps to a male or female leaper. Reserved or buff background.
At left, a tree; below, blue tinted space for terrain?
- *106 HM no. unknown. Miniature fragment from the Queen's Megaron, upper stratum (*PM* III, 208f., fig. 143; IMMERWAHR *AegPrg*, Kn Uncatalogued No. 9; YOUNGER, *Bull-Leaping*, IV.1).
Below, the neck of a bull right.
Above, a white painted female leaper with long hair right, arms outstretched; at right, wavy lines (the long hair of a second leaper?).
At top, a frame of tongues.
Perhaps the scene is a type of Floating Leaper Schema, the wavy lines at right being traces of the bull's horns which the female leaper grasps with her left hand, all assuming, of course, that the object below is indeed a bull's neck. See item 63, a gold ring that depicts a full version of this scene; to me, it seems to be a forgery.
- 107 HM 57. Fragment from Magazine 13, below the second cist from the West (*PM* I, 528f., fig. 385; *KFA*, pl. VII.1; IMMERWAHR *AegPrg*, Kn No. 18b; MM IIIB?).
Part of a scene with spectators (*KFA*, pl. VI.12).

63 I am grateful to Paul Rehak for drawing my attention to this point.

A bull runs right, its dark brown head outstretched. Ochre background.
The wavy lines between the bull's horns and neck might be the long hair of a leaper. Frontal assistant?
(KFA, pl. VI.11).

Relief Frescoes from Knossos

- 108** From the North Entrance Passage, probably from a wall farther west (PM III, 172ff.; KAISER [*supra* n. 20], 271-3 and 287ff., figs. 418a-424 top, 430R, and pls. 33R-35; LM IB late-LM II; M.S.F. HOOD, *The Arts in Prehistoric Greece* [1978], 72-3; MARINATOS & HIRMER [*supra* n. 5], Pl. XIV):
At least two bulls run (in flying gallop?) right; at least one woman to left represented by a white leg (Hood adds a thigh and arm), and perhaps at least one man, including a brown forearm, HM box 34, from the Area North of the Room of the Spiral Cornice (KAISER [*supra* n. 20], 270):
Fragments of setting: at least one tree trunk or bough, fragments of other plant forms, and wavy terrain.
Kaiser bases his date of LM IB late - LM II on the plastic modeling and the extreme height of the relief. The evidence of burning separates these fragments from others with which they have become mixed in various boxes and also implies the relief fresco was on the walls when the palace burned.
- 109** From the Area of the Bull Relief and Spiral Fresco (KAISER [*supra* n. 20], 278f., fig. 436L and 437, PLS 36-42; MM III [A late? -] B):
A woman's arm? with bracelet and heel with anklet, and at least three bulls.
- 110** From the Area of the Fish Fresco? (= Evans, Hall of the Double Axes, E. Light Well; PM III, 330f., fig. 220; KAISER [*supra* n. 20], 283, fig. 436R; IMMERWAHR, *AegPtg*, Kn No. 8b; MM III?):
A life-sized woman's thigh.
From the costume of a skirt with blue stripes with white rosettes and yellow-red dentils, Kaiser identifies a leaper.
- 111** From the E. Hall (Blocked Corridor; YOUNGER, *Bull-Leaping*, p. 129, n. 16; PM III, 215 ff., fig. 147 and 497, fig. 350A; KAISER [*supra* n. 20], 280ff.; IMMERWAHR, *AegPtg*, Kn No. 8b; MM III?):
Man holding a bull's horn.
Kaiser reinterprets the figure as a man holding perhaps a Snake Frame, based on a similar fragment (KAISER [*supra* n. 20], fig. 450, HM Box 67.14, etc.) and the Snake Frame fragments (KAISER [*supra* n. 20], pl. 49) from the same area. Compare, however, the way the woman (leaper?) holds what indeed seems to be a bull's horn on item **47**, a fresco fragment from the Court of the Stone Spout.
- 112** N-S Corridor, the "Lily Prince"/"Priest-King" (PM II, 774-795, figs. 504, 508, 510, 511, pl. XIV; M.A.S. CAMERON, "New Restorations of Minoan Frescoes from Knossos", *BICS* 17 [1970], 163-166; W.-D. NIEMEIER, "Das Stuckrelief des 'Prinzen mit der Federkrone' aus Knossos und minoische Götterdarstellungen", *AM* 102 [1987], 65-98 & "The 'Priest King' Fresco from Knossos. A New Reconstruction and Interpretation" in E.B. FRENCH and K.A. WARDLE, eds., *Problems in Greek Prehistory* [1988], 235-244; IMMERWAHR, *AegPtg*, Kn No. 7; LM IB?):
Incorporated into Gilliéron's reconstruction are possible fragments of two female taureadors, frontal assistants or, more likely, alighting leapers.
- 113** From the NE Rubbish Heap (KAISER [*supra* n. 20], 275f.; HM box 53):
A woman's arm (53.1) with a light blue and red-brown striped armband, and a bull hide (53.3).

Miscellaneous Artifacts

- 114** Fresco from Mycenae, the Pithoi Terrace? (B. PHARMAKOWSKY, "Un Nouveau fragment de fresque mycénienne", *RevArch* [ser. 3], 31 [1897], 374-380, color pl. 20; PM II, 750, fig. 484). The fresco was found in 1893 and is now in the Bucharest Museum. H. fragment 13.2 cm, making the man about one-third life-size. RODENWALDT [*supra* no 53], A13 disassociates the fragment from the Women Frieze. IMMERWAHR, *AegPtg*, MY Uncatalogued No. 2, but she does not know the original publication.
Man to right with right arm up close to chest, holding something that looks like a spoon, but might be the looped end of a leash (*cf.* item **123**, below) or a plektron for a phorminx he might be holding in his left arm; he wears a blue arm-band and a red necklace.
- 115** CMS V 267, lead? ring from Armenoi T.43 (LM III B1 context), attributed to the Group of Bulls with Striated Necks (*Masters/Groups* III, 58):
Bull runs left in a flying gallop.
There is space in back of the bull for an alighting leaper.
- 116** Painted rock crystal plaque from Knossos, Throne Room Lustral Basin (PM III, 108-111, fig. 60, color

pl XIX, reconstruction on fig. 61, and IV 928, fig. 900d; IMMERWAHR, *AegPig*, Kn Uncatalogued No. 14; LM I?);

Bull runs left in a flying gallop.

If the reconstruction is accurate: in front of the bull, a rope or rope fence tied at least to one tree below; above, traces of a leaper's long hair. The scene as reconstructed resembles Bull-Catching with a net.

- 117 Medelshavsmuseet, Stockholm. Fragment of a pictorial amphoroid krater from Enkomi (LH III A1; *MycPictV-P*, III.3):

A bull with striped feet runs? left.

Above left, the feet of a man to left.

It is difficult to see this as a Bull-Leaping scene, unless the man had attempted a leap and had been thrown.

- 118 Fresco from Orchomenos (H. BULLE, *Orchomenos. I. Die älteren Ansiedlungsschichten* [1907], 80, pl. XXVIII.8; IMMERWAHR, *AegPig*, Or No. 2; LH III B):

Two prone figures (Immerwahr suggests swimmers) above the possible back of a now missing bull.

- *119 Ivory figures from Knossos, near the Temple Repositories (*PM* III, figs. 294-300; YOUNGER, *Bull-Leaping*, II.12).

F. BULL-SACRIFICE (B-S)

Led to the sanctuary

- 120 HM tray SVI. Fresco from Knossos, south wall of the rooms associated with the Lapidary's Workshop (KFA, pl. C6; M.A.S. CAMERON, "Unpublished Fresco Fragments of a Chariot Composition from Knossos", *AA* 82 [1967], 330-344; IMMERWAHR, *AegPig*, Kn No. 25; LM II/IIA):

A man in a two-horse chariot drives right; in back, at a lower level a bull walks right. Probably part of a single composition decorating two rooms painted by (according to Cameron) the Chariot Ptr (this fragment) and his pupil, the Palanquin Ptr (item 137, below).

- 121 Fresco from Pylos, Throne Room vestibule, right half (LANG [*supra* no 77], 5-15 H 5, pp. 192-193, reconstruction pl. 119; IMMERWAHR, *AegPig*, Py No. 8; LH III B2-C1):

Procession (5-15 H 5) of men and women. Most of the men wear long robes patterned in pairs; one group of men wears a kilt. Two male figures, one tall and one short, wear a long robe and a shawl. Most of the figures seem to carry something: one man in a long robe, 9 H 5, carries a large tray or basket, another in a kilt, 5 H 5, carries a stool. A fragment of architectural façade (6 A 5) implies a building, perhaps a shrine; and a large bull (18 C 5) also to left stood or walked in their midst. The objects carried, the architecture, and the bull all suggest a sacrificial procession.

- 122 Fresco from Tiryns (G. RODENWALDT, *Tiryns II: Die Fresken des Palasts* [1912], 155-16, no. 224, fig. 65; IMMERWAHR, *AegPig*, Ti no. 8; the date should be LH III B):

Head of a life-sized bull (or horse) to right, painted black and white on a blue background (H. fragment 22.5, W. 12 cm). The bull may have been the sacrificial animal in a procession.

- 123 (Pl. LXIIa) CMS VII 102. Lentoid of agate from Crete, attributed to the Group of CMS VII 102 (*Masters/Groups* III, 61):

Bull stands left; a man stands on the far side (i.e., behind) the bull to left, holding a leash in his left hand attached to the horns of the bull (see item 114, above). Groundline below.

Leashed in the temenos

To a tree

- 124 CMS V Supp. 1B.187. Gold ring from Varkiza T. I (LH III A2-B context), attributed to the Island Sanctuaries Group (*Masters/Groups* VI, 64):

Man at right leashes a standing bull at left to a tree in the center; dado below.

- 125 CMS XII 249. Lentoid, unknown provenience, attributed to the Group of Tethered Bulls (*Masters/Groups* IV, 58):

Bull couchant left on a masonry dado leashed by the horns to a tree in back.

To a shrine

- 126 (Pl. LXIIb) CMS V 198. Gold ring, said to be from Thebes, attributed to the Vapheio Cup Group (*Masters/Groups* IV, 56):

Bull couchant right leashed to a shrine in front; a tree in back; and rocks frame the scene above, below, and at left and right.

In Connection with Sacrificial Tables
Extant Sacrificial? Tables (2)

- 127 Limestone table top, Archanes, Tourkogeitonia, now assembled from many fragments in court 11 (W. 1.02 x L 1.73; Th. ca. 0.10 m; SAKELLARAKIS & SAPOUNA-SAKELLARAKI [*supra* n. 42], 40 and fig. 22, bottom edge [Platform], and fig. 23 [Table Top pictured against the middle of the right edge {not mentioned in text}] on p. 43; LM IB context):
The small platform south of the Long Altar (or Stepped Altar) is of similar dimensions; the table could have topped the platform. On the other hand, four incurved limestone bases (each a cube measuring ca. 0.51m on the side) were found arranged in a square on the threshold to vestibule 2 against the east wall; since these are half as wide as the table, it is possible that, if the bases were placed side by side in pairs and the pairs were placed 0.71 m. apart, these could also have supported the table.
- 128 Limestone slab, west of the Grand Staircase, Gournia (2.00 x 2.68; Th 0.24 m.) (J. SOLES, "The Gournia Palace", *AJA* 95 [1991], 45-48):
The slab, roughly oval, has at its south-west end two rectangular mortises approximately 60 cm. apart, center to center, and a hole (probably natural) near its south-eastern corner that runs obliquely south-east; at its exit was found a hollow stone receptacle. As Soles cites, Graham first suggested that the slab was used when sacrificing bulls after Bull-Leaping, which he places in Gournia's central court. The slab, however, could just as easily be a bathing slab, the hole serving as a drain for run-off water; compare the bathing areas at Ayia Irini House A rm 34 (paved 1.00 x 1.10 m.), the one Hawes suggested for Gournia instead of a Lustral Basin (rm G28; SOLES [*supra*, this no], 62-63; 1.90 x 2.30 m.), room 9 at Nirou Chani (approximately 1.75 x 1.90 m., a paved and cement floor), and the area at Tiryns (a huge single slab ca. 3.00 x 4.00 m.).

Representations of bulls and sacrificial table
Bull walking toward a sacrificial table

- 129 CMS I 264. Lentoid of rock crystal from Tragana Tholos 2 (LH III A context; SAKELLARAKIS [*supra* n. 21], 217 no. B.8 and 169 fig. 8.8), attributed to the Dot-Eye Mumps Group (*Masters/Groups* IV, 69):
A bull walks right, head down; above, a three-legged sacrificial table upside-down (that is, the bull and the table are placed back to back in axial symmetry, as if the seal's stringhole were horizontal):
Bull Placed prone on a sacrificial table.
Untrussed: bull with head down, and legs tucked under.
To right.
- 130 HMs 142. Sealing fragment from Knossos impressed by a lentoid? (SAKELLARAKIS [*supra* n. 21], 217 no. B.3 and 169 fig. 8.3), attributed to the Dot-Eye Mumps Group (*Masters/Groups* IV, 71):
Table has two depicted legs preserved; groundline below.
- 131 HMs 211. Sealing fragment from Knossos impressed by a lentoid? (*KSPI*, R13; SAKELLARAKIS [*supra* n. 21], 217 no. B.4 and 169 fig. 8.4), attributed to the Group of Bulls with Striated Necks (*Masters/Groups* III, 58):
Table has two legs.
Behind, two men stand to right, a possible third may stand at left to left.
Masonry dado below.
- 132 CMS XI 52, lentoid of agate from Mycenae (SAKELLARAKIS [*supra* n. 21], 217 no. B.6 and 169 fig. 8.6), attributed to the Isopata T. 3 Group (*Masters/Groups* IV, 69):
A sword is lodged vertically in the bull's neck.
The all four bucranium legs of the table are depicted.
A palm tree in back bends over the bull; a groundline below.
To left.
- 133 CMS V Supp. 1B.3, Lentoid of rose fluorite, from Kynos (LH III B-C developed context), attributed here to the Island Sanctuaries Circle (*Masters/Groups* V, 64):
Bull *en face*. Table has three legs. Dog runs below in a flying gallop to left.
Trussed: placed prone on the sacrificial table, legs straddling it, crossed, and tied.
To right.
- 134 (Pl. LXIIc) HM no. unknown. Painted sarcophagus from a chamber tomb at Ayia Triadha (LM III A1;

LONG [*supra* n. 40], ch. VIII):

The Back Side, left to right: three women walk right; in the center, a table with two legs supports the small bull or calf *en face*; behind, a male aulete, and below, two agrimi kids? and at right below, a bucket to catch the blood depicted as dribbling from the bull's neck; a woman stands in front of an altar, jug and basket of round objects? above; a pole supports a double axe and a bird; and, at the extreme right, a shrine enclosing? a palm? and surmounted with four Horns of Consecration.

- 135 CMS II 3.338. Lentoid of soft green stone, unknown provenience (PM IV, 42 fig. 26; SAKELLARAKIS [*supra* n. 21], 217 no. B.2 and 169 fig. 8.2), attributed to the Tamvaki Group (*Masters/Groups* V, 137):

Bull *en face*.

Table has two legs depicted.

Above, an impaled triangle; below, a bull's head faces right.

- 136 (Pl. LXIId) HMs 1049. Sealing from Mallia impressed by two seal faces, possibly two faces of one three-sided prism (LM IIIA? context; O. PELON, *Fouilles exécutées à Mallia. Exploration des maisons et quartiers d'habitation* [1963-1966], 3 [*ÉtCrét* 16, 1970], 130-135, no. 265, pl. XXVI.4-6): Impression A (pl. XXVI.5; not illustrated here), attributed here to the Tamvaki Group (see *Masters/Groups* V, 137):

A dog above attacks an *en face* bull, both to right in PT 39A, R.

Impression B (pl. XXVI.5; LONG [*supra* n. 40], fig. 11; SAKELLARAKIS [*supra* n. 21], 217 no. B.5 and 169 fig. 8.5); attributed here to the Spectacle Eye Group (see *Masters/Groups* V):

The bull lies trussed to right on a two-legged table. In back, at left, a man stands to right, arms stretched out and up over the bull's hindquarters. Above, Horns of Consecration, sword?, and two triangular objects.

- 137 The Palanquin fresco from Knossos, the South-West Basements (PM II, 770 ff. and IV 399; CAMERON [*supra* no. 120], 330-344, fig. 3A & B; LM II-III A1, on style; N. MARINATOS, *Minoan Religion* [1994], 70-71, fig. 60):

Several men, at least two seated and two standing, the latter next to a shrine? Other fragments depict a bull lying bound and trussed? by leather thongs?

Probably part of a single composition decorating two rooms painted by (according to Cameron) the Chariot Ptr (see item 120, above) and his pupil, the Palanquin Ptr, who painted this scene.

To left (compare HMs, 212 = KSPI, R6, a very fragmentary sealing from Knossos).

- 138 CMS I 203. Lentoid of sardonyx from Nauplion (SAKELLARAKIS, [*supra* n. 21], 217 no. B.7 and 169 fig. 8.7), attributed to the Spectacle-Eye Group (*Masters/Groups* V, 136):

In profile.

Table has two legs depicted.

Above, three circles made by the tubular drill.

Trussed and suspended.

- 139 Larnax now in Germany. Unpublished (LM III B; *MycPictV-P*, 54 n. 30):

Two "hanging bulls appear... suspended back to back with thongs around chest or foreleg, in a hunting context". The hunting context, if such it is, may indicate no more than an outdoor setting for hanging the bulls, or may instead refer to bull-catching.

Bull Heads & Horns

Extant examples

- 140 Knossos, House of the Sacrificed Oxen (MM III context; PM II, 301-303 figs. 172, 175; SAKELLARAKIS [*supra* n. 21], 215 no. 1 fig. 7):
In the north-west and south-east corners of room 5/6 were placed a bull skull in front of each of which was a portable tripod altar (D. 56 & 90 cm.).
- 141 Knossos, in a MM IIA deposit in and around the South House (*JHS*, AR 39 [1992-1993], 68)
Bovid and ovicaprid horncores cut from the skulls.
- 142 Oxyolithos Tholos, Euboia (LH III A2-B context; SAKELLARAKIS [*supra* n. 21], 216 no. 7).
- 143 Mycenae ChT no. unknown (SAKELLARAKIS [*supra* n. 21], 216 no. 11: bull horns in the stomion).
- 144 Toumba tou Skourou, Cyprus (E.T. VERMEULE, *Toumba tou Skourou. The Mound of Darkness* [1974], 24 fig. 29):
A large bull's skull, "buried deep outside the north terrace wall, had been trimmed of its back and lower jaw so a priest could slip it over his head as a ceremonial mask."
- 145 Archanes Phournoi, Tholos A (LM III A1 context; SAKELLARAKIS [*supra* n. 21]; SAKELLARAKIS & SAPOUNA-SAKELLARAKE [*supra* n. 42], 72-85):

Against the wall of the tholos, to the right of the blocked doorway to the south side-chamber, was piled a butchered six-year old horse, apparently placed with flesh still adhering (i.e., sacrificed, not eaten). To the left of the horse and in the middle of the south wall is the stomion to the rectangular side-chamber. In the exterior blocking wall of the stomion was placed a bull head (lacking lower jaw and horns, except for the stump of one), nose up and interior of skull toward the interior of the side-chamber. A second blocking wall closed the stomion at the side-chamber's entrance. In the chamber was found the primary burial.

Hanging from a chain

- 146 (Pl. LXIIe) *CMS* VIII 110. Three-sided prism with amygdaloid faces, of haematite. Provenience unknown, attributed to the Group of the Chanting Priest (YOUNGER [*supra* n. 36, 1993], 173):
- a. Simplified bull-face ⁶⁴ hanging from a chain, with horns that rise and curve in; stringhole vertical.
 - b. Bearded man's head to right, wearing a large earring. Below, a bow and arrow flank his beard, stringhole vertical.
 - c. Agrimi runs in flying gallop, right in PT 3, R; three vertical strokes in front and a wavy groundline below; stringhole horizontal.
- 147 (Pl. LXIIIf) Louvre AM 677. Bell krater from Aradippo (LH III B; *MycPictV-P*, V, 103):
Obverse and Reverse: two bull-faces hanging from a chain flank a checker-board square (architecture? podium?).
- 148 Jug from Argos T. XXIII (LH III B; J. DESHAYES, *Argos. Les Fouilles de la Deiras* [1966], 60-61, pl. LXIII.3-4; *MycPictV-P*, IX, 27):
On the shoulder, opposite the handle, is the bull's face with long, swooping horns; above, is a double trilobed arch, as if the bull's head were suspended on a rope (*MycPictV-P*, "tied by an ogival loop").

64 Kenna describes the image as "Kantharos mit Feuer". P. Rehak has some doubts about this really being a bucranium, citing the vague anatomical details on the seal and the odd way the horns curve in. Haematite is a slightly softer stone (hardness 5-6.5 on the Mohs scale) than the silicates (hardness 7) and often becomes smooth with wear, thus blurring the sharper articulations like drilled dots for eyes. As for the in-curving horns, there is a close, though not exact, parallel in *KSPI*, S5 (*PM* I, 699 fig. 522b), a sealing from the Court of the Stone Spout impressed by an amygdaloid (stringhole also vertical) depicting a bucranium with horns that rise and curve slightly in; between them is an X.

APPENDIX I: BULL-GAME REPRESENTATIONS by TYPE and DATE *

* Stylistic dates: for seals: YOUNGER [*supra* n. 36, 1993], & *Kadmos* series *Masters/Groups*; for pictorial pottery: *MycPictV-P*; for frescoes: IMMERWAHR, *AegPitg*; others are specified.

Item #	Citation	Context Date	Stylistic Date
BULL-CATCHING			
B-C 7	Porti TC rhyton	EM III-MM context	
B-C 16	Mochlos, TC rhyton	MM IA context	
B-C 8	Iuktas TC rhyton	MM I-II	
B-C 19	CMS I Supp. 53		NetBull (LM IA)
B-C 20	CMS VIII 52		NetBull (LM IA)
B-C 21	CMS XI 128		NetBull (LM IA)
B-C 22	CS, 236		NetBull (LM IA)
B-C 23	AT 61		NetBull (LM IA)
B-C 17	Akrotiri TC rhyton	LM IA context	
B-C 2	Katsamba pyxis	LM III A context	LM IB (POURSAT [<i>supra</i> no 2])
B-C 3	Boxer Rhyton	LM IB context	
B-C 5	CMS I 274	LH IIA context	Vapheio Cup Grp
B-C 1	Vapheio cup A	LH IIA context	
B-C 6	KN MUM rhyton	LM II? context	
B-C 11	AT 56	LM IB context	unattributed
B-C 12	AT 108	LM IB context	Vapheio Cup Grp (LH IIA)
B-C 13	AT 109	LM IB context	Vapheio Cup Grp (LH IIA)
B-C 26	Ivory, GrCircle B		LH II sword shape (MYLONAS [<i>supra</i> n. 6])
B-C 10	KN <i>KSPI</i> , C42		unattributed
B-C 25	KN <i>KSPI</i> , R9		unattributed
BULL-WRESTLING			
B-W 27	CMS II 3.105b	LM III A2 context	Kalyvia B-W Grp (MM III)
B-W 29	CMS I Supp 35		?Spear'd Deer fr Iuktas (MM III)
B-W 31	KN <i>KSPI</i> , G5/G6		Alm-Eye or earlier (LM I/LH IIA)
B-W 34	CMS I 137		Dot-Eye or later? (LM/LH II)
B-W 32	CMS I 95		Isopata T. 3 Grp (LM/LH II)
B-W 33	Ivory, Menidi	LH III B context	
B-W 30	CMS I 342	LH III B2-C context	unattributed
B-W 27	KN <i>KSPI</i> , C43		unattributed
BULL-LEAPING			
I. Evans's Schema			
B-L 137	CMS I 517		Wounded Bull Grp (LM I/LH IIA)
B-L 135	AT 145/GO/Sk3	LM IB context	Vapheio Cup Grp (LH IIA)
B-L 139	Sk 6	LM IB context	Vapheio Cup Grp (LH IIA)
B-L 143	AT 51	LM IB context	Vapheio Cup Grp (LH IIA)
B-L 138	KZ 97	LM IB context	unattributed

B-L I 41	KZ 123	LM IB context	unattributed
B-L I 42	KZ 189	LM IB context	unattributed
B-L I 36	KN <i>KSPI</i> , L48		unattributed
B-L I 40	Rethymnon bronze		unattributed

II. Diving Leaper Schema

Front Assistant

B-L II FA 44	CMS I 305	LH III B2-C context	Hollow Nose Grp (LM I/LH IIA)
B-L II FA 45	KN HMs 1001/BETTS no. 63		unattributed
B-L II FA 46	CMS II 3.9		unattributed
B-L II FA 47	KN fresco No. 23b	LM II	LM II/IIIA

The Leap

B-L II 49	CS, 202		Vapheio Cup Grp (LH IIA)
B-L II 50	KZ 96/Sk 5	LM IB context	Vapheio Cup Grp (LH IIA)
B-L II 51	AT 110	LM IB context	Vapheio Cup Grp (LH IIA)
B-L II 61	AM AE 22374		Vapheio Cup Grp (LH IIA)
B-L II 66	Sk 4	LM IB context	Vapheio Cup Grp (LH IIA)
B-L II 71	CMS I 370	LH III B2-C context	Vapheio Cup Grp (LH IIA)
B-L II 72	CMS I 152	LH I-II context	Vapheio Cup Grp (LH IIA)
B-L II 74	CMS V Supp. 1A.171	MM III/LM I	Vapheio Cup Grp (LH IIA)
B-L II 75	AT 54/GO/Sk 2	LM IB context	Vapheio Cup Grp (LH IIA)
B-L II 67	CMS I 200	LH III A2 context	Bulls Striated Necks (LM I/LH IIA)
B-L II 68	KN <i>KSPI</i> O4		Bulls Striated Necks (LM I/LH IIA)
B-L II 70	KN <i>KSPI</i> R8		Bulls Striated Necks (LM I/LH IIA)
B-L II 52	MY Fresco	LH I-II or II-III A1 context	
B-L II 57	KN Taureador Fresco		LM II/IIIA
B-L II 63	CMS V Supp. 1B 135	LH III A1	
B-L II 54	CMS I 314	LH III B2-C1 context	Spectacle-Eye Grp (LM III A1)
B-L II 56	CMS V 674	LH III B1 context	Spectacle-Eye Grp (LM III A1)
B-L II 62	CMCG, 357		Spectacle-Eye Grp (LM III A1)
B-L II 69	CS, 209		Spectacle-Eye Grp (LM III A1)
B-L II 58	CS, 246		Tamvaki Grp (LM III A1)
B-L II 60	CMS X 141		Tamvaki Grp (LM III A1)
B-L II 64	CMS VII 108		Tamvaki Grp (LM III A1)
B-L II 55	CMS V 597	LH III B2 context	Misplaced Forelegs Grp (LM III A1)
B-L II 65	CMS I 79		Columbia Grp (LM III A1)
B-L II 59	Krater <i>MycPictV-P</i> , III.31	LH III B	
B-L II 73	Krater <i>MycPictV-P</i> , IX.18.1	LH III B2	
B-L II 53	KN rhyton		unattributed
B-L II 48	Athens relief pyxis		unattributed

Alighting Leaper

B-L AL 78	KN Fresco No. 23c	LM I(-II) context	LH II/IIIA
B-L AL 79	KN Fresco No. 23d	LM I(-II) context	LH II/IIIA
B-L AL 76	PY Fresco 36 H 105	LH III B2-C context	LH IIIA?
B-L AL 77	Krater <i>MycPictV-P</i> , V.48		LH III B1

Rear Assistant

B-L RA 83	AT 111	LM IB context	unattributed
B-L RA 82	MY Fresco	LH I-II or II-III A1 context	
B-L RA 81	Krater <i>MycPictV-P</i> , V.51		LH III B1
B-L RA 80	KN HMs 1033/BETTS no. 10		unattributed

BULL-VAULTING (B-L's Floating Leaper Schema)

B-V 87	CMS II 4.81		Cretan Popular Grp (LM I)
B-V 85	CMS XII 284		Tragana Duelist Grp (LM I)
B-V 100	CMS V 638	LH III context	Tragana Duelist Grp (LM I)
B-V 86	CMS II 3.271		Vapheio Cup Grp (LH IIA)
B-V 89	CMS VII 109		Dot-Eye Grp (LM/LH II)
B-V 92	CMS I 408		Dot-Eye Grp (LM/LH II)
B-V 93	CS, 248		Spectacle-Eye Grp (LM III A1)
B-V 96	KN <i>KSPI</i> , U5		Tamvaki Grp (LM III A1)
B-V 101	CMS II 4.157	LM III B1 context	Tamvaki Grp (LM III A1)
B-V 94	HM M 1385		Tamvaki Grp (LM III A1)
B-V 102	CS, 341		Tamvaki Grp (LM III A1)
B-V 95	CMS VII 257		Tamvaki Grp (LM III A1)
B-V 99	CMS I 378	LH III B2-C context	Tamvaki Grp (LM III A1)
B-V 90	UnivMO-Columbia		Columbia Grp (LM III A1)
B-V 98	CMS XI 167		Island Sanctuaries (LM/LH III A2/B1)
B-V 97	TI Fresco No. 1		LH III B?
B-V 84	Tanagra Tb 22 lamax		XIIIth century
B-V 91	CMS V 517		modern forgery?

UNCLASSIFIABLE BULL-GAMES

Uncl. 103	Dab'a Fresco	late 16th century B.C.	
Uncl. 104	Dab'a Fresco	late 16th century B.C.	
Uncl. 105	KN Fresco, NW TrHouse	LM II context	LM II/III
Uncl. 109	KN Relief Fresco, Bull Relief		MM III (A late? -) B
Uncl. 119	KN ivory figures	MM III-LM I context?	
Uncl. 116	KN Painted RC plaque		LM I?
Uncl. 112	KN Relief Fresco "Lily Prince"		LM IB?
Uncl. 108	KN Relief Fresco, N Entrance		LM IB late-LM II
Uncl. 115	CMS V 267	LM III B1 context	Bulls Striated Necks (LM I/LH IIA)
Uncl. 117	Krater <i>MycPictV-P</i> , III.3		LH III A1
Uncl. 118	OR Fresco		LH III B
Uncl. 114	MY Bucharest fresco		LH III B?
Uncl. 106	KN Fresco, Queen's Megaron		unattributed
Uncl. 107	KN Fresco, Magazine 13	MM IIIB?	unattributed
Uncl. 113	KN Relief Fresco, Rubbish		unattributed
Uncl. 110	KN Relief Fresco, Fish Fresco	MM IIIB?	unattributed
Uncl. 111	KN Relief Fresco, E. Hall	MM IIIB?	unattributed

BULL-SACRIFICE

B-S 146	CMS VIII 110a		Chanting Priest Grp (MM III)
B-S 125	CMS XII 249		Tethered Bulls Grp (LM I/LH IIA)
B-S 131	KN HMs 211		Bulls Striated Necks (LM I/LH IIA)

B-S 123	CMS VII 102		CMS VII 102 Grp (LM I/LM IIA)
B-S 126	CMS V 198		Vapheio Cup Grp (LH IIA)
B-S 129	CMS I 264	LH III A context	Dot-Eye Mumps Grp (LM/LH II)
B-S 130	KN HMs 142		Dot-Eye Mumps Grp (LM/LH II)
B-S 132	CMS XI 52		Isopata T. 3 Grp (LM/LH II)
B-S 137	KN Fresco, Palanquin		LM II-III A1
B-S 120	KN Fresco, LapWorkshop	LM II/IIIA	
B-S 135	CMS II 3.338		Tamvaki Grp (LM III A1)
B-S 138	CMS I 203		Spectacle-Eye Grp (LM III A1)
B-S 136	MA HMs 1049	LM IIIA? context	Spectacle-Eye Grp (LM III A1)
B-S 134	AT Sarcophagus		LM III A1
B-S 124	CMS V Supp. 1B.187	LH III A2-B context	Island Sanct. Grp (LM/LH III A2-B1)
B-S 133	CMS V Supp. 1B.3	LH III B-C	Island Sanct. Grp (LM/LH III A2-B1)
B-S 139	Larnax, Germany		LM III B
B-S 147	Krater <i>MycPictV-P</i> , V.103	LH III B	
B-S 148	Jug <i>MycPictV-P</i> , IX.27		LH III B
B-S 122	Ti Fresco No. 8		LH III B
B-S 121	PY Fresco 5-15 H 5	LH III B2-C1 context	

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SEALS

CMS volumes

<i>CMS</i> I 79	B-L II 65
<i>CMS</i> I 95	B-W 32
<i>CMS</i> I 137	B-W 34
<i>CMS</i> I 152	B-L II 72
<i>CMS</i> I 200	B-L II 67
<i>CMS</i> I 203	B-S 138
<i>CMS</i> I 264	B-S 129
<i>CMS</i> I 274	B-C 5
<i>CMS</i> I 314	B-L II 54
<i>CMS</i> I 408	B-V 92
<i>CMS</i> I 517	B-L I 37
<i>CMS</i> I 305	B-L II FA 44
<i>CMS</i> I 342	B-W 30
<i>CMS</i> I 370	B-L II 71
<i>CMS</i> I 378	B-V 99
<i>CMS</i> I Supp. 35	B-W 29
<i>CMS</i> I Supp. 53	B-C 19
<i>CMS</i> II 3.105b	B-W 27
<i>CMS</i> II 3.271	B-V 86
<i>CMS</i> II 3.338	B-S 134
<i>CMS</i> II 3.9	B-L II FA 46
<i>CMS</i> II 4.157	B-V 101
<i>CMS</i> II 4.81	B-V 87
<i>CMS</i> V 198	B-S 126
<i>CMS</i> V 267	Uncl. 125
<i>CMS</i> V 517	B-V 91
<i>CMS</i> V 597	B-L II 55
<i>CMS</i> V 638	B-V 100
<i>CMS</i> V 6741	B-L II 56
<i>CMS</i> V Supp. 1A.171	B-L II 74
<i>CMS</i> V Supp. 1B.3	B-S 133
<i>CMS</i> V Supp. 1B.48	B-L II 88
<i>CMS</i> V Supp. 1B.135	B-L II 63
<i>CMS</i> V Supp. 1B.187	B-S 124
<i>CMS</i> VII 102	B-S 113
<i>CMS</i> VII 108	B-L II 64
<i>CMS</i> VII 109	B-V 89
<i>CMS</i> VII 257	B-V 95
<i>CMS</i> VIII 52	B-C 20
<i>CMS</i> VIII 110a	B-S 146
<i>CMS</i> X 141	B-L II 60
<i>CMS</i> XI 52	B-S 132
<i>CMS</i> XI 128	B-C 21
<i>CMS</i> XI 167	B-V 98

CMS XII 28

B-V 85

CMS XII 249

B-S 125

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AM AE 22374	B-L II 61
CMCG, 357	B-L II 62
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CS, 209	B-L II 69
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CS, 246	B-L II 58
CS, 248	B-V 93
CS, 341	B-V 102
HM M 1385	B-V 94
UnivMO-Columbia	B-V 90

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AT 51	B-L I 43
AT 54/GO/Sk 2	B-L II 75
AT 56	B-C 11
AT 61	B-C 23
AT 108	B-C 12
AT 109	B-C 13
AT 110	B-L II 51
AT 111	B-L RA 83
AT 145/GO/Sk3	B-L I 35
GO/AT 54/Sk 2	B-L II 75
GO/AT 145/Sk3	B-L I 35
KN HMs 142	B-S 130
KN HMs 211	B-S 131
KN HMs 1001/BETTS 63	B-L II FA 45
KN HMs 1033/BETTS 10	B-L RA 80
KN <i>KSPI</i> , C42	B-C 10
KN <i>KSPI</i> , C43	B-W 27
KN <i>KSPI</i> , G5/G6	B-W 31
KN <i>KSPI</i> , L48	B-L I 36
KN <i>KSPI</i> , O4	B-L II 68
KN <i>KSPI</i> , R8	B-L II 70
KN <i>KSPI</i> , R9	B-C 25
KN <i>KSPI</i> , U5	B-V 96
KZ 96/Sk 10	B-L II 50
KZ 97	B-L I 38
KZ 123	B-L I 41
KZ 189	B-L I 42
MA HMs 1049?	B-S 136
Sk 2/AT 54/GO	B-L II 75
Sk 3/AT 145/GO	B-L I 35
Sk 4	B-L II 66

Sk 6 B-L I 39
 Sk 10/KZ 96 B-L II 50

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 Dab'a fresco Uncl. 104
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 KN Fresco No. 23c B-L AL 78
 KN Fresco No. 23d B-L AL 79
 KN Fresco, LapWorkshop B-S 120
 KN Fresco, Magazine 13 Uncl. 107
 KN Fresco, NW TrHouse Uncl. 105
 KN Fresco, Palanquin B-S 137
 KN Fresco, Queen's Uncl. 106
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 KN E. Hall Uncl. 111
 KN Fish Fresco Uncl. 110
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MycPictV-P, V.103 B-S 147
MycPictV-P, V.48 B-L AL 77
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Painted Terracotta Rhyta

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 Iuktas B-C 8
 Koumasa B-C 9
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 KN Painted RC plaque Uncl. 116
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Athens relief pyxis B-L II Ap 48
 Boxer Rhyton B-C 3
 KN MUM rhyton B-C 6
 KN rhyton B-L II 53

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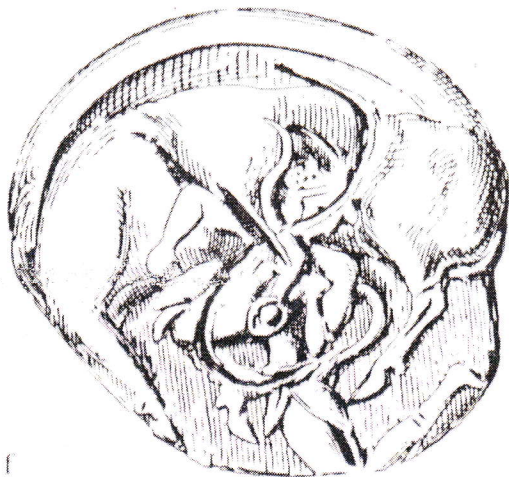
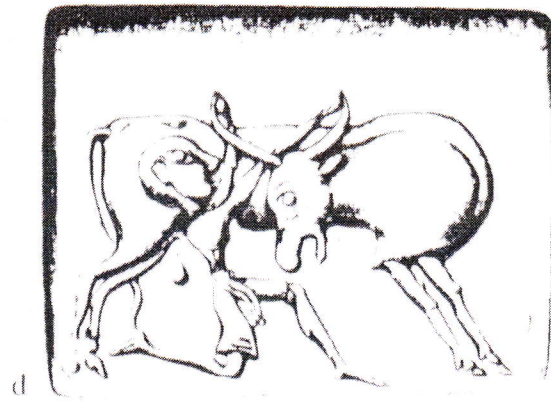
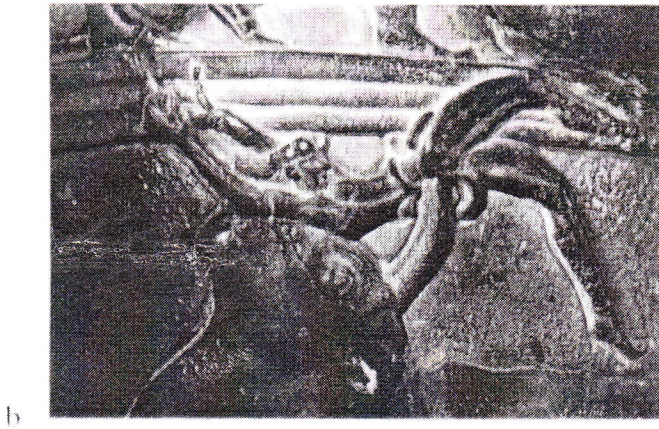
Ivory, GrCircle B B-C 25
 Ivory, Menidi B-W 32
 Katsamba pyxis B-C 2
 KN ivory figures Uncl. 119

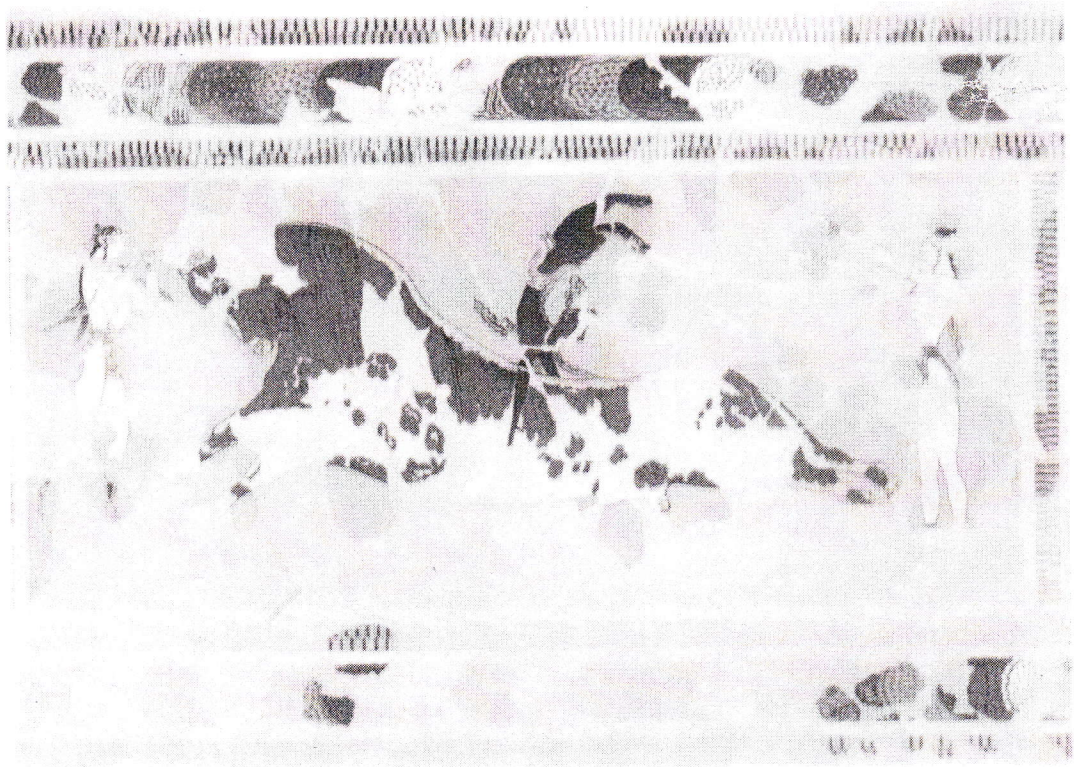
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Rethymnon bronze B-L I 40
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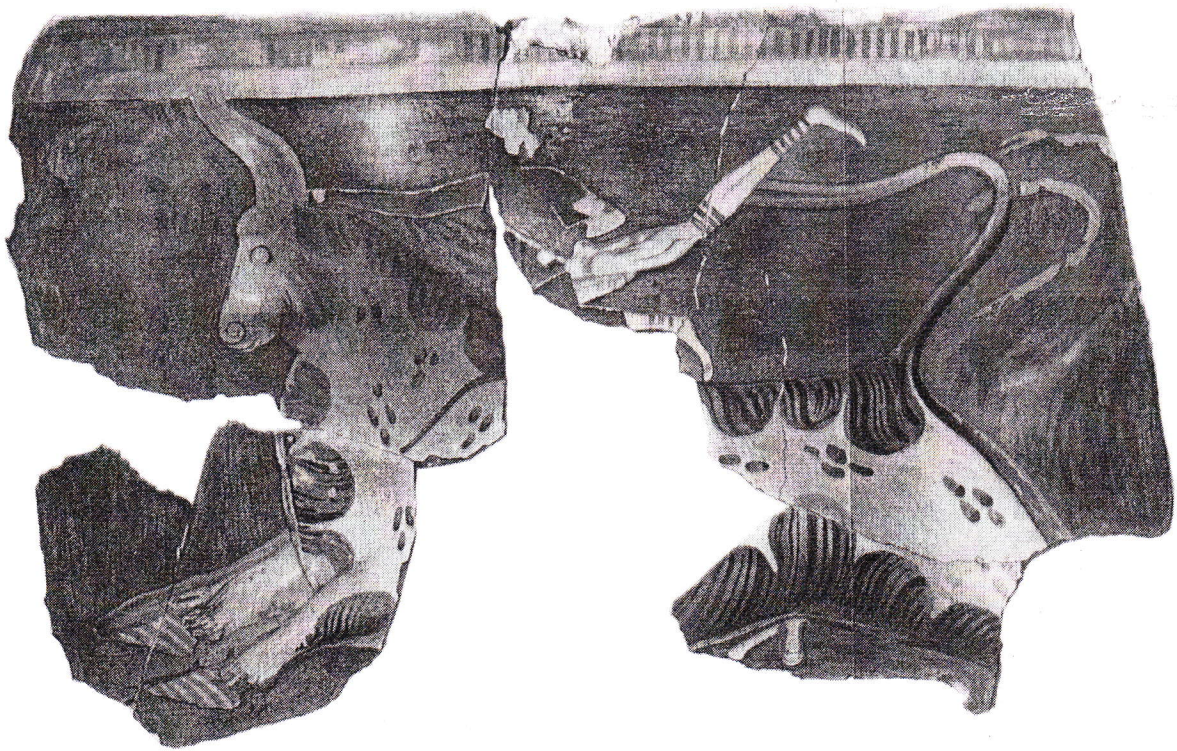
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a



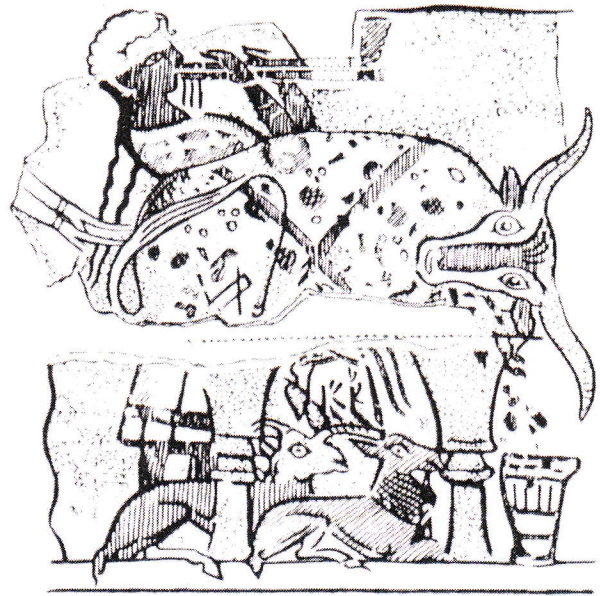
b



a



b



c



d



e



f

