Diana Wolf

Monsters and the Mind

Composite Creatures and Social Cognition in Aegean Bronze Age Glyptic

Heidelberger Abschlussarbeiten zur klassischen Archäologie, Band 9

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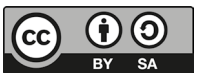

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1. INTRODUCTION

… imagination is more active in our picture of reality than we previously acknowledged. The monster, of course, is a product of and regular inhabitant of the imagination, but the imagination is a driving force behind our entire perception of the world.[1]

Aegean Bronze Age seals and sealings have preserved a plethora of creatures and 'monsters' that puzzle the modern viewer. Some of these, such as the griffin or the sphinx, are still recognizable today while others are difficult to comprehend, and some perhaps even impossible to understand. The pictorial representations of Bronze Age 'monsters' offer us insights into the minds that created them. We must, however, be aware that what we infer from the study of their iconography can only throw spotlights on the cognition of the past people that created them. Just as "the imagination is a driving force behind our entire perception of the world,"[2] so is the perception of the world by an individual or a social group a driving force of their imagination, creativity, and, ultimately, craftsmanship. It is only the result of the latter – in the case of this study: the seals and sealings – that is preserved today. These are taken as the starting point to re-construct the human cognition as regards non-natural, fantastic creatures.

This study intends to construct a first approach to the question of what the phenomenon of 'monsters', hybrids, or composite creatures occurring on Minoan seals and sealings can tell us about the minds that produced them. It should be pointed out that these motifs constitute only a fraction of the extant seal images from the Bronze Age Aegean – all in all less than 10%.[3] To the aims of this study, it is necessary to begin with a systematic structuring of the iconographical material. In an initial step, the material is categorized into two main types called *occasional hybrids* and *fixed hybrids*. While the first seem to be ephemeral occurrences, the latter were long-lived and evolved with the Bronze Age societies that produced them. On a second level, the various types of creatures will be scrutinized and ordered by typological criteria. After a discussion of the extant hybrid representations on seals and sealings, their role in the social cognition and perception in their time and place of use will be assessed. This will be supported by theoretical models derived from anthropological and neighboring disciplines that are outlined in the introductory chapter.

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1 Asma 2009, 14.

2 Asma 2009, 14.

3 Blakolmer 2019, 127: "[…] they comprise not more than 9.2% (311 out of 3,361) of isolated (non-anthropomorphic) beings represented on Aegean seals. In multi-figural seal-images supernatural creatures occur in combination with other hybrid beings, animals or anthropomorphic figures 83 times, while in the case of animals this is a total amount of 573 examples."

While this study cannot possibly answer the abundant questions concerning ‘monster’ depictions and the role of fantastic creatures in Bronze Age societies, it hopes to establish a basic structure for future enquiries by organizing the material under typological and chronological aspects, providing a catalogue of all extant and published composite creatures, and by looking beyond the mere seals and towards the society that produced them.

2. Monsters and Meanings

2.1 Terminology and Definitions

This study deals with several terms evoking concepts subsumed under the title of *Monsters and the Mind*. The *mind* is conceived as "the part of a person that feels, thinks, perceives, wills, and especially reasons"[4] – the center of individual and social cognition and reasoning. First and foremost, it is not to be understood as a synonym to the brain as an organ. Rather, the brain, together with the nervous system, is understood as its physical basis with the capacity, among others, of developing a mind.[5] This paper does not aim to overcome the mind-body (or coined in this sense the 'mind-brain') problem,[6] but for the purpose of this study the brain will be understood as the processor of neurocognition whereas the mind as the center of social cognition, reasoning and human agency.

Focusing on the term *monster,* it is necessary to review existing definitions in order to delineate the understanding of the expression in the context of this study. The Latin base of the word, *monstrum,* has different connotations. Derived from the verb *monere,* it transports several shades of meaning, *to remind* or *put in mind* to *advise*, *admonish* and *warn* over to *instruct* and *teach*.[7] In this sense, it implies rather neutral notions such as the reminder, negative connotations such as admonishment, and positive ones such as the capacity of teaching. This urges some caution in understanding monsters solely as bearers of evil and misfortune as it has become customary in modern times. Asma has traced the term in the realms of cultural history and psychoanalysis concluding that it "has now slipped wholly into the derogatory,"[8] which is why he uses it only in ironic terms. The author understands monsters as a "kind of *cultural category*, employed in domains as diverse as religion, biology, literature, and politics."[9]

Asma has studied the *discourse* of monsters, a subject that cannot be traced in the written sources of Minoan times – in contrast to neighboring cultures that produced literature on the topic.[10] The only remnants of such a presumable Minoan discourse are iconographic remains. In most cases, these are creatures of composite nature, joining two or more species or elements to a new being that cannot be encountered in the

4 Merriam Webster Online Thesaurus: https://www.merriam-webster.com/dictionary/ mind (last accessed 23/08/2018).

5 Griffiths – Stotz 2000, 31.

6 Malafouris 2013, 3–4. For a more detailed account see Young, R. 1996. "The mind-body problem." In *Companion to the History of Modern Science,* edited by R. C. Olby et al. London: Routledge.

7 Lewis-Short Latin Dictionary s.v *moneo*.

8 Asma 2009, 15.

9 Asma 2009, 13.

10 Such as the Book of Babylonia.

natural world. It is along these lines of observation that the term 'monster' is understood and applied – not as a moral category, but signifying beings of a somatic and conceptual otherness due to a counter-intuitive[11] structure. The notion of counter-intuitive representations derives from the studies of Sperber[12] and has since been further developed. It is used to describe the phenomenon of "beliefs and discourses [that are] puzzling from an evolutionary point of view, as they cannot be based on acquired experience of the empirical world […]."[13] Transferred to the present study, counter-intuitive representations are observed in the iconographical output that underlies beliefs and discourses entertained by the social group that has produced them. David Wengrow has proposed a definition of the term 'monster' that will be followed in the course of these deliberations:

> *My use of the term 'monster' in what follows is therefore limited to a technical description of images that depict composite beings, comprising incongruous elements of human and/or animal anatomy. As taxonomic anomalies, blending elements from two or more species, monsters – following this limited definition – are good exemplars of 'counter-intuitive' representations.*[14]

The expressions 'creature' and 'composite creature' also call for some clarifying remarks. A creature is understood as any theoretically viable being of anthropomorphic or zoomorphic features in command of an array of senses, such as sight, smell and touch and therefore in need of a head, limbs and body structured in an anatomically coherent way.[15] Composite creatures are comprised of at least two heterogeneous entities, thus adding up to a fantastic creature (*i.e.* one that does not exist in the natural world). Hybrids also fall into this category. The designation 'hybrid' as used here does not denote cross-bred animals but iconographically fabricated fantastic combinations (*Mischwesen*). Following Maria Anastasiadou's study of the Zakros sealings,[16] composite creatures will be further subdivided into two types: first, there are *occasional hybrids* – creatures with no traceable fixed semantic meaning; *i.e.* they do not occur throughout different locales and time-spans nor do they create a recognizable iconographic 'canon'. The second type are the *fixed hybrids*[17] with a presumed standard semantic meaning – which is in most cases quite elusive to modern viewers but can

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11 E.g. by Wengrow 2011; 2014.

12 Sperber 1975; 1985; 1996.

13 Wengrow 2011, 133.

14 Wengrow 2011, 134.

15 *Cf.* Wengrow 2014, 27.

16 Anastasiadou 2016, 80–83.

17 Anastasiadou 2016, 83 calls these *standard hybrids* with "certain qualities, a specific character and [an] own name." Focusing on iconography, this study attempts to evade ambiguous terms, as the term 'standard' might be understood to describe not only the cognizance, but also the iconography of the 'monsters'. Therefore, I here use the term *fixed hybrids* to describe creatures whose defining elements were fixed but could be varied on an iconographic level, resulting in variants of one creature that nevertheless all adhere to the fixed basic elements.

be assumed for Minoan social cognition due to the fact that these hybrids feature syn- and diachronically at several different places and are composed of standard elements that could be understood as 'canonical' of that creature.[18]

One last differentiation needs to be made regarding the creature representations. Not all composites fulfill the requirement of anatomical coherence claimed by the definition for creatures. This applies especially to an array of motifs from the impressions found in House A of Zakros. Fifty-four entries in the relational database created for this study have been classified as *non-viable composites* as they show no adherence to fundamental anatomical rules. This can be due to unconnected extremities or missing linking body parts,[19] the absence of a head – and consequentially the non-exist potential of sensory engagement[20] – or due to an overall inconclusive adding-up of different elements.[21] In these cases, a viability of the composite is not imaginable, as necessary parts are missing. Some composites still give "the impression of a unit,"[22] such as cases where the head is substituted by a helmet that could be interpreted as a *pars-pro-toto* representation of a head. These composites may still be accepted as 'creatures' in the above definition, whereas entirely unit-less composites do not fulfill the requirements. On the other hand, a complete set of head, torso, and limbs in the correct order is necessary for imagined viability, and the potential of autonomous movement needs to be given for *viable composites,* the category which also encloses all standard hybrids.

Before turning to the theoretical concepts that will be detailed in this work, it needs to be pointed out that the definitions above are, by all means, a modern posit and etic view on the material culture. They do not represent an emic view by Bronze Age social groups. Instead, they frame the analytical approach followed here. Accordingly, these definitions should be regarded as "crutches for understanding," and "not as static and historically existing structures."[23] The same attention needs to be paid regarding the terms applied to archaeological cultures, *i.e.* the *Minoans* or *Mycenaeans*: These terms do not imply exclusive cultural entities, rather, they are "mental templates only created for analytical purposes"[24] and as such etic attributions that might or not have been perceived as distinct cultural groups. Therefore, the designation *social group/s* is employed regularly in this work so as not to imply (exclusive) cultural attributes where none can be traced securely. However, the terms *Minoan* and *Mycenaean* are established in the archaeological literature and are feasible categories when it comes to

[18] Anastasiadou 2016, 82.
[19] As witnessed exemplarily on *CMS* II7 nos. 75, 119–20.
[20] Such as on *CMS* II7 nos. 131, 134; XII no. 174b, *i.a.*
[21] Such as on *CMS* II7 nos. 147, 153–60, 169–71, *i.a.*
[22] Anastasiadou 2016, 81.
[23] Stockhammer 2012, 47.
[24] Stockhammer 2012, 47–48.

differentiating archaeological material that has a recognizable origin. Therefore, it needs to be kept in mind that the social groups attributed as either *Minoan* or *Mycenaean* were in fact relationally entangled groups and not 'pure' and easily divisible 'cultures'.[25]

2.2 Theoretical Scaffold

Firstly, the aim of this work is to define units of composite creatures to create an overview of the types of hybrids and other re-assembled bodies. Secondly, the question of their role in Bronze Age social groups arises. In order to bridge the gap in time between the 21st century and the long past Aegean Bronze Age, theoretical models are employed as heuristic tools that have the potential to both answer questions about the minds behind the creation of composite creatures and those who perceived, used and developed these motifs. The most important of these concepts, in terms of this study, will be presented briefly in the following. They are considered as pillars of *cognitive archaeology*, a discipline that seeks to link "the science of the mind and the science of material culture [...] by showing that understanding material culture leads to an understanding of the human mind and vice versa."[26]

Affordance Theory, instantiated by the psychologist James Gibson,[27] is one heuristic device this study resorts to. It postulates the invariant intrinsic potential of any given object, space or living thing that predefines possibilities and limits of its use. While affordances do not change, the perception of and selection from an array of affordances of a single entity depends on the proprioception of the observer and its interplay with the exteroception of the given entity. Some, but not all, of these affordances can be inferred from perception. A well-known example is a chair that entails the affordance of *sitting on*.[28] Other affordant properties might not be perceived from each spectator, such as the potential to function as a clothes stack, to prop open or obstruct a door or to be used as a stepladder. However, the recognition of certain affordances does not rely solely on perception, but to a large extent on cultural knowledge.[29] In the context of this study's material, affordance observations are a heuristic means to grasp a Minoan observer's relation to and understanding of certain hybrids. For example, a hybrid lion-man and a hybrid bull-man can be differentiated on the level of social cognition due to the affordances of the respective animal parts. While lions constantly afford danger to humans and animals, bulls merely have the *potential* to afford danger (as in the

[25] *Cf*. Stockhammer 2012, *passim*, esp. 48–51; Simandiraki-Grimshaw 2010, 98.
[26] Malafouris 2013, 13.
[27] Gibson 1986, 127–35.
[28] Knappett 2005, 47.
[29] Knappett 2005, 47–50.

context of bull grappling) but this is not a perpetual danger. This has different impacts on the understanding of lion-men on the one hand, and bull-men on the other.[30]

An important fact pointed out by Carl Knappett is, "[…] that in certain circumstances the chair's affordance for sitting will not be recognized by the human actors present. Yet this does not mean that the chair stops affording sitting – its affordant properties are in a sense independent of the actors' perceptions"[31] (naturally, this applies to all affordances). Applied to this study, the affordant properties of lions and bulls do not cease to exist today, although people of modern Western societies rarely encounter wild lions and bulls and thus will not always be aware of their affordances[32] as regards danger.[33]

Materiality is another concept this study reflects upon. Objects and artefacts produced by a social group amass to a material culture. Nevertheless, this does not imply a division of material culture vs. immaterial culture – rather, as the ethnologist Peter Hahn has pointed out, the objects produced and used by a social group can only be understood in context of their actions. Only a combined observation of a group's immaterial and material culture can help us understand their everyday world.[34]

The concept of *appropriation* is directly connected to questions of materiality and extraneous objects. Two kinds of appropriation can occur in the context of material culture: (1) an object can be re-shaped on a material basis. For example, the lapis lazuli cylinder seal *CMS* II2 no. 27, was originally cut in a EBA Syrian context, then re-cut in MBA Anatolia, and finally re-cut and fitted with gold caps in Crete during the early Neopalatial period;[35] (2) an object can be appropriated without changing its material form by ascribing new meanings to it. At the end of this process, an item of material culture can be imbued with a very different meaning than at the time when it was first introduced to a new social group.[36]

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30 These aspects will be followed in chapter 3.1.

31 Knappett 2005, 47.

32 This is partially due to modern pop culture notions about animals that have led to the ascription of properties that, in the Minoan mind, presumably did not include connotations such as 'cute' for a lion or a 'funny' for a boar, as they do in the minds of people who have grown up with Disney's *The Lion King*.

33 On the other hand, the invariability of affordances, as posited by Gibson, needs to be evaluated critically. If no agency exists that is capable of 'using' an object's potential, the respective affordance ceases to exist.

33 While Gibson's work forms the basis for affordance theory as applied later, it needs to be noted that some points were rather radical and have been revised by later theorists, such as Palmer, Clark and Heft, who have placed more focus on cultural circumstances (Knappett 2005, 54). A conclusive overview is given, and amendments made by Knappett 2005, 45–58. While an extensive recapitulation of the critique and revision are beyond the scope of this work, Knappett's line of thought is followed here.

34 Hahn 2005, 9.

35 For a detailed account, see Aruz 2008, 96–98, 273 cat no. 113. For further examples of material appropriation in Bronze Age Crete, see Panagiotopoulos 2013.

36 Hahn 2005, 101. In chapter 4.1, *Minoan Genius*, we will see that this happened in the case of *Taweret*, an Egyptian demi-god that came to Crete and was subdued to drastic changes.

Hahn defines four simultaneous processes that lead to the complete appropriation, and ultimately 'traditionalization'[37] of an object: *materielle Umgestaltung* (material modification); *Benennung* (designation); *kulturelle Umwandlung* (cultural transformation); and *Inkorporierung* (incorporation).[38] The material modification is not a necessary step of appropriation, but one that can also be traced in Aegean Bronze Age material records. The designation of the object, however, cannot be reconstructed due to the undeciphered scripts (Cretan Hieroglyphs, Linear A) and the high possibility that such designations were not recorded in written form (as deduced from Linear B).

Cultural transformation is again a subject that can be inferred from the study of material records and is especially interesting in the case of fantastic creatures that came to the Aegean from Near Eastern contexts, such as *Taweret*/Minoan Genius, the griffin or the sphinx. Transformation leads to the understanding of an object in a local context including people's use of and access to it. Finally, incorporation implies the 'right use' of an object in its new context – individuals who handle it now recognize it as a familiar item rather than an exotic one.[39] These processes reflect ideal types of appropriation on a theoretical level and are not always encountered in the archaeological record.

[37] 'Traditionalization' is understood by Hahn as a result of appropriation over a span of time from which emerges a social consensus about the local understanding of the imported object, which is, ultimately, not perceived as foreign anymore. *Cf*. Hahn 2005, 103–04.

[38] Hahn 2005, 102.

[39] Hahn 2005, 103.

3. Composite Creatures on Seals and Sealings – Occasional Hybrids

Occasional hybrids have been defined as a category of composite creatures that do not occur in different places nor exist for a long span of time. They show no compositional rules and therefore it is proposed to view them not as specific entities, like a certain divinity or demon, but rather as ephemeral manifestations of certain abstract concepts or beliefs within the social group that shaped them.

Of the 512 entries in the database created for this study, 65 distinct entries[40] document composite creatures shaped in an organic combination. The following are a selection of the most frequent composite devices:

- bird protomes/wings/heads/bodies/fantails;
- human protomes/torsos/legs/arms; female breasts;
- quadruped protomes (especially bovine, caprid and feline, also boars, pigs and deer);
- quadruped bodies or legs; snake protomes; butterfly wings;
- attire, such as (banded and boar-tusk) helms; 'snake frames'; flounced skirts or kilts; jewelry (headdresses, necklaces, bracelets, anklets, belts and belly chains);
- floral ornaments (palm stalks, flower motifs, rosettes);
- ornamental elements (loops, wavy lines, wheel- and heart-shaped motifs).

These composite elements can be combined in a variety of ways which makes the task of attributing them to certain types rather difficult. Such an attempt would end in many highly specific units with few representatives of a type and, ultimately, obfuscate the iconographical repertoire rather than explain it. Instead, this chapter strives to find more general categories that comprise a variety of possible combinations. Examples for these categories are *dyad and triad species composites*, *non-viable composites* and *winged creatures*.

[40] Many of the Zakros seals had very near copies and these cases are here counted as one combination although they could originally have been found on two or even three seals. *Cf*. Anastasiadou 2016, 79.

3.1 Dyad and Triad Species Composites

This broad group of composite creatures is characterized by the combination of two types of species that generate one hybrid. The resulting hybrids can be subdivided into further types: *a) human-animal combinations* with the lower body of a human and the upper body and head of a quadruped, mostly bulls, goats, and lions;[41] *b) double-animal-human combinations* with a lower human body and two animal rumps and heads of one species emanating from the waist; and, finally *c) double-animal combinations* that merge two species, *e.g.* a ram and a lion, together with a human lower body. Type *a* comprises 33 hybrids, type *b* 11 and type *c* is represented here by five exemplary hybrids.

Human-Animal Combinations

Human-animal combinations are the most abundant within the typological group of *dyad species*. Yet, unlike the *winged creatures* that show a high potential for variation, the representatives of this group feature very homogeneously. They can be subdivided into the groups of 'bull-men', 'goat-men', 'lion-men' and finally, representations that can be categorized as 'unique dyads'. Anna Simandiraki-Grimshaw has pointed to the interesting fact that these "homosomatic animal-human hybrids"[42] appear almost exclusively in the glyptic context. She presents the following possibilities for this restriction to one medium:

> *(a) these hybrids are connected with particular people, products, services, quality, or provenance in administrative, financial, elite realms; (b) they restrict, but also expand, the ideology of animal-human hybridity (and perhaps mastery) among controlled, knowledgeable audiences; (c) their use discontinues in ritual or perhaps this ceases to be their main function; (d) their meaning changes because of the influence of ideas likely to have been attached to the newly imported motifs.*[43]

Some of these possibilities might well overlap in the case of the following human-animal combinations. For example, these depictions are most certainly connected with a particular social group, which can be inferred from their frequent occurrence at specific sites and times, especially Knossos in the phase LB II–IIIA1. They show a close adherence to a fixed set of devices and are all rendered in hard stone seals. The recurrence of material, style, date and find spot points toward a distinct social group who had access to hard stone materials and techniques in the Final Palatial Period and was connected to the administrative and political center of Crete.

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41 These types have previously been called „tiermenschliche Akrobaten" by Schlager. However, as this term predetermines the figures' interpretation as acrobats it will not be applied here. *Cf*. Schlager 1989, *passim*.

42 Simandiraki-Grimshaw 2010, 99.

43 Simandiraki-Grimshaw 2010, 100. It needs to be pointed out that Simandiraki-Grimshaw's category of homosomatic hybrids comprises more hybrids than just occasional ones.

Further, it is possible to assume the human-animal combinations did not play a role in ritual because, unlike some fixed hybrids that are depicted in narrative or heraldic scenes and on other media, the majority of occasional human-animal combinations appears isolated on their seal faces, thus assuming a more emblematic role. In the course of this chapter, Simandiraki-Grimshaw's categories should be kept in mind, while the study of the hybrids itself might contribute to further possibilities.

Bull-Men

Bulls are very prominent in the iconographic repertoire of the Bronze Age. Let alone 1669[44] seal faces show bulls or composite bull-creatures. In the archaeological literature, the hybrids in this group are typically called *Minotaur*,[45] a label that should be dismissed due to the fact that it is a term from Greco-Roman times applied to one specific mythological creature that has the body of a man and the head of a bull.[46] However, this mythological beast is not attested in the Bronze Age and, in contrast to the iconography of Minoan grotesques and later *gorgoneia*,[47] no typological development can be traced between the LBA hybrids shaped from men and bulls to the Minotaur of historical times.[48] Therefore, the neutral label 'bull-men' will be employed to denote all hybrids that are composed of the front of a bull (including head, front legs and front quarter of the body) and the lower part of a male[49] human being (from the waist down, sometimes including a belt or garment).

In the following, the extant bull-men images will be examined regarding their iconographical affiliation. The typology does not reflect a strict chronological sequence but focusses on stylistic and representational features. The seal faces are not necessarily considered in the orientation published by the Corpus of Minoan and Mycenaean Seals (CMS). Instead, each is turned so that the hybrids' knees show to the right[50] which makes it easier to compare the images. Only a few cases are not turned like this, such as dyad **OH.13** that shows an intrinsic orientation and **OH.07** that constitutes an inverted depiction of the regular type.

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44 This is counting only those seals published by the CMS up to now. The number comprises all seal faces (not single bull-depictions) in the *Arachne* database.

45 Schlager 1989, 232–35 reveals several cases. Krzyszkowska 2005 and Simandiraki-Grimshaw 2010 use the term as well, yet in inverted commas.

46 Schlager 1989, 226.

47 Cf. chapter 4.2, Minoan Grotesques.

48 Krzyszkowska 2005, 208 has voiced the theory of a "re-discovery of old Cretan seals which prompted the revival of the imagery and the creation of the minotaur legends" in the Iron Age.

49 When compared to the broad repertoire of LBA human depictions it becomes clear that these are male lower bodies, as they either wear garments only associated with men or no garments at all, which is unknown of female figures.

50 As always, this is explained in view of the impression, not the intaglio on the seal face.

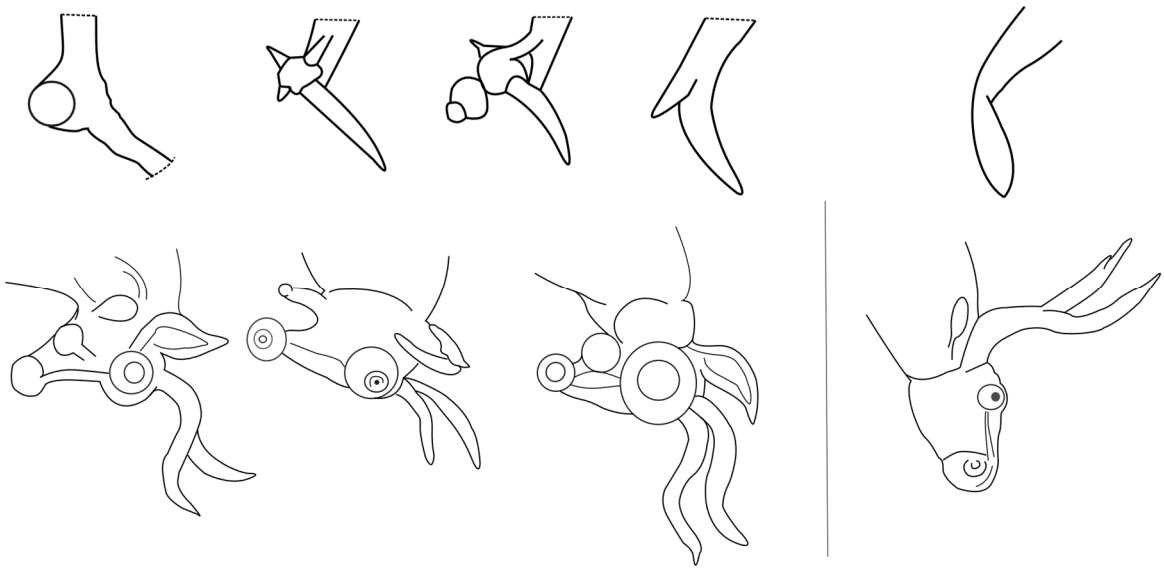

Fig. 1 Variable elements of bull-men group a: Top row: from left to right: feet of bull-men nos. OH.01, 05 (left), 06 (right), 02, 04. Bottom row: from left to right: heads of bull-men nos. OH.01, 04, 06 | 03.

The first vertical group (*group a*) consists of six representatives all dating to LB II–IIIA1 or LB IIIA1 on stylistic grounds.[51] All show the same orientation, namely legs that begin at about one o'clock on the seal face and curve downwards until ca. four to five o'clock.[52] The stomach protrudes upwards and the bull's chest, due to a strong torsion of the body, to the left side (ca. eight to ten o'clock). The head is in the lower left corner of the seal impression with the forehead almost parallel to the edge of the seal (as if upside-down, this is again due to the torsion of the body). The only exception is **OH.03** whose chin is in line with the seal edge, its forehead pointing towards the middle of the seal face.

All these bull-men have a bipartite body segmented by the narrow waist typical of Neopalatial human depictions. The long legs are curved along the outline of the seal and show varying degrees of near-natural depiction. While the knees of **OH.01** and **02** are rather amorph, they are clearly shown as anatomic joints between thighs and shanks on the other seal faces. In these latter cases, the musculature of the thigh and the shinbone are worked clearly recognizably, with the small exception of **OH.05** that shows less detail in these features and overall. The feet on all but **OH.04**[53] are rendered with an articulate heel (*fig. 1,* top row) that is either indicated by a circular drill hole (**OH.01**, **03**, **06**, right foot, **OH. 07**), a spike (**OH.02**, **06**, left foot) or a combination of one or two drill-holes and one or more spikes (**OH.05**). The torsion of the body takes place at the waist where the human lower body merges into the forepart of the bull. The abdomen is stretched out and abruptly curves downward at the chest. While **OH.01–03** and **06–12** display an anatomically discrete thin midsection of the body

[51] *CMS* XII no. 61; VS3 no. 150; VI no. 298; XI no. 251; II3 no. 67; and X no. 145.

[52] The round seal faces, mainly of lentoids, allow for this comprehensible analogy to a clock.

[53] Only on OH.04 is the heal not set off from the rest of the foot, giving it the impression of an amorphous sock.

between chest and waist, **OH.04** and **05** do not distinguish these body parts, effectively turning the body into a liver-shaped structure. **OH.06** arguably combines compositional variants, maintaining the observed liver form while at the same time sporting a well-defined chest that is set off from the abdomen. However, this is because on this seal, the muscles of the bull have been rendered in a way suggesting a close observation of a live bull by the engraver whereas **OH.01–03** do not reach this near-natural level.

The front legs of the creatures are either extended straight toward the head[54] or bent up-[55] or downward[56] at the joint. Drill-holes with protruding triangular incisions represent the hooves of all bulls. The heads in this group show three variations (*fig. 1*, bottom row). The first type is a triangular head with a circular drilled muzzle (**OH.01**, **02**, **06**).[57] The second head shows more detail as the jawbone is added, the snout is again rendered by a drill-hole (**OH.04**, **05**).[58] **OH.06** has both the triangle-shape and, above the neck, a 'swollen' section that could be indicative of the jawbone. Finally, **OH.03** does not fit with the other heads, because it is shaped in closer observation of the natural specimen. However, this bull-man is still included in this group due to its composition and association with two symbolic ornaments: a figure-eight shield[59] and an impaled triangle.[60]

Of the six seals in this group only **OH.01** has no additional ornaments. Dyad bull-man **OH.02** winds his back around two tubular drill holes like the just mentioned one, **OH.03**, does around a figure-eight shield. This comparison leads to the association of the ornamental circles on **OH.02** with an abbreviated figure-eight shield. Additionally, **OH.03** displays an impaled triangle in between the head and the legs that points toward the back of the creature. The same composition can also be seen on **OH.04**, again accompanied by a figure-eight shield, although in a different position in front of the creature's stomach. These close iconographic ties witnessed on both seals have led to the inclusion of bull-man **OH.03** in this group. The impaled triangle is engraved yet again on **OH.05**, tying the three seals (**OH.03–05**) closely together. I suggest that the

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54 OH.01, 03, 05, 06.

55 OH.04.

56 OH.05.

57 This can be observed on (non-composite) bull-images as well. *cf. CMS* IX no. 194; II3 no. 212. Both examples date to LH/LM IIIA1 on stylistic grounds.

58 This also features in the record of bull images: *cf. CMS* IX no. 147 (open-mouthed).

59 The combined arrangement of bull and figure-eight shield ornaments knows many examples in Aegean glyptic. *Arachne* enlists 66 seal faces with this feature, although ca. half a dozen should be subtracted as they depict goats rather than bulls (e.g. *CMS* IX no. 128) or because two juxtaposed drill-holes were misinterpreted as a figure-eight shield (as I suppose happened in the case of *CMS* VI no. 302).

60 The combination of an impaled triangle and bull iconography is also well attested. *Arachne* displays 20 seal faces that combine these elements. Krzyszkowska 2005, 208 mentions that the impaled triangle "resembles the Linear B ideogram for wheat, GRANUM, its occurrence on seals of this period defies explanation."

use of the same devices on four stylistically close bull-man seals indicates shared semantics, which can be regarded as a deliberate, self-conscious act of constructing a relation between all four seals. Moreover, the use of the hard stone only and the presence of a related iconography imply that a synchronically established peer relationship was looked for.

The final bull-man of *group a* is not accompanied by ornamental symbols, but by a figural one, specifically, a frontal human head with short curled hair, and facial features including the brow, eyes, nose and ears. While bull-men **OH.01–02** and arguably **04** wear cinched belts, **OH.06** wears a belt and short garment that cannot be identified due to damages on the surface of the seal. This relates it to three further bull-men that are here treated as a subcategory with close ties to *group a*.

While *group a* is arranged on account of the body position of the bull-men, and, on a second level, of the associated ornaments, this sub-group shows some correlation to single specimens of *group a*, but not enough to be accounted on the same vertical axis. **OH.07** virtually mirrors the posture of **OH.06.** It is also stylistically close to this seal due to the head shape. The lower part of its head is rendered with the help of three consecutive drill-holes of similar size, the front one for the muzzle, the rear one for the jawbone, presumably.[61] **OH.06** also shows a drill-hole for the muzzle, one behind this and the already mentioned 'swollen' rounded part that was created by joining two closely juxtaposed drill-holes.[62] As the former, **OH.07** is also wearing a garment – a well-discernible breechcloth. It also has an ornament in shape of a three-leafed plant. The next two specimens in this group are clad as well, **OH.08** wears a garment with crosshatching ending in the middle of its thighs. Apart from this fact, it is closer to **OH.03** as it shares the same pose. Its head, however, sports two of the observed drill-holes and, additionally a well-formed muzzle. Instead of a third hole for the jawbone, this hybrid has a jawbone of near-natural shape. This is not the case with dyad bull-man **OH.09** whose head is triangle-shaped with borings for the jaw and muzzle. As this creature is not alone on its seal face but accompanied by another hybrid (a lion-man), there was less space for the entire creature, yet it shows several compositional and stylistic similarities with **OH.01**.

Another seal that is affiliated, but also dissimilar to *group a* should be mentioned along these lines as it has some similarities with **OH.03** (so-to-speak the 'bête noire' of *group a*). **OH.10** displays a very similar body posture and its near-natural head is a close parallel to dyad **OH.03**. It is also accompanied by an ornament, in this case a star above

[61] This is encountered quite often on seals depicting (non-composite) bulls. *Cf.*: *CMS* II8 nos. 231. 419 (both dating to LH IIIA1 on stylistic grounds).

[62] The beginning of this configuration of the lower head might be observed on OH.01 that has the drilled muzzle, another drill-hole in the center of the lower head and a drop-shaped one in place of the jawbone.

its forehead. The rest of the creature, especially its abdomen, is executed quite differently, the intaglio being shallower and not entirely smoothed out.

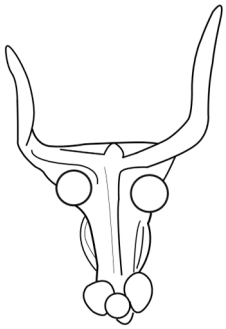

Fig. 2 Group b-type frontal bull's head (after CMS III no. 363).

A possible bull-man, **OH.11**, also causes some typological problems. Its stance mirrors the *group* a-pose and the treatment of the section from abdomen to chest resemble**s OH.01**. The rest of the figure is compartmentalized into several bulging parts to be witnessed especially well on the legs that have several rounded sections. Notably, the bent front leg looks unnaturally distorted because of this. Even one of the horns is divided into two sections. The head of the creature is reminiscent of the triangle-shaped heads, but its open mouth reveals several details that *group a* bull-men do not. From the lower jaw of its open mouth streams an undefinable item that could be interpreted as a tongue, weed or perhaps hair.[63]

One bull-man that is considerably earlier is **OH.12**, a hard-stone amygdaloid dating in LM I–II on stylistic grounds. The seal has a rather difficult background as its authenticity has been a matter of debate, which is mainly due to the fact that several glass copies were made of it.[64] In a CMS *Beiheft* contribution, Ingo Pini doubted the authenticity of the amygdaloid because of its unusual shape (lentoids were the preferred medium for such depictions) and some atypical technical observances.[65] Nevertheless, he now proposes to view it as authentic "*mit einem gewissen Vorbehalt,*"[66] ('with some reservation') which is why the seal is mentioned here with a certain caveat. The bull-man in profile on its face almost forms a complete circle, with the creature's muzzle nearly touching the human heal of the foot – unlike the hybrids on the later seals whose ears usually point toward the feet leaving some space in between that can be filled by ornaments. The observation that the amygdaloid was an unconventional shape for this motif can only arise from a perspective in hindsight, focusing on the abundant material from LM II–IIIA1 that demonstrates the prevalence of the lentoid for seals of and beyond the composite creatures.[67] In LM I–II such composite human-animal creatures only began to be issued on seals, so the possibility that we are dealing with an early stage of bull-men glyptic should not be ruled out on the basis of the seal shape.

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[63] It was also considered to treat this figure as a goat-man, but it shows more parallels to bulls (esp. the body) than to goats. This figure's head does not resemble any of the goat heads on hybrid figures, either.

[64] For details, see Pini 1981, 149–53.

[65] Pini 1981, 153: „[…] die einzelnen Bohrungen der Kinnpartie [sind] nur schwach angedeutet und stark verschliffen, desgleichen der Augenkreis. Dies sind für sicher antike Siegel völlig atpyische Merkmale."

[66] Pini, personal comment May 2018.

[67] Krzyszkowska 2005, 196.

Having dealt with bull-men in complete profile, the following seals, constituting *group b*, are arranged based on their frontally depicted heads that show very close parallels (*fig. 2*). On the three first seals, the bull's head is crowned by upward curving horns; on the fourth seal, they curve downward. From the top of the head over the forehead down to the nose runs a narrowing protrusion ending in two, respectively three,[68] drill-holes indicating the muzzle. The eyes are also rendered with the help of drill-holes. All four seals in this group adhere very closely to this scheme even though two of them are from Central Crete while the other two were found on the Greek mainland.

Bull-man **OH.13** is attributed to Phaistos and dates, like **OH.12**, between LM I–II. It shows similarities with the (later) *group a*, as it displays a similar torsion of the body. However, it is positioned quite differently, with one leg going almost vertically down, then bent backward at the knee and the other leg extended forward and bent down and back at the knee. The rump is straight up to the forelegs from where the chest turns backwards in a U-turn merging into the frontally depicted head. The space between the head and the backward extended leg is filled by a star-shaped ornament.

OH.14, said to come from Moni Odigitria or Chania,[69] dates in LM II–IIIA1 and is quite distinct from all other bull-men. Unlike these, it does not have the front quarter of a bull, but only the head of the animal on top of a frontal human torso. The legs are shown in profile with the feet pointing left. There are no other iconographic parallels in the extant record of Minoan and Mycenaean seals. It is also the only barrel-shaped seal, a form that suggests itself to the motif of an upright humanoid figure. Derived from a private collection,[70] the combined irregularities in seal shape, iconography and find spot invariably lead to questioning the authenticity of the seal, a possibility that cannot be further detailed within the scope of this work.

The two final seals of *group b* are similar in motif but different in style. The lentoid **OH.15** comes from a stratified context in Patras and dates to LB II–IIIA1. The bull-man's legs take up the right part of the seal face, its abdomen is stretched along the upper side, its chest along the left. The bull head assumes a considerable amount of space in the lower left quarter. Unlike the earlier and Cretan seals, the gem engraver used every available bit of space on the seal face, adding several ornaments to overcome an apparent *horror vacui*. Extending from the bottom towards the coccyx, a three-leaved plant with stem has been engraved. A further three-leaved plant with stem and protuberance runs along the right and upper edge of the seal face. Several ground-lines extend from

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[68] On OH.13.

[69] In the *Arachne* database, the provenance is Moni Odigitria with a question mark. In the print volume *CMS* VS3 no. 154 it is suggested to have derived from a chamber tomb at Chania.

[70] This is the Mitsotakis collection. For more details, *cf*. N.P Goulandris Foundation (ed.). 1992. *Minoan and Greek civilization from the Mitsotakis Collection*. Athens: Museum of Cycladic Art. The bull-man OH.02 also derives from this collection.

the hooves on the lower left edge to the feet on the lower right. While the postures of both bull-men are near parallels, **OH.16**, from a stratified context in Elatia, varies strongly in the application of ornaments. The engraver of this piece preferred not to fill the entire seal face. Rather, the ornaments were executed finely and in a smaller scale, leaving open areas on the seal-face. The bull-man here is accompanied by two maritime symbols: a dolphin and a mussel. This is quite different from all other bull-men depictions, although the association of quadrupeds and marine animals is not entirely unheard of.[71]

While the contorted bull-men have no comparable models in Proto- or early Neopalatial iconography, they are reminiscent of bull-leaping scenes that arose in the early Neopalatial period and also appear in LM II–III times.[72] The leaper summersaulting over the bull's head seems to have merged with the animal, creating this hybrid that comprises both the skill and elegance of the human leaper and the energy and strength of the animal. While we cannot grasp the extent of this hybrid's semantic meaning for Minoan observers, it can be accepted that these qualities (energy, strength, skill and elegance) played a major role in the iconology of the bull-men. Additionally, a relationship to the Knossian elite seems highly likely, as bull iconography has been shown to have had close links to the palace of Knossos.[73] Unsurprisingly, many of the bull-men come from Knossos as well, which Olga Krzyszkowska calls the "most likely home for the motif."[74]

Since these images appear in times of political and cultural changes in the Final Palatial period, the possibility should be considered that not the 'old' Minoan elites who had established themselves in Neopalatial times created this hybrid, but rather a new group that had risen to the fore. The bull-men may have indicated "the ideology of a new administration" that was deemed "sufficiently different from Neopalatial (administrative/financial/political?) values," while at the same time "deliberately in tandem with new and more public visual vocabularies in Crete"[75] which were intentionally not devoid of connections to Neopalatial imagery. Were bull-men therefore symbolic tokens of a new elite group that created these as a means of legitimization that would have drawn on traditional imagery while at the same time adding new symbolic notions embedded in the homosomatic quality of the hybrid?

Although bull-men constitute the largest motif group of human-animal combinations, it is nevertheless challenging to arrange the material into rigid typological groups

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71 *Cf*. *CMS* XI no. 226 (LH II–IIIA1 dolphin and quadruped, a bull according to the CMS, but it resembles more a deer); II4 no. 161 (LM IIIA1 from Gournes, dolphin and bull); V no. 667 (LB II–IIIA1 from Thebes, a goat or deer among fish).

72 *Cf*. *CMS* II6 no. 161; VS3 no. 369.

73 Krzyszkowska 2005, 206.

74 Krzyszkowska 2005, 208.

75 Simandiraki-Grimshaw 2010, 100.

which is why the above groups and their correlates need to be understood as clusters that feature some variations such as the shapes of heads or feet specified at the outset rather than strict and standardized types. As the following human-animal hybrids are only represented by a small number of seals, they will not be arranged into typological units, since the material does not yield a sufficient quantity of images for such an endeavor.

Goat-Men

After bulls, goats are the second most common quadruped depicted on Bronze Age seals[76] and other media.[77] Goat-men, or agrimi-men, can be identified on three Minoan seals. The first three display very close iconographic ties. A shared feature is the shape of the head that differentiates the upper and lower jaw. The jawbone is plastic and elevated from the other features. The muzzle and eyes are made by drill-holes, which were also employed to render the striations on the long horns that are directed backwards. In two cases, the eyes are framed by a second circle. The joints of the human as well as animal parts are also demarcated by drill-holes. A typical feature of goats' legs is the depiction of the dewclaws that can be seen on the group of three similar goat-men.[78] The human legs are rendered in near-natural shapes showing a close adherence to human anatomy.

The earliest seal dates to LB I on stylistic grounds. Again, the shape of the lentoid was chosen, lending itself to the depiction of a body in torsion. This feature is brought to an extreme on dyad **OH.17** whose human lower body is bent backward, its bottom almost touching the lower back. The legs are thrown back as in a jump and seemingly kick the air above the creature. Its abdomen is stretched long in line with the lower edge of the seal face. The upper body of the goat is bent in an almost-perfect right angle from the outstretched back, the chest curving upwards into the elegantly curved neck of the animal. **OH.18**, although dating to LB II–IIIA1, is a very close parallel, but the body torsion and extreme position of the limbs are, in comparison, reduced. **OH.19**, also dating between LB II–IIIA1, stretches its legs behind the waist und only bends them upward from the knees on, which gives the body a more realistic shape. However, the creature's chest is thrust back even farther than on **OH.17**. While the heads of **OH.17** and **18** are close to the real animal's head shape, **OH.19** displays a very graphic head, with an overlarge, bulging eye, a horizontal cylindrical incision for the forehead ending in a drill-hole muzzle, as well as a pointed lower jaw. The horns are

[76] *Arachne* displays 1175 seal faces showing goats. These can be further differentiated in wild goats (agrimia) and domestic goats, however they are not always clearly distinguishable on the seal face. *Cf*. Bloedow 2003, 3–4.

[77] Bloedow 2003, 2.

[78] They are also typical for earlier goat depictions from Middle Minoan times onwards. *Cf*. Anastasiadou 2011, 174.

also rather graphic as they do not curve outward in a homogenic arc, like in the other cases, but in inconsistent lines.

It is especially on Crete that Bronze Age seal engravers have produced a multitude of goat depictions. Often, it is possible to differentiate between wild goats (agrimia) and domestic ones. This can be done on an iconographical level, where the characteristic long curved horns have been generally attributed to agrimia, yet in the case of seals, a distinction only by horn shape proves difficult. On the basis of pictorial themes (*Bildthemen*), such as hunting scenes, one must assume that it is wild goats that are hunted with spears and not their domestic relatives.[79] A first explanation for the prevalence of goat motifs has been sought in their economic value as evidenced from Linear tablets and animal bones. However, as Bloedow points out, this cannot be the reason for the huge pictorial output; when it comes to economically relevant livestock, sheep were a major factor in the Bronze Age and of utmost importance for wool and textile production. Nonetheless, sheep are strikingly insignificant, almost absent, in the extant pictorial repertoire.[80] This induces the idea that not the economically relevant domesticated animals where commonly depicted, but rather the wild goats associated with the sphere of hunting and body practices involving agility, skill and time to spare for such activities. This shifts agrimia to elite domains and explains why (wild) goats are prevalent within the elite media, such as seals and frescoes.[81] Considering goat-men, it thus appears plausible to accept the animal half as that of an agrimi and not a domestic goat and to consider them, on an iconological level, as prestigious displays of elite (self-) representation. Additionally, wild goats were associated with Minoan religion. They are featured in scenes depicting peak sanctuaries and are also associated with a female deity.[82]

Many goat-men characteristics can be traced on other seals as well. While it is not always possible to clearly differentiate between different species used for human-animal hybrids, the iconological interpretation offered in the above paragraph is posited for other animal-human hybrids depicted in this way. This is exemplary of the first seal in the following category of deer-men that was initially envisaged as a representative of the goat-men.

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79 Bloedow 2003, 3–4.

80 Bloedow 2003, 4–5.

81 For frescoes, see the "Park Fresco" from Ayia Triada, e.g. in Cameron – Evely 1999, 242 fig. 1. For a very conclusive consideration of human-agrimi relationships, iconography, and religious significance of wild goats, *cf*. the article of Bloedow 2003.

82 Blakolmer 2016, 62, n. 10.

Deer-Men

The hybrid in question is **OH.20**. This creature is rather problematic as can be seen in the respective CMS entry that begins with the description "Confused motif. A man with bull forepart bent double, backwards."[83] The motif is not only confused, it causes confusion in the observer. Like in the case of goat-men, extensive use was made of drill-holes and they similarly depict joints of the animal and human body – something that does occur on bull-men depictions, yet to a lesser extent than on goat-men seals. The hybrid **OH.20** displays the same unnatural backwards-bend of the lower body combined with an outstretched abdomen as, for instance, **OH.17** and **18** do, too.[84] On these grounds, it can be ruled out as a bull, however, another possibility needs to be taken in account, *i.e.* that we are dealing with a deer. The creature's horns are neither like the bulls' nor the goats' but seem to branch out like stags' horns.[85]

Compared to the next specimen in this group, its interpretation as a deer- (instead of goat-) man is furthered. The observed body posture with the long abdomen and strong bend of the lower body that has been claimed to be most typical of goat-men, can also be seen on **OH.21**, a specimen characterized by its toothed horns as a deer. One of this creature's legs is bent back so far that its human foot reaches under the muzzle, the lower part of its leg parallel to the back of the hybrid. The head of the deer does not end in a large drill-hole depicting the muzzle, but in a small one that acts as a nose. The mouth is open in the shape of a letter *v*, but it does not differentiate the anatomical distinctiveness of the upper and lower jaw (as observed on the goat-men seals).

The deer on *CMS* II4 no. 183 shows strong similarities in style and iconography. The same facial features can be observed on **OH.23** that also displays an open mouth but is otherwise iconographically distant.[86] The posture of **OH.21** is similar to that on **OH.22**, yet on this seal, no body parts overlap, and the bend of the legs is less harsh. This creature does not display a horizontally outstretched abdomen, but one that gently curves upward towards the head, which is turned facing the legs. Its head is different from the other two, as it is shaped like a drop ending in a small, rounded nose. The eye is not a rounded drill-hole, but almond-shaped. The antlers nevertheless characterize this as a deer. The posture of the first three deer cannot be transferred to the final representative of the group, as **OH.23** shares its lentoid seal face with another dyad creature. Due to the limited amount of semi-circular space, the hybrid's upper

[83] *CMS* VI no. 303.

[84] There are bull-men that are also bent back in an extremely unnatural way, such as OH.05 and 07. Yet, these bulls' abdomens are not over-long as in the case of the three goat-men just discussed.

[85] This characteristic has already been declared in the case of MM deer depictions. *Cf*. Anastasiadou 2011, 173. It is also prevalent on deer in the Cretan Popular Group of LM I (e.g. *CMS* I nos. 497, 499, 501).

[86] A seal from Armeni also dating to LB II–IIIA1 is iconographically very close to the deer depicted here, *CMS* VS1B no. 276a. The open mouth, the use of drill-holes in the face and along the legs as well as the forked antlers are extremely close.

body is bent so far back that its muzzle ends on the same level as the knees. Because its horns are rendered very accurately, it is possible to also include this motif in the category of deer-men, all of which can be dated to LB II–IIIA1 on stylistic grounds.

Like agrimia, deer were wild animals that humans had to leave their settlements for in order to encounter them in their natural habitat. The animal's escape behavior can be triggered very easily and certainly posed a challenge to a hunter. It required the skill of stalking as well as a high awareness for one's environment, because there would usually be only one chance to bring down this animal of prey before it escaped. Like with bulls, human mastery of this animal involved specific skills that needed to be developed and trained.

Lion-Men

The fact that the lion is an animal that must have been extremely fascinating for the Bronze Age Aegean cultures is validated by the iconographical testimony from the era. The CMS database in *Arachne* counts 1032[87] lion depictions. Bloedow approximates the total amount of lions in Aegean art to 600 examples from the Early to Late Bronze Age (including Minoan and Mycenaean material records).[88] One interesting observation is the capacity of this animal to occur either as a hunter or as the victim of human hunters.[89] In the hybrid state of lion-men they are not hunted but can either stand alone or bring down game.

Lion-men on Bronze Age seals pose less difficulties when it comes to identifying the animal part of the composite. This is because their manes are shown,[90] making them unambiguously identifiable and divisible from other animals.[91] The first specimen of this group, dyad **OH.24**, comes from a dated context[92] in Malia's *Ensemble Lambda* where it was found among MM IIIB and LM IA pottery.[93] As such, it is likely the earliest specimen of lion-men and it stands out among the extant repertoire of the kind, the rest of which dates to LB II–IIIA1, with the possible exception of **OH.26** that has not been ascribed any stylistic date and whose provenance is unknown. While the later seals all combine the lion-man with an animal of prey, such as a goat or bull, **OH.24** takes up the entire surface of its lentoid seal face. Also, it is the only soft-stone seal in the group, a circumstance that needs to be pointed out as soft and hard stone types usually show

87 Following the classification by the CMS. This is the number of seal faces, seals with two or more lions are not counted double or more.

88 Bloedow 1992, 295. However, as this paper is already 26 years old, the amount of lion depictions can likely be reckoned higher, as excavations continuously yield new material.

89 Bloedow, 1992, *passim*. Ballintijn 1995, 28–37.

90 Shapland 2010a, 283.

91 Female lions were also depicted with a mane on a regular basis, their sex usually indicated by teats. *Cf*. Ballintijn 1995, 26; Weilhartner 2016, 1–4.

92 Niemeier 1981, 93.

93 Van Effenterre – Van Effenterre 1969, 112.

some stylistic and typological differences among one motif group. This is a consequence of the different tools usually employed for cutting soft or hard stones,[94] but also of different workshops specializing in either soft- or hard-stone engraving.[95] This soft-stone lentoid carries the image of a lion-man bent around the seal face with outstretched arms and legs.[96] From the impression, it can be seen that the seal face was, in fact, damaged (in the area connecting the chest and forelegs, on the outer knee, and in some parts close to the face, *i.e.* around the snout, on top of the head and near the mane).[97] The mane is made by several ellipsoidal indentations, a technique not found on the later hard-stone dyads of this group. The hybrid's pose is quite similar to most bull- and goat-men, that are, however, engraved on hard-stone seals.[98]

As pointed out above, the other lion-men are shown together with animals of prey. **OH.25**, from Mycenae, displays a lion-man with its head in profile bent over the head of an agrimi and biting it in the neck, a common representation of a lion's killing strike.[99] The feline part is much larger than the human part and the motif of an outstretched body with a strong torsion at the waist is maintained, although the front of the lion is configured in a profile stance of attack. **OH.26** shows a similar scheme, but the torsion of the body is much stronger, as can be seen in the legs that are turned in opposite direction of the upper body, its knees bending away from the front of the creature (whereas the knees of **OH.24** bend toward the front giving the pose a more natural impression). The lion heads show common features, such as the eyes made from drill-holes with an outer circle for the eyelids. The forehead is divided by an indentation engraved from the snout to the brow where it branches to the left and right above the orbitals of **OH.25**, respectively above the right eye of **OH.26**. The snout is clearly distinct from the rest of the face as it curves inward before expanding again at the low end. On **OH.25**, the forehead indentation extends beyond the rest of the snout, whereas on **OH.26** it is shaped by two concentric drill-holes. The ears of the latter are almond-shaped outlines protruding from the sides of the head while the first has simpler handle-shaped ears. The manes differ as well; on the Mycenae seal it is rendered by incised striations, on the other by drop-shaped borings that are somewhat reminiscent of the Malia lentoid **OH.24**.

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94 Pini 2010, 325: "While soft stone and bone/ivory were normally engraved with burins, knives, chisels or files, hard stone gems were generally cut with the aid of a bow lathe using various types of wheels, solid and hollow drills."

95 Pini 2010, 327.

96 Tiré – Van Effenterre 1978, pl. IX no. 2.

97 The seal is to be published in *CMS* IIS, forthcoming.

98 *Cf.* dyads OH.01–02, 04–10, 17–19.

99 Ballintijn 1995, 29.

The differences become even more apparent when considering the human part of the composite creature. Not only do they differ in degrees of torsion, but also regarding their overall style. **OH.25** is in line with the general observation that human legs on dyad composites are rendered with near-natural accuracy. This is not the case for **OH.26** whose legs are shaped from independent, nearly geometric parts. The joints are simple drill-holes connecting ellipsoid thighs and lower legs; the feet are each made of a circle from which emanate two triangular elements resembling a bird's open beak. Additional hollow-drill-holes are distributed across the seal face, some of them seemingly connected to a non-specifiable device (a tool or symbol are proposed by the CMS). These observations reveal that, although it would on first sight be tempting to assign both seals to a same contextual framework, they represent two different styles and workshops. Unsatisfactorily, we cannot gain any information on the likely provenance or dating of **OH.26**.

The final lion-man appears on a previously discussed seal, **OH.09**, where it is depicted together with a bull-man. It is also dated to LM II–IIIA1 on stylistic grounds and probably derives from a mainland context. The composite creature is shown in profile with a torsion of the mid-section. Its mane is not curled, as on the earlier soft stone lentoid from Malia, but consists of straight incisions, as is also the case on **OH.25**. The distinctiveness of the snout from the forehead observed on frontally depicted lion heads can also be seen here; there is a perceivable breech between the rounded jaw and the snout, both made by large drill-holes.

From the repertoire of (identifiable) human-animal hybrids, the lion is the only animal that is a carnivore and predator. As such, it is different from bulls, goats and deer, which occur as its prey on a regular basis on Bronze Age seals. Although bulls are at times depicted as potentially threatening to human safety, this is only the case in the context of bull-sports. Lions, however, perpetuate this danger as any encounter with a human being poses an immediate hazard. Therefore, depictions of unarmed men encountering bulls are not unusual,[100] but when facing a lion,[101] arms and defense were indispensable: While bulls do not afford armament, lions do. Along the lines of affordance theory[102] a lion "affords danger when pursued by humans"[103] – overcoming a lion is the highest qualification a member of a Bronze Age elite group could achieve in a wild-animal encounter, which is also a reason why this animal lends itself to an ico-

[100] Bietak et al. 2007, 124 fig. 112, 125 fig. 115, 127 sc. 3+5. Note how the thigh of sc. 3 is about to be pierced by the bull's horns; Evans 1930, 224 fig. 157 shows a close-up of a register on the Ayia Triada Boxer Rhyton where the taureador is taken on the horns by the bull.

[101] *CMS* I nos. 9, 112, 228; II3 no. 14; VS1A no. 135. An extended lion hunt scene is depicted on a dagger with gold inlays from LH I Mycenae: Marinatos – Hirmer 1973, pl. XLIX.

[102] Gibson 1986, 127–35.

[103] Shapland 2010a, 275.

nography of power as has been observed especially for Mycenaean Greece.[104] Thus, the homosomatic hybridization of human and lion is simultaneously a process of corporal appropriation of an animal of power.

Unique Dyads

This final chapter on animal-human combinations comprises seals that are neither bull-, goat-, deer- nor lion-men and only occur as single representations. The first is dyad **OH.27**, a hybrid that fits well into the array of animal-humans engraved around a lentoid seal-face with the characteristic torsion of the body in the mid-section. The CMS defines it as a bull-man which is likely due to similarities in the body posture, the form of the upper body and the accompanying figure-eight shield. An interesting observation is that the human feet are closer to human anatomy than any other human-animal hybrid's in this study and even show the indentation between ankle and heel bone. The hooves display similarities with both bull and goat hooves, but the rear section ending in the dewclaw is configured separately from the rest of the leg.

A sound reason not to assume that this is a bull- (or goat-) man are the missing horns and the shape of the head, that does not correspond to the respective animals. Rather, it takes on a canine form with pronounced chaps and ears that do not stand off the head but lie flat against it. The canine impression is furthered by the collar that is worn around the neck of the animal. This element can be seen on other dog representations such as *CMS* II6 no. 79, VSIB no. 74; or VI no. 397, to name just three.

The CMS proposes a stylistic dating to LB I–II but when compared to the human-animal hybrids discussed so far, and also with dog iconography, a stylistic date at the end of this range or perhaps even between LM II–IIIA1 is worth considering. In this time, the body posture observed on this seal is most common and prominent eyes, as seen on this seal, are typical.[105] There is also a tendency to configure animals less close to their true anatomy in a slightly more graphic way,[106] which is also supported by the enlarged, dominating eye. Lapis Lacedaimonius, the material of this seal, has been in use since LM I but noticeably rises in popularity in LM II–III.[107]

It cannot be stated with absolute certainty that we are dealing with a dog-man on this seal. However, it also fits the repertoire of human-animal hybrids on the

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[104] This is beyond the scope of this work, but literature on this topic is abundant. *Cf*. Bloedow 1992; Shapland 2010a. 2010b; Weilhartner 2016, esp. 1 n. 4 for further bibliographical references.

[105] Krzyszkowska 2005, 198–99. See also *CMS* I no. 161 that has been dated to LB IIIA1–2 and shows the same shape of the head, but individual details have been "smoothed" out in course of the reduction of minute details that Krzyszkowska observes during LB II–III.

[106] Shapland 2014, 555–56. Krzyszkowska 2005, 199.

[107] Krzyszkowska 2005, 196.

iconological level. Among domesticated animals,[108] the dog seems to have been the most popular one depicted in glyptic since the Prepalatial period.[109] It is associated with hunting, and unlike the game (wild bulls, goats or deer) the dog represents the animal practice of hunting from the other side, as an assistant to its human owners. Also, Dimopoulou has noted that "on Neopalatial and Final Palatial seals dogs are even depicted with human figures, occasionally in instances of official or symbolic-ritual character."[110] It is highly likely that humans and domestic dogs interacted on a daily basis that ranged farther than a practical or economic relationship such as that postulated for humans and sheep. The hybridization of a human and a dog is therefore in accord with the observation that the respective animal devices were not chosen randomly from a repertoire of creatures that humans encountered and exploited regularly, but that these animals were imbued with more meaning: For instance, the strength and energy of the bull that could be mastered by human skill and elegance or the wild goats whose pursuit must have led human hunters to the liminal zones in the mountains far from their settlements, demanding agility and skill of them. As today, the dog was probably valued not only for its ability to assist at hunting, but also for its obedience and loyal character when raised and trained by humans. Moreover, dogs are generally accepted as animals with which humans can closely interact and communicate.

OH.28, A lentoid seal found in a LH IIIA2-B context in a chamber tomb in Prosymna on the Greek mainland shows a human-animal composite that has been categorized as a bull-man by the CMS. Like **OH.27**, it is missing the horns necessary to identify the species. This hybrid has no ears at all and other indicators, such as a collar, are absent as well. It is wearing a kilt or similar male garment as well as a belt. A figure-eight shield accompanies this human-animal composite. As a main-land product, this seal stands in the tradition of LB II–IIIA1 Cretan seals without being a copy or imitation of their styles. The identification of the animal remains difficult and it might be best to call it a 'quadruped-man'.

On the previously mentioned seal **OH.23,** the deer-man is accompanied by another dyad, most likely a boar-man. The upper body of the creature is shaped like a bull's, but horns are conspicuously absent. Instead, the spine is covered by a unique fin-shaped mane that rises on top of the head. The face is very graphic and therefore difficult to attribute to a certain species. But if the 'fin' is seen as a mane of short hair, it can be said to resemble the bristles known from boar representations. The dyad on the next seal, **OH.29**, can be considered as a boar-man on firmer grounds. This is due mainly to

[108] This is not counting the bull depictions as they mostly show wild specimens that are either being hunted, caught or otherwise mastered – including bull-leaping – which are actions that are not necessary in the case of domesticated bulls (or rather oxen).

[109] Prepalatial dog representations are somewhat difficult and sometimes hard to distinguish from lion depictions (*cf*. *CMS* III no. 68 or II5 no. 279). They become clearer in the Protopalatial period.

[110] Dimopoulou 2010, 97.

the pointed, pig-like ears behind which extends a rounded back with short bristly hair common for boar depictions.[111] The snout is elongated and ends in two small drill-holes for the nose. Its arms are raised forward in a gesture that could be interpreted as appeasing. This human gesture is not displayed on other human-animal hybrid seals. The hands are ambivalent, while the gesture is very human, they are not; yet neither do they not find comparisons on other seals depicting boars. The hybrid wears a short kilt which Matić and Franković have pointed out as a recurrent garment typical of a group of men motifs exercising control over lions.[112]

The observation is interesting, as this scene depicts a hybrid exercising control over animals. Like the lion-controllers, the boar-man is in an upright position although the posture of his legs could be argued as a kneeling position. One leg is bent back and up at the knee while the other is stretched forward and bent back at the knee, which might also imply movement.[113] The boar-man is not configured around the lentoid seal face as other hybrids, the ones Norbert Schlager has termed *Tiermenschliche Akrobaten*[114]; rather, its composition is derived from heraldic motifs of two mirrored animals flanking a central image.[115] However, this seal does not show two animals of the same species, but two antithetical dogs that lack hindquarters and are, in fact, joined at the waist. So, while humans control animals of the real-world, hybrid animal-humans control composite creatures. The emblem of animal mastery is transferred to a 'metaphysical' level where the master cannot be human anymore.

This concept can also be seen on the next seal, **OH.30**, a LB II–IIIA1 lentoid from Phigalia depicting a central humanoid figure holding up two fantastic creatures by the scruff of their necks. The central figure has human feet and legs joining into a body that adheres to the basic shape of a human upper body but with too strong deviations to be considered perfectly human. Above the knee, the shanks continually grow in volume and seamlessly merge into the upper body. This is divided into a circular upper segment and a lower "humanoid" one connected by a slim cylindrical section. The head is shown in profile with an open beak-shaped mouth. Weingarten interprets the figure as a bird-man "drift[ing] along the edge of demonology".[116] While the head does remind of a bird, it is difficult to characterize the creature as a bird-man, as it has neither the wings nor

[111] *Cf. CMS* I. no. 184; II3 nos. 25b, 168; VS1A no. 118.

[112] Matić – Franković 2017. They point out *CMS* II6 no. 36 and XII no. 207 among others. The latter shows close similarities to the garment worn by the boar-man.

[113] This is reminiscent of the so-called "*Knielauf*" encountered on Near Eastern representations of divine figures.

[114] Schlager 1989, 230–35.

[115] Heraldic scenes of „identical animals flanking a sacred object or god/hero (Master of Animals) derives from the Near East" (Aruz 2008, 174). They were adapted by Minoan artists and feature on seals in LM times.

[116] Weingarten 1983, 112.

(clearly identifiable) body of a bird. Instead, it has simple human arms that grasp two composite creatures of the fixed hybrids group: Minoan Genii.

The human-animal combination on **OH.31** is also characterized by its heraldic composition. Yet in this case, the motif does not transfer mastery of a humanoid figure over other creatures. The depiction is strongly reminiscent of a LM I–II dated seal[117] featuring a central female figure in a flounced skirt and outstretched arms flanked by two smaller females with their upper bodies curved back as if dancing. The central figure of **OH.31** is also female, as the long skirt and small, drilled breasts reveal. The head (which is in profile) is not human and difficult to interpret; it is rounded and filled almost entirely by a large eye. A cylindrical 'nose' or beak extends from this and ends in a circular 'snout'. The head is topped by a rounded triangle. In *Arachne*, it is interpreted as a quadruped head, but missing facial details make a more exact interpretation difficult. However, a long, curved incision to the back of the central figure's head possibly denotes the curved horn of an agrimi.[118] The overall schematic configuration is known from various seals depicting quadrupeds that are made from simple geometric parts,[119] so I carefully propose to see this hybrid as an 'agrimi-lady'.

The figures to the left and right of the quadruped-human are described as water birds by the CMS. However, in the light of the heraldic configuration of dyads **OH.30** and **31** as well as in comparison to *CMS* II3 no. 218, it is here proposed that we are dealing with hybrids again. This is also supported by the bell-shaped and layered elements in the center of the creatures that could be skirts like the ones worn by the small female figures on the seal in comparison. It needs to be pointed out that water birds' plumage may also be rendered in a similar way, although the bodies usually maintain more coherence to bird anatomy than on the seal discussed here. Also, the striations are denser on well-recognizable birds.[120] The heads remind of waterfowl, especially on the left figure that has a long neck, a drill-hole for a head and a long 'beak'. It is paralleled by many identifiable water birds on LB I–II seals.[121]

The right figure poses more difficulties as it lacks an identifiable head. The long, slightly curved line considered as a possible horn of the central figure also emerges from the body of the right creature, but it has no identifiable head. Moreover, what seems on first sight to be outstretched arms might also be interpreted as an open beak, but this would deprive the figure of any neck, a most prominent feature of water birds.[122] Finally, both figures appear to have legs, the one on the left has two lines

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[117] *CMS* II3 no. 218. The same stylistic date is proposed by the CMS for no. 32 = *CMS* II4 no. 136.

[118] However, it connects too low to the head.

[119] For example, *CMS* II3 nos. 278, 341; II4 nos. 127, 181; II7 nos, 57. 59; III no. 318; IX nos. 101–03.

[120] Compare to *CMS* II3 nos. 179, 351, 353, for example.

[121] Examples are *CMS* II3. nos. 78, 179; II4 nos. 13, 125; IX no. 154.

[122] Perhaps the seal cutter was copying a seal image that he/she did not fully understand, leading to this ambiguity of horn/neck and arms/beak.

emerging from underneath the supposed skirt, the right figure preserves one leg, but due to a surface damage, it cannot be seen whether a second one was originally there as well. In summary, it is not possible to conclusively define the small figures, but they nevertheless constitute a heraldic scene enclosing a central hybrid figure. Unlike the scenes of dominance, as witnessed on **OH.29** and **30**, it is proposed to recognize the scene as part of a ritual involving female figures and dancing. Again, this is an example of how pictorial themes can be transferred from the realm of humans to another 'metaphysical' level of hybrid creatures.

Another seal features two, perhaps three composite creatures in a row (**OH.32**). They are all in profile facing right, so this is neither a heraldic, an 'animal mastery', or a ritual dance scene, but a different arrangement which resembles a procession. The front figure poses some difficulties, and two possibilities can be considered: (1) It is an inorganic composite with human legs and lower body, a completely missing torso and the shoulder and arm of a lion. A head is missing; or (2) it is not a figure at all, but two isolated legs, possibly lion legs (proposed by the CMS)[123] or quadruped/bull legs (proposed by Blakolmer)[124]. The interpretation of the lower leg is difficult as the impressions did not preserve the area around the foot well, which makes it hard to tell whether it is a hoof, paw or even human foot. The upper leg is, however, identifiable as leonine.

This configuration is followed by a human-animal hybrid with the lower body of a human and the upper body, front leg and head of an animal, most likely a boar as evidenced by the short hair on its body and ridge. It could also be a lion; some manes of Late Minoan lion depictions are structured by small ellipsoid indentations and there are examples where some hair stands off the animal's back.[125] The long snout and its distinct 'plug'-shape point again to boar representations.[126] Its front leg/arm is extended forward to the missing mid-section of the inorganic composite in front of it. **OH.33** is a fragmentary sealing that preserves most of the lower body of a human and a fraction of an animal back with short spikey hair along the spine, possibly the same creature as depicted in the middle of **OH.32**. The procession is ended by a fixed hybrid, the Minoan Genius.

Blakolmer offers another interpretation based on Egyptian motifs of "*Taweret* supporting Horus in his struggle against Seth who is symbolized by detached bull

[123] *CMS* II8, 339 no. 200.

[124] Blakolmer 2015b, 34.

[125] A piece assigned to the Cretan Popular Group shows these characteristics although this of course dates to LM I. *Cf*. *CMS* II3 no. 348.

[126] *CMS* I no. 436; II5 no. 287 (this is MM II, but it demonstrates the perceived overall shape nevertheless); V no. 314; VS3 no. 246. However, *CMS* II8 no. 198 shows a very similar mane in combination with a lion head. This might even be another animal-human composite, but over half of the impression is missing, so it cannot be proven.

limbs and stood in connection with an astral constellation."[127] He interprets the scene differently. According to him, the middle creature is a lion-man "handling two isolated legs of a quadruped."[128] While it is tempting to explain the iconology of an image with the help of material and texts from neighboring cultures, and even though Egyptian *Taweret* is the attested prototype for the later Minoan Genius, this needs to be handled with caution. The Minoan Genius is not simply a 'minoanized' *Taweret*, but a hybrid creature in its own right with differing competences and functions from its Egyptian antecedent. Not only its appearance and capacities change, but in the wake of these transformations, its semantic meaning must have undergone many changes – especially considering the probability that the Egyptian demi-god's functions might not have travelled as a complete convolute along with its iconography when *Taweret* arrived on Crete in MM II.[129] In the Neopalatial period, the figure is strongly shaped to fit Minoan needs and, very likely, beliefs.[130] It appears somewhat questionable that a LM IIIA gem engraver would have decided to render a purely Minoan hybrid (the Minoan Genius and no longer *Taweret*) in order to represent a downright Egyptian myth. Rather, it is herewith proposed to view the seal(ing) in context of the place, time and especially people who ushered it.[131]

If we consider the first interpretation of an inorganic hybrid likely, this impression, made by a soft-stone seal, combines three major categories of composite creatures: a fixed hybrid, an occasional organic hybrid, and an inorganic composite creature. Perhaps the materiality of a soft stone made this possible, as we do not encounter such cross-depictions on hard stone seals, which are mostly reserved for fixed hybrids and dyad species. In fact, soft stone hybrids are extremely rare and "their characteristics at best half-remembered."[132] The seal has been dated to LM IIIA1 on stylistic grounds.[133] In this period, many seals from LM I–II were in use as antiquities[134] and gem engravers could have found a source of inspiration from them.[135] Krzyszkowska has

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[127] Blakolmer 2015b, 34.

[128] Blakolmer 2015b, 34.

[129] In Egypt this deity was "mainly responsible for the protection of women and children, childbirth and the underworld" (Blakolmer 2015b, 29). While some of these roles remain in Middle Minoan times, such as its connection to fertility, others are fashioned from Minoan needs, such as cleaning and libations (*cf.* Rehak 1995, 215).

[130] Rehak 1995, *passim*.

[131] In order to repeat as little as necessary, the extent of the Minoan Genius in Late Bronze Age glyptic will not be treated here but in the respective chapter (4.1) on this fixed hybrid.

[132] Krzyszkowska 2005, 213.

[133] The sealing was found in a stratified context with LM IIIA1–2 pottery, *cf.* Krzyszkowska 2005, 228.

[134] The designation 'heirlooms', which is often found in literature about Minoan glyptic, is rejected, because it implies a deliberate and continuous passing on of an object through a family or social group. These circumstances cannot be proven in the case of seals that are re-used much later than the period they were engraved and first used in. Krzyszkowska assumes that many of these re-used seals had been re-discovered by later generations (pers. comment, June 2018).

[135] Krzyszkowska 2005, 192.

pointed out that processions are not part of the repertoire of seal images after the collapse in LM IB. Also, soft stone seals were seldom used on Crete (in contrast to the mainland).[136] Taking these facts into consideration, we are dealing with a very curious 'relic' in terms of material and iconography.

This chapter has presented 33 seals showing human-animal combinations. A few results need to be pointed out. First, most hybrids were divided at the waist, with a lower human and an upper animal body. Quadrupeds are the animals of choice for these composites. Bulls are encountered most often, *i.e.* on nearly half of the material. Other recurrent candidates are wild goats, deer, and lions, together comprising nearly one third of the repertoire. Unique dyads are often more difficult to discern due to missing parallels, but it is possible to identify one boar-man with near certainty, another one is very probable while a third one might also have been intended as a lion-man; the dog-man is still disputable as is the 'bird-man' that deviates from the scheme as it does not have the head and upper body of one species and the lower body of a human. Like the quadruped-headed lady it misses a (clearly identifiable) animal upper body.

The species selected for human-animal composites were not chosen randomly; instead, the seal engravers chose animals that played an important role for social messages. Only species with special external and internal properties that went beyond functional or economic value were combined with the lower body of an athlete to create hybrids that possessed the properties of both constituent parts: the skill, prowess and cunning of the athlete was thus combined with the energy and strength of the bull, the symbol of the Knossian elite; or the agility and hardiness of agrimia that inhabited the remote and rough areas of Crete; the speed and reactivity of a deer; the dangerousness and exoticism of the lion; etc. The affordances of these animals were transferred to the hybrids they configured, thus creating entities whose capabilities went beyond the potential of normal humans or animals. Someone who ushered or chose such a seal would have seen it not only as a merely functional item, but as a very personal object, perhaps even a charm. The chosen motif could formulate statements of individual or group identity; testify to a certain social group or perhaps even guarantee the protection of benevolent 'spirits', which we cannot reconstruct due to the many open questions concerning Minoan beliefs. Simandiraki-Grimshaw has pointed out the possibility that the understanding of such hybrids might restrict or expand "the ideology of animal-human hybridity (and perhaps mastery) among controlled, knowledgeable audiences"[137] – I regard such a 'knowledgeable' group of seal users as a very likely case.

Blakolmer has pointed out that the animal part of the dyad species composites dominates in the cognition of the hybrid creature. When occurring together, it is the

[136] Krzyszkowska 2005, 201, 204, 212.
[137] Simandiraki-Grimshaw 2010, 100.

lion-man that attacks the bull-man – paralleling the behavior of lions in the contexts of bulls observed on other seals. Therefore, Blakolmer concludes that "they are primarily meant to be animal beings with human components and not man enhanced by beastlike elements."[138] Supportive of this view is the notion that the human-animal hybrids always have an animal head and consequentially no access to human reasoning.

Finally, the materials chosen for these composites are interesting. Except for three seals, all of the hybrids are engraved on hard stones. This can be explained partially by their occurrence mostly after LM IB, after which soft stones were rarely employed on Crete. Nevertheless, most of the seals that could date earlier are also made of hard stones.

Double-Animal-Human Combinations

Double-animal-human combinations share about the same time frame as well as the preference for hard stones as the animal-human composite creatures of the previous chapter. The prevailing motif in this group is the combination of the forequarters of two quadrupeds (of the same or different species) conjoined at the waist to a pair of human legs in a walking or running stance. Three seals show combinations of the same species: On **OH.34**[139] and **35** two goats join to a lower human body with deeply bent knees. While the first comes from a stratified context in Kato Symi and can be dated to LM II, the other double-goat-man is from Knossos and has been dated to LB II–IIIA1, the acme of dyad and triad species composites. The goat parts on **OH.34** do not feature the contorted pose of most dyads, rather, the forequarters are bent horizontally forwards, respectively back, so that their abdomens show towards the ground. The reason for this might be that the lentoid seal face is divided into an upper section figuring a grazing quadruped and a lower section with the double-animal-human combination, which was easier to configure in a semi-circle when the upper bodies stretched out nearly horizontally. In fact, the quadruped has its head in the same position as the right head of the triad creature. Its four legs are arranged so that the front and hind legs each leave an open triangular surface in between them and a smaller, closed one between the hind leg reaching forward and the front one reaching back. The triad features the same open and closed fields between each animal forequarter and human leg and in between both legs; thus, the natural world represented by the animal in the upper part of the seal face is a blueprint for the supernatural world represented by the double-animal-human combination below.

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[138] Blakolmer 2016, 65.

[139] Younger 1986, 134 subsumes it under group "C. One large dot on the jowl." One goat-man (OH.19) and the (possible) dog-men (OH.27 and 28) belong to the same group in Younger's typology.

Triad **OH.35**, preserved in an impression from Knossos, shows a very strong torsion of the body resulting in the quadrupeds' abdomens pointing upward, and the back of the heads toward the waist, thus filling out the entire circular seal face. The goat heads on the impression are iconographical parallels to dyad **OH.18**, a goat-man on an agate lentoid found in Chania. The overall composition strongly reminds of a swastika; accordingly, the body can be said to have transcended not only the sphere of the natural world (due to its composite state) but also to have accessed the graphic and symbolic scopes of a standard ornament. The same could possibly be posited for triad **OH.36**, a hematite lentoid attributed to Milatos showing a double-bull-human composition with two frontally depicted bull's heads. The animals emerge from the human waist, one bent to the left, the other to the right side. Together, they arc over the human legs. Three ornaments accompany the hybrid; underneath the right animal torso, a three-leaved plant with stem and protuberance is engraved, an ornamental mirror of the three-partite creature. The space between the left animal body and the legs is filled by a similar ornament with four protrusions coming from the stem. Finally, a figure-eight shield is in the lower right corner. While the heads preserve the general shape and borings of frontal bull heads observed in the group of dyads, the features are put together from geometric forms (circles, cylinders, cones) resulting in a veritable 'composite' creature already on a stylistic level. The graphic quality is reinforced by the single leg attached to each animal body (instead of two forelegs). In essence, the shared characteristic of this first group of triad composites is the duplication of the animal conjoined to the human legs. Apart from this, the seals differ in style and composition.

Another four seals show double-animal-human combinations with two different quadrupeds emerging from the human waist. While the first three are distinctly different on a stylistic level, they are all composed of each a bull's and a goat's forequarters. As pointed out before, these are the two most commonly depicted animals in Bronze Age glyptic. Their possible semantic meanings have been discussed in the previous chapter and the same strand of interpretation is applied to the triad composites.

Triad **OH.37** is composed in two-part axial symmetry with a minor deviation, which is due to the variations in the bull and goat bodies. The forequarters display the typical torsion viewed on the hybrid specimens (*e.g.* bull-man **OH.07** or goat-man **OH.19**), but the human legs are perfectly straight and in a walking stance.[140] **OH.38** displays the same running position of the legs as **OH.35**, bent at the knee with the hind leg kicked back. The legs seem to be clad in a loincloth. Unlike the other triads, both animals' heads are stretched forward (in the direction of movement). It needs to be pointed out that the goat head, which is in front of the bull's, is not connected

[140] When one of the animal forequarters is covered, e.g. by a hand, the resulting image(s) are near parallels to the dyad composites. This feature is not found again in the double-animal-human group.

organically to the body, rather, it seems to 'float' in front of the composition. There are no preceding examples of such conjoined heads showing in one direction and the 'floating' head might be the craftsperson's solution to handle the perspective. The goat head is stylistically close to the ones on triad **OH.35** or dyad **OH.18**. The bull head can be seen in similar fashion on bull-man **OH.09**. The composition is accompanied by a two-sided fir branch with protuberance taking up the empty space where the second head would typically feature on other triad compositions. The animal extremities are far from natural; as the forearm and lower arm meet at the knee, the two parts overlap and finish in pointed ends. The dewclaws and hooves are made by use of a hollow drill, with additional incised triangles emanating from the hoof-drill-holes. Sharp lines and points are recurrent and cause a quite unnatural impression of the body.

A goat in left profile and a frontal bull head are conjoined to striding human legs on the next seal, **OH.39**. The bull is very close to bull-man **OH.13** with the single (instead of triple) drill-hole on the muzzle being the only major variation. Each animal has only one foreleg, as observed before on **OH.36**. The space in between the legs is filled by a figure-eight shield, a regularly encountered ornament in the context of many hybrid and quadruped seals.[141] As on the next seal, frontal and profile depictions are combined. However, **OH.40** is composed of a goat head in profile and a frontal lion head. The latter can be identified by its mane, which is rendered by parallel cut lines; also, the distinct shape of the broad forehead connected to a rounded snout by a narrow mid-section of the head characterizes it as a lion. Large drill-holes were employed to render the snout and forehead, and several small drill-holes indicate the joints. While these emphasize the flexibility of the bodies, they result in a less lifelike impression of the body shapes overall. An unidentifiable ornament or motif is floating above the lion's abdomen, but because the right part of the seal is broken off, it cannot be identified. What remains is an ellipsoid indentation with four drill-holes.[142]

OH.41, a fragmented object sealing from Knossos bears the impression of a soft stone that probably depicted a double-animal-human combination. It preserves most of the hybrid's human legs and parts of a lion body, including most of the head. The lion emanates from the waist and bends back and down to the right. Its face is shown in profile and, exceptionally, upside down. It has the typical shape of lions' heads as discussed earlier, the brow and bridge of the nose are engraved in the same way as on **OH.26**. The mane is rendered by drop-shaped cuts. Due to the fragmented state of the sealing, it is not possible to tell whether a second animal's forequarter was connected to the legs. In favor of such an interpretation is the positioning of the extant body parts

[141] *Cf*. dyads OH.03–04, 18–19, 28 and triads OH.36 and 42.

[142] The upper and lower holes touch, the left and right drill-holes only connect to the upper and lower ones.

Fig. 3 OH.42. Green contours: plant; blue dotted lines: 'inanimate' parts.

which allow enough space on the seal face for a conjoined animal device. Another device, most likely a figure-eight shield, is engraved right next to the waist, taking up space at the joint between human and animal body. While figure-eight-shields are often in close proximity to the hybrids' bodies,[143] they do not connect to joint parts.

Perhaps the next triad on a cushion seal from Midea can hint at an explanation. Simply, **OH.42** (*fig. 3*) cannot be called a 'double-animal-human' combination as it does not entail two animal parts. Rather, it could be deemed 'plant-animal-human' combination. The legs of the creature are human, bent at the knees in an almost 90° angle: the front leg's thigh is first horizontal, then bends vertically downward, the hind leg is in an upright kneeling position. Two parallel striations on each thigh and a horizontal groove on the waist indicate a garment. The torso of a bull is connected to the human legs along the horizontal groove. In effect, there is no room for another torso conjoined at the waist. Instead, the body of a bull extends upwards and is curved back at the neck. The chest is exposed, and this is where the next device is attached to the creature; but the composition is not easily cognizable in this section. What can be discerned is a three-leaved plant with stem and protuberance. This is again connected to the body by two incised lines meeting at what would be the hoof of the bull. However, the foreleg is composed of disturbed lines with several angles below the knee. Possibly, the limb of the creature turns from an animal part to an inanimate link to the plant.

Although this interpretation might seem far-fetched, as we have no other combinations of the type, it is here preferred the possibility of a human-animal combination associated with a plant ornament. While plant ornaments, and especially three-leaved plants with stems (and sometimes protuberances), occur repeatedly with occasional hybrids, they are smaller and never overlap or connect to the body. Instead, they function as a filler or *'Beiwerk'* for the main motif; yet, on **OH.42** the plant is part of the motif proper.

The seal engravers of the Late Bronze Age have proven their capability of rearranging given devices and creatures to new combinations, and a look at the non-viable composites offers proof of other plant-animal combinations.[144] If we accept the possibility that they could also combine animate creatures with inanimate plants or even

[143] *Cf.* OH.03, 18–19.

[144] See chapter 3.2, Non-Viable Creatures and Motif Combinations, below.

objects,[145] they might well have produced hybrids that combine the organic with the inorganic, such as human legs, an animal torso and a figure-eight shield as on **OH.41**.[146] Further proof of the possibility of a combination of floral and faunal elements is delivered by some of the LM I Zakros sealings, *e.g.* **NV.01**.[147]

The next motif in the group of double-animal-humans is witnessed on two impressions from similar seals subsumed as **OH.43**. The motifs on the string nodules diverge strongly from other double-animal-human combinations. While they maintain the human legs, the front parts of goats emerge horizontally from the shoulders, their heads hanging to the ground while the legs 'kick' the air. In the place where the human head would usually be a roughly head-shaped feature was engraved on the seal face. However, it is hard to identify. The 'face' is in the shape of a heart, with short, stubbly hair on the 'head' and long 'ears' extending from the sides. While the engraving can be compared to the anatomy of a human or animal head, it is not possible to assign this to any living creature, which is why the anatomic parts are placed in inverted commas here. It could either be an aniconic (featureless) hybrid face or an inorganic composition of body parts emitting from the hindquarters of the goats; the quality of the impressions does not allow for better cognizance. On a typological level, this motif might be traced back to images showing a central figure, human or hybrid (such as the Minoan Genius) carrying a (possibly) sacrificial animal over its shoulders or on a pole.[148]

While **OH.42** and **43** have proven difficult to understand for a modern viewer, **OH.44** is more accessible. It is placed at the end of the double-animal-human combinations because it inverts the composition: Two pairs of human legs in a leaping position arc around the seal face, conjoined in the center to a frontally depicted bull's neck and head. The intaglio is very detailed, showing the folds of the leaper's shorts and the creases of the bull's neck. The animal face is also executed with care for internal details such as lines around the nose bone, which possibly indicate striations of the fur that can be viewed on live bulls. A three-leafed plant with stem is in the upper center of the seal face, echoing the three-partite composition of the hybrid below it.

In conclusion of this overview, a few points can be established. The stylistic dating of the double-animal-human combinations lies in the same time span as those of the animal-human-combinations of the previous sub-chapter. They mostly feed on the same compositional schemes and styles as the previous group, which can be well-observed

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[145] The LM I Zakros workshop whose ephemeral motifs of composite creatures are published, amongst others, in *CMS* II7 is evidence for the openness of individuals in the Bronze Age to such combinations. While we are dealing here with another place and time of production, the gem engravers of the Zakros 'monsters' and those of OH.41 or 42 were part of a cognitive scape evolving from the Neopalatial period onward that allowed for creative re-assemblage of composite devices.

[146] I do not claim this as the answer to what the motifs represent, rather, this is a suggestion to make sense of these images that seem to go beyond the 'average' hybrid creature.

[147] See chapter 3.2, Non-Viable Creatures and Motif Combinations.

[148] *Cf*. *CMS* I no. 222; V no. 209; VI no. 25a; II8 no. 238; IX no. 129.

on the animal parts, but also the human legs. As they have more components than single-animal-human combinations, they afford a different placement on the lentoid seal face which has led to the choice between upright standing or striding human legs, or alternatively bent legs suggestive of quick movement. In most cases, the animals sprout from either side of the waist, arcing over the human legs. Their heads can be depicted in profile, frontally, or one in profile and one in frontal view. The prevalence of bulls and goats observed throughout different iconographic media of the Bronze Age is also distinctive of the triads examined here. The characteristics of the animals used in these combinations were combined with social, and likely also individual, ideas of their external and internal qualities. It therefore does not come as a surprise to find that bulls and goats are most commonly combined together in double-animal-human combinations, merging the energy and power of the bull with the swiftness and agility of the goat as well as the skill and prowess of the athlete to an amalgam of physical supremacy as it can only be encountered in the realm of human-animal hybrids.

Human-animal and double-animal-human composites in general are directly linked to real-world human-animal relations on Bronze Age Crete. These were not only of a practical nature that aimed at the procurance of food stuffs and raw materials but were endowed with symbolic value due to the vital significance of these relations on the one hand and, on the other, the emblematic qualities of certain species attributed to them by humans. This resulted in an output of a broad range of motifs depicting humans and animals in interaction (*e.g.* hunting, sports, sacrifice or animal mastery scenes) and, finally, animal-human hybridity. Simandiraki-Grimshaw interprets this form of hybridity in the context of somatic mastery[149] – not the mastery of human over animal, but rather, as proposed above, the achievement of somatic mastery through the combined qualities of the bodies merged to form a hybrid creature.[150]

Conjoined Animals

This sub-chapter deals with representations of creatures that consist of the parts of two animals joined together at a certain point of the body. Conjoined animals are a recurrent representation from MM times onward and constitute a category that should be viewed as a phenomenon in its own right that existed parallel to the composite creatures. Therefore, this chapter introduces only a few of the extant representations of this type, of which 66 are published in the CMS.[151]

[149] Simandiraki-Grimshaw 2010, 94.

[150] Simandiraki-Grimshaw 2010, 101.

[151] These can be generated in the *Arachne* database by using the search term *Lebewesen Tier Vierfüßler Kombination*.

The first two depictions show quadrupeds joined at the waist, resulting in a creature that comprises two forequarters but no hindquarters. **OH.45** is a LH IIIA2–B soft stone lentoid depicting conjoined goats or perhaps deer – the exact species cannot be recognized. The creature's heads are shown in profile, inclined towards another, its body is elongated in the center of the seal face. The engraved lines are rather simple and sketchy, which reinforces the ambiguity of the creature. **OH.46**, on the other hand, is more easily recognizable. It dates to LB II and is preserved only as the impression of the hard stone lentoid that originally displayed this conjoined animal. The left part of the creature is composed of the forequarters of a ram whose head is shown frontally. While the impression it is partly damaged, one of the horns remain, making it possible to identify the animal. At the waist, it merges into the forequarters of a lion depicted in profile and recognizable by its mane. The bodies are voluminous, preserving details of the muscles and anatomical units even in the impression. Another case of a conjoined creature needs to be mentioned together with the previous two. The LM I impression **NV.36** shows two lion forequarters joined together. However, the abdomen is entirely missing, resulting in a very short mid-section resembling rather two protomes that have fused together.

Following these, the next creatures to be discussed are joined somewhere near the chest or perhaps shoulder. **OH.47** is similar to **OH.45** in that it remains rather sketchy, however, this LH IIIA1–2 lentoid reveals more details around the heads, horns and hooves of the animals, making it possible to identify them as deer. It seems that they were intended to be joined by the chest, but the depiction does not make this absolutely clear, with one neck emerging somewhere around the center of the other animal's body. Both necks and heads are stretched backward, which might be the reason why it was not possible to make a very smooth connection between the 'extra' deer's head and the complete deer's body. The engraver of **OH.48**, an agate lentoid dating between LB II–IIIA1, circumvented this problem by depicting his conjoined animal in profile view. However, this has resulted in one head seemingly floating above the other, another problem of perspective. We are dealing not only with a conjoined animal here, moreover, this is a conjoined creature, consisting of the heads of a goat, elaborate wings like those of a griffin, and the body and tail of a feline.

Lastly, two seals that existed far apart in space and time display conjoined creatures with a single shared head. The Zakros impression **OH.49** preserves most of a lentoid seal face on which two lion bodies in profile curved around the perimeter, joining in one head (shown frontally) that took up the center of the seal face. The Mycenaean agate lentoid **OH.50** is structured differently. Here, the engraver also made use of the lentoid's rounded surface, but the griffins joined by the heads do not run along the outline of the seal face. Instead, they are depicted rampant, forelegs resting on a

pedestal, wings stretched back. While the body is a clearly recognizable a feline's, the wings and especially the frontally depicted, shared head are quite abstract. Simple outlines preserve the general shape of head and wing, and fundamental elements, such as the eyes, nose, and feathers are added. However, they preserve rather the idea of a griffin than an actual depiction of one. Were these elements isolated, it would not have been possible to identify the creature.

While it is conceivable that observations of rare cases of conjoined twins or polycephaly might have given the incentive to such representations, the cases of **OH.46**, **48** and **50** demonstrate that depictions of conjoined creatures did not necessarily mirror a real-world observation of such a phenomenon. The conjoined griffins, winged goats as well as the combination of a ram and lion indicates that we are dealing with composite creatures that belonged to a certain realm of Minoan cognition that intermingled with a level or sphere transcending experiences of the real world.

3.2 Non-viable Creatures and Device Combinations

Unlike the creatures discussed so far, the composites treated now do not adhere to fundamental rules of faunal anatomy. This means they do not possess a complete set of head, torso, and limbs in the correct order and do not always have the potential of autonomous movement (by legs or wings, for example). Since these criteria are not fulfilled, the resulting depictions need to be considered as *non-viable creatures*. Moreover, in cases where composite devices do not add up to any impression of a unit, the results cannot be designated 'creatures' but can only be understood as (fantastic) device combinations.[152] Characteristic of this group of representations – all of which were found on clay nodules excavated in a LB I destruction layer in House A of Kato Zakros[153] – is that they are created by the combination of interchangeable motif devices. Anastasiadou has noted that, because of this, "their taxa cannot be used as a means of meaningfully categorizing a composite."[154] Her solution is a differentiation "on the grounds of the degree of cohesion" leading to a subdivision of creatures that still follow basic rules of anatomical building blocks and combinations that do not. While this basic differentiation is followed, the combinations are also categorized into different device groups. Dominant devices, such as wings, fan-tails or legs, define a group of non-viable creatures and device combinations. The interchangeability of devices leads to the representation of our 'monsters' in more than one device group, which is necessary in order to

[152] This is a short summary of the of the definitions postulated in chapter 2.

[153] Here, a large amount of clay nodules (over 550) preserved 257 different LM I seal faces (Anastasiadou 2016, 77. Numbers as identified by the CMS. The motifs were published in *CMS* II7). While many sealings bear motifs that were prevalent during the LM I period, others show unique composite representations, some of which have already been treated among the occasional hybrids above.

[154] Anastasiadou 2016, 81.

grasp the extent of possibilities the Zakros engraver(s) encountered when creating new fantastic creatures and combinations.

Device I: Bird Wings

Wings were one of the most frequent devices used to create composite creatures. They are found both with fixed hybrids, *i.e.* the griffin[155] or *bird lady*, occasional viable hybrids,[156] as well as in the case of non-viable composites. As today, flight was sure to fascinate the land-bound people of prehistoric times. Perhaps birds were considered to have a closer relationship, maybe even an intermediary role with celestial entities. Being able to reach areas that were inaccessible for humans has led to birds' special place in belief systems throughout space and time. While we do not possess any information on Minoan religion or beliefs, such a possible understanding of winged creatures must be taken into consideration.

Three non-viable composites from Zakros can be understood in the context of *bird lady* iconography. **NV.01** is a combination of bird wings attached to female breasts which are again attached to a fan-tail below and a floral element above. Since it is missing a rump or abdomen as well as a head, this creature is clearly non-viable. Nevertheless, it maintains a sense of natural order. The same accounts for **NV.02**, a combination possessing the entire body of a bird, but with a missing head. Instead, a head-like device with a central horizontal fissure that separates the upper part of the 'head' completely from the lower part deems this otherwise very bird-like like creature non-viable. Further, **NV.03** does not even possess any kind of head or substitute for a head. The wings are detached from the body of a female, including breasts, a slim cylindrical waist und spread legs clad in a flounced, pant-like garment.

Interestingly, **NV.04** is also characterized by its headlessness. While the impression does not preserve the uppermost part of the seal face, it is very unlikely that a head fit in the missing area, as the slim neck reaches up almost all the way to the edge of the seal face. Here, we see a leftward facing profile of a creature with one wing spread out behind. It is composed in a natural sequence, but some body parts necessary for a live creature are missing. Thus, the neck joins to a pair of female breasts, which again join directly into a lion leg each. The wing is connected to the back of the breasts, but there is no chest or abdomen. The hindquarters of a canine, recognizable by the short, curved tail, appear behind the wing, seemingly not attached to anything.

The next winged composite stretches the limits of our understanding of viable and non-viable combinations. **NV.05** is combined in approximation of a *bird lady* but denies

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[155] See chapter 4.3, *Griffin*.

[156] See following sub-chapter.

any identification with this fixed hybrid. Rendered entirely in frontal view, the head is that of a bull, 'attached' to a banded helm that functions as the body, alluding to *bird ladies*. Outstretched wings emanate from between the head and the helm. Strictly speaking, this is a non-viable composite, not even a creature, as its central part is an artificial element of attire and therefore inorganic. However, the way it is constructed maintains the impression of a unit – the decisive criterion we use to draw the line between creatures and motif combinations.

The two final representations in this device group can be called motif combinations without hesitation. **NV.10** shows wings attached to a bucranium with lion legs emanating from between the feathers. On top of the bucranium there is a loop-shaped element. While the engraver attached the devices to one another, this was not the case on **NV.15**, which displays single, unattached elements from top to bottom: two single human arms arranged in the shape of spread legs with a trefoil spray in between the arms; below this, a feline head with the typical triangular pointed ears and the tripartite snout of a cat or lion; below this, two wings of a water fowl connected by a horizontal incision of small consecutive boughs with a larger and pointed central element arching out from the horizontal line, possibly a schematic outline of a bird (?).

These seven different combinations with bird wings show the high variability of device coalescence at a single production site. Yet, wings were not the only part of a bird that inspired fantastic combinations.

Device II: Fan-Tail

As a device, fan-tails are employed in a very standardized fashion. They always appear at the bottom of a combination in the same vertical orientation with the tips of the feathers pointing downward. We have already seen this device combined in a non-viable *bird lady derivative* on **NV.01–02**, but it also occurs on a wing-less specimen of this type, **NV.06**. Here, the fan-tail is connected to a pair of female breasts. From these extend two bejeweled human arms with the hands coming together at the center of the body. The creature's head is zoomorphic but otherwise unintelligible. The CMS database in *Arachne* has identified this as a bull's head,[157] which was possibly motivated by the bull-like muzzle of the animal. However, the irregular ovoid shape of the head is not paralleled by any bull heads in the CMS repertoire. On top of its head, it is wearing a banded helm with an element that resembles a horn extending from is tip. Around its neck it is either wearing a necklace or the engraver has indicated a feather plume. All in all, the depicted creature remains puzzling to the modern viewer, and perhaps this was already the case during its use in the Bronze Age.

[157] http://arachne.uni-koeln.de/item/objekt/160485 (last accessed 17/08/2018).

NV.07 needs to be mentioned in connection with the previous creature. Here, we find the fan-tail joined to a cross-hatched bird rump in profile. One human arm is attached to this and bent up in front of the body that finishes in a leonine or canine head. The creature is mirrored and thus back-to-back in axial symmetry with its counterpart. It is unusual to find two discrete creatures made up of a device combination sharing the same seal face. It cannot be ruled out that a conjoined nature is implied, since the composites touch along the backs of their heads. **NV.08** is a clear case of conjoining bodies, moreover the protomes of two water birds. These merge at the lower part of the back of their necks, from where they unite into a shared fan-tail. A rump or mid-section is, consequentially, missing. The impressions of three different seals that were copying the same motif also combine water bird elements: **NV.09** displays the head, elongated neck and rump of a water fowl attached to a fan-tail. Two lion legs spring from the bird's body and curve around the fantail underneath the body. There are two more elements that are difficult to identify. These ovoid shapes with a centered circle are placed between the rump and underneath the emanating lion legs. The CMS has identified this as the standard ornament 'circle and dot'[158] but it seems to fulfill more than an ornamental role, perhaps alluding to female breasts, attributing a sense of gender to the composite creature.

The final fan-tail composition, **NV.14**, is preserved in the impressions of two look-alike seals. The creatures engraved on these were highly non-viable, possessing nothing but a zoomorphic head, spread human legs, and a fan-tail. These parts do not join but are arranged in the correct order. While the CMS identifies the latter as a fan-shaped plant,[159] the position on the seal and relationship to the rest of the creatures' bodies speak in favor of an interpretation as an animal part, *i.e.* a fan-tail, and not a plant. Further, **OH.04** displays a related representation of a fan-tail directly attached to spread human legs, where the junction is shown, ruling out any identification of the appendix as a plant.

The heads are most likely feline, which is less obvious on *CMS* II7 no. 119 than on no. 120. In favor of a feline identification is the rendering of the snout, which derives from a combination of an elongated incision for the nose-bone and two circular ones slightly beneath and to the sides of this. The same characteristics can be seen on *CMS* II7 no. 76, another lentoid seal from Zakros, not bearing composite iconography, but four lion heads arranged in four-part radial symmetry.[160] A second indicator are the tufts of hair on the creatures' heads. Short, bristly hair covers the top of the head, while a longer tuft of hair sprouts from the sides.[161]

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[158] http://arachne.uni-koeln.de/item/objekt/160526 (last accessed 17/08/2018).

[159] "*Pflanzen: Fächer*", see http://arachne.uni-koeln.de/item/objekt/160480 (last accessed 20/08/2018).

[160] See also the head in the motif combination NV.15.

[161] This can also be seen on the lions in comparison.

To sum up, fan-tails frequently occur with birds or bird-like creatures, but they can also be combined with parts of human and other mammal bodies. We should recognize this as a figure with meaning, perhaps of indexical or even metaphorical nature, although this information is elusive to us.

Device III: Lion Legs

Lion legs are more freely combined than fan-tails. A few examples have already been noted above: **NV.04** combined them with a winged, griffin-like creature without a recognizable head, a missing chest and abdomen, and a dog's hindquarters; **NV.09** was the group of water birds with two lion legs; **NV.10** was a motif combination of a bucranium, wings and lion legs. While the feline legs only complemented a motif combination in these previous cases, they are the dominant device in the next two cases. **NV.11** presents a central pair of long lion legs, from which sprout two ornamental devices that can best be described as butterfly wings. While the area right above the lion legs, where possibly a head was, is damaged, a crown-like finial can be made out on top of this. Similarly, **NV.12** shows two lion legs encased by larger 'butterfly wings' and a 'crowning' papyrus-leaf element. Both motif combinations center around this device. An interesting observation is the design of the butterfly wings, which display a central circle which creates the impression of two eyes regarding the viewer of these configurations.

Two further uses of the lion-leg device are present among the Zakros material. **NV.13** shows a combination that appears to be very organic at first sight, but again features missing body parts and links. In contrast to the previous 'staging' of the lion legs, here, the device is very small and inconspicuous. It is attached to a boar's head, recognizable by the long snout, tusks, and bristly hair. Behind the head of the boar extend a pair of butterfly wings, taking up most of the seal face. A fan-shaped plant with a stem is engraved between the spread wings and above the boar's head. Three versions of this seal are testified, and all share the same elements with only minor deviations.

NV.16 features a very creative use of lion legs. They are presented in the place of horns attached to a bull's head represented in axial symmetry on a lentoid seal face. While this treatment of the device is unique, human legs have been put to the same use, as will be seen in the case of the following device.

Device IV: Human Legs

The most common use of human legs as a device in non-viable creatures and motif combinations is as the lower part of a composition with both limbs spread apart, as if squatting, or possibly in a birth-giving posture. Such a posture can be identified in the case of the feline-headed and fan-tailed composition **NV.14**. It is, however, more abstract in the case of **NV.17** and **NV.18**. Both of these show the 'legs' as a single tubular element that imitates the shape of spread legs, but in very soft curves and simple shapes, as if the limbs were made of a soft, flexible material and not flesh and bones. Above these hover frontal quadruped's heads; **NV.17** is clearly a ram, as can be seen by the characteristic out- and downward curving, corrugated horns; **NV.18** is more difficult to identify, the CMS suggests a goat or bull. The creature's horns are replaced by human arms with very long, schematic fingers at the ends and the indication of a garment on the upper part. Four long lines also run from the forehead upward and elude further recognition.

NV.19 shows again two distinct human legs that also demonstrate a very flexible jointless quality. Where they touch in the middle, an element protrudes upward, which the CMS has identified as a plant-shaped fan with stem. While this is certainly the case, it needs to be pointed out that the calyx of the plant is composed by three constituents, two outer, elongated ovals of the same size, and a slightly larger and farther down reaching third oval. This combination is reminiscent of a schematic face. The 'fan' of the plant (the petals emanating from the calyx) remind of hair or a bird's feather crown. The engraver of the seal was intentionally creating an ambiguous image, that suggested a 'plant' and 'living being' at the same time.

The arrangement of the device found on the next two seal impressions has already been mentioned – the use in the place of horns. On **NV.20**, human legs emanate to the left and right of a feline's head, thus supplementing a naturally horn-less animal with a horn substitute that turns this combination into a fantastic one. 'Snake frame' elements protrude above the feline's head and are joined to antithetical water bird protomes, but these will be treated in the section on protomes below. First, **NV.21** needs to be considered, a bucranium with human legs instead of bull's horns. A curved horizontal incision below the head might be considered as a boar's tusk with two pointed ends that is close, but not connected, to the bucranium. Above the latter, there is a loop-shaped element and the remains of a plant motif.

Finally, **NV.40** presents a very inorganic conjunction of a minute human leg in profile, connected to the front of a lion's neck. Of the lion, only the head and mane are displayed. The creature's mouth is wide open as if roaring. Possibly, part of a human

waist is also preserved and connects the leg to the mane. All in all, the combination is not understandable from a taxonomic or semantic point of view.

Device V: Quadruped Heads

Rarely do composite creatures lack a head. A reason for this might be that the face "gives a point of reference"[162] for recognizing the inner world or inherent qualities of the being depicted. As observed above, quadrupeds were very frequently represented on Bronze Age seals. Bulls, goats, lions and boars are abundant in glyptic iconography, be they depicted as live animals, hybrids or, as is the case here, non-viable creatures and even motif combinations. The device group will be viewed animal by animal, beginning with the feline heads.

Lion/feline heads

Seven instances preserve lion/feline heads in the shape of non-viable occasional hybrids and motif combinations. **NV.07** combines a feline head in profile to a bird's rump and fantail, **NV.15** is a motif combination with the head in the center among bird wings and spread human arms, **NV.14** displays a likely cat or lion head atop a pair of spread human legs with a fan-tail, and the feline head on **NV.20** sprouts a human leg on either side, topped by a 'snake-frame'-like structure with double bird protomes. On **NV.40** the head dominates the composition, dwarfing the minute human leg it is connected with. Another, not yet discussed, feline head is featured on **NV.22** as the central device. It is crowned by a papyrus plant, and from its chaps emanate two snakes in an S-curve, imitating tusks. Similarly, a water bird head grows from either side of the lion's head on **NV.23**, curving upward towards a double-ax hovering at a 90° angle above the head. The combination of animal protomes as an extension or substitute for animal horns and extremities will be discussed below. Here, it needs to be pointed out that in the case of motif combinations, feline heads tend to strongly dominate the combined devices, whereas composite creatures, even when deemed non-viable, feature the device in a congruent relation to other compositional elements.

Bull heads/bucrania

There are again seven cases where bulls' heads or bucrania constitute a central device. We have already discussed the combinations with wings, *i.e.* **NV. 05** which displays a bull's head atop a banded and winged helm and **NV.10**, where the bucranium is the center piece of the motif combination, in between two wings and lion legs and crowned

[162] Anastasiadou 2016, 82.

by a loop. **NV.16** sports a bull's head with lion legs in the place of horns and **NV.21** a bull's head sprouting horns in the shape of human legs and combined with a possible boar's tusk. **NV.24** is also combined with boars' tusks, this time they are on the level of the muzzle, as they would be on a natural boar. Apart from this, one could point out a resemblance of the horns with those of ram's as they show the corrugation as well as curvature of this species' horns.

The next three bull head devices are all combined with a pair of protomes that are connected to the heads. **NV.25** preserves one horn[163] that curves toward the head, ending in what could be a canine head, which displays ears, a snout and the general shape of a dog's head. As before, the bull's head sports boars' tusks that grow out from the sides of its muzzle. **NV.26** is more puzzling, as the protomes, two water birds, are attached to the head of the bull behind its ears and horns. The birds' heads meet in the space above the bull's brow. Additionally, they are equipped with one wing each, whose tips touch the sides of the mammal's muzzle. Below the head, we find the lower part of a 'snake frame', two up- and inward curving lines of a general horizontal orientation, the smaller, higher one outlined by the larger and lower one. It is on **NV.27** that the 'snake frame' also plays an important role, hovering above a bucranium with a central wheel-shaped ornament. The horns, which begin in a very graphic style, sprout each an entire but simple water bird. Three versions of this seal are attested among the Zakros impressions, very close in details with only minor deviations.

Boar heads

While boars do not play a major role for dyad or triad species, they appear regularly in the Bronze Age glyptic from MM II onwards. Among the Zakros material they constitute several motif combinations. **NV.13**, the boar's head with butterfly wings, lion legs, and floral ornament has already been introduced above. The other cases where boars' heads function as a device make it their central feature. **NV.28** are two look-alikes that display the head with two 'snake frame' elements in the place of the tusks. The features also exhibit leonine features, such as the rounded ears and the tripartite snout, which is, however, elongated like a pig's. The hair along the jawline is typical of boars, so, eventually, the boar-like features outweigh the leonine. From the top of the head sprouts a fan-shaped item, interpreted by the CMS as a plant, but perhaps the engraver created this in the intention to further the lion/boar ambiguity, combining the mane of the prior with the bristly stubbles of the latter.

NV.29, which again comprises two look-alike seals, does not play with this kind of ambiguity as this is a very straightforward boar's head with the typical bristles along

[163] The right part of the impression is missing, so only the beginning of the horn on the head is preserved.

the jawline, the elongated snout, small eyes and pointed ears. The only other composite device lies in the substitution of the tusks by a single 'snake-frame' element. **NV.30** shows a less detailed boar head but adds several layers of a 'snake frame' on top of it. In this case, the 'snake frame' tusks might have also represented snakes or even a water bird protome, but this is hard to make out properly. Finally, **NV.31** derives from two similar, but not look-alike, seal faces. Both have boar's tusks, but *a* has an additional 'snake frame' element above these, while *b* has two small inverted engravings shaped like brackets below the tusks and around the lower part of the elongated snout. It also displays two incisions that curve out from the sides of the head, only preserved well enough in the left half of the impression.

Unique device heads

The final instances of recognizable quadruped heads as a device are subsumed here, as they occur in single cases. **NV.17** has been discussed in the context of *device IV*; it is a frontally depicted ram's head above spread human legs that have merged to one tubular structure.

NV.32 is another highly abstract combination of which three versions existed, two facing left, and a third facing right. The seals displayed a deer's head[164] in profile, with an antler branching upward from above the ear. Below the ear, a human arm also branches off the head, reminding of an antler. In two of the three versions, another human arm grows out of the deer's forehead, while in the remaining version, a thick drop-shaped element takes its place.[165] Also, the antler of this specimen is not attached to the head but sprouts three, lunette-shaped branches of different size at its base. Three drop-shaped forms protrude below the head, the rear one connected to a thin line that runs along the outer contour of the deer head. Like no other instance, the fusion of animal and human parts on **NV.32** dissolves "the boundaries between humanity and animality."[166]

Two dog's heads on **NV.33** are displayed back to back and attached to the upper side of a boar tusk helmet. A broad ram's horn grows out in between the two heads, curving toward the right. The fantastic combination mixes three types of composite material: the animate heads of a live animal, the inanimate horn derived from a live animal, as well as the helmet, a product of human processing and craftsmanship that was attributed with prestigious meaning in the Bronze Age. Its recurring appearance in

[164] Simandiraki-Grimshaw 2010, 97 sees these as caprid heads.
[165] Simandiraki-Grimshaw 2010, 97 proposes that these might be glands, breasts or rocks.
[166] Simandiraki-Grimshaw 2010, 98.

iconography as well as its function as a funerary offering point toward an elevated meaning of the boar's tusk helmet, an element of attire and protection that could only be crafted after a series of successful boar hunts.

Unrecognizable quadruped heads

This last group of devices are heads that are not attributable to a certain species although they show features of the above defined device heads. **NV.34**, engraved on three look-alike seals, has an abstractly shaped head. The snout resembles the tripartite feline nose and mouth but is very elongated and emerges right next to a pair of small eyes on either side of a narrow forehead. Above the eyes, the head shape is like a boar's, with a trapezoidal forehead and bristles along the sides. The top of the head is composed of two indented lines that curve down and up again, meeting in an acute central point. On the left and right side of the top of the head, the points fuse into a circular ending. Long, curved elements emanate from the snout, possibly tusks or part of a 'snake frame' whose ends are not preserved in the impressions. Two antithetically arranged, bent limbs sprout from either side of the head at the level of the boar's bristles. What could be a pair of legs appears from the indented area on top of the head, going first up and then bending to the sides. These limbs or extensions are striped, which is not known from human legs. The area between them is filled with parallel lines that steadily grow longer toward the top. The overall impression left by the arrangement of the limbs is that of a scorpion or arachnid.

While the creatures behind the head of **NV.35** are recognizable, the engraver has achieved such a level of amalgamation that it is not possible to attribute the head to one or the other of the animals, therefore, it is not found in the respective sub-chapters above. The head has the elongated nose and snout of a boar together with the tripartite elements of a feline as well as tusks. The eyes are almond shaped an arranged like a cat's, but the side of the head features the bristles of a boar. The pointed ears remind again of a cat, while the hairless top of the head is pig-like. From there sprouts a fir-branch element. In this regard it is related to **NV.28**.

The last two device heads have already been mentioned under different aspects in previous device groups but need to be readdressed in order to provide an overview of all the possible device heads for non-viable composite creatures and motif combinations. **NV.06** has already been discussed under *device II: fan-tail*, its head seems to fuse parts of different animals, perhaps a bull, judging by its snout, the feathered neck-line might also point towards a bird, whereas the large eye and the general shape of the head is equivocal of a fish – however this remains a matter of speculation and up to now, no composites are known that include fish or marine animal devices. **NV.18**, discussed with

device IV: human legs, has a head that reminds most of a bull, with long tendrils extending from the top. Since it misses detailed facial features, it is hard to infer more information from this head.

Device VI: Antithetical Protomes

Several instances of antithetical protomes have been mentioned in the course of this chapter. The frequency of this allows us to define it as a main device for the composition of non-viable creatures and motif combinations. At Zakros, we encounter two possibilities for employing this device. The gem engraver could either feature the antithetical protomes as the main constituent of the design or they could use them to supplement a quadruped head.

Five examples of antithetical protomes as main elements can be discerned among the material. **NV.33**, the dog heads combined with a boar's tusk helmet and a horn, has already been mentioned. Apart from this, **NV.36**, the lion forequarters attached shoulder to shoulder, is the only other case of a mammal lending itself to the device. In general, bird protomes seem to have been favored. **NV.08** displays the antithetical heads of two water birds joined to a shared fan-tail, while **NV.37**, of which two versions exist, displays again two water birds, which are, however, joined by a tubular and possibly be-feathered section. Furthermore, each protome bears a schematic wing. In the space between the heads, the engraver has added a fan-shaped plant. The final bird's head protome, **NV.38**, is most probably not a simple bird, but rather a griffin. The centered-circle incision at the shoulder and the plumage on the head, indicate that this is not a mere bird of prey. As the only antithetical protome of the first group, these creatures stand chest to chest with their heads thrown back.

The second possibility to depict antithetically arranged protomes is as a supplement to quadruped heads. Since the latter have been discussed extensively above, the different options and animals used for this will only be briefly mentioned. In five cases, the protomes are extensions of the body, while one case, **NV.20**, displays its protomes, probably of a (water?) bird with a long beak, as part of the 'snake frame' element. **NV.22** has snakes that are attached to the cat's head like tusks. **NV.23** sports water birds growing out from the sides of a feline's head. **NV.25** is the only example of a mammal being used for this depiction, where dog's heads stream out of the end of the bull's horns (only one side preserved). **NV.26** is a bull's head with waterfowl protomes attached to the head, but not replacing the horns, since these are also rendered. Finally, water birds also combine with a bucranium on the three versions of **NV.27**, where they grow out of the lower end of the bucranium's horns. Ultimately, birds prove the dominant species for antithetical protomes also in the case of quadruped heads'

supplements. It is interesting to see how the person or people responsible for these images could repurpose the heads of different species, bringing 'dead' body parts, such as horns or tusks, to life.

Device VII: 'Snake Frame' Elements

The final group of main devices comprises the head gear conventionally termed 'snake frame'. The nature of this element of attire has been discussed and re-discussed for over a century. In glyptic, it is most often worn by a central female figure who is sometimes flanked by rampant animals.[167] The head-gear consists of two to three horizontal lines with upward curving middle sections and ends that terminate in a torus with a bulging element.

The Zakros sealings display 'snake frames' also in combination with quadruped heads, where they can appear floating above the head, *i.e.* on **NV.20**, **27**,**30** and **39**. On **NV.26** it is presented beneath the head. In other cases, it appears in parts as a substitute for animal horns, as can be seen on **NV.28–30** and **31a**. This "interchangeability of the 'frame' with animal horns and tusks"[168] has led Robin Hägg and Yvonne Lindau to hypothesize that the head gear was also fashioned out of animal horns. While this metonymic explanation stands to reason, it disregards the cases of animal protomes substituting quadrupeds' horns or tusks. These demonstrate that the Aegean artisan did not necessarily think in categories of material interconnection. Moreover, this comparison opens again the possibility of the 'snake frame' being indeed connected to the animal that gave it its name – running counter to the argument postulated by Hägg and Lindau.[169]

3.3 Winged Creatures

This subcategory of occasional hybrids comprises all winged composite creatures. A broad categorization under the caption 'winged' has advantages as well as disadvantages from a heuristic point of view. The main advantage is the fact that it comprises all winged composite creatures without pre-selection, making it possible to give an overview of the extant iconographic material delivered by seals and impressions. A disadvantage arises from the analytical subdivision of the material in occasional and fixed hybrids that would result in a separation of the creatures into the occasional winged composites and the fixed winged composites known as *bird ladies*. However, since the

[167] An overview of scholarly opinions on this head gear is given by Hägg – Lindau 1984, 67–70. See this also for an overview of glyptic 'snake frame' representations.

[168] Hägg – Lindau 1984, 73.

[169] To sum up, Hägg and Lindau explain the 'snake frame' as a device fashioned out of animal tusks, to the ends of which dates where fastened, creating the bulbous ending of the device. (Hägg – Lindau 1984, 73).

so-called *bird ladies* and many of the occasional winged hybrids show a very close relationship, they will not be separated along the lines of this analytical subdivision. Instead, they will be treated here at the end of this chapter dealing with occasional hybrids and before the following chapter containing fixed hybrids, so as not to split the material for reasons of artificial categories.[170]

In order to understand the occasional winged hybrids, we must first address the fixed group of *bird ladies*, since these most likely formed the cognitive basis for some or most of the occasional winged hybrids. All glyptic representations of this creature are engraved on soft stone seals.[171] On a basic level, *bird ladies*, also called "bird women"[172] or even "Bird-Goddess,"[173] consist of the head, rump and wings of a bird, together with a flounced skirt in place of the tail and, occasionally, human legs.[174] It is not always easy to differentiate between a bird's tail and a skirt. In these cases, legs are vital for a secure interpretation of the creature as a *bird lady* as opposed to a bird.[175] The first hybrids that can be definitively identified as *bird ladies* corresponding to these criteria derive from LM I material. However, it has been suggested that depictions of this hybrid originated as early as MM II, although missing details in this era's soft stone glyptic do not allow for certain identification.

Aruz raises the possibility of an Anatolian origin of bird-headed demons from the Middle Bronze Age onwards,[176] although these show different combinations of human and bird elements.[177] For example, a seal from Acemhöyük bears the depiction of two bird-headed upright standing humans with one arm and one wing each.[178] One MM II possible *bird lady* can be seen on **B.01**, a three-sided steatite prism discovered in Kato Zakros. It stands alone on the seal face, something which can be observed in later depictions of this type as well. The head is rendered in left profile; the bird wings extend to either side of the body which ends in what is possibly a skirt. Two vertical

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[170] *I.e.* into occasional and fixed hybrids. While these artificial categories are useful for structuring the large amount of material covered by this study, a rigorous execution of the heuristic device would hinder a better understanding of this specific group of hybrid creatures by dividing their study into two independent chapters, whereas the contents of these would remain strongly interdependent.

[171] There has been an ongoing discussion about whether the depiction in soft stone material means that these seals were used by "ordinary people while the elites or their administrator had metal rings or hard stone seal" (Pini 2010, 338). The matter has not been resolved yet and a discussion here would be beyond the scope of this thesis. For more considerations of the topic, see Pini 2010, *passim*.

[172] Anastasiadou 2011, 183.

[173] Pini 2010, 239.

[174] Simandiraki-Grimshaw 2010, 95 also counts breasts as constitutive elements, however, the abundance of *bird ladies* without this feature proves that this was not a fundamental element, but one that could be added, creating what is here called a *bird lady derivative*.

[175] *Cf*. Seal of the Month June 2017, CMS Heidelberg, by M. Anastasiadou https://www.uni-heidelberg.de/fakultaeten/ philosophie/zaw/cms/monthlySeal/monthlySealOlder.html (last accessed 01/09/2018).

[176] Aruz 2008, 226.

[177] Aruz 2008, 101, 106.

[178] Aruz 2008, 112, fig. 243.

incisions below this suggest the presence of a pair of legs, one of which can be observed well in the impression. The posture of the creature corresponds to that of later, clearly identifiable bird ladies, such as **B.22** and **B.29**. Two further MM II depictions can be mentioned along these lines, **B.02** from the same stylistic group, is iconographically very close to **B.01**, yet without any indication of legs, instead including two lunettes as fillers underneath the wings; **B.03** is also close to these two. They cannot be postulated as original *bird ladies*; however, they show a close conceptual affiliation to these hybrids and should be considered as possible antecedents.

Another MM II *bird lady* candidate is exhibited on a three-sided steatite prism, **B.04**, found in Malia. While this specimen shows no indication of legs, the posture of its wings hints at a humanoid component. Its right wing extends downward next to the rump, as on the previous seal, and its left wing is held up, inclined towards the back of the head. This is well known from several depictions of females wearing flounced skirts and performing a gesture possibly related to dancing.[179] The adoption of this stance by the figure in **B.04** allows for the categorization of it as a *bird lady*, rather than a bird.

There are three further examples of Protopalatial bird-human hybrids, however, they do not show any signs of (female) gender and therefore do not necessarily correlate to the early bird ladies. **B.05** is engraved on a soft stone conoid and has every characteristic of a bird, but two vertical incisions emanating at the end of the fan-tail, as well as the upright position and the wings held at the sides of the body like arms make a humanoid impression. A rather different human-bird can be seen on **B.06**, a three-sided MM II prism from Neapolis. The figure consists of a large triangle for the upper body topped by a slender neck and a bird's head with a large open beak. It is seated on a round structure, possibly a stone, and its legs are clearly human. The 'arms' are very peculiar, as the front one looks rather like a human's while the rear one resembles a crude wing. Although it is clearly different in style, the concept is reminiscent of bird-humans on the Acemhöyük seal. **B.07**, the final un-gendered bird-human, is, exceptionally, on a hard-stone figural seal from Malia. It has the head and wings of a bird, a human torso and possibly feathered legs and clawed feet, unique features for the

[179] *Cf*. *CMS* II3 no. 17 (see how similar the skirts are to the fantail-skirt of other *bird ladies*; also, legs/feet are missing, so they are not necessary components of a female wearing a skirt). *Cf*. further *CMS* II3 nos. 169, 171, 236, 304; III nos. 350–53; VI no. 287, *i.a.*

Fig. 4 Two 'bee-ladies' and two bees. Top: B.08; middle: *CMS* II3 no. 314; bottom: *CMS* II3 no. 315.

bird-human composites. Aruz draws comparisons to the Anatolian bird-human, which she calls a griffin-demon.[180]

Before continuing with the evolution of bird-humans to *bird ladies* in the Neopalatial era, one final Protopalatial composite that is regularly pointed out in the context of bird-human hybrids needs to be addressed because of its research history. **B.08** (*fig. 4, top*), an object sealing from Phaistos, displays the torsos and heads of two antithetically arranged and possibly beaked humanoid figures that face one another. Their bodies have the shape of a figure-eight shield or a bee. The arms are humanoid and touch in the center of the impression. Both creatures have characteristic curls in the nape of their necks common for Anatolian griffins[181] and which can also be observed on **G.02**, a MM II griffin on another sealing in Phaistos.[182] However, interpretations of this hybrid as an early *bird lady* might be misleading,[183] as the comparison with two contemporary Phaistos sealings reveals: *CMS* II5 no. 314 and 315 clearly show a wasp or bee (*fig. 4, middle & bottom*). Their heads are rendered in the same way as that of **B.08**, including the curl, and what appeared as a beak turns out to be the mandible. The insect's legs are a close parallel to the hybrids' arms, and it sprouts a wing on its back. Due to the impression of **B.08**, where parts of the seal face at the backs of both creatures are not fully preserved, it cannot be entirely ruled out that these were winged as well, although this seems unlikely. I suggest naming this hybrid a 'bee-lady' – as has formerly been done by Weingarten.[184]

In LM I, the iconographic material of bird- or winged humans loses some of the former Protopalatial diversity and it becomes easier to recognize a fixed class of hybrids. *Bird ladies* appear exclusively on soft stones, mainly lentoids,[185] and are usually encountered in an upright standing position, wings spread wide with the bird head

[180] Aruz 2008, 112.

[181] Compare to two stamp seals from Acemhöyük, Aruz 2008, figs. 243, 245; also to be observed on a stamp seal from Karahöyük, *ibid.* fig. 233.

[182] Pl. XI G.02.

[183] The CMS database calls it a "Vogel-Mensch" (bird lady).

[184] Weingarten 1983, 93f.

[185] Other seal shapes bearing the depiction of *bird ladies* are attested in unique instances: one cushion seal (B.17), one cylinder seal of Cypro-Aegean style from Palaikastro (B.36), and one amygdaloid preserved in an impression from Ayia Triada (B.27).

Fig. 5 Wing types 1, 2 and 3.

facing straight up or sideways.[186] Some specimens are depicted crouching with their legs spread apart.[187] 23 out of 42 *bird ladies* include identifiable legs. Among those without, the majority has well-recognizable flounced skirts (*cf.* **B.09** or **B.10** that show the layers and ornamentation of this typical female garment). Only four depictions are ambiguous as regards the fan-tail/skirt element (**B.11–12**, **42**). Since these are all soft stone lentoids displaying bird creatures in the posture paralleled by so many *bird ladies*, they can be carefully attributed to this category of hybrids.[188] As a group, *bird ladies* appear in very homogeneous depictions with variations mostly in style. However, some are more divergent than others, such as **B.13** which possibly bears horns on the head, or **B.14**, a *bird lady* depicted in profile from the waist down.

While the wings seem, at first glance, to be rather heterogeneous, a closer inspection reveals that most *bird ladies* follow one of three compositional types (*fig. 5*). Most often, the wing consists of a continuous line that runs horizontally along the bones of the bird wing and seamlessly into the outer primary feather, which is elongated and functions as a frame for the vertically incised feathers hanging from the horizontal 'bone-line'. Two variations of this type exist: (1) the 'bone line' is almost straight and horizontal, bending down at nearly a right angle into the elongated primary feather, or (2) the 'bone line' is curved and runs more smoothly into the outer primary feather. In the first case, the vertical feathers run straight down and have about the same length, while the feathers in the second case show more irregularities in length and alignment. Representatives of the first group are **B.12** and **B.15–20**. **B.21–25** and **B.11** show minor variations to this type, such as single feathers emanating from the vertical part of the 'bone line' (**B.23**, **25**), a break between the horizontal and outer vertical line (**B.24–25**) or other smaller deviations. The second group, which is closely related to the first, comprises the *bird ladies* **B.26–32**.

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[186] See B.13, 23, 30, *i.a.*

[187] *Cf.* B.33, 36 and possibly B.26.

[188] A difficult to understand piece is B.19, which could either display a plumed bird's head looking upward or a quadruped head looking to the left (impression). In *Arachne*, a possible headgear is also mentioned. Scrutiny of the impression underneath the microscope could not, however, dissolve these difficulties, which is why the piece is mentioned here for the sake of completeness, although no solution can be offered to whether or not this is a *bird lady* with a smaller variation or rather an occasional derivative of this composite creature.

A third type, possibly derived from the MM II *bird lady* antecedents, (3) is a nearly crescent shaped wing with no, or very few, feathers attached to it. This can be seen on **B.33** and arguably **B.34** (whose few downward feathers look like a very sketchy version of wing type 2 feathers). Only few bird ladies do not fit into these three types: **B.09** has a single curved 'bone line' not ending in a primary feather, from which emanate the vertical feathers as before in type 1; **B.14** has very compartmentalized wings, but it also stands apart from the other representations due its lower body, which is depicted in profile view; **B.13** has wings that are curved upward, yet again, this *bird lady* is different from others in that its head is shown in profile with two eyes up front and it possibly has horns. **B.35** is in a bad state of preservation, but a partially preserved wing seems to have had feathers extending upward from a lower bone line instead of the other way around. We can summarize that there is a close typology of wing types that seal engravers adhered to when depicting *bird ladies*. Variations of the wing seem to go hand in hand with further variations of the hybrid creature, possibly a first step in a process leading to the creation of new winged composite creatures that have no direct relation to MM II predecessors.

Winged female figures again occur in the phase LM III, however, they are far detached from the iconography of the LM I type. These are more linear and "simplified"[189] and therefore appear ornamental rather than figurative. The bodies and wings which of **B.37–41** are made by simple, linear incisions that give the bodies their shapes. The heads of **B.37** and **B.38** are of a bird, the one on **B.39** is not preserved and **B.40–41** have female human heads. One final LM III specimen exists which is different from the rest. **B.42** consists of geometrical shapes, such as a triangular skirt/fan-tail, a straight vertical line for the rump, nearly horizontal 'bone lines' with parallel incised, hanging feathers and a head rendered by a centered-circle adorned with a small curved beak and a v-shaped plume at the back of the head. The space beneath the wings is also decorated with centered-circle ornaments, leaving nearly no free space on the seal face. While the pictorial theme remains that of a *bird lady*, the style and composition differ from the contemporaneous *bird ladies* as well as from earlier ones.

Other winged composite creatures show a stronger divergence from the *bird lady* prototype and appear only in single depictions and find spots, which is why they will be treated as occasional hybrids, even though they depend on *bird ladies* on an iconographic and certainly also cognitive level. While we are once more confronted with the difficulty of missing provenance for most of the seals, those that have known find spots testify to the existence of *bird ladies* at various Cretan sites, including east

[189] Pini 2010, 329.

Crete (Kato Zakros), south central Crete (Ayia Triada, here in impressions), and north Crete (Tylissos, Knossos). Up to date, no direct relatives of the LM I *bird ladies* have been found.

Fig. 6 Helm with single cheek guard on WH.03.

Against the background of the *bird ladies*, we will now look at occasional winged hybrids, a group of 22 seals to be discussed in the following. Most can be considered as *bird lady derivatives* (*e.g.* **WH.01–07**) that feed on the iconography of the fixed hybrid while including new features, such as breasts or animal heads, or displaying reconfigured body parts and postures. **WH.01**, a winged composite in an elaborate flounced skirt, at first reminds of *bird ladies* depicted in profile, such as **B.14** and **B.28**. Yet, it does not only have a bird's rump but also a female breast, and, prominently, two forearms with claws emanating from the chest. Combined with the J-spirals observed along the wing and the bird-of-prey-head of the creature, its features are very close to griffin iconography.[190] What the engraver has represented needs to be properly called 'griffin lady' and not *bird lady* although the latter hybrid functioned as a role model for the creation of this occasional winged one.

Seven seal faces show winged creatures with human features. **WH.02**[191] depicts a frontal female torso clad in a typical Minoan flounced skirt with squatting human legs beneath it. In place of the arms it has outspread bird wings with downward facing feathers. In the place of the head we find a banded helm with cheek guards. Strictly speaking, the missing head deprives the figure of its access to most senses and therefore eliminates the feature that has the highest potential of capturing visual attention.[192] Nevertheless, the helm can be viewed as a *pars-pro-toto* metonymy for a human head that is very well imaginable on top of a human body as depicted on this sealing. Therefore, it is accounted as an organic combination.[193]

WH.03 (*fig. 6*) shows the same feature: A banded helm with cheek guards is in the place of the head on a winged female figure. The body is for the most part that of a bird, but it has pronounced female breasts – a feature unknown in the fixed group of *bird ladies*. Unlike **WH.02**, this winged creature is not clad in anything, but the zigzagged lines right above the plumed tail are nevertheless reminiscent of Minoan female garments. Their helms make both creatures ambiguous and one is prompted to ask: Are they more human or more animal? It is this device that simultaneously reveals the human nature of its bearer, since only humans wear attire; however, the helm with the single cheek guard hanging from its center also looks vaguely like a head with a beak.

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[190] See chapter 4.3, *Griffin*.

[191] *CMS* II7 nos. 129A, 129B; XII no. 174a.

[192] *Cf.* Itier – Batty 2009 for the central role of eye gaze in social cognition and Peelen – Downing 2007 for neural perception of different body parts.

[193] Unlike OH.66–68 whose 'head-substitutes' cannot count as metonymical representations.

As Anastasiadou has pointed out, the "face is an important constituent element of any creature, because it gives a point of reference which suggests the existence of an inner world […]"[194] – when it is missing as an element of distinction, the observer is no longer able to attribute the creature an unambiguous identity and can only guess at its 'inner world.'

WH.04 is less ambiguous in this respect. This creature has the head of a bird in right profile with a very long straight beak. The rest of the body remains in frontal view. Where **WH.02** ends in a female lower body clad in a skirt, this composite creature ends in a fantail. What makes the creature nevertheless humanoid is the prominent pair of female breasts on its torso. If it were not for this feature, the bird hybrid would be accounted as a genuine *bird lady*. The wings are spread sideways and show fine details. **WH.05** is similar, but the lower half of the impression is missing, so it cannot be determined how the lower body looked. The head is a simpler and more schematic version of the one on **WH.04**. A clear difference to this sealing lies in the wings that are, in fact, disputable. The posture of these outstretched upper limbs is the same as on the other frontally depicted winged creatures, yet the vertical feathers hanging from the wing are missing entirely, giving the impression of humanoid arms. However, these limbs are quite thick and not as articulated as human arms. The ambiguity of this feature could be intentional since it condenses the bird-human hybridity. Like **WH.04**, this creature also has female breasts, but they seem to be attached to a human torso, rather than a bird's as is the case on the previously discussed sealing. **WH.05** also has a more distinct neck that further enforces the bird-human ambiguity as it emanates directly from the bird head but links it to the torso like in human anatomy. The impression is furthered by the necklace the creature is wearing.

Another squatting *bird lady* derivative can be seen on **WH.06**. Its elongated head resembles that of the previous two and its spread wings are similar to those of **WH.05**. The creature wears either a collar or a necklace around the neck, beneath which extends a female human torso that is clad in a belt and a flounced skirt almost as elaborate as that of **WH.01**. A line of elongated dots streams from the back of the head down along the outline of the neck, possibly depicting a braid. A curving line was also engraved above the head but most of it cannot be made out in the extant impression.

Further seals in this group show human and quadruped elements combined with bird iconography. The Zakros sealing **WH.07** shows a frontally depicted human body with spread legs. Once again, there are outstretched wings with downward incised feathers in the place of arms. The human torso with female breasts joins at the top with a bull's head in right profile. In between the legs and underneath the creature a fantail

[194] Anastasiadou 2016, 82.

emanates from the coccyx. The bird and bovine parts of the creature are executed near-naturally, but the human features are quite graphic, the rump being a simple cylinder, the legs rounded tubes. The style of execution cannot be the result of available natural models but has to be intentional. The seal cutter has rendered the animal composite parts more attention grabbing than its human parts which provokes questions concerning the semantic meaning of such a creature that can only be speculated on.

The following four composites also derive from Zakros and are characterized by their caprid heads, humanoid bodies, and bird wings. **WH.08** shows a frontal human body with a goat head in right profile. It has a long, curved horn, goat's ears and even a goatee, but the eyes are missing. The head goes over into a neck that smoothly merges into the outstretched wings. A very simple, cylindrical incision denotes a human torso. The creature is wearing a flounced skirt without any further gender-specific characteristics. Beneath the skirt extend short graphic, squatting legs. As on **WH.07**, the human parts are especially schematic, yet, on **WH.08**, this contrasts less to the rest of the body that is generally executed with fewer details.

While **WH.09** features the same iconographical elements as the previous winged goat-human, it is stylistically very different. The head of the creature is again that of a goat in right profile, however, the shape of the head is closer to the natural model than on the previous sealing. The transition from goat head to human torso is fluent and the exact border indiscernible. The lower body is separated from the upper body by a cinched belt creating the typical hourglass waist of Neopalatial human iconography.[195] The human legs are clad in shorts also recognized in other male depictions.[196] What is strikingly different from other representations is the position of the legs that can best be described as in *Knielaufpose*. Weingarten assumes that the so-called Zakro Master had come into contact with glyptic from Mitanni and used the pose for depicting swift movement.[197] This composite creature does not show the above observed divergence between the execution of human and animal parts as either are rendered in near-natural shapes and with similar detail.

There are two more examples of goat-headed winged humanoids: **WH.10** and **WH.11**. Both are shown in a squatting position in profile. They have caprid heads and wings but apart from this, they are very different. **WH.10** stands out for its very clear-cut lines and elegant, slim body shape. The head resembles rather the skull of wild-goat

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[195] Other examples of this body shape are a) in glyptic: *CMS* II8 nos. 236. 280. II7 no. 39; b) in wall-paintings: the Knossos taureadors: Bietak et al. 2007, 127 fig. 118; c) in bronze figurines: Verlinden 1984, pl. 10 fig. 24 (from Phaistos), pl. 12 fig. 28 (from Skotino); d) on relief stone vessels such as the chieftain cup and boxer rhyton: Marinatos – Hirmer 1973, 100, pl. 106. Evans 1930, 224 fig. 157.

[196] This garment can be referred to as *kilt* or *loincloth*, however, the terminology is not fixed and therefore rather problematic. *Cf*. Crowley 2012, 234; Morgan 1988, 96–97; Rehak 1996; Verlinden 1984, 98–99. also, for a promising reappraisal of the terminology and iconographic types *cf*. Matić – Franković 2017.

[197] Weingarten 1985, 179–80.

than its actual head. The wings, shown parallel to each other, are also very skeleton-like. The creature's torso is a curved cylinder that becomes smaller towards the waist. It is clad in a cinched belt and either a flounced skirt or pants as seen in women depictions. Further, it is characterized as female by its large breast that almost extends onto the squatting leg. The final and not easily interpretable feature is an elongated upward-curving element beginning in the middle of thigh and ending on the level of the forehead, perhaps resembling a tail. **WH.11** has a similar feature sprouting from the coccyx and therefore certainly representing a tail. This creature is designed in an altogether more graphic way as its torso, legs and feet seemingly melt into each another without any joints or interior forms. The head is conceivably a ram's head with the respective horns that curve towards the front head. Unlike on **WH.10**, this creature's wings do not extend parallel to each other behind the back but are depicted frontally to the front and back of it, increasing the graphic impression of the composition. Due to its long tail and the missing garments, the creature's body has also been interpreted as an ape – a possibility that should not be ruled out. Either way, the shape can still be referred to as 'humanoid'.

This is not the case for the following two sealings that feature bird bodies including the rump, fantail and, arguably, wings (as on **WH.05** the downward feathers are again missing). This is topped in each case by a boar's head characterized by its long snout, tusks and tufted hair on the sides of the head. **WH.12** and **WH.13** are very similar to each other, but **WH.13** is more detailed, with discrete feathers, well-recognizable ears and tufts of hair. The fan-tail is also more detailed and, unlike **WH.12**, the boar-headed bird wears a belly chain around the rump.

Three non-viable winged composite creatures need to be added to the repertoire presented here. They have already been treated in the chapter above, which is why the description will not be repeated here. **NV.01–3** can be tagged as *bird lady derivatives*: Like their viable 'relatives' **WH.01–08** they adhere closely to *bird lady* iconography but deviate from it by changing the heads or adding female breasts. **NV.01** comes from a lentoid seal with deep intaglios and is in this regard as well as iconographically close to **WH.03**. Despite its head being substituted by a floral element, it is still considered a *bird lady derivative* due to the pendulous breasts that clearly indicate the female gender and represent a human device. This is otherwise missing because the rest of the body is a bird's (*i.e.* with no human feet or garments). A combination of faunal and floral elements has been suggested for **OH.42**, which is from Midea and of a later date. While it cannot be ascertained unequivocally for the Midean cushion seal, it can in the case of **NV.01**. The plant-shaped fan mirrors the bird's fan-tail, creating an altogether ornamental impression that does not leave a lot of free space on the seal face.

NV.02 is another *bird lady derivative* where, unluckily, the lower part of the impression is not preserved, which is why feet cannot be made out. This makes it the most questionable in this group as it could well be another winged creature. Unlike the wings of **NV.01**, which hang down along the sides of the body, this composite has wide-spread wings as if taking off for flight or preparing to land – a posture also found on the following *bird lady derivative*, **NV.03**. This creature would also fit well in the category of winged organic hybrids if it were not again for the head, which is utterly missing. The wings resemble those of **WH.10**, which shows a crouching goat-headed winged hybrid in profile. Both creature's wings are rendered by single incisions that do not join but fill the space beneath the wing bow. **NV.01** shows what **WH.10** would look like depicted frontally (ignoring the missing head).

The next two combinations show winged quadrupeds. **WH.14** is an impression from Ayia Triada preserving only the center of the image, but a feline head and body can be recognized. The creature is depicted frontally and most likely standing on all four legs, but its head is turned in right profile. The bird wings extend horizontally to either side of the body. Similarly, the Zakros impression **WH.15** depicts a horizontal 'quadruped bird' whose exact species cannot be identified. Its head is featured in left profile. Interestingly, the rump of the composite is in the shape of a bird, and four (likely feline) legs extend from it. This might also be the case on **WH.14**, however, that part of the seal impression is not preserved. Another winged quadruped is shown entirely in profile on a seal derived from a LH IIIC context in Medeon, Wiotia: **WH.16** probably depicts an agrimi with overlong thin legs that would resemble insect's legs rather than a mammal's if not for the hooves. The head is very schematic and almost skeletal. Furthermore, the wings do not correspond in any way to the bird wings featured on the combinations observed so far. Nevertheless, the seal depicts the survival of winged quadrupeds beyond Neopalatial Minoan Crete. **WH.17–18** show the same motif, but in this case the quadrupeds, goats, are easily recognizable. Apart from wings, they also have a long, feline tail which both remind of griffins. While **WH.17** has hooves, as far as the extant front leg indicates, **WH.18** seems to have talons. Due to these differing features, they are considered as occasional hybrids and not as griffin types. Back in LM I Zakros, we find the depiction of conjoined winged quadrupeds on several impressions from two different but very close seal stones of which one must have been re-worked at some time. **WH.19** shows two winged mammals, perhaps deer, lying antithetically on the ground. Their hindquarters cannot be clearly discerned as they are covered by the bird wings, which leads to the assumption that they may be joined at the rear ends, a feature known from other examples from and beyond Zakros.

Two more occasional hybrids with bird wings need to be included within this chapter. These could be accounted as either viable or non-viable combinations. On **WH.20** this is the case because a chasm runs vertically all the way through the representation, leaving an impression of mirrored body halves. We are dealing with an upright male figure with outstretched bird wings in frontal pose. The legs are well articulated and clad in a short kilt.[198] The wings have very linear downward incisions depicting the feathered wings of a bird. Its head is not easy to understand, and it could well be that this is a mask or a helm with cheek guards. The outer perimeter of the seal is not preserved in the impression, so the upper end of the head or helm is lost as are the ankles and feet. Despite the difficulties considering the head and the rather inorganic character promoted by the break in the middle of the figure it still compares well to other humanoid winged creatures of this group. **WH.21** bears no indications of human forms but it is rather an ornamental composition emanating from a heart shaped leaf-like 'torso' that might resemble a bird rump. Short, stylized wings are on either side of the feature and it is topped by a 'head' that surpasses the size of the torso. It has large eyes in the shape of petaloid loops leaving the impression of an owl-like head, but nothing else is reminiscent of facial features. Due to its inorganic constitutive elements, the hybrid is defined as an inorganic combination that gives the impression of a unit.

The final occasional hybrid of the type *winged creatures*, **WH.22**, is placed at the end because it bears an important difference: Up to now it was bird wings that dominated the compositions. On this Zakros sealing, however, the creature has butterfly wings. These are attached to a frontal female torso which joins to a human head with headgear in right profile and a pair of leonine legs. This is the only figure with butterfly wings that belongs to the organic combinations. Other hybrids with this feature are in utterly inorganic combinations, including a very close example from Zakros.[199]

Ultimately, this group has been defined through the very prominent element of wings attached to either human or animal body parts. The combination with the lower body of a human and a quadruped head (mainly of agrimia) is repeated several times (as on **WH.07**, **09–11** and perhaps **08**). Another recurrent possibility is what could be called a 'bird variant' in analogy to the fixed group of *bird ladies*. These show variations from the scheme of typical *bird ladies*, such as a non-bird head (**WH.02–03, 07–10, 12–13**) or a human torso instead of a bird's rump (**WH.04–10**). Finally, a group of winged quadrupeds can be pointed out in the record (**WH.14–19**, **22**, the latter bearing quadruped legs but a rather hybrid human-quadruped torso). The winged occasional hybrids testify to a creative force in the conceptualization and production of hybrid images. The seal engravers could choose from a repertoire of forms and motifs

[198] The CMS does not identify this as a kilt but as "double joints". See *CMS* II7 no. 85.

[199] NV.011.

from the natural world and re-assemble these to create a variety of composite creatures. Wings seem to have had a special attraction which is why they are used so often, even beyond this category of winged hybrids. *Bird ladies*, griffins or the winged grotesques[200] also display this trait, for example.

While most of the specimens of this group come from Zakros and can be dated to LM I, there are also examples from Ayia Triada and Phaistos from the same period. Further, these images were all depicted on soft-stone seals – there is no known example of a hard-stone variant. This leads to the assumption that soft stone types were considered the adequate medium for rendering occasional hybrids of the winged typed – an observation that should be kept in mind when considering other hybrids. Future research on hard and soft stones is necessary to understand possible differences of the material on a social scale. Were soft stones, which all occurred on Crete and could be incised with simple hand-held tools, preferred by non-elite or sub-elite members of society who did not have access to the rarer and usually imported hard stones and the more advanced technology and tools for engraving? If this hypothesis can be tested and proven, implications for the understanding of distinct Minoan social groups and their specific mindscapes could be inferred from a revisit of seal iconography.

[200] Gr.10.

4. Composite Creatures on Seals and Sealings
Fixed Hybrids

Fixed hybrids are defined as a category of composite creatures that arise on a broad temporal and regional scale: They occur in different Minoan places at the same time and, in most cases, exist over a longer span of time. Due to their overall longer presence than occasional hybrids, fixed hybrids continually evolve adhering to basic conceptual rules while at the same time being altered to fit needs, expectations or tastes of social groups in certain time periods. The composite creatures that are featured in this group are the Minoan Genius, grotesques (often called 'gorgos'), griffins, sphinxes and, finally, the Minoan Dragon. While these creatures all appear on Crete at a similar point in time, at the end of MM II/beginning of MM III, they show different metamorphoses and varying degrees of 'success' throughout the Bronze Age and occur in more media than only seals. Only the group of Minoan grotesques seizes to exist by the Late Minoan period.

4.1 Minoan Genius

The fixed hybrid of this chapter has prompted a large number of studies and scholarly debates. While the identification of the Minoan Genius throughout iconographic media has been very straightforward, the question of its role in Minoan society has been a matter of debate for over a century.[201] A hybrid with elements of a hippopotamus, leonine legs and human arms, as well as the back of a crocodile had inspired Minoan seal engravers by the time of MM IIB.

While it came to Crete from Egypt, possibly via the Levant,[202] it soon became subject to intense changes, providing the former demi-god Tw-3rt (*Taweret*)[203] with an Aegean iconography and identity.[204] This entailed a rapid loss of the hippopotamus features, replaced by a leonine head and extremities, and even later by a donkey-like head on the Greek mainland,[205] as prominently known from a fresco fragment from

[201] *Cf*., for example, Winter 1890, 108; Evans 1935, 430–67.

[202] Blakolmer 2015b, 29. An imported Egyptian scarab excavated in Platanos (*CMS* II5 no. 283) testifies to a first contact with the Egyptian demi-god in the late Pre- or early Protopalatial period on Crete, *cf*. Panagiotopoulos 2004, 41, n. 35, 42 fig. 12; Sambin 1989, 88, fig. 23. It was adapted by Cretan gem engravers in the same period, *cf*. Panagiotopoulos 2004, 41, n. 36.

[203] Egyptian *Taweret* was a protective composite deity responsible for women, childbirth and the nursing of children, as well as the underworld. Her image was "attached to beds, head-rests and cosmetic articles, but she is also found in […] the 'Book of the Dead' and even in temple reliefs" (Lurker 1995, 119). A 13th Dynasty predecessor was the male hippopotamus deity Ashaheru, which was later absorbed by *Taweret* (*cf*. Blakolmer 2015b, 29; 2015a, 198; Sambin 1989, 79–85; Weingarten 1991, 6–10).

[204] Panagiotopoulos 2004, 41.

[205] Panagiotopoulos 2004, 41.

the Cult Center of Mycenae.[206] The crocodile backside is transformed into a "conch-like"[207] appendage that does not seem to follow a strict iconography, but is open to variation.[208] In Aegean archaeological literature, the minoanized hybrid is referred to as the 'Minoan Genius' so as to differentiate it ontologically from its Egyptian antecedent *Taweret*. Moreover, the application of the term considers that it was unlikely that Minoan recipients of the iconography of the Egyptian demi-god were informed about the functions attributed to it in its home country.[209] Hard and soft stones were both used for depictions of the Minoan Genius. If the extant record is representative, there was a preference to engrave this motif on hard-stone seals, but soft ones were also common. Alongside 36 hard- and 19 soft-stone seals, only two metal seals depicting the Genius are known,[210] the Tiryns Ring (**MG.11**) and the impression of a metal signet ring found in Pylos (**MG.21**). The Minoan Genius appears very often in narrative depictions, playing important roles in ritual activities like offering[211] scenes, and thus stands apart from most standard hybrids.

The first typological shape of the adapted hybrid is the so-called "belly-variant;"[212] named after its large, swollen abdomen that was accompanied by pendulous breasts and the head of a hippopotamus or possibly lion with an open mouth. Two impressions from MM IIB Phaistos (**MG.01–02**) preserve a hybrid that is still recognizable as an antecedent of *Taweret*. This early Minoan Genius, as preserved on other MM seals,[213] such as **MG.03**, carries a Minoan single-handled jug.[214] Throughout time, it continuously and frequently occurs bearing a vessel (*cf.* **MG.02–03**, **05**, **07**, **09–11**, **16**, **22–23**). For this reason, it is assumed that it played a major role as a libation pourer in Minoan ritual-scapes.[215] This is supported by the motif on a stone rhyton in shape of a triton found in a LM IB context in Malia[216] that displays two Genii involved in a libation ritual.[217] The smaller of the two pours a liquid into the hands of its counterpart, cleaning or even purifying it. The handle of a bronze krater recovered

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[206] Marinatos – Hirmer 1973, pl. LVIII.

[207] Blakolmer 2015a, 200.

[208] However, Blakolmer 2015a, 200 speaks of a standardized form of the dorsal appendage, which can only apply to its general shape and not its detailed execution.

[209] *Cf.* Panagiotopoulos 2004, 41, n. 40. Contra this view: Weingarten 1991, 12 supposes a "close familiarity".

[210] The numbers derive from the database created for this study. Due to their amount, not every seal depiction of a Minoan Genius can be discussed here, but all 55 depictions collected for this study are listed in the catalogue.

[211] See Boloti 2016 for an example of a textile-offering Minoan Genius.

[212] Blakolmer 2015b, 29; 2015a, 198.

[213] *CMS* II8 no. 195; II3 no. 105.

[214] Blakolmer 2015a, 198 points to the fact that this is a Minoan vessel without Egyptian parallel.

[215] Rehak 1995, 217–19: "The libation can be targeted at palm trees, an offering table, a stand or altar, a pile of stones, or tripod; however, some scenes do without targets." *Cf.* also Weingarten 1991, 12.

[216] Darcque – Baurain 1983, *passim*.

[217] Rehak 1995, 217, 230 no. 66.

in Cyprus similarly bears a relief decoration with two Minoan-style Genii similar to the Malia tripod specimens.[218] Facing each other they each balance an open vessel on their heads. The depiction of two Genii together is also a recurrent theme on seals (*cf.* **MG.05, 17–19, 21–22**) and often involves the typical libation jug.[219]

The only known MM III seal with the motif of the Minoan Genius, **MG.04**, comes from Kalyvia. While the upper part of the cushion seal is damaged, an open hippopotamus mouth can be recognized. It also has a swollen belly and holds out its hands carrying a quadruped. This constellation also appears frequently on later seals.

After the Middle Minoan period, the Genius underwent a conceptual change, drawing closer to Neopalatial human iconography while at the same time *possibly* switching its gender to male.[220] The loss of the swollen belly and pendulous breasts seems to have correlated to a change in function, extending from the sphere of fertility to a broader spectrum of activities. Blakolmer calls the resulting type the "standard variant."[221] Apart from the now slender, humanoid shape, its extremities transform to leonine forms,[222] while it still prominently bears libation jugs raised with both paws in front of the body (*cf.* **MG.05, 07–08**). This is suggestive of its persistent responsibility for fertility, involving watering and libation rituals. Interestingly, the posture of raised arms is also configured in scenes where the Genius does not handle jugs (*e.g.* **MG.12–15**) – this has led Blakolmer to conclude:

> *[…] holding a jug with both paws […] became a stereotypical, de-contextualized, 'petrified' iconic formula firmly connected with the creature itself, irrespective of his distinct activities.*[223]

The term 'fixed hybrid' thus also applies on the level of the motif which has become "a static, template-like, abstract emblem of formulaic character"[224] that remained popular throughout the Late Bronze Age on Crete and the mainland. A characteristic of the Minoan Genius is its appearance in pairs or even larger numbers. This is a commonality with other fixed hybrids, *i.e.* griffins and Minoan Dragons.[225] Like the griffin it can be encountered in *potnios theron* compositions (*e.g.* **OH.47**, **MG.22–24**). However, unlike griffins, it can also assume the role of the *potnios* (*e.g.* **MG.20, 24**).

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[218] Crouwel – Morris 2015, 155–58. I would like to thank Dr. Charlotte Langohr for pointing this out to me.

[219] *Cf. CMS* I no. 232; IS no. 137; II3 no. 112b; VI nos. 309-11; VIII no. 65; XII no. 302.

[220] This process is highly debatable as the gender of the MM Genius is not clear. Blakolmer uses the neutral 'it' when speaking about the MM Genius, and the male 'he' for the later representations (Blakolmer 2015a, *passim*), while asserting that its sex is now "an obviously male one" (Blakolmer 2015a, 200). Weingarten posits a female sex, referring to it as 'her' (Weingarten 1991, *passim*). This paper simply uses 'it' in order to prevent interpretive bias.

[221] Blakolmer 2015b, 29.

[222] Blakolmer 2015a, 200.

[223] Blakolmer 2015b, 30–31.

[224] Blakolmer 2015b, 31.

[225] Blakolmer 2015b, 31.

Fig. 7 Becoming (para-)human? Minoan Genii in human roles. Top row: MG.14; MG.20; MG.13. Bottom row: MG.22; *CMS* II8 no. 250; II4 no. 111.

Accordingly, it must be acknowledged to have more agency than other fixed hybrids, which do not dominate compositional scenes. This fact is also supported by other compositions that feature Genii: leading a bull or lion; killing (hunting?) a bull; and carrying different quadrupeds (bulls, lions, goats, deer)[226] which Rehak identifies as victims.[227]

A particularity of the Genius is that it always appears as a creature in control of itself and the situation, which sets it apart from animals of power although it might be classified as one. It never appears feral like the wild beasts on other seals, nor is it ever depicted in a narrative of defeat.[228] Rather, the Minoan Genius substitutes humans that otherwise feature in similar or the same scenes on different seals (*fig. 7*).[229]

Intriguingly, it can even take up the role of a human and handle humans instead of animals, as can be seen on **MG.13** from Patras, on which a Genius carries a man. While Rehak comments that it would be tempting to interpret the man as a sacrificial victim, he assumes that this is not the case, pointing out the man's pose "with the left arm crossed over the chest and the right extended […]."[230] He goes on to assume that "this cannot be a moribund figure, like the limp stags and bulls in other representations,"[231] however, neither can he propose a solution, offering solely the possibility that the "seal may represent a change in plan on part of the craftsman."[232]

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[226] Leading a bull: *CMS* VI no. 304-05. Leading a lion: *CMS* VI no. 306. Killing a bull: *CMS* II7 no. 31. Carrying quadrupeds: *CMS* IX no. 129; VS1B no. 167; VI no. 307.

[227] Rehak 1995, 219.

[228] Blakolmer 2015a, 206.

[229] Leading a bull: *CMS* II8 no. 211 (note the interesting parallel arm posture!). Leading a lion: *CMS* II3 no. 24. Killing a bull: *CMS* II6 no. 37. Carrying quadrupeds: *CMS* II4 no. 111; XI no. 301.

[230] Rehak 1995, 220–21. Blakolmer 2015b, 32 assumes that the man is dead.

[231] Rehak 1995, 221.

[232] Rehak 1995, 221.

Yet, two considerations need to be pointed out: First, no matter whether this motif is a spontaneous creation or a planned and carefully executed work of craftsmanship, it invariably depicts a narrative with a realistic, understandable meaning to a contemporary observer in the LBA. Second, the human figure could be a key to understanding the scene. It is a man clad in a loincloth and wearing a circlet around the neck. This combination can be found in close parallel on another seal also dating to LB II–IIIA1 (*CMS* VI no. 336) that shows a bull leaper with strong similarities to the man carried by the Genius – not only because he wears the same garment and necklace, but also on stylistic grounds (the rendering of the facial features, muscles and length of the limbs). Rehak has commented on the similarity between the carried man's posture and that of bull-leapers or 'minotaurs' (which are here called bull-men, *cf*. ch. 3.1) in general.[233] Either display an "extended, curving pose"[234] that makes use of the lentoid seal face they are engraved on. Therefore, a different interpretation of the scene is proposed here: The Minoan Genius, acting as a protective figure, is on this seal supporting an injured man who is clutching the wound at his breast that may have resulted from bull-leaping. Wounded leapers are commonly depicted on various media.[235] Moreover, the Minoan Genius also appears in a protective role, flanking possibly divine figures, and, in another case, assisting a man in combat with a lion.[236]

Another instance in which the Genius is elevated to a divine level is on **MG.14**, where it assumes the central position between two humans in an antithetical composition reminding[237] of *potnios theron* scenes (however, in this case, the term *potnios anthropon* would be more appropriate). Not only does the Minoan Genius thus assume human roles; in handling humans, it transcends human behavior, as none of the extant representations on seals show humans being carried like an animal or flanking a central *potnios* figure. Rehak posits the interpretation that the Genius had turned into an "object of veneration in its own right"[238] by the time of LB II–III. "Occuring […] in highly unusual scenes"[239] such as the ones in *fig. 7*. The Genius posesses many capabilities and has a strong potential to exert agency that go beyond its original role in libation rituals.

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[233] Rehak 1995, 220.

[234] Rehak 1995, 220.

[235] E.g. on the 'Boxer Rhyton', where the leaper's leg is impaled by the bull's horn, *cf*. Evans 1930, 224 fig. 157; or in the case of an assistant to a bull leaper on a taureador fresco, *cf*. Bietak et al. 2007, 124 fig. 112; or a bull leaper who hits the ground on another fresco, *cf*. Bietak et al. 2007, 125 fig. 115. *CMS* II8 no. 227 shows another such occasion.

[236] *CMS* I no. 379; XI no. 208 (frontispiece). *Cf*. Blakolmer 2015b, 31–32.

[237] While human *potnioi* are depicted in frontal or three-quarters view with the arms stretched out to the animals on either side, the Genius is rendered in the standard emblematic profile depiction with its typical arm posture. However, this hybrid is never depicted frontally, so the scene should nevertheless be interpreted as a *potnios theron/anthropon* scene.

[238] Rehak 1995, 228.

[239] Blakolmer 2015b, 30.

Scenes common for human figures that have been interpreted as deities, due to their prominent position and enforced by the presence of subdued wild animals or even fantastical creatures, can also feature Genii. Blakolmer convincingly describes this as a reinforcment of the hybrid's "supernatural character comparable to that of deities,"[240] a facet the author has advocated with considerable evidence.[241] Its divine character has also been espoused earlier by Sambin, who made an important observation:

> *Le génie minoen se révèle plus puissant que les hommes, moins inaccessible que les dieux. C'est donc un intermédiaire entre les deux sphères humaine et divine.*[242]

The material evidence for a divine character has been discussed above, yet the Minoan Genius should not be seen on an equal level to anthropomorphic deities in Minoan and Mycenaean religion. This is evidenced by scenes that show the hybrid as a servant of such (supposed) divine figures.[243] On the Tiryns ring, a procession of four Genii bearing libation pitchers approaches a seated woman in elaborate clothing holding up a Minoan chalice.[244] Because of her size, slightly overtowering the standing Genii, and her seated posture, she is interpreted as a goddess on the basis of iconographic conventions.

Another feature that is attributed to goddesses, the head-gear conventionally termed 'snake-frame,'[245] is worn by an upright female figure flanked by rampant deer on a sealing from Pylos, **MG.21**. Behind these are at least one, but plausibly two, Minoan Genii balancing each an upright stick on their palms.[246] Given these two examples, Sambin's interpretation of the Minoan Genius as an intermediary between the spheres of humans and gods stands to reason.

The iconography of the *standard variant* continues throughout the Neopalatial period on Crete as well as the mainland (up until LH IIIB1),[247] while an increasing preference for Genii in antithetical compositions flanking a central element, such as a column or plant, can be observed, *e.g.* on **MG.17–19**.[248] This poses some contrast to the narrative scenes from LM I on that preferably show the Genius in intercourse with animals or humans, as on **MG.11–15**. However, the motif of leading a quadruped is also

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[240] Blakolmer 2015b, 33.
[241] Blakolmer 2015b, *passim*.
[242] Sambin 1989, 93.
[243] Concerning the difficulties in identifying or differentiating Bronze Age deities *cf*. Blakolmer 2005, 33.
[244] Rehak 1995, 225.
[245] Rehak 1995, 226.
[246] *CMS* I no. 379. A similar composition showing a Genius with a branch in paw and a rampant quadruped was also found on a nearly contemporary ivory pyxis from Dendra: Rehak 1995, 227, fig. 9, 231 no. 72.
[247] The latest example comes from an ivory plaque from Thebes; Blakolmer 2015a, 201; Rehak 1995, 218 fig. 2, 219.
[248] *CMS* I no. 231; II3 no. 112b; II8 no. 199; V no. 367; VI nos. 309–11; VIII no. 65; XII no. 302.

recurrent.[249] Possibly, it is out of the *standard variant* that a new stylistic form of the Genius evolves, termed "insect-agrimi variant"[250] by Blakolmer. Representatives of this type (*e.g.* **MG.17–21**) display an ovoid body shape, slim and long legs, "often with double-drilled eyes reminiscent of a wasp-like insect"[251] (*cf.* **MG.18**).

On some variants, such as **MG.18–19**, a long curved line with knobs sprouts from the head arcing back and down along the length of the back or appendage. Blakolmer compares this to "the horns of the Cretan wild-goats (agrimia)," [252] which is why the type is called *insect-agrimi variant*.

In LH IIIB the continouous transformation[253] of the Genius led to yet another type with the head of a donkey. Blakolmer attributes this change to a transformation from the iconographic carrier of seals to large-scale media such as wall-paintings, in the process of which occurred an "individual transformation by misinterpreting the standardised components of this creautre."[254] However, while it should be acknowledged that the transformation from one medium to another, larger one, has the potential of altering and adding details, it is misleading to attribute this to a misinterpretation of standardised components. The Minoan Genius has proven to be a hybrid with a strong availability for modification, being fitted and re-fitted on an iconographical, but also highly likely on a semantic level, to suit changing social expectations and needs. While certain elements were obviously deemed as necessary components (such as the dorsal appendage, upright posture, and position of the arms), the Genius never reached a level of true standardisation – a result that would have run counter to its mutability. Moreover, the Minoan Genius was capable of such variation because, as a hybrid, it still remained easily recognizable due to the unique combination of composite elements – even when single parts such as the head were substituted – which set it apart from other Aegean hybrids. Besides, its interactive agency would contribute to its recognition.

The importance of the Minoan Genius seems to have increased in Mycenaean times, during which it develops to an emblem of palatial ideology. On the mainland, it featured at "most of the major centers of power in IIIB contexts (Mycenae, Pylos, Tiryns,

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[249] Blakolmer 2015a, 200.

[250] Blakolmer 2015a, 200.

[251] Blakolmer 2015a, 200.

[252] Blakolmer sees his observation as further evidence for "a continued 'Minoanisation' by an approximation of the autochthonous Cretan wild-goat," (2015a, 200–01) this observation cannot be endorsed on basis of the iconographic data.

[253] The word 'transformation' is employed in the sense of Hahn's theory of appropriation, that includes, on the fourth and final level, *transformation*, meaning "the attribution of new meanings to objects, which very much depends on the local context where the object is used" (Stockhammer 2012, 48; *cf.* here for a concise theory of appropriation). In this manner, the Minoan Genius is the 'object' of transformation.

[254] Blakolmer 2015a, 205.

Thebes)"[255] where it left its native medium of seals and became part of prestigious media of display, such as wall-paintings, ivories and ornamental glass plaques probably intended as burial offerings.[256]

The only signet rings displaying the Genius come from LH III mainland contexts, the Tiryns Ring **MG.11** and the impression of another signet ring, **MG.21**. This prestigious material and the large size of the rings emphasize the importance of the hybrid.[257] Again, the Minoan Genius proves its strong potential to be transformed according to the needs of a social group and to become fully absorbed in the respective material culture. The once Egyptian demi-god has become fully traditionalized[258] by the Late Bronze Age and probably had little or even nothing in common with the functions of *Taweret*.

4.2 Minoan Grotesques

The images in this category have conventionally been termed 'gorgos' – which is in fact an anachronistic term derived from the archaic and classical Greek myth of Medusa and her two sisters Sthenno and Euryale from the island of Sarpedon.[259] Going backwards in history from Hesiod's mention of the Gorgo in his Theogonia,[260] one encounters the *gorgoneion*, the head of this monster, in Homer's Iliad as an attribute of the goddess Athena and borne on the shield of Agamemnon as a daunting and deterring image.[261] The iconography of archaic *gorgoneia* shows close ties to motifs from the Middle Minoan period, as will be demonstrated below. This has led to a transmission of the Greek term to the Bronze Age images in the literature. However, a similarity in iconography does not imply a similarity in the concepts and notions attached to a motif. Therefore, the designation 'gorgo' is rejected here and replaced by the more unbiased term 'grotesque'.[262]

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[255] Rehak 1995, 229.

[256] For a detailed description *cf*. Rehak 1995, esp. 229–30.

[257] MG.11 measures L/W 5.6/3.52 cm; the fragmented impression MG.21 preserves 2.65/1.2 cm.

[258] *Cf*. Hahn 2005, 103–04.

[259] Hes. Th. 276f.; POxy 61, 4099; Apollod. 3, 10, 3. For further ancient sources *cf*. Bremmer 2006, New Pauly Online http://dx.doi.org/10.1163/1574-9347_dnp_e426440 (last accessed 23/08/18).

[260] Hesiod can most certainly be dated after Homer, for more on this subject *cf*. Arrighetti 2006, New Pauly Online http://dx.doi.org/10.1163/1574-9347_dnp_e512160 (last accessed 23/08/18).

[261] Hom. Il. 5, 741 describes the gorgoneion as an attribute of Athena: ἐν δέ τε Γοργείη κεφαλὴ δεινοῖο πελώρου / δεινή τε σμερδνή τε […]. In Il. 11, 15–46, Homer describes how Agamemnon arms himself for battle, his shield bearing a gorgoneion as central image: τῇ δ᾽ ἐπὶ μὲν Γοργὼ βλοσυρῶπις ἐστεφάνωτο / δεινὸν δερκομένη, περὶ δὲ Δεῖμός τε Φόβος τε (Hom. Il., 11, 35f.). Note that one effect of this image is in both cases *δειμός*, "terror", also *φόβος*, "fear", in the case of Agamemnon, because it is terrible to look upon (*σμερδνή*, from *σμερδαλέος*). English translation based on LSJ.

[262] While this line of thought also holds true for the terms 'griffin' and 'sphinx' the latter are more difficult to replace, because they are firmly established designations for a definite group of hybrid creatures. This is not the case for the grotesques discussed in this chapter.

From the array of seal faces covered by this study it was possible to reconstruct several typological criteria for grotesque representations. All criteria are applicable to the first typological group, which is therefore called the *archetype group*. The term *archetype* applies only to the Minoan grotesques without taking foreign prototypes into consideration.

The shape of the head is the decisive criterion for defining a grotesque. It can be separated into the following classes: a rather narrow, rounded forehead and very prominent plastic 'apple-cheeks' that extend the frame of the face creating what Anastasiadou has called a "heart-shaped lower half"[263] with the chin as its tip; however, the chin is not pointed but rather rounded. The ears connect the narrow forehead with the middle part of the head, the protruding cheeks. This is a second defining criterion. Thirdly, the facial features are rather grotesque due to an over-large rendering of eyes, ears and nose. In most depictions, the grotesques' mouth is open with extruding teeth or tongue, turning the facial expression to a grimace. Its head is always topped by short, spikey hair. Finally, there is one difference between hard and soft-stone grotesques in that versions on hard-stone prisms also have long, curving incisions that remind of locks of hair ("J-spirals" or "S-spirals")[264] protruding from the sides of their heads which can be seen especially well on **Gr.01**, whereas other hard-stone versions do not show the single strands of 'hair', but rather schematic outlines. A secure identification of this as a depiction of hair is not possible, but the notion suggests itself due to the arrangement on the sides of the head. It could also be horns, assumption that can be made regarding the soft stone grotesques. On soft stones, these spiral locks are missing. Instead, two seals show elongated incisions on the sides of the head that might contest to the feature on hard stones. The first example is **Gr.06**, a lost soft-stone seal first published by Chapouthier in 1932.[265] Only a schematic sketch and a murky photography has survived, but the drawing has preserved the lines on the seal, which look like "saw branches"[266] that Chapouthier calls twigs ("*rameau[x]*")[267]. The second example is the steatite prism **Gr.05** that displays slightly curved lines which roughly follow the outline of the face but remain unconnected to it. Apart from these two examples that may show a connection to the hard-stone J-spirals, no soft-stone grotesques have such lateral extensions. Based on this analysis, fourteen Minoan grotesques can be discerned and subdivided into typological groups.

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[263] Anastasiadou 2011, 207. Anastasiadou – Pomadère 2011, 67 („*une forme de coeur*").

[264] Anastasiadou 2011, 208 uses the term "J-spiral" whereas *CMS* III uses "S-Spiralen". In the following, the term "J-spirals" will be preferred as the shape of a J comes closer to the grotesques antennae.

[265] Chapouthier 1932. It is also treated by Anastasiadou 2011, cat. no. 548b, pl. 39 and Krzyszkowska 2016, 118, pl. XLIVe

[266] Anastasiadou 2011, cat. no. 584.

[267] Chapouthier 1932, 185.

Before turning to these groups, the general typological criteria need to be evaluated in terms of 'true', *i.e.* archaic and classical gorgos, in order to explain literature's attribution to this term. On a group of terracotta masks from Tiryns dating to the early 7th century at the latest,[268] the typical head-shape known from the Minoan frontal grotesques prevails: The narrow, rounded forehead lies above very plastic, bulging cheeks and once again large ears expand over the sides of these areas of the face. The eyes and nose are equally bulging, the mouth wide open with pointed fangs (instead of teeth as in the case of some Minoan examples). The conclusive head-shape has abundant examples in archaic times. It is especially prominent on a clay antefix from Taranto in the Heidelberg Collection.[269]

This can be compared directly to seals such as **Gr.01** or **Gr.03**. The antefix also displays a wide-open toothed grin, a stuck-out tongue and, as the Tiryns mask, fangs. The fangs cannot be encountered decisively on the Minoan images, however, the long and pointed teeth of some (**Gr.01, 04, 08**) could be considered as either type of dentition. Another difference between the Minoan and archaic images is the now clearly identifiable hair, which is, with some early exceptions,[270] usually rendered as curled or braided strands or even with snake-heads.[271] However, the later snake curls could well have developed from Bronze Age J-spirals. Also, some (full-bodied) gorgos especially of the so-called 'Orientalizing' phase in Archaic Greek art bear wings that take on this J-shape.[272] Of course, the archaic images emerged almost one millennium after the Middle Bronze Age seals and we cannot trace a continuous use and development of the image linking these far-apart eras.[273] They are, however, very close so that 'gorgo' has become the prevalent term for the Bronze Age grotesques. While the thesis of its Bronze Age descendants stands on rather firm iconographical grounds,[274] one needs to acknowledge the very late emergence of the designation 'gorgo' and that it was applied to a concept that had been developed over several centuries and might not have had anything to do with the social cognition evolving around what is here called the Minoan grotesques.

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[268] LIMC IV, Gorgo, Gorgones no. 2. This mask shows some striking similarities to a MM II serpentine petschaft (*CMS* III no. 105). However, both are designed to display very basic human features and their similarity may be coincidental rather than directly related.

[269] Heid. Univ. T33 = LIMC IV, Gorgo, Gorgones 67b.

[270] Such as the Tiryns mask.

[271] Compare, for example, LIMC IV, Gorgo, Gorgones nos. 31, 46 (locks of hair) and 67b, 68a (snake hair).

[272] LIMC IV, Gorgo, Gorgones nos. 234, 239, 250–51, 261.

[273] Possibly, both the Minoan grotesques and the Archaic gorgos developed out of a Near Eastern prototype such as Humbaba that remained prevalent in Near Eastern iconographic and oral traditions throughout the Bronze and Iron Ages.

[274] It needs to be pointed out, that the observations and inter-connections of the grotesque- and gorgo-images presented here are based solely on *iconographic* grounds and do not consider beliefs or the *mythological* development of the creature. The later cannot be traced in Minoan times.

Archetype Group

Seven seals can be assigned to the first group: four four-sided hard-stone prisms and three soft-stone seals (two three-sided prisms and one lentoid). All specimens date to MM II. The above-mentioned seal **Gr.01**, probably from Central Crete, is a four-sided carnelian prism with a whitened surface. Face *a* shows a frontal head with the characteristic shape and features discussed above including an open mouth with protruding irregular teeth. Its head is topped by the distinctive short hair and some finer hairs, which even protrude from its chin. The J-spirals to the side of its head are filled with nearly parallel incisions of 'strands of hair'. The figure is also adorned by earrings. In the upper left and right corner next to the figure are hieroglyphic signs.[275] To sum up, **Gr.01** contains all typological criteria established above that define a grotesque.

The next representative of the group is the four-sided prism **Gr.02**, a translucent and nearly colorless agate whose provenance is most likely Malia. The frontal face on side *b* has the characteristic narrow and rounded brow and the pronounced cheeks and curved chin typical of a grotesque. The nose is drilled similarly to the one on the first *archetype* seal, as are the eyes but with additional eyebrows. The ears almost take on the shape of the number eight and it might be argued that earrings are implied, however this seems unlikely and has not occurred to the CMS either. Another difference lies in the rendering of the spirals that are not filled with single strands, which give them the impression of horns, but in comparison to other renderings of J-spirals they could be accounted as hair locks nevertheless. Finally, a circle is engraved on either side of the chin, probably as an ornamental filler.

Another close representative of the group is a seal excavated in the Petras cemetery, **Gr.03**. Again, we are dealing with a four-sided carnelian prism, however from the north-east of the island as opposed to the central Cretan specimens above. Stylistic differences should be sought in the different workshops and not be considered as typological aberrations. On seal face *c* one encounters two frontal faces *tête-bêche* that almost exaggerate the typical head forms, the foreheads being narrower, the cheeks broader and the features cruder – not in technical terms, their execution is of a very high standard, but in stylistic ones. The upper and middle part of the head are again connected by the ears, which are simple bows. The mouths are open wide and, as far as this can be discerned from the published impression, the rather long tongue is hanging out. Here, the J-spirals are represented by single curvy lines protruding from the upper head. Once again, all above typological criteria are fulfilled.

When it comes to the rendering of the spiral locks, the grotesque on **Gr.04** could be seen as a missing link. Like on the Petras seal, the lateral spirals are represented as

[275] CHIC 50 (right) and 19 (left side of impression).

single curved lines extending from the upper head. However, these are mirrored by smaller versions, which extend from the lower part of the face at about the same height where the J-spirals of **Gr.01** end. In contrast, on **Gr.04** the lines never meet (compared to **Gr.01** and **02** of this group). The frontal face is again rendered in the typical plastic way as discussed above. Its ears are closer to the human physiognomy, but the lobes are completely unattached to the head. Like the first example of the *archetype group*, this grotesque's mouth is open as well, showing its long, pointed teeth. The corners of the seal-face are filled with a lunette each.

Before moving on to the soft-stone archetypes, one observation needs to be pointed out. It concerns the ornamental additions to the seals discussed so far. It has already been mentioned that **Gr.01** has two Cretan hieroglyphs next to the frontal head on face *a*, but the other three seal faces all bear hieroglyphs as well. This is an interesting fact, as the next grotesque on a seal of the *archetype group*, **Gr.02** is also associated with hieroglyphic syllabograms.[276] On a first level, this observation implies an interrelation of grotesque depictions and Cretan script. Yet, as Krzyszkowska has shown in regard to four-sided prisms, of the "*ca*. 25 examples in hard stone, only four do not bear hieroglyphic inscriptions on at least one face; none bears solely figural motifs."[277] Examples of such prisms show either ornamental motifs or inscriptions (with one exception, to be discussed below).

All extant hard-stone seals depicting grotesques are four-sided prisms, but they are only four out of "*ca*. 25" – the notion of a direct connection of these grotesque faces and hieroglyphs is quickly challenged when turning to the remaining two examples that do not share this characteristic. **Gr.04** is accompanied by lunettes and, on the other three seal-faces, by abundant ornamental décor (such as loops, crosshatching, or spiral hooks with leaf-shaped ends).[278] This still fits the characteristics of four-sided prisms that Krzyszkowska has observed. However, the same cannot be said of the Petras seal **Gr.03**, which is "in this respect […] highly unusual"[279] as it uniquely bears figural motifs on all four seal faces. These motifs are, in turn, very stylized with curling hindquarters, spiraling tails and 'appendages' that in themselves pertain a decidedly ornamental character even when depicting animals and other figures.

To sum up these observations, it can be ruled out that grotesques are commonly associated with Cretan hieroglyphic script. Rather, the hieroglyphs might also be understood as ornamental elements such as the two isolated syllabograms floating on the

[276] CHIC 42, 28 and 5 (left to right on the impression as published by the CMS).
[277] Krzyszkowska 2012, 151. For the occurrence of hieroglyphs on hard-stone prisms see also Pini 2010, 325.
[278] For details on every ornament *cf*. the respective CMS entry (*CMS* III nos. 238b–d).
[279] Krzyszkowska 2012, 151.

sides of the head on **Gr.01**. Moreover, it can be posited that grotesques on hard-stone seals are frequently accompanied by ornamental motifs.

Having discussed the four hard-stone specimens of the *archetype group*, it is time to address the soft-stone seals. As stated in the introductory passage, soft-stone grotesques do not share the J-spirals with their hard-stone relatives. This is a typological feature supported by all extant soft-stone depictions of the group. The first example to be discussed here is **Gr.05**. In fact, the CMS states the following on this depiction: "Device difficult to describe, somewhat resembling the frontal head of a feline with bristling hair, open mouth and lines beside the cheeks; perhaps a boar's head with bristles and tusks?"[280] When scrutinized against the background of our typological criteria this proposition posed by the corpus proves the necessity of re-negotiation. Beginning with the head, this depiction attests its close affiliation to the group of grotesques: the frontal head is narrow, and ellipsoid, it has very protruding 'apple-cheeks' and a pronounced chin. The ears connect the upper and middle part of the head. The space between them on top of the head is filled with short, spikey hair. The facial features are very crude and Anastasiadou mentions, "the nose […] looks more like that of a pig than that of a human."[281] However, frontally depicted boars all have a very characteristic, prolonged snout and the bristles are generally not rendered on top of the head but to the sides.[282] As the seal has been damaged, the facial features are otherwise hard to account for, but their distribution on the face follows that of other grotesques. Finally, the abovementioned feature of long incised lines running almost parallel to the sides of the head like cut-down simplified J-spirals call for an interpretation of the motif not as a boar, but as a grotesque human face.

Gr.05 closely resembles the lost prism **Gr.06** published by Chapouthier.[283] The 'saw-branches' have already been mentioned above, but the rendering of the face seems quite similar as well. However, a problem remains with the conclusive interpretation of the object since it is lost. The drawing by Chapouthier is, rather a sketch than a technical drawing, complicated by the fact that it was made of the seal face, which of course lacked the plasticity of the impression and obfuscated the general form, as grooves and smoothed-out drill-holes could not realize their full potential. Consequentially, the lines of the face on the drawing are rather angular, but when compared to impressions of other soft-stone seals bearing the grotesque motif it becomes probable that these were just as rounded and prominent as on the extant examples discussed so far. Chapouthier

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[280] *CMS* VI, 174 no. 71b.

[281] Anastasiadou 2011, 208.

[282] *Cf. CMS* II7 nos. 150. 201–02; one example of a boar with bristles on top of the head: *CMS* IV no. 454a – however, they are not scattered on the head, but "sprout" from the center.

[283] Chapouthier 1932, 183–201. The author was also aware of the resemblance to archaic *gorgoneia*, *cf.* pg. 200: "le style de la figure présente une rapport saisisant avec les plus anciennes representations du *gorgoneion*."

also published a picture of the seal itself, though the resolution is low. However, when compared to his drawing, it becomes obvious that the lines engraved on the seal were much smoother and more rounded.[284] **Gr.06** also shows the distinct characteristic of ears connecting the upper to the middle part of the head. The mouth of the grotesque was most likely open, its eyes bulging.

The final seal that can be attributed to the soft-stone *archetype group* is **Gr.07**. Incised is a frontal head with voluminous cheeks and a narrow, rounded forehead with very short spikey hair on top and what looks like bangs covering the brow. The figure's large ears connect the upper and middle section of the face and end on the level of the eyes, as is the case on the lost Chapouthier seal. The nose broadens considerably towards its lower end. The left and lower section of the face as well as a smaller part of the upper right edge are missing so that it is impossible to say whether the mouth was open or closed. The chin is mostly missing as well but the overall preserved features lead to the fair assumption that it was constructed in the typical way, set off from the cheeks.

Unlike the hard-stone seals of this group, the soft-stone grotesques do not derive solely from prisms but, in the case of **Gr.07**, featured at least once on another type, namely a lentoid. **Gr.05** is cut on one face of a three-sided prism, the other sides displaying a man in profile with a "'Pole' slung with 'String vessels'"[285] on face *a* and a four-legged spider together with a dog or lion head on *c*. **Gr.06** is accompanied by a bucranium in between two antithetical donkey heads[286] on seal face *a* and a crouching dog or perhaps lion[287] on face *c*. In contrast to the hard-stone prisms, there is no association with Cretan hieroglyphs or ornaments, but rather with motifs of the natural world such as the quadruped, be it dog or lion.

The grotesques discussed in this first typological group show a close affiliation to one another and therefore form the basis for the assessment of further types. The dominant feature remains the distinctive shape of the head, the proportions of the facial features and the hair of the figures, as examined above. These characteristics are also conspicuous in the following group.

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[284] Chapouthier 1932, pl. 1 fig. 2b.

[285] Anastasiadou 2011, cat. no. 494.

[286] Proposed by Chapouthier 1932, 185. Anastasiadou 2011, cat. no. 584 cautiously calls them "ruminants".

[287] Following the typology of Anastasiadou 2011, cat. no. 584. Chapouthier 1932, 185 simply calls it "*animal replié*".

Subgroup 1: Upright Grotesques

As the title of this group reveals, we are not dealing with frontal, otherwise detached, heads, but with upright bodies. Two extant seals can be assigned to this group. The first is a steatite prism discovered in Malia's *Sector Pi* in 2007 showing a crouching figure on its face *a*.[288] The posture of **Gr.08** is not immediately recognizable, Anastasiadou and Pomadère describe it as "*assise ou accroupie*"[289] (seated or squatting). The creature's legs form the shape of a clear-cut letter M when viewed on the seal and the impression, its incision being deep and sharp. The female upper body is crude and appears nearly deformed. The creature's arms are raised from the elbow on with the hands ending on the level of the ears.

This posture can also be seen on *CMS* II2 no. 127 from the *Atelier des Sceaux* in Malia. The figure has its arms in the same bent position, just as the preserved leg of the figure assumes a squatting position.[290] Regarding the head, **Gr.08** can immediately be characterized as a grotesque – with a 'heart-shaped' lower face, large ears connecting the middle and upper part of the head, which is once again topped by short hair as observed before on soft-stone seals. The creature's mouth is open wide and rendered through a drill hole that leaves a protrusion in the impression that might represent a stuck-out tongue.

Another seal excavated at Petras (**Gr.09**), a rectangular bar with two faces, shows a very detailed upright figure with a grotesque frontal head. Krzyszkowska has called this "one of the most extraordinary images to survive from the Aegean Bronze Age – a frontal figure with outsized head, pendulous breasts, hairy legs, and a tail possibly dangling in between."[291] No comparable figure of such detail has been uncovered yet. It does have some parallels to **Gr.08** as in the upraised arms and deformed female body but apart from this, there are also considerable differences. For example, the figure is clothed in a skirt-like garment or cuirass.[292] The head, on the other hand, shows a close affiliation with grotesque iconography. It features all typological criteria in detailed engraving. Its J-spirals are shorter and thus more clinched, but this is due to the limited amount of space on the seal face. They are otherwise perfect examples of the 'hair' on seal **Gr.01**, with striations denoting single strands.

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[288] Anastasiadou 2011, cat. no. A.21; Anastasiadou – Pomadère 2011, *passim*.

[289] Anastasiadou – Pomadère 2011, 67.

[290] A possible explanation for this figure could be the possibility of it wearing a mask. Perhaps this is a feasible interpretation for both Gr.08 and *CMS* II2 no. 127. It is conceivable that such a mask might have been worn at a ritual that also afforded this special body posture as seen on the seals. However, we are here confined to speculation and a further elaboration lies beyond the scope of this discussion.

[291] Krzyszkowska 2012, 153.

[292] Krzyszkowska 2012, 153.

Both **Gr.08** and **Gr.09** have been considered in relation to the Egyptian demi-god Bes.[293] Bes is also always figured frontally and can even be configured as female, in the shape of Beset.[294] The grotesque shape "was meant to drive away pain and sorrow"[295] although this function might not have travelled with its iconography.

The adaptation of a foreign, *i.e.* Egyptian, motif is not unheard of in the Aegean Bronze Age, as this is a transcultural phenomenon arising in the Protopalatial period on Crete and throughout the Aegean. A well-known example is *Taweret* which was not simply taken over from Egypt, but intensely transformed into what is conventionally called the 'Minoan Genius'. Krzyszkowska points out that Cretan workshops did not simply copy foreign motifs but adapted them and changed them based on their own needs and notions of the world.[296] Thus, seals with foreign influences also show a range of typical Minoan elements, as can be seen in the direct comparison of **Gr.09** and **Gr.01** or **Gr.08** and *CMS* II2 no. 127, for example.

Subgroup 2: Winged Grotesques

This subgroup is represented by several impressions from two different seals in Zakros, **Gr.10a** and **b**. Unlike the other grotesque representations, these date to LM I. The motifs engraved on these seals were very similar, one likely being the copy of the other. However, it was clearly from two different seals that these impressions were made, **Gr.10a** from a slightly smaller lentoid with a diameter of 1,8 cm, **Gr.10b** the larger with 2 cm in diameter. The impressions display almost the entire seal faces and are of excellent definition and preservation. They show the same intense plasticity that has been observed on all grotesque impressions in the *archetype group*. If not for their heads, they could have been assigned to the group of hybrid *bird lady derivatives*.[297] Their heads, however, display every typological criterium defined for soft-stone grotesques. Their faces are clearly divided into the narrow, ellipsoidal forehead, the voluminous 'apple-cheeks', and rounded chins. Both figures' ears connect to the upper and middle facial section and their heads are crowned by short, upward streaming hair. Crude facial features and a very pronounced brow and nose contribute to their grotesque image. Their mouths are small and lips open. There is no neck, instead, each head is mounted directly on a bird's body. The wings are outstretched with vertical, slightly wavy incisions used to render the feathers. Especially **Gr.10b** has a rather shaggy appearance, whereas the

[293] Anastasiadou – Pomadère 2011, 68; Aruz 2008, 85; Krzyszkowska 2012, 154.

[294] See also Krzyszkowska 2016, 119–20 concerning Bes and Beset and the spread of their iconography from Egypt.

[295] Krzyszkowska 2012, 154.

[296] Krzyszkowska 2012, 154

[297] See above chapter 3.

feathers on **Gr.10a** are longer and give the plumage a more regular impression. Lion legs are attached directly to the lower bow of the wings and continue the inorganic junction of the separate body parts. Unlike the *upright grotesques*, they cannot be explained as viable or organic combinations, a feature that accounts for an appreciation as 'monstrous' in the minds of the seals' users and those who would have seen the seals and sealings. It is remarkable from an iconographical perspective that these seals are impressed on three-seal ("pyramidal") flat-based nodules[298] and on a two-hole hanging nodule together with other seals that bear further inorganic combinations (*CMS* II7 nos. 119 and 151 on one, and either no. 119 or 120 and 151 on another). Although these images sealed administrative documents, the motifs should not be considered as solely as pragmatic bureaucratic artefacts with a very practical function. Moreover, they must have also conveyed meaning (apart from the owner's identity). Tsangaraki has correctly stated that, "there must have been a relation between the designs engraved on seals […] and the administrative use of these artefacts", adding that "the administrative demands must have had an impact on seal production and […] imagery."[299] Although the images' semantic meaning escapes us, one must be aware of the fact that the administrative practices in the palatial centers were part of a political, economic and cultural network. Seals are part of elite media and it should be kept in mind that, as administrative tools, they correlate "with power ideology and structures."[300]

As the two subgroups have demonstrated, Minoan seal engravers were perfectly able to extend the repertoire of grotesque motifs by adding bodies to the pre-configured typical heads. They also found other ways to re-use these heads, as the following category will show.

Subgroup 3: Streamered Look-Alikes

This group comprises iconographically related motifs that all share the characteristic streamers derived from the J-spirals of hard-stone grotesques. Perhaps they can be considered a type of short-hand for the locks of hair. They also share other features such as the rounded head or the open mouth with protruding tongue. The first example in this group is **Gr.11**, also known as the "Mochlos imp"[301]. This limestone *petschaft* from Mochlos Tomb X preserves some, but not all characteristics postulated for Minoan grotesques. It therefore remains disputable like the other items in this category. Nevertheless, it displays the general shape of the head as observed, but its features are little detailed, and the ears are missing. The 'imp' has two large, round eyes, but the nose

[298] *Cf*. Hallager 1996, 136–37 for a typology of flat-based nodules.
[299] Tsangaraki 2010, 363.
[300] Tsangaraki 2010, 381.
[301] Krzyzskowska 2012, 155 n. 38; 2016, 118; Weingarten 1983, 92.

and mouth are not clear-cut. Rather, a thin vertical line runs through the center of the face where usually the nose would be. It ends in the lower third in a 90° angle to the middle of a horizontal line. When impressed, a triangular crevice remains where the mouth would be expected, showing a very rudimentary sense of an open mouth. The streamers do not extend horizontally from the head like in the case of the J-spirals as witnessed on **Gr.03**, but upward like antennae. The seal also displays similarities to one of the *upright grotesques*: Like **Gr.07** it raises its hands upwards on each side of the head (although, unlike **Gr.07**, it does not have a body!) with similarly rendered, sketchy fingers. Due to the similarities with other motifs clearly identified as grotesques above, a typological affiliation can be ascertained, and it shall be here proposed to consider the 'imp' a representative of the grotesques.

The next example of this group, **Gr.12**, is considered with some skepticism. On first sight, we are dealing with a schematic bucranium. But compared to bucrania a difference in the shape of the head becomes obvious: Bucrania tend to take on either the form of a tip-down triangle (*e.g. CMS* VI no. 63a. 64a. 89a.) or the snout is rendered in shape of a finial circle (*e.g. CMS* VI no. 43b; VII no. 34; X no. 34b). On **Gr.12** neither is the case. The head closely resembles a broad human head. As it is rendered only by curved lines, there is little detail and the typological grotesque head shape is not rendered true to the original. Facial features are missing altogether and only two lines cross the face; the first divides the forehead horizontally from the rest of the face; the second line begins a little to the right of the true middle of this line und runs down vertically to the chin. Basically, this is the opposite case as on **Gr.11**. This specimen's streamers drop down almost parallel to the face contour, but they preserve the characteristic curvature of the J-spirals and are iconographically close to the Petras hard-stone prism **Gr.03**. Taking these observations into consideration, a typological proximity to the group can be traced, although the identification of the motif as a grotesque remains disputable.

The final *streamered look-alike* is a very interesting composite creature that could also be dealt with in the chapter on sphinxes. However, this study treats it in the framework of the grotesques based on four criteria: (1) The creature has proportionately over-large facial features; (2) a wide-open mouth with a very long protruding tongue; (3) voluminous 'apple-cheeks' and a pronounced chin; and (4) the characteristic J-spirals as observed on the hard-stone *archetype group*. Like **Gr.04**, **Gr.13** features these spirals from the upper and lower part of the head, respectively. For these reasons, the creature could easily be listed as a very close representative of the hard-stone *archetype group*. Yet, there is one remarkable difference to this group: the face of **Gr.13** is featured in profile, not frontally. The fact that it nevertheless displays this abundance of typological criteria has led to its classification as a grotesque here.

Returning to the claim that this seal might also be dealt with in the sphinx chapter, one also needs to look at the body of this creature. The head is mounted on the body of a quadruped in profile. Its arms and legs end in three claw-like incisions that are typical of paws. The shape of the body, especially the hindquarters and the tail further the evidence that we are dealing with the body of a lion. The space between the legs, in front of the creature and above its flank is filled with ornaments – a feature already noticed on four-sided prisms with grotesques. This is a three-sided prism, but the other faces support the above observation. Side *a* shows a recumbent agrimi behind an S-spiral that runs diagonally over the seal face and ends in the shape of a fir branch. This is a shared similarity with the soft-stone prisms that present motifs of the natural world. Side *c* has ornamental elements as well as Cretan hieroglyphs.[302] Thus, **Gr.13** links the associated iconography of grotesque representations to the hard- and soft-stone *archetype group*, providing further reasons to treat it within this framework.

A possible interpretation of the Aegean grotesques is that these were masks worn at certain liminal occasions. Karen Polinger Foster discusses Near Eastern and Egyptian examples of masks as part of rituals during which they were worn by high-ranking persona such as priests and kings. However, in the case of Minoan Crete there are neither archaeological nor written sources to testify to masked rituals on the island.

While Polinger Foster envisages especially hybrid creatures, such as bird people and lion-men, in her study, it seems worthwhile to consider the grotesques as possible depictions of real masks. This can only be understood when drawing a parallel to Mesopotamian Humbaba masks, made of terracotta and further backed by written sources. Like Humbaba, the grotesques are rendered with "frontal orientation and grimacing faces"[303] that return the viewer's look. As such, it is not an inanimate object "but emanates a powerful force."[304] Humbaba's face is not only preserved in iconographical media, but also in the shape of masks that could be worn by a human impersonating the demonic figure.[305] Such a possibility could also be hypothesized in the case of Minoan grotesques, although there is no archaeological data to support this.

[302] CHIC nos. 1, 44, 49.
[303] Graff 2012, 136.
[304] Graff 2012, 136.
[305] Graff 2012, 137–39.

4.3 Griffin

Griffins were composite creatures of a Near Eastern origin attested on Crete from MM II/III on. The hybrid originated in the early Elam period, after which its iconography spread to predynastic Egypt and was further developed there. Later, at the beginning of the 2nd millennium BCE, the Egyptian griffin came to Syria where it was again subdued to iconographical changes. The characteristic curl in the nape of the creature's neck is typical for the Syrian griffin[306] and was also imported to Crete in Middle Minoan times.[307] While Classical Antiquity produced griffins of various types, such as lion-, serpent- , or bird-headed creatures with the winged body of a lion, the Aegean griffin always had the head and wings of a bird of prey and the body of a lion.[308] Aruz has shown that these features were taken over from Late Old Syrian and Classical Syrian style.[309]

All the while, Aegean artisans regularly varied some details, adding or leaving out feather plumes, rendering beaks open or closed and even deciding to configure female griffins (*e.g.* **G.09–10, 70**), which are otherwise unattested in the neighboring cultures.[310] Highly characteristic of Aegean griffins are their wings, of which two main versions are attested.[311] The lower flight wings could either be decorated with a "'notched plume' motif: slightly curved, discontinuous and suspended from the upper lines of the feathers"[312] or a decorative spiral motif running along the neck and upper line of the wing whose feathers can also be rendered in the 'notched plume' motif. Both types can also be found on Aegean sphinxes. Dessenne proposes that the griffin had been created alongside the sphinx, a human-headed composite creature with the body of a lion.[313]

The griffin proved a popular motif from its earliest time in Crete, a fact attested by early seal impressions from Protopalatial sites, *e.g.* Malia and Phaistos.[314] Interest-

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306 For Syrian griffins, *cf*. Aruz 2008, 288–90.

307 Niemeyer, H. G. 2006. s.v. "Greif". New Pauly Online. Web. http://dx.doi.org/10.1163/1574-9347_bnp_e427810. (last accessed 12/07/2018) Minoan examples with the curl are abundant, e.g. on an early impression from MM II Phaistos: *CMS* II5 no. 318. For a more detailed account of how the image came to Crete *cf*. Aruz 2008, 107–08.

308 Delplace 1967, 49. Possibly, the griffins in the Throne Room of Knossos did not have wings at all, *cf*. Evans 1935, 913.

309 Aruz 2008, 108.

310 Delplace 1967, 49, 71–73.

311 These can be seen especially well in larger media than seals, such as wall paintings, ornamental plaques and metal works. For the range of media depicting griffins (and sphinxes) in the Bronze Age, see D'Albiac 1995, *passim*. It needs to be pointed out that not all griffin depictions on seals strictly adhere to one of these two typical versions of wings and less decorative forms are attested especially on the early glyptic griffins.

312 D'Albiac 1995, 64.

313 Dessenne 1957, 208.

314 Malia: *CMS* II6 no. 215; Phaistos: *CMS* II5 nos. 317–19. Another MM griffin can be seen on a seal without provenance: *CMS* XI no. 6.

ingly, it is prominent on different iconographic media throughout the Aegean, not only on seals, but also in wall-paintings,[315] on painted vessels,[316] and on larnakes[317]. Perhaps this is the reason why this hybrid does not show any conclusive preference for either soft- or hard-stone seals, which show a ratio of nearly 1:1 (97 soft; 101 hard).[318] With 21 known examples of metal seals,[319] it is the most prominent composite creature featured in this high-value material.

Owing to the large amount of griffin representations on Aegean Bronze Age seals, an exhaustive typology for the extant repertoire cannot be presented here, due to the limited amount of space.[320] Instead, they will be treated in four large motif groups that comprise a multitude of styles, forms, and materials. These are:

1) standing or recumbent griffins in complete profile;
2) griffins in profile with spread, frontally represented wings;
3) narrative scenes (*e.g.* hunting or chariot scenes); and
4) heraldic scenes with one or two flanking griffins accompanying a central figure or motif.

Before turning to these four groups, it is necessary to indicate some insights as regards the establishment of griffin iconography and style in Minoan Crete.

On Style

The fixed hybrid creatures that appeared on Crete by the end of the Middle Minoan Period did not arrive in firm standard forms. From the end of MM II and during MM III, seal engravers were experimenting with the form and style of foreign composite creatures such as *Taweret*/the Minoan Genius, the Minoan Dragon and the griffin. By LM I characteristic shapes and styles appear, such as the standard variant of the Minoan Genius or the Aegean griffin with the notched plume motif. Unlike in the cases of the other fixed hybrids, the intense negotiation of the griffin's appearance did not seize during the early Late Minoan Period. Rather, this era stands for a wide range of griffin depictions that display variations throughout all elements of the creature's composition. What remains is the basic tool kit of a bird's head, wings, a quadruped/leonine body with a tail and four legs.

Fig. 8 shows a selection of griffin motifs on seals and sealings that date to LM I. While the form that is considered the typical Aegean griffin with the notched plume

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315 E.g. at Knossos: Evans 1935, 910–14, pl. 32. In Xeste 3, Akrotiri: Doumas 1992, 158–59 fig. 122.
316 MC III vessel from Phylakopi, Melos: Zervos 1957, 201 fig. 271.
317 Clay larnax from Palaikastro: Schachermeyr 1964, 289 fig. 155.
318 The slight majority of soft stone seals should not be over-interpreted and is likely the result of preservation.
319 Counting sealings that originated from metal seals.
320 The catalogue of griffin depictions in the annex contains at the end the CMS numbers of further seals not treated in the main text and catalogue.

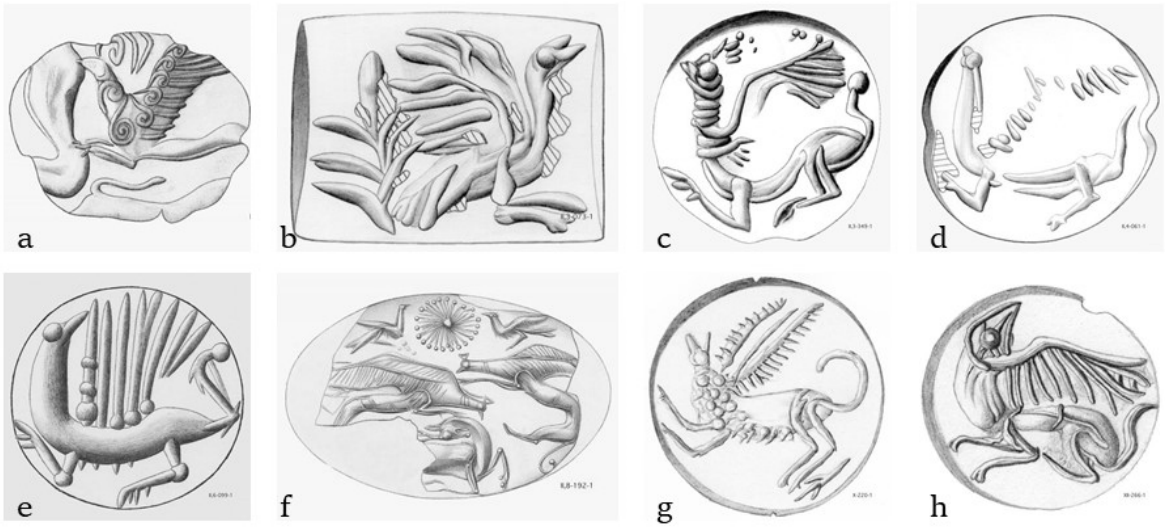

Fig. 8 Selection of varying griffin depictions dating to the period LM I. Top row: *CMS* II7 no. 96 (Kato Zakros, metal ring sealing); II3 no. 73 (Knossos, sst cushion seal); II3 no. 349 (unprovenanced, sst lentoid); II4 no. 61 (Gournia, sst lentoid). Bottom row: II6 no. 99 (Ayia Triada, hst lentoid impression); II8 no. 192 (Knossos, metal ring impression); X no. 220 (unprovenanced, sst lentoid); XII no. 266 (unprovenanced, sst lentoid).

motif along the wings is already constituted, to be seen on *8a*, it is not yet the standard variant. The material evidence hints at a prevalence of the type in hard stone and metal seals,[321] but *8e* and *8f* prove that different styles were also possible on these materials in LM I. The other metal seal of the below examples, *8f*, shows a very different understanding of the hybrid creature. While *8a* is characterized by ornamental elements that constitute the point of focus, *8f* concentrates on a near-natural rendition of the animal parts. It is engraved with great detail, paying attention to single feathers along the wings and the creature's body tension. Yet, the near-natural appearance is reduced by strong contour lines running along the body. The griffin on the soft stone cushion *8b* is manufactured by cutting and scraping, creating the impression of floral elements that are softly bent by a wind. This applies especially to the wings. Due to its amorph structure, it is rather difficult to understand where the creature ends and whether what is emanating behind its rump is part of the hybrid or indeed a floral element. The griffin on *8c*, also cut from a soft stone, was created by scraping and drilling. All constituent body parts can be discerned properly. This creature stands out by the rendering of its neck, that is made of consequent horizontal tubes. Its wing, which resembles the shape of a ginkgo leaf, is unique. This griffin's tail ends in a rounded bobble, as with the hard-stone specimen on *8e*, but the other griffins in the figure do not share this feature. Created solely by the technique of scraping, *8d*, which features the same pose as *8c*, displays very sketchy, graphic features. Where *8c* exposes carefully modelled body parts, *8d* refrains from differentiating constituent elements.

[321] For metal: compare also to CMS II8 nos. 186, 359=G.27, 360. Hard stones: CMS II6 no. 102=G.55, IX no. 162c=G.21.

The griffins on *8e* and *8g* are female, as indicated by the zig-zag teats of *8e* and the dotted-line teats of *8g*. Both creatures feature highly unusual wings. By use of the cutting wheel and solid drill, *8e* was equipped with a wing consisting of a row of straight, vertical lines. Interestingly, drill holes up along the first line and at the base of three further lines perhaps indicate notched plumes. The wings of *8g*, which were scraped, are both shown and resemble fir branches or saws. The array of dot-shaped elements along the chest and shoulder of the creature is unusual as well. Possibly, this denotes a lion-man, which could also be rendered by dots, or an elaborate breast plumage. The engraver of this piece was possibly re-arranging the hybrid elements of bird and lion. Finally, *8h* displays near-ornamental features, such as the strong turn of the head and the curvature of the wing which runs into the outline of the face. However, the quadruped body shows more detail than examples *8d*, *e* and *g*.

In summary, griffins display a broad range of stylistic variation in the early Late Minoan Period. While other hybrids have completed their processes of style formation and type negotiation by this time, standard variants of the griffin can only be discerned in hindsight when compared to later specimens.

Group 1: Griffins in Complete Profile

Representations of griffins shown in profile are the most common and were recurrent from MM II until the end of the Aegean Bronze Age.[322] Among them are the first seals displaying griffins that have come to light in in the Aegean so far. Three MM II and one MM II–III seal bear quite different, but recognizable griffins in profile.[323] The sealings **G.01–03** were excavated in Phaistos and each depict a griffin in left profile. They share the same compositional constituents, such as a head ending in a long protrusion, plumage-like elements sprouting from the head, the body and legs of a quadruped, a long tail, and wings. However, these griffins seem to record a process of iconographical 'evolution' that had not yet settled on the later Neopalatial 'aegeanized' griffin.[324] On a pictorial level, the impressions differ greatly. The creature on **G.01** has three leaf-shaped plumes extending from its rather schematic head. Two incisions around the neck merge into a pouch-shaped pendant – a detail missing on the other griffins. Its posture is recumbent with its quadruped legs[325] folded beneath the body. The creature's wing is indicated by four very graphic incisions. It is typical for griffins shown in profile to have only one wing; there are no attempts of creating dimensionality through a second wing

[322] They amount to a ratio of ca. 46% among the classifiable griffins. Non-classifiable griffins derive from impressions too fragmented to judge their overall composition.

[323] Yule 1981, 138.

[324] *Cf*. Delplace 1967, 77–78.

[325] The pincer-like paws are typical for lion and dog feet in MM times; *cf*. Anastasiadou's motif 16 (dog/lion) in Anastasiadou 2011, pl. 18–23.

in the background. The only alternative, as encountered in *group 2*, is to show both wings in frontal view. **G.02**, a griffin in walking pose, has quite similar, graphic wings, made from three incisions. The shape of the head is different, though, with a more rounded forehead. From it emanates a volute that places it in the tradition of Syrian griffins. Single feathers or perhaps a mane are indicated around the chest, but the quality of the single extant impression does not allow for better recognition. The third MM griffin from Phaistos, **G.03**, is very different from the first two. Its legs are extended in striding pose and detail is added to the body shapes that appear more distinct than the rather amorphous body of **G.01** and the still very graphic body of **G.02**. Incised triangles around the chest remind of the plumage of a bird of prey. The creature's body consists mainly of its foreparts, whereas the rump is reduced to a thin line that widens slightly at the flanks. The hind-legs are not preserved. The griffin's wing flows along its backside and consists of single incised feathers attached to a bow. Also, its beak-like mouth is open – something that can be seen on **G.04** as well, although apart from this similarity, its body is rendered quite differently and on a very schematic level.

G.05, a MM III–LM I seal known by its impression on a vessel handle from Malia, demarcates a change in the iconography of griffins at the turn of the Neopalatial period. The beaked head of a bird becomes well-recognizable and the overall body shapes more defined and closer to prototypes in the natural world. The seal engraver has differentiated the haunches from the abdomen, the chest from the shoulders, neck from head, etc. The creature's wing remains rather graphic, though, in the shape of a long leaf with diagonal striations for the feathers. This is a feature that can also be seen on LM I griffins, *e.g.* **G.06** or **G.54**, but generally, wings become first more natural and successively more elaborate in Neopalatial glyptic. As pointed out above, Neopalatial griffins were cut in different techniques and styles, which resulted in certain iconographical shapes that were owed to execution and style group.[326] The outcome should not be accounted as signs indicative of one or another bodily concept (*e.g.* concerning degrees of abstraction or 'naturalism').

Neopalatial griffins of the first group can be configured in three main variants: standing with the legs firm on the ground (*cf.* **G.07–08**, **13**), striding or running with outstretched or cocked limbs[327] (*cf.* **G.09–10**, **16**), and recumbent creatures whose hind legs are usually tucked in beneath the body (*cf.* **G.11–12**, **14–15**, **17–18**). The extant representations that can be dated to LM I show an almost equal share of the three

[326] *Cf.*, for example, Cut Style griffins *CMS* IX no. 204; V no. 437; VS1A no. 203; Cretan Popular Group griffins II3 no. 25a; IX no.178; G.12; a 'talismanic' griffin: MD.14.

[327] Delplace 1967, 68 calls this posture "*galop volant*", a term that expresses the almost-flying state of the respective griffins. The posture can also be nicely seen on an MC III ewer from Phylakopi, Melos; *cf.* Zervos 1957, 201 fig. 271, which demonstrates the contemporaneous spread of griffin iconography in the Cyclades.

possibilities, while there is a slight majority of recumbent creatures.[328] This changes over the course of time: Running or striding specimens cease to be shown on seals as early as LM I–II (in the preserved glyptic record), while an increase of couchant griffins can be noted. Only slightly more than one third of the creatures in *group 1* are represented in a standing position.[329] This may be a happenstance of preservation, as in LM II–IIIA1 we again encounter an almost equal share of the two poses.[330] Finally, from LM IIIA onwards, the archaeological record suggests a preference for standing griffins over recumbent ones, indicated by the ratio of 5:3. All things considered, it is evident that we are dealing with rather small amounts of data and should not over-interpret the output of numbers of a certain type, as the preservation and discovery of seals is always subject to unquantifiable fortuitousness.[331]

Group 2: Griffins in Profile with outstretched Frontal Wings

While the griffins in this group follow the same compositional and stylistic possibilities as in *group 1*, there is one crucial difference, which is the wings. Instead of the single wing stretched along and above the back of the creatures as seen in the first group, the specimens in the following display two wings that are spread out above the body. Sometimes, the chest is also shown frontally (*cf.* **G.19–20**), but usually the body is rendered in profile (*cf.* **G.21–22**). The first griffins stretch their wings in LM I. From the beginning, the pose is not restricted to a specific style, seal shape or material. A likely high-ranking administrator at Ayia Triada used a hard-stone lentoid, **G.23**, with two recumbent *tête-bêche* griffins in a very linear style for administrative purposes.[332] A stylistically quite different griffin on a cushion seal, **G.24**, was also used at Ayia Triada. This creature's chest is figured frontally, its head bent elegantly backwards, regarding its recumbent body. In the same period, a seal cutter, probably in the Lasithi area, engraved **G.19**, a carnelian amygdaloid with a very plastic and broad-chested griffin

[328] Of the seals dated by the CMS to LM I, 13 show recumbent griffins, and eight each running and standing ones.

[329] For LM I–II, 23 recumbent and 13 standing griffins have been registered in the database.

[330] The ratio of recumbent to standing griffins is 7:6.

[331] Further griffins in complete profile: *CMS* I nos. 269, 271, 282 (LB I–II), 472–73 (LM IIIA1–2), 475 (LM I?); II3 nos. 73 (LM I), 79 (LM I?), 219 (LB I–II), 349 (LM I); II4 nos. 47 (n/s), 61 (LM I–II), 71–72 (n/s), 116 (LM I?), 166, 171 (n/s); II6 no. 99 (LM I); II7 no. 87 (LM I); II8 no. 183 (LM I–II); III nos. 370 (LM I–II), 371 (LM I), 376 (LM I–II), 508a (LM I–II); IS nos. 94b (LM I–II), 149a (LM I?), 152 (LM I–II); IV nos. 266 (LB I–II), 283a (LM I), 313, 318, D39, D51, D58; IX nos. 104 (LB I–II), 138, 178–79 (LM I); V nos. 437–38, 684 (LB I–II); VI nos. 269–70, 387–88 (LB I–II), 390 (LM II–IIIA1) 391 (LM I); VII nos. 120 (LB I–II), 140 (LM IIIA1–2); VIII nos. 88 (LB I–II), 99 (LH IIIA2–B); VS1A no. 164 (LM I); VS1B nos. 222, 228, 256 (LM IIIA1–2); VS2 no. 32 (LB I–II); VS3 nos. 64, 67 (LB I–II), 327 (LM IIIA1); X no. 134 (LB II–IIIA1), 170 (n/s), 220 (LM I?); XI nos. 40 (LM I–II), 120 (LB I–II), 178–79 (LH I–II), 245, 302, 328, 346 (LM II–IIIA1); XII nos. 233 (LB I–II), 247 (LB II–IIIA1), 253 (LMI I–II), 300–01 (LM IIIA1); XIII nos. 54–56.

[332] Weingarten 1988, 106–07, 109.

whose voluminous feathered wings make use of the extra space at either end of the gem. These are just three LM I seals that exemplify the many possibilities seal engravers had when producing seals with griffins. Even in LM II and later, a time when the lentoid was the dominant seal shape, griffins still feature on amygdaloids and cushion seals – unlike other composite creatures, such as human-animal-hybrids.

The outstretched wings of the griffins in this group seem to have been especially suited for Cut Style representations.[333] Some specimens of this style group are so linear that they appear rather like abstract ornamentation than (imagined) live creatures; *e.g.* **G.25–26**. In fact, during LM I–II, the floruit of Cut Style,[334] the largest amount of *group 2* griffins was produced, most of them in this style or influenced by its use of the cutting wheel. Yet, when compared to the entire spectrum of griffin glyptic, *group 2* is the smallest group represented in the extant iconographical repertoire, adding up to only ca. 10%.

Two spread-winged griffins were executed on metal. The first, on a LB II gold cushion seal from Pylos (**G.81**), is executed with meticulous detail, the wings covering the length of the seal face are decorated with minute drill holes along the feathers. Placed on a decorative frieze,[335] it throws its head back, *regardant*. Its head is topped by an intricate plumage and J-Spirals extend from it over the chest and along the wings – these can also be observed on griffins in wall-paintings.[336] All in all, this majestic creature reflects an elite – one is tempted to say 'royal' – identity, that was possibly legitimized through a transcendent instance of which the griffin was an emblem. The context of griffins in the 'throne-rooms' at different administrative centers, such as Knossos and Pylos, of course supplements this idea.

In the case of Minoan Crete, a royal instance is, however, very debatable. It is likely that the Minoan cognition on the one hand, and the Mycenaean cognition on the other, were somewhat disparate with regard to griffins' emblematic qualities – a hypothesis that will be scrutinized in the following sub-chapters, dealing with narrative and heraldic scenes. These offer more footing for iconological interpretation, since we encounter interactive agents and dynamic scenes, as opposed to the static portrayal of the hybrid in the first two groups.[337]

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333 For a detailed account of Cut Style seals, *cf.* Pini 2000.

334 Krzyszkowska 2005, 147.

335 The face of a metal signet ring is preserved by several impressions from Pylos (*CMS* II no. 329). It displays a griffin, lion and another quadruped in a row on another pedestal with an exuberantly decorated frieze.

336 D'Albiac 1995, 64.

337 Further griffins in profile with outspread frontal wings: *CMS* I no. 389 (LB II); II8 nos. 182 (LM I–II), 184 (LM IIIA1–2); III no. 374 (LM II–IIIA1); IS no. 138 (LM I); IV no. 248 (LM I–II); IX nos. 105 (LB I–II), D22 (LB I–II); V nos. 208, 590 (LB I–II), 672 (LB IIIA1–II); VI nos. 268 (LB I–II), 385 (LM I); VII no. 135 (LB I–II); VS1A nos. 101 (LB IIIA1), 347 (LB I–II); VS3 no. 349 (LB I–II); and X no. 267 (LB II–IIIA1).

Group 3: Narrative Scenes

Narrative scenes form the second-largest group of griffin seals. Before going into detail, it is necessary to differentiate them from heraldic scenes, which can also be seen to have narrative potential. While narrative scenes convey a dynamic interplay of the represented creatures, be they human, animal or hybrid, heraldic scenes are rather static portrayals. One could say, narrative scenes open a window to a sequential happening, presenting a 'snap-shot' of the story; whereas heraldic scenes display a pre-structured portrayal of an idea rather than a story and can therefore be understood as emblems.

Fifty-eight seals with narrative scenes involving one or more griffins have been accumulated in this study. These rather dynamic representations occur from LM I on and are still produced by the end of the Aegean Bronze Age. The dominant theme is hunting: usually, the griffin is shown as the hunter of regularly occurring species in the glyptic repertoire, *i.e.* bulls, deer, lions and boars.[338] While it could be argued that these are not actual 'narrative' scenes, but rather an iconographic *topos*, we can assume from the large number of griffin attack scenes that these were part of a narrative cycle.[339] A few exceptional cases display griffins under attack by a wild animal, like a lion (*cf.* **G.27–28**). Some lentoids depict griffins and their usual prey in a *tête-bêche* composition that is here posited to be understood as abbreviated animal-attack scenes (*cf.* **G.29–32**). This interpretation is also supported by *tête-bêche* scenes that show the attack of the griffin, usually aiming with its beak at its prey (*cf.* **G.31–32**). Possibly, attack scenes derived from a Near Eastern tradition, where griffins and wild animals were frequently depicted in such a narrative. Near Eastern and Cypro-Aegean cylinder seals from Minoan contexts are proof for the dissemination of this tradition on Crete, and later, the Greek mainland.[340] Near Eastern seals were copied or re-worked and even inspired the creation of cylinder seals with Minoan styles, such as the Cut Style that can be seen on four seals from different find spots: *CMS* I no. 206 from Prosymna (LB II–III), *CMS* VII no. 94 from Knossos (LB I–II), *CMS* VS1B no. 197 from Angelliana (LB I–II) and, possibly, *CMS* VS3 no. 347 from Mochlos (LB I–II). While these seals show Near Eastern motifs in Aegean style, a cylinder seal from Kazarma, **G.38**, adheres to Near Eastern styles employing Aegean motifs. Aruz states that, "the composition of simple, large forms, a female riding side-saddle on a lion and confronting a griffin, looks Aegean."[341]

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[338] MD.14 shows a griffin attacking another fantastic creature, *i.e.* a Minoan dragon. However, the authenticity of the seal is questionable. See chapter 4.5, *Minoan Dragon*, for more details.

[339] Blakolmer 2019, 130.

[340] *Cf.* G.33–38 and *CMS* I no. 206 (LB I–II).

[341] Aruz 2008, 167.

Griffin attack scenes are strongly reminiscent of lion attack scenes. Both creatures are portrayed as dangerous and potent predators that do not back off from dangerous animals but engage in direct contact with creatures that have the potential of injuring or killing them, such as wild bulls (**G.49–52**). Like the lion, griffins can also be hunted. Yet, in contrast to the felines, there are no depictions of humans hunting griffins, with the possible exception of one scene that is not fully preserved and therefore difficult to interpret: This is the impression of a metal ring (**G.39**) showing two men in running postures chasing quadrupeds. While the lower appears to be chasing deer, the upper man, the only figure whose head is mostly preserved, grabs a griffin by the wing while wielding a spear. Blakolmer offers the interpretation that "the men are protecting deer against a group of rapacious griffins,"[342] which he deduces from the large amount of seals depicting griffins that attack fallow. Apart from this, griffins are either configured alongside humans as accompanying or heraldic creatures (*e.g.* **G.53**, **66**) or as draught-animals for chariots (**G.37**, **40–41**).

While LM I griffins are mostly depicted in animal attacks, one narrative scene that stands out not only among the repertoire of hybrid creatures, but even in the entire context of Aegean glyptic is the so-called **Ring of Nestor**, probably derived from the Kakovatos tholos. While its authenticity has been a matter of intense debate, challenged by scholars such as Martin P. Nilson, Georg Karo, John G. Younger and Agnes Sakellariou, Yannis Sakellarakis and Ingo Pini have plausibly demonstrated the gold ring's authenticity not only on the basis of iconography, but also from technological points of view.[343] The ring is divided by a tree and its horizontal branches into four registers. The griffin is featured in the lower right register (impression). It sits upright on an elevated platform reminiscent of a modern table, where it is the center of attention of several female figures wearing flounced skirts and performing gestures. Behind it stands a single female, as if flanking it, with one arm down and the other bent up. The same gesture is performed by the woman in the far left of the register, the only figure who is not facing the griffin, but instead, the trunk of the tree. Behind her, two female figures performing the same gesture of bending one arm up in front of the body, while inclining their heads toward the enthroned hybrid, approach or stand in front of the creature. The griffin itself is sitting upright, its wings outstretched, and head raised. Apparently, it is the focus of the females' adoration and therefore needs to be credited an elevated status in the cognition of the attending humans, and ultimately, the historical people who ushered and used this narrative piece of glyptic art.

[342] Blakolmer 2019, 130.

[343] Sakellarakis 1973; Pini 1998. For an account of the debate, *cf.* Krzyszkowska 2005, 334–36, with references to Nilson, Karo and Younger; Sakellariou 1974.

The seals that can be dated to LM I–II continue to follow the themes of the LM I griffin depictions, while we can note the introduction of a new shape; the Syrian cylinder seal (**G.33–38**). This seal shape can display various glyptic styles. **G.33** shows a Cut Style animal attack scene featuring a griffin and different quadrupeds. **G.34**, from Poros, depicts (when rolled) a narrative lower frieze of a griffin hunting a wild goat, and an upper frieze of a man summersaulting over the griffin and a bird soaring over the head of the goat. The published drawing does not show many details, but the engraving seems consistent with Minoan Neopalatial art as observed on seals and larger scale media. **G.36** is possibly Syrian with Cypro-Aegean influence (?) and bears a shallow engraved frieze of griffins above a scene involving sketchy human figures. **G.37** is Cypro-Aegean, less sketchy and quite detailed, depicting several elements, such as a chariot scene, a *potnios theron* composition, and a procession, all mirrored in axial symmetry. The mainland seal **Gr.38** is not composed in registers but displays a full-size scene of a figure clad in a long kilt or perhaps a flounced skirt leading a lion that stands chest to chest with a griffin (or back to back, depending on how the seal is rolled). **G.42**[344] is an interesting piece. It displays a scene with two human figures: a man in an upright position carrying a griffin over his shoulder; and a woman riding a quadruped with an elongated body.[345] With its body under tension and its wings stretched out, the griffin appears to be alive.[346] Similar motifs are known of humans, mostly elegantly clad women, perhaps priestesses, carrying quadrupeds that are interpreted as sacrificial animals over one shoulder.[347] When such a quadruped, existing in the natural world, is substituted by a non-existent fantastic creature, it is possible to assume that the narrative is transferred from the tangible world of the Bronze Age Aegean into a realm of gods, demi-gods and hybrid animals. The man carrying the griffin must then be regarded as a divine entity.

The period LB II–III continued producing glyptic with griffin representations. Animal attack scenes are prevalent, but one seal, **G.40**, shows a highly detailed chariot scene. This gold signet ring excavated in the Anthia tholos tomb displays a four-spoked chariot[348] with two passengers whose gender cannot be determined. The one in the front holds the reins of the two griffins hitched up in front of the vehicle. The hybrids take up most of the seal face and are rendered with many details. They seemingly differ from other griffin representations, as the tail of creature in the foreground is very short,

[344] G.42 is also attributed the cat. no. MD.13 because it is also discussed more extensively in the chapter on Minoan dragons below (4.5).

[345] The quadruped is commonly interpreted as a Minoan dragon, see chapter 4.5.

[346] This becomes apparent when compared to representations of animals being carried, where the quadrupeds show limp extremities or a drooping tongue. See, e.g., MG.15.

[347] *Cf*. *CMS* II3 nos. 86, 117, 287.

[348] This chariot type derives from the Near East and first appears in the Aegean in LB I; *cf*. Aruz 2008, 208.

like a deer's. Yet, this may be due to the limited amount of space between the chariot and the griffins. The scene is accompanied by palm trees and a broad-leaved tree. While some elements, such as the palm trees and the chariot, have their roots in the Near East, others, such as the configuration of the human bodies and even the shape of the palm trees that is strongly reminiscent of Aegean maritime type octopods,[349] are typical for Aegean iconography.

From LB IIIA1–2, four datable seals depicting griffins exist, all of them showing animal attack scenes. Unlike early Neopalatial and Final Palatial griffins, these late ones have small, thin heads, that consist of barely more than a drill-hole for the eye, and a triangular beak (**G.41–46**). By comparison, the beaks of earlier specimens were usually curved, like the beak of a bird of prey, and attached to a more voluminous head that could be either round (**G.32, 46–47**) or almond-shaped (**G.49–50**). **G.51** possibly documents an intermediate stage between the distinct heads of earlier and the abbreviated heads of the later griffins. This can be observed in the case of *groups 1* and *2* as well. For *group 4* representations, which will be discussed now, this is rather difficult, as only one of the four LB IIIA1–2 depictions of heraldic griffins preserves the creature's head.[350]

Group 4: Heraldic Scenes

This group features heraldic compositions of griffins flanking a central figure or device.[351] Strictly speaking, the latter is obligatory for the recognition of the heraldic character of the scene. However, some antithetical configurations lacking a central device are also treated in this group, because the overall compositional idea is closely related.[352] Like the narrative depictions in the previous sub-chapter, the representations in this group begin in LM I and are most popular between this period and LM IIIA1, finally reclining between LM IIIA1–2. While the motifs need not present an axial symmetry, this is often the case (*e.g.* **G.53–55,** *i.a.*). Some are rendered in close symmetry,

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[349] For the shape of the palm trees in maritime imagery octopods, *cf.*: *CMS* XII no. 205; BM Cat. Vase C501 (esp. regarding the body/trunk).

[350] Further narrative (animal attack) scenes: *CMS* II3 nos. 25a (LM I–II), 334 (LM I?); II4 no. 73 (LM I); II6 nos. 103, 265 (LM I); II7 nos. 96–97 (LM I); III nos. 375 (LM II–IIIA1), 503a; IS no. 176 (LB II–IIIA1); IX nos. 148 (LM I), D20 (LB IIIA1–2); V nos. 216 (LB II–IIIA1), 642 (LB I–II), 675 (LB IIIA1–2); VI no. 392–93 (LM I); VII nos. 94, 116 (LB I–II), 173 (Cypro-Aegean); VS1B nos. 101 (LB IIIA1), 197 (LB I–II); VS3 no. 480 (LM I–II); X nos. 125–26 (LB II–IIIA1); XI nos. 41, 45 (LB II–IIIA1).

[351] *Cf.* Aruz 2008, 174.

[352] Seeing as the classification 'heraldic' is a modern construct that does not feature an ancient category of thought, this slight deviation from the heraldic schema defined above should not pose a heuristic hurdle for the understanding of the compositions treated in this chapter.

such as *potnios theron* scenes,[353] of which eleven are published in the CMS,[354] with different flanking creatures or scenes with secondary motifs (*e.g.* **G.56**).

A flat-based nodule from LM I Ayia Triada preserves the impression of an amygdaloid seal, **G.55**, with two rampant griffins to the sides of a single papyrus stalk. The arrangement is decidedly Near Eastern. In her study of Bronze Age Mediterranean seals, Aruz posits the following:

> *The composition of symmetrically-placed animals has a long history in the Near East and is often found in Syrian art. The central device is usually a sacred tree, and the animals extend their forepaws to make contact with it.*[355]

Such a scene with two griffins is featured on a cylinder seal of Syrian or Cypriote origin from the Pierpont Morgan Library in New York.[356] This composition is close to **G.55**, whose iconography and seal shape, on the other hand, are clearly Aegean. A Cypro-Aegean cylinder seal of LB I–II date, **G.57**, should be mentioned along these lines, as it also displays two rampant griffins to either side of a papyrus stalk. A human figure in the schematic style typical of Cypro-Aegean seals is also engraved, holding both griffins by a leash – an arrangement that can only be fully recognized from the impression.

Another seal dating to LM I, **G.54**, displays two antithetically arranged griffins standing chest-to-chest without a central element. This is not to be interpreted as a deviation from the heraldic scheme, but rather as a modification of the iconographic input that arrived on Crete from the Near East. A near compositional parallel is the LB II seal **G.58** from Dendra that shows less attachment to formal rules of symmetry, resulting in a minor deviation from the axial symmetry due to individualized postures of the two griffins as well as some non-symmetric fillers.

The two other LM I seals are rather dissimilar. **G.59** is an unusual cylinder seal with a Minoan-style engraving.[357] When rolled to make an impression, it reveals two registers, one with a male figure clad in Minoan shorts, limbs spread in dynamic

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353 It needs to be remarked that next to the griffin, lions appear most often flanking a central figure of power. As Blakolmer (2016, 62) has pointed out, "both were stimulated by the Near East and reached Crete already in the Prepalatial period." It even stands to reason that the iconographical lion derived from the Near East might have been considered a fantastical creature or 'monster' when it first came to Minoan Crete.

354 With two flanking griffins: *CMS* II3 nos. 63 (LB II–IIIA1), 276 = G.53 (LB I–II); IS no. 54 (not Aegean – Mitanni); V nos. 654 (LB II–IIIA1), 669 (*tête-bêche*, male *potnios*, LB IIIA1–2); VI nos. 314 = G.62, 317 = G.63 (LB I–II) and X no. 268 = G.57 (Cypro-Aegean, LB I–II). With one flanking griffin and one other heraldic animal: *CMS* II3 no. 167 = G.65 (together with a lion, male *potnios*, LM I–II); V nos. 201 = MG.23 (together with a Minoan Genius, male *potnios*, LH II–IIIA1), 657 (together with a lion, male *potnios*, Cypro-Aegean).

355 Aruz 2008, 174.

356 *Cf*. https://www.themorgan.org/seals-and-tablets/84689 (last accessed 17/06/2018); no pictures available. Picture in Aruz 2008, fig. 351.

357 See, for example, the body schema of the male figure or the circular engravings on the griffin's head and neck.

movement, the other with an aegeanized rampant griffin that probably placed its paws against the register (in place of a central device). The other, a sealing from Zakros, **G.60**, bears two antithetically arranged rampant creatures, one a griffin, the other a larger agrimi. Both of their paws touch the outer perimeter of the seal. Perhaps this contact to the liminal border of the seal face was a re-configuration of the contact heraldic animals would establish to central elements that separated one side of the seal face from the other.

A combination of griffin and agrimi can be seen in a very different manner on a LM I–II barrel-seal in the British Museum, **G.61**. Its attribution to *group 4* is difficult, as it deviates considerably from the other motifs, because it displays a standing agrimi and, beneath this, a standing griffin with outstretched forearms. Both creatures are divided by a sun-shaped element. The impression looks like a decorative band, but on the seal itself, the engraving is reminiscent of heraldic compositions, the creatures being in line with the string hole and consequently 'rampant' when suspended.

Most of the seals that can be dated to LM I–II are *potnia theron* configurations with a central female figure in elaborate costume consisting of a flounced skirt and sometimes a 'snake-frame' and shoulder pads. These figures of significance are flanked by rampant (**G.53, 62**) or standing (**G.63**) griffins with outstretched wings that contribute to an understanding of the women as important religious instances, be they priestesses or goddesses. On another seal, **G.64**, a woman is also accompanied by a rising griffin. The composition reminds of women carrying quadrupeds on a shoulder, but the griffin has its feet placed firmly on the ground and is standing on its own accord. Yet again other LM I–II seals show male figures in combination with griffins. **G.65** displays a *potnios theron* scene with a poorly preserved central male figure accompanied by a griffin and a lion which he seems to grasp by or touch on the heads.

Two further seals are engraved with a griffin standing next to a male figure. On **G.66** the human is in the foreground and a very detailed and intricately worked griffin in the background. In comparison, **G.67** places the griffin with an unusually long body in front of the male, which has also been elongated, as both his upper torso and most of his legs can be seen despite the large griffin that covers most of the foreground of the seal face. No clothing is shown, but a crude line running from the man's hand to the creature's neck is probably a leash, something that can also be seen on the cylinder seal **G.80**. An observation of these seals demonstrates the possibility of focusing on either the human, the fantastic creature, or both when creating such a 'companion scene'. In both cases, the griffin is indicative of, one could say 'heralds', the elevated position of the human figure who has tethered the fantastic creature. A further seal, **G.68**, that has not been attributed to any period by the CMS, possibly belongs in the context of seals discussed in this paragraph. It is an interesting combination of a *potnia theron*

configuration and the motif of griffins flanking a central device. Two rampant griffins place their front paws on a biconcave pedestal that supports a staff with two protrusions on each side of the upper end, vaguely resembling an anthropomorphic figure with upraised arms. Above this staff floats a small female figure, clad in a long dress with a 'snake frame' in place of the head.

A continuation of the motifs prevalent in LM I–II can be observed during LB II–IIIA1. Antithetically arranged griffins with or without a central device are common, as are *potnia theron*, and one instance of a *potnios theron*, representations. As has been observed before, griffins on mainland gold seals
are shown with extremely fine detail, featuring single feathers and elaborate J-spirals running along the shoulder and wing perimeter. Examples of this can be seen on **G.69–70** and the impression **G.71**, as well as, to some lesser extent, on **G.72**. This mode of fine depiction can also be witnessed on the hard-stone lentoid **G.73**, paying equal attention to the rendering of the griffins' wings. **G.74,** from Dendra, shows two antithetical griffins face to face in a landscape setting, implied by wavy lines and grasses.

Griffins now assume as much space as possible on the seal face, taking up most of the available surface. This can be evidenced on **G.71**, which displays two antithetically arranged, recumbent griffins who are in turn each accompanied by a smaller griffin right above each of them, mirroring their pose. The griffins have a veritable coiffure resembling a peacock's plumage on the head. Their J-spirals flow into convoluted circles that adorn their chests. Another example is **G.69**, a shield ring displaying two standing griffins, hindquarters to hindquarters, with their heads turned back regarding one another. Fine detail is placed in the rendering of the haunches, where muscles and veins have been indicated. The same accounts for the front legs and, as on other signet rings, the single feathers are indicated along the wings. On each narrow side of the seal face, a two-sided fir branch alongside a row of dots frames the motif.

Two further seals stand out among the repertoire of this period**. G.70**, a gold signet ring from Mycenae, shows a combination of familiar motifs: A seated human figure is holding a large attendant griffin by a leash that consists of circular elements, possibly beads. It fits in well among the repertoire of mainland gold signet rings; the seated person is stylistically close to the one on the Pylos ring **MG.11**, while the griffin is paralleled on the other LM II–IIIA1 signet rings. However, the next seal shows a more difficult constellation. A finely banded plate seal from Tiryns, **G.75**, displays a griffin in right profile possibly in the process of jumping or rising on its hind-legs. Behind it there is a female human figure clad in a skirt who wraps her arm around the creature's neck, both figures' eyes meeting. The lower body of the woman is depicted frontally, the head and obscured upper body in profile. Like on **G.60** above, the proportion of the

human figure is amiss, probably due to the griffin covering the mid-section of the body. This results in a proportionately overlong torso, most of which is hidden in the background.

The final heraldic scenes date to LB IIIA1–2 and summarize the preceding repertoire. Alone **G.76** stands out. The lentoid from Mycenae depicts two antithetical, standing griffins tied to a central pole. Beneath these, a human figure lays stretched out on it stomach, arms and legs positioned as if swimming. Because of the position of the limbs and the raised head, it can be assumed that the human figure is alive. However, the meaning of this position remains elusive. Further four seals that can be attributed to this period. One shows a pair of symmetrical griffins back-to-back, another a schematic *potnios theron* scene, the *potnios* being rarely more than a simple stick-figure, the griffins only schematic winged quadrupeds that are arranged *tête-bêche*. A third seal, **G.77**, shows a tall, standing griffin in front of a smaller female figure with one arm raised toward the creature. This lentoid is not preserved very well, which makes it hard to discern any details. Possibly, this griffin is not held by a leash like others, but rather, the gesture of the woman parallels those of adoration on other seals, among them the scene in the lower right register of the **Ring of Nestor**, which indeed dates considerably earlier. The final ring dating to LB IIIA1–2 is **G.78**, a poorly preserved lentoid possibly displaying a *potnia theron* composition.

Four groups of griffin representations have been established. The first two display single griffins in standing or recumbent posture and can be differentiated based on their wings (single configuration in profile vs. double frontal representation). The next group comprises three types of narrative scenes: chariot scenes, scenes with humans on cylinder seals, and third, most prevalent, animal attack scenes. Griffins are usually the predator, but they can also be attacked. In comparison to the Minoan Genius, that can also hunt, but is never hunted, it is possible to propose the griffin's hierarchical place in Bronze Age Aegean cognition. Like the Genius it was not a discrete and unique composite creature, since it could also appear in pairs or more. Nevertheless, its repeated occurrence together with supposedly divine figures demonstrate its belonging to a 'transcendental' sphere in Bronze Age cognition.

The same could be said of lions, the only real-world animal that is often treated similarly to the griffin. It is, however, rather striking that *potnios theron* scenes with lions not only show rampant creatures, but clearly dominated animals, grabbed by their necks and subdued by the central human figure, which is not the case for griffins. This is one indication for the hybrid's superiority over lions. Although it can be chased by lions, it must nevertheless be considered the higher ranking of the two creatures: Several seals display men hunting and killing lions – something that is uncommon for griffins and can only proposed in one instance. Moreover, whenever griffins are displayed together with humans, they either occur as heralds, as discussed in *group 4*, of an

iconographically emphasized figure, possibly a divine instance (*cf.* *CMS* VI no. 315, **G.65–66**, **Ring of Nestor**) or as draught-animals for elaborate chariots. Alongside the heraldic representations together with humans, there are a number of heraldic configurations without any human figure, but instead, either with or without a central vertical device.

A question that has rather not been touched upon until now is why griffins were so successful. What was it that kept this composite creature alive in the Bronze Age cognition over such a large span of time? Three cylinder seals found strung together on a necklace in the Kazarma tholos tomb hint at a first answer to this question. These seals were combined with "large amethyst, carnelian, and glass beads"[358] and worn by a male buried in the tholos. The material and form of the seals were imported from the Near East, however, as Aruz has pointed out, the designs were "in many respects Aegean."[359]

The first, **G.38**, already mentioned above, is an amethyst cylinder depicting a woman riding a lion and confronting a griffin. The second seal, **G.79**, likely made of glass, is not preserved well. An upright griffin is engraved on this seal, its head turned back. Aruz supposes that the seal was damaged and therefore not finished, but "its prestigious form still made it appropriate for fashioning into jewelry."[360] The third seal, *CMS* V no. 585, is an amethyst seal bearing a male charioteer bent over the edge of his vehicle to goad the felines harnessed to it. Although these have no manes, they are likely lions. A sealing from Knossos, **G.41**, made by a metal signet ring shows a similar scene with two griffins drawing a chariot in flying gallop while the charioteer is bent forwards to an almost horizontal position, spurring on his supernatural draught animals.

Aruz proposes that the owner of the Kazarma seals was "acquiring seals (of exotic stones and imagery) in groups for use as tokens of authority or to be distributed to subordinates," and that "possibly the foreign material and foreign shape enhanced the prestige of the seals for this early Mycenaean prince."[361] While it cannot be proved that the buried man was indeed a Mycenaean prince, the idea that the unusual material and shape was a means of acquiring prestige is very plausible.[362] Apart from material and shape, the collection was obviously aiming at a certain repertoire of motifs, among which griffins played a prominent role.

These hybrids that derived from the Near East were in the beginning exotic creatures of whom the Minoans possibly even believed that they existed in the real world,

[358] Aruz 2008, 167.
[359] Aruz 2008, 167.
[360] Aruz 2008, 168.
[361] Aruz 2008, 168–69.
[362] The mainland origin of this assemblage needs to be pointed out. To my knowledge, no comparable Minoan 'collections' have been discovered so far.

just like lions, which were certainly not common on Crete and are only sporadically attested in the form of single bones in archaeological contexts.[363] Asma has shown several instances in later times where people found and handled bones of extinct species, such as the Protoceratops, a dinosaur with the body of a carnivore and a strong, beaked head. Trying to make sense of such fossils might have led to the idea of a bird-headed quadruped predator such as the griffin.[364] Writers of Classical Greece and Rome also mentioned bones that seemingly derived from fantastic creatures.[365]

Members of the elite seemed to have had a special interest in using griffin representations, which demonstrates the potential of the composite creature for transferring notions of authority (be it worldly or spiritual) that made it an adequate medium for the legitimization of power. If nothing else, its bodily condition, combining the qualities of a feline predator, its skillful swiftness and elegant movement, with those of a bird of prey, an equally skilled predator able to touch the sky and reach places that humans could not, made it an admirable emblem of power.

4.4 Sphinx

The sphinx is a hybrid creature that, like the griffin, is also based on the body of a lion. This is combined with a human head and, originally, with wings. It is closely related to the griffin and likewise played a role in Egyptian royal iconography before travelling to Crete.[366] The Egyptian sphinx, a bearded seated creature, first travelled to the Near East where it was changed to fit Syrian interests, in the process of which it lost its beard and could be configured recumbent or striding. Syrian sphinxes were either winged or wingless.[367] In the late Protopalatial period, this hybrid first appears on Minoan seals and other media, such as clay figures[368] and vessels[369]. Later, in Final and Post Palatial times, the sphinx is mostly confined to funerary contexts where it again appears in various materials and shapes beyond the record of seals.[370]

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[363] Shapland 2010a, 277.

[364] Asma 2009, 28–29.

[365] Asma 2009, 30–32.

[366] Aruz 2008, 38–59.

[367] Aruz 2008, 106–07. *Cf*. a Syrian seal in the Louvre depicting a sphinx: *ibid*., fig. 223.

[368] *Cf*. the MM II clay sphinx attached to a vessel found in Malia in the Herakleion Museum: Dimopoulou-Rethemiotaki 2005, 228.

[369] *Cf*. a clay vessel in the shape of a sphinx from Petras, Simandiraki-Grimshaw 2017, *passim*.

[370] Simandiraki-Grimshaw 2010, 100, „it may mean that this hybrid, although still restricted to elite contexts, reverts to being more diffused, perhaps ideologically loaded and animated in more complex ways. A mirror with a 'sphinx' on the handle, if used before burial, would have been both intimate and displayed, physically manipulated by a human hand (not just seen or worn). It would have fused a depiction of a human-headed hybrid with a physical reflected head. Equally, a comb depicting a 'sphinx', if/when immersed in hair, would create the illusion of the hybrid sitting on a human head."

A seal from Archanes, **S.01**, displays a sphinx that shows both Egyptian and Syrian influences, since it still has a beard, but is configured in a recumbent posture without wings. It is lying above three parallel incised ground lines. The head appears proportionately large for the feline body and is emphasized by a beard growing in a J-spiral from the chin as well as long locks of hair streaming behind the creature and forming a curl. The head is held high, gazing upward with a large eye and open mouth. The creature's nose is rather bulbous, reminding of grotesques in the same period. While the head and hair are rendered with some detail, the feline extremities are engraved rather schematically, especially the paws that are only drill-holes with no organic shape.

Gr.14 appears to have been inspired not only by grotesque depictions, but also by sphinx iconography. It features a grotesque human head upon a feline body. While it is often treated as a sphinx in the literature,[371] a comparison with other MM sphinx depictions, such as the seal above or a clay vessel figure from Malia[372] shows that although sphinxes tend to have bulbous facial features, they do not reach the level of distortion that grotesques do. Therefore, **Gr.14** should be called 'grotesque-sphinx' rather than simply 'sphinx'.

Another MM II seal that possibly depicts a sphinx has been excavated in the Petras cemetery. Face *c* of the four-sided prism **Gr.03** has already been discussed in context of the grotesque *archetype group*. Face *b* (**S.02**), however, displays two composite creatures arranged *tête-bêche* with human heads, a backward streaming strand of hair and the forequarters of a recumbent quadruped, probably a lion. The hindquarters are missing and instead replaced by "spiral 'tails.'"[373] The Petras workshop seems to have favored the iconographic convention of spiral finials that can be seen on different seals from MM II, *e.g. CMS* VI no. 138, XI no. 233a and the Petras seals P.TSK05/499-*a* and P.TSK05/322-*a* and -*b*. Krzyszkowska proposes that the spiral hindquarters were "perhaps occasioned by lack of space"[374], however this need not be the case as the four-sided prism discussed here offers enough room for the execution of hindquarters. Perhaps the engraver instead attempted to create a hybrid creature with ornamental character that would fit the common combination of four-sided prisms with hieroglyphic script and ornamental devices.

In the Neopalatial period, sphinxes become more aegeanized. This can be seen by the distinctive use of tubular drill-holes along the wings and the characteristic spirals on the chest that have been noted on griffins in the previous chapter. The impression of a soft-stone lentoid found in Zakros, **S.03**, testifies this integration of the sphinx in Minoan iconographic culture. Interestingly, the chest and head of the creature are

371 Aruz 2008, 106.
372 Dimopoulou-Rethemiotaki 2005, 228.
373 Krzyszkowska 2016, 151.
374 Krzyszkowska 2016, 150.

thrown back, a posture known from the depiction of humans in a stance that can be interpreted as saluting or greeting.[375]

S.04,[376] a LM IA seal excavated in Akrotiri, Thera, poses some difficulties as it could be interpreted either as a griffin or as a sphinx due to its ambivalent head. While the shape cannot be immediately recognized as human, the lack of a beak denies it any bird-like quality. The element protruding from its head, however, indicates that we are dealing with a sphinx. Such a curved protrusion can be seen on sphinxes from later contexts, such as **S.05** from Ayia Triada or **S.06** from Mycenae. This is part of a head garment that is also known from Egyptian sphinx depictions and referred to as a crown.[377] The protruding feature is likely a feather. The introduction of aegeanized elements does not seem to have had any impact on the iconography of this sphinx, whose paws show six claws, something not common of Minoan feline depictions. Furthermore, the body is contoured by unusually deep intaglio lines. Also, this sphinx is possibly a female creature,[378] as inferred from the line of dots along its stomach that could indicate teats, which is also attested for some griffins. Finally, the sphinx is accompanied by a dolphin whose significance, put in the words of Krzyszkowska "is obscure."[379] Neither are there parallels for sphinxes with maritime creatures, nor can we make out any near parallels in the Aegean or Near Eastern records.

The sphinxes on LM II–IIIA1 glyptic show a further refinement of details, such as in the differentiation of single body parts, of the human face and the wings. Gold signet rings depicting large-scale sphinxes are fashioned on the mainland. **S.07**, for example, is iconographically close to heraldic griffin compositions around a central device. It bears two antithetically arranged upright-sitting sphinxes wearing 'crowns' and necklaces and facing a central element, a stylized three-leafed plant with a straight vertical stem and a half-ellipsoid protuberance at the bottom. It is a near parallel to the heraldic griffin scene on **G.72** from Prosymna. Other sphinxes are depicted alone and in profile during this period. One example is the recumbent sphinx with spread wings **S.06** on a golden signet ring from Mycenae. Its feathered wings are rendered in a very orderly fashion, with ellipsoid indentations for feathers, instead of round ones like those observed on other wings, *e.g.* the recumbent griffin on **G.81** that has a similar posture. An abraded gold signet ring from Knossos, **S.08**, shows a sphinx in the same recumbent posture with frontally depicted outspread wings. However, it seems to have equine rather than feline legs. On **S.05**, a hard-stone lentoid from Ayia Triada dating also to this

375 Compare this with the impression *CMS* II7 nos. 3 and 7 from the same context.

376 S.04 = G.10

377 Aruz 2008, 129.

378 In many cases, no gender-specific features are added to Minoan sphinxes. When these are absent, it is not possible to differentiate the sex of the creature (*cf.* Yule 1981, 137) and it can be assumed that Bronze Age Crete conceived male and female sphinxes.

379 Krzyszkowska 2005, 150.

period, the sphinx is depicted in a different pose: Once again, it is rendered in profile with one wing held up. The creature arches its back while resting on its lower forelegs. It is wearing a 'crown' with a protruding feather and, possibly, a necklace with a star-shaped pendant.[380]

A unique depiction is displayed on a seal in the museum of Nafplio that was most likely acquired in the Argolis. It is also dated to LB II–IIIA1 on stylistic grounds. **S.09** is the only extant seal that uses the iconography of a fixed hybrid in a composition known from animal-human hybrids. Two antithetically arranged winged lion bodies shown in profile along the sides of the lentoid conjoin to a single human head featured in frontal view. The eyes, nose and mouth are rendered in simple, yet recognizable shapes, the head is topped by either a diadem of possibly short strands of hair. A small drill-hole has been added underneath the chin, perhaps as a reminder of bearded sphinxes.

The final sphinx depiction dating to this period is found on a cylinder seal, **S.10**, possibly of Cypro-Aegean origin. This seal displays figures reaching from the top to the bottom of the seal without any registers or subdivision. In the front there is an animal-human hybrid, possibly an agrimi-man, followed by a stag that is being attacked by a feline predator. In between the stag and the human-animal hybrid a small recumbent quadruped is placed, possibly a fawn. Behind the animal-attack scene the sphinx is engraved. Due to the available amount of space it has a rather unusual posture, the head showing up like an upright human's with the upper body made to fit this posture, but the hindquarters are arranged in the same way as those of the attacking quadruped in front of the sphinx. This results in an L-shaped body that cannot be seen on other seals. Finally, the last figure in the register is a quadruped, perhaps a lion as indicated by a possible mane.

Four seals with sphinx depictions can be dated to LB IIIA1, two from Crete (Mochlos and Tripitos, near Sitia), one without a known provenance and possibly dating somewhat later, between LB IIIA1–2, and finally a Mycenaean one. Both **S.11** from Mochlos and **S.12** from Tripitos display a recumbent sphinx. While the first is shown in right profile, the latter is in left. These are the only other soft-stone seals with sphinxes alongside the much earlier Zakros sphinx dating to LM I. The Mochlos sphinx is rendered in a linear fashion, with parallel incised feathers along the wings and a crown configured of triangular incisions. The neck is very long and the front part of the body quite thin, although this is obscured by the strong abrasion of the string hole that has damaged this part of the intaglio. However, a similarly long neck and thin forequarters can be observed on the Tripitos sphinx. This shows less linear elements, although the feathers are rendered by horizontally incised lines. Its chest and wing are decorated by

[380] This necklace is not included in the drawing, except for the star-shaped element. However, the seal and the impression reveal a line running along the neck into the 'pendant' that shows signs of damage.

tubular drill-holes with a concentric circle. The head of the sphinx has been damaged by abrasion[381] and could be confused with a griffin, but the contour of the crown can be made out.

S.13 is only a likely sphinx, because, while it has the body of a lion, wings are absent and the head is not easily recognizable: It is of an irregular, roughly trapezoid shape with a central drill-hole for an eye. The upper corners are pointed and stand off the head like graphic cat ears or, possibly, the prongs of a sphinx' crown. It is featured on the seal together with two quadrupeds, one grazing in the lower half, the other, probably a feline as indicated by the paws, facing it. This is not a familiar constellation, which calls for some doubts concerning the identification of a sphinx. However, this seal is from a context later than the other sphinx depictions and the constellation might prove an eclectic composition of older motifs. **S.14** from Mycenae is a sphinx in right profile. Its head is only roughly shaped like a human head, with a simple contour line for the nose and a large eye at the top underneath short, spikey hair or perhaps a crown. As on **S.13** this difference to earlier sphinxes with easily recognizable faces may depend on their later date of production and changed stylistic and iconographical preferences.

Sphinxes appear in similar poses as griffins: in profile, recumbent, standing, and in heraldic compositions around a central device. In contrast to griffins, however, they are not shown in animal-attack or hunting scenes, neither in narrative, nor in heraldic scenes together with humans. Perhaps this reduction of possible constellations is a reason why there are much less depictions of sphinxes on Bronze Age Aegean seals than of griffins, who have had a stronger interactive and emblematic potential than their human-headed cousins. The sphinx does not engage with elements of the real world, and, due to its human head, it was very likely not a creature that would have been considered real – something that cannot be ruled out in the case of griffins. Therefore, sphinxes must have been imagined in a realm that transcended the influence of the real world and could possibly not be touched upon by intermediaries such as lions, griffins, or the Minoan Genius.

[381] The serpentine lentoid was excavated in a Hellenistic stratum, so, possibly, the seal had come to light in Hellenistic times and was further handled and abraded in this second 'life-time'. *Cf*. *CMS* VS3, 553 no. 359.

4.5 Minoan Dragon

Another composite creature with a somewhat misguiding denomination is the so-called Minoan Dragon. While the word 'Dragon' is usually associated with a fantastic scaled beast, possibly capable of flight or even of spitting fire, this has nothing to do with the fixed hybrid that has been dubbed 'Minoan Dragon'. Rather, we are dealing with a squat, elongated creature that "gives the impression of being a land quadruped."[382] It has a relatively small head that is set upon a long neck which joins to a yet again long, tubular body banded with dots or streaks that sometimes give the impression of scales. The legs are very short and the creature's paws large. It ends in a tail that is usually "curling high over the back."[383] The unparalleled iconography of the creature has led to many wild guesses concerning its identity in the early literature, resulting in classifications as a lion, bull, griffin or even crocodile.[384] With the regular appearance of more creatures of this type, scholarship began to recognize it as a distinct fantastic creature. Its name, Minoan Dragon, derives from the 'Babylonian Dragon', a mount ridden by Mesopotamian gods who were depicted standing on its back.[385] Aruz has pointed out that Near Eastern Dragons "behave[d] like land animals"[386] and are encountered standing, walking or sitting. This behavior can also be observed of Minoan Dragons, and they as well act as mounts for a divine instance, an elaborately clad female mostly addressed as "the Minoan goddess."[387] Their recurrent depiction "in an exotic papyrus landscape"[388] also hints at a "foreign narrative"[389] of this fantastic creature.

Little does it surprise that the Minoan Dragon makes its appearance on Crete in the same period as the Minoan Genius, griffins, and sphinxes. A MM II three-sided prism of the Malia Steatite Group, **MD.01**, possibly depicts the first specimen on Crete. It shows a creature in profile, head turned back, mouth open, its body displaying characteristics of dogs and lions combined to an elongated body with upward curving tail.[390] Anastasiadou has noted that the representation of the eye is a characteristic feature also of Late Minoan Dragon.[391] The use of elements from dog and lion representations has prompted her to suggest that "the motif first appears as a variation of a Dog/lion and that it then becomes fossilised as a type by itself and overtaken as such

[382] Aruz 2008, 172.
[383] Gill 1963, 2.
[384] Gill 1963, 2–5 gives an overview over the early literature dealing with what was later named the Minoan dragon. See also Poursat 1976, 461–62.
[385] Aruz 2008, 172, fig. 338.
[386] Aruz 2008, 172.
[387] Aruz 2008, 172. Krzyszkowska 2005, 172–73 emphasizes the difficulties in classifying prominent female figures in Aegean art as worshippers, priestesses or goddesses.
[388] Blakolmer 2016, 65.
[389] Blakolmer 2016, 65.
[390] *Cf*. Anastasiadou 2011, Motif 17: 'Minoan dragon'.
[391] Anastasiadou 2011, 180.

in LM times."[392] This can be supported by the observation of other imported hybrids whose iconography does not settle to a discrete Minoan, respectively Aegean, style before the Late Minoan period. The creature on **MD.02**, a MM II–III figural seal, shows the characteristics observed on the Malia Dragon, including its pose with its head turned back and mouth open. Unlike **MD.01**, the structure of the body is rendered, showing striate lines and branching elements that give it a scaly impression. **MD.03**, dating between MM III–LM IA, shows a very schematic Minoan Dragon in a striding position. It displays the characteristically long body, short stubby legs, long neck and small head with open mouth. Its tail is proportionately larger than on other representations, which might be owed to the discoid seal shape whose contour the engraver chose to follow in the shape of the tail.

As posited by Anastasiadou, LM Dragons become more stable and standardized in their representational scheme. Like in the case of griffins, Dragons could also be rendered in different styles, such as the 'Talismanic' Style.[393] An example of this is **MD.04**, a LM I carnelian amygdaloid, possibly from Knossos, displaying the creature in the distinct technique of 'talismanic' engraving making use of the cutting wheel and tubular drill. A further example is **MD.05**, a carnelian lentoid probably from the Mesara that depicts a Minoan Dragon in flying gallop in between star-shaped ornaments.[394]

The impressions of three LM I metal signet rings have been preserved. **MD.06** and **MD.07** are preserved on flat-based nodules excavated in Ayia Triada. The first bears the elongated body of a Dragon with short legs and large paws ridden in side-saddle by a woman wearing a flounced skirt. The upper part of the motif is not preserved, but a row of small dots could be part of the coiffure. The figure seems to be holding something that ended in a vertical line behind it. Another such line can be seen in between the rider and the head of the Dragon, which is also only partly preserved. The other impression preserves two recumbent Minoan Dragons lying next to each other. The front one looks straight ahead, the other turns its head back toward the tip of the tail that is preserved. Two whole papyri and part of the spray of a third are in the lower right part of the impression, alongside some blades of grass. No facial features, *i.e.* eyes, ears, snout, can be seen on the impression and neither are there dots or dashes that dapple the creatures' bodies.

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[392] Anastasiadou 2011, 180.

[393] See Krzyszkowska 2005, 248 for a short introduction to the 'Talismanic' Style.

[394] Further 'talismanic' dragons can be seen on MD.15, an agate amygdaloid without provenance, and on MD.14, a chalcedony lentoid depicting a unique scene to be discussed below. Both also feature star-shaped ornaments. A final 'talismanic' dragon is set in a natural scene on the amethyst prism MD.16, where it stands still among brushes. MD.17 possibly stands in a 'talismanic' tradition but does not fit in well, as the solid drill has also been used a lot and the tubular drill was used obliquely.

On the third signet ring, **MD.08**, preserved on a flat-based nodule excavated in Sklavokambos, we encounter another scene of the Minoan Dragon in a natural landscape. This creature is striding above a wavy ground line while three vegetal elements grow in the center of the background. Poursat interprets these lines, that also appear on other depictions of Minoan Dragons, as an uneven terrain or waves of the sea (“*terrain vallonné ou vagues de la mer*”).[395] It should be added that this might as well represent a river landscape, something that can be encountered together with papyrus stalks and other vegetation on further representations. Such a landscape is easier to recognize on large-scale media such as the frieze on the NE wall in Room Five of the West House at Akrotiri.[396] This displays the undulating blue lines of a river framed by vegetation such as palm trees, bushes and other plants, preferably of Nilotic origin. Real and fantastic creatures, such as wild cats and griffins, are running in flying gallop alongside the river. Accordingly, another running fantastic creature, such as the Minoan Dragon, might have also been suited for depiction in a Nilotic landscape.[397]

Returning to the seal, a fourth element in the right third of the impression needs to be mentioned. It grows from a vertical line into a nearly triangular, horizontal feature that cannot be further identified. However, as no tail is preserved on the impression, whose lower right fraction is missing, this might have been the upward curving tail of the creature. **MD.09**, a fragmented impression of, presumably, a hard stone on a flat-based nodule from Zakros, preserves the hindquarters of a Minoan Dragon in close parallel to the Sklavokambos impression. Both creatures are dappled along the length of their bodies and their short legs are stylistically close. However, the creature from Zakros has the typical upward-curving tail of Minoan Dragons. Another element consisting of a thin vertical line with irregular horizontal striations and a broader, vertical device ending in three thinner, leaf-like tips is partially preserved on **MD.09**, but it cannot be identified. The possibility that this is something held by a riding female should be ruled out, as the right part of the impression preserves an upward arching line where the body joins into the long neck.

A single Minoan Dragon is preserved on a LM I soft-stone seal. **MD.10** is a lentoid without provenance, but likely from Crete. It configures the same natural setting observed in the cases of the single Dragon motifs of hard stone seals and metal signet rings. Like **MD.08**, the creature is running above a wavy ground line with stalks of a bush or tree in the center of the background. While it is recognizable from its dappled, elongated body and neck, short legs and comparably large paws, it also shows some

[395] Poursat 1976, 466

[396] Marinatos – Hirmer 1973, col. pl. 8.

[397] Gill 1963, 4 argues against this interpretation, stating that the vegetation necessitates firm ground. While this holds true, and the dragons indeed run over firm ground, this does not rule out that the landscape itself is riverine.

differences to its conspecifics rendered in hard material. A horizontal line divides the body into an upper and a lower register, continued through the neck up until the jawbone. Each such register has a single line of almost circular dapples. The tail does not curve inward, but has the shape of an inverted letter S. Although engraved on a soft stone, the creature shows more parallels to LM I hard stone Dragons than to the soft-stone precursors of MM times.

On seals, the latest Dragons appear in LB I–II. Krzyszkowska supposes that the absence of Minoan Dragons in LB II–III glyptic "may be mere chance, since they are found on the mainland and decorate LM II–III ivories."[398] A jasper lentoid from Mycenae, **MD.11**, displays a pair of antithetical recumbent Dragons. Both are looking toward the right, which means that the Dragon in the background turns its head to face its upward curving tail, while the one in the foreground looks straight ahead. This reminds of the LM I motif of recumbent Dragons from Ayia Triada, **MD.07**. However, ears, snout and eyes as well as dash-shaped dapples along the body are added on the Dragons from Mycenae. **MD.12**, an agate lentoid of the same provenance shows a stylistically very different Dragon ridden by a female figure with upraised arms. While **MD.11** stands firmly in the tradition of Cretan Dragons, this specimen shows a newly evolved mainland iconography. Its body is contoured and streaked by long incisions, the legs are stubby and almost fat, ending in small circular drill-holes for the paws. The posture, however, is the same as on earlier striding Dragons. Additionally, the creature is mounted by an elaborately clad woman wearing a long, flounced skirt, cinched belt and necklace. She is sitting side-saddle and extends both arms upwards. The figure is very tall, and her feet almost touch the ground although she is sitting. The ground line is unique in the case of Dragon depictions. It consists of a horizontal array of overlapping semi-circles and has variously been interpreted as marine or terrestrial,[399] both attributions remaining speculative.

On the **Ring of Nestor**, a Minoan Dragon can also be seen in a natural setting. It is standing on a grassy ground in front of the trunk of the tree whose branches separate the seal face into four registers with mythical or religious scenes. It alone does not participate in any of the performative and ritual actions presented in these registers and seems to have been added rather as a symbol than a narrative element.

A final LB I–II seal depicting a Minoan Dragon has already been discussed in the chapter on griffins, since both fantastic creatures are encountered on this cylinder seal from Ayia Pelagia, **MD.13**.[400] Here the Minoan Dragon functions once again as a mount for a female rider. The woman covers most of the Dragon's body. Its legs are stretched

[398] Krzyszkowska 2005, 208.
[399] Gill 1963, 4.
[400] MD.13 = G.42.

out in a flying gallop, head raised high with a slightly open snout. The background is filled by papyrus stalks and the ground underneath the Dragon looks like a rocky terrain. There is no indication of a river on this seal. Nevertheless, as papyrus usually occurs in riverine landscapes, the setting may indicate such without explicitly showing the watercourse.

Intriguingly, the other figure on the seal, a man carrying a griffin, seems to be excluded from this landscape setting. No papyrus stalks are engraved behind him and the stalks growing right in front of his feet curve away from the composition toward the scene with the riding woman. That it was possible to engrave the papyrus in the background of a figure is proven in the part with the Dragon. Therefore, the engraver intentionally did not fill the background of the man carrying the griffin with floral elements. Another factor indicating the separation of both scenes is the missing terrain underneath the man's feet. It is known from ancient impressions that Minoans did not use cylinder seals in the way they were originally intended to be, ignoring their affordance to be rolled on clay to create an ongoing impression that could establish an entire scene. Rather, they chose to simply impress these seals without rolling them.[401] Possibly, this derived from three- and four-sided prisms, that bore different seal faces which did not establish any scene but could be used individually. Thus, it is possible to explain these different scenes on one and the same cylinder seal through the different use and understanding of the shape's pictorial set-up.

Overall, the extant Bronze Age repertoire of Minoan Dragon representations can be summed up in three categories:

1. Dragons striding or running (**MD.09***, too fragmented for sub-classification*)
    a. Isolated (**MD.01, 03, 17**)
    b. 'Talismanic' (**MD.04–05, 14–16**)
    c. In a landscape setting (**MD.08, 10**, *possibly* **02**)
2. Recumbent Dragons (**MD.07, 11**)
3. Dragons used as a mount by a prominent female figure (**MD.06, 12–13**)

These observations correspond to the classification made by Poursat over 40 years ago, who divided Minoan Dragons from different media into the three categories *Dragons montés par une déesse, animaux isolés passants,* and *animaux isolés couchants*.[402] Other media that displayed Dragons are glass plaques from Midea,[403] ivory plaques from My-

[401] Aruz 2008, 149.
[402] Poursat 1976, 463.
[403] Gill 1968, no. 12; Poursat 1976, no. I4.

cenae,[404] possibly an ivory lid from Asine,[405] and a gold ornament[406] from Mycenae. These can all be added to the categories above. There is only one exception that needs to be pointed out: **MD.14**, cut in the 'Talismanic' Style bears the unique motif of a griffin attacking a Minoan Dragon. The identification of the two creatures is unambiguous, but the meaning behind the scene is puzzling. For this reason, Gill has doubted its authenticity.[407] Poursat only mentions it in a footnote, referring to Gill's classification as a *gemma dubitanda*.[408] Apart from these mentions, the archaeological literature seems to evade making any statement on this seal. While it does not match any other representations of Minoan Dragons, it appears less puzzling in the context of griffins, which frequently appear in animal-attack scenes, although up to now without any other composite creatures involved. With the very small repertoire of Minoan Dragons on seals and sealings, there are no parallels to help testify the seal's authenticity.

In summary, Minoan Dragons are composite creatures that can be defined as a 'species' rather than a specific individual entity. They can appear in pairs on seals, just like griffins, sphinxes and Minoan Genii. As in the case of the sphinx, the possibilities of this creature's representation were restricted to a few motifs, which might be the reason why it occurs less often in Bronze Age Aegean glyptic. Unlike the sphinx (and the griffin), the Minoan Dragon stands out for its "greater morphological variability and less standardization."[409]

The creature was interesting also beyond the scope of glyptic, and rendered in materials of high value, such as gold, ivory and glass. Perhaps it was its rather static representational style that made the fantastic animal attractive for ornamental use in the shape of plaques or combs, which were made in a period for which we have no glyptic evidence of the creature. Its occurrence as the mount of the so-called 'Minoan goddess' poses it in the realm of servant fantastic creatures, to which the Minoan Genius and, as her attendant, also the griffin belongs. Yet unlike these two other hybrids, the Minoan Dragon is in close, bodily contact to the female figure riding it, which perhaps implies a more intimate relation of the presumably divine figure and her mount.

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[404] Poursat 1976, no. I6.

[405] Gill 1968, no. 10.

[406] Poursat 1976, 468 believes this is a crocodile, but it is most certainly a Minoan dragon, corresponding to the iconography of recumbent dragons, head turned back, *regardant* the curved tail. Gill 1968, no. 9 also sees this as a dragon.

[407] Gill 1968, 5–6.

[408] Poursat 1976, 463 n. 4.

[409] Blakolmer 2019, 133.

5. Towards an Understanding of the Social Cognition

5.1. Cognitive Archaeology

[…] what individuals inherit from their ancestors is not a mind, but the ability to develop a mind.[410]

The realization that artefacts are "representations of social norms"[411] inevitably connects materiality and iconography to cognition. To be able to create composite creatures the mind needs the ability to differentiate between "events and states that violate intuitive expectations and [… those] that do not."[412] 'Intuitive expectations' are based on empirical evidence from the natural world – whereas hybrid 'monsters' do not feature in the real world.[413] "Counter-intuitive"[414] images, such as composite creatures, collide with this empirical background. However, as they are assembled from body parts of different real-world beings they are, in the words of Wengrow, "provocations to, rather than outright departures from, our innate understanding of how the world works."[415] As real-world creatures are perceived through the senses, mainly the sense of vision, it might prove worthwhile to cover some recent neuroscientific insights in human cognition and to supplement these with findings from the humanities on social cognition.

In their paper on "the neural basis of visual body perception", Marius Peelen and Paul Downing emphasize a fact most everyone will attest to: Humans are not solitary beings, but highly social and strongly interconnected. The daily basis of inter-human contact calls for a deeper understanding of others than on a level of language – we need to be able to differentiate whether a person is benevolent or hostile before he or she acts accordingly.[416] The human brain allows for the – admittedly not infallible – determination of other peoples' "identities, actions, emotions and intentions."[417] This function of the biological apparatus is not limited to the perception of living humans or animals, but also processes information from pictorial sources.

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[410] Griffiths – Stotz 2000, 31.

[411] Griffiths – Stotz 2000, 45.

[412] Boyer 1994, 36.

[413] Wengrow 2011, 133. Sperber 1996, 140.

[414] Boyer 1994, 100.

[415] Wengrow 2011, 133.

[416] *Cf.* Itier – Batty 2009, 844: „The human face is arguably the most important visual stimulus we process everyday as it informs us how to behave socially: being able to discriminate whether the person coming at you is your friend or your boss and whether he looks angry or joyful will certainly make a difference in how you interact with him."

[417] Peelen – Downing 2007, 636.

While a large amount of information is gathered from facial expressions, recent cognitive neuroscience studies show that the visual perception of the human body as a whole and in parts is equally significant for such information. Both human faces and bodies are visually salient and attention capturing. Several studies reveal that human bodies, even when they are obscured, capture much more attention than non-human bodies and objects.[418] Several parts of the brain are highly specialized to process information gained from observing human faces and bodies – in some areas these capacities overlap, whereas other zones of the brain are more highly specified. Due to functional and anatomical distinctions between the neural systems involved in face and body processing, people are able to quickly process information gained from observing a person in totality as well as on seeing individual body parts. For instance, "a focal region of the lateral occipitotemporal cortex" is highly responsive "to static images of human bodies and body parts."[419] On the other hand, this zone responds much less to animal and even less to object depictions.[420] For these reasons, this area of the lateral occipitotemporal cortex has been called "the extrastriate body area (EBA)."[421] This part of the brain is "involved in maintaining an accurate representation of the shape of body parts"[422] – an interesting fact when dealing with human-animal hybrids which would imply that on a level of mere looking (in contrast to scientific scrutiny) this area of the brain would place attention on the human parts of the creature first, then followed by the animal parts. It might also explain why single body devices on seals are rendered in such a fashion as makes them recognizable even to modern viewers, *e.g.* single limbs, heads, etc.

Another body-selective region of the brain lies in the fusiform gyrus and "responds selectively to whole bodies and body parts, as well as to schematic depictions of the body"[423] such as the ones we encounter in the case of Bronze Age seals and sealings and other media depicting human bodies. This area, called the fusiform body area (FBA), as well as the EBA do not need to observe a living human specimen – they activate on seeing silhouettes, stick figures and schematic body parts even when they do not add up to a coherent figure at all.[424]

The occurrence of fragmented and re-assembled human and animal parts on Bronze Age seals and sealings would have activated the same neural systems and processing in a Minoan observer as in a modern one. Hence, from the biological basis, we

[418] *Cf.* Downing, P., Bray, D, Rogers, J. and Childs, C. 2007. "Bodies capture attention when nothing is expected". *Cognition* 93.1: B27-B38, and cited literature.

[419] Peelen – Downing 2007, 638.

[420] Its response is also higher to mammals than to birds or fish. Peelen – Downing 2007, 638.

[421] Peelen – Downing 2007, 639.

[422] Peelen – Downing 2007, 640.

[423] Peelen – Downing 2007, 639, n. 60, 66–67.

[424] Peelen – Downing 2007, 639–40.

today will most probably make the same inferences about the viability of a composite body as the prehistoric observer would have. The *neural* cognition would be quite similar. The *social* cognition, on the other hand, underlies the circumstances of a person's cultural background, including their (pre-) conceptions of 'the norm' and 'the abnormal', their religious or spiritual upbringing, and concepts of age and gender to name just a few of the countless categories that are highly specific and learned traits of a social group. We cannot leave our own social cognition behind and take up the emic perspective of a Minoan. Rather, we need to study Minoan visual und material culture closely in order to gain insights on how people of this time might have perceived the depiction of composite bodies. This is reiterated by Griffiths and Stotz in the introductory quote of this chapter: Minds are not inherited, they are developed.

Many elements of cognitive development are subject not only to intrinsic conditions, but also to external influences. This is supported by recent insights from the fields of "cognitive, social, developmental, comparative and affective neuroscience" which have revealed that the brain is not a "fixed biological entity" but rather a "dynamic biocultural system" that undergoes continuous transformations on both a structural as well as anatomical level triggered by regular "developmental engagement with cultural practices and the material world."[425] An approach connecting biological and social parameters has been presented by Lambros Malafouris who has shown the feasibility of *probabilistic epigenesis* in archaeology. This emphasizes the brain's development not in a unidirectional way, which is how molecular biology has approached cognitive development. Rather, it stresses "the interactions between experience and gene expression"[426] that are developed by reciprocal influences from within and without the human being, *e.g.* "genetic activity, neural activity, behavior, and the physical, social, and cultural influences of the external environment."[427] This approach is called *probabilistic*, because the outcomes of these reciprocal developmental influences on the human cognition are not accurately calculable and, consequentially, presumptive. The archaeological task lies in identifying the external factors involved in the epigenesis. This calls for a context-based approach – part and parcel of the discipline proper.

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[425] Malafouris 2010, 55. The author calls the brain a cultural artefact that "like any other item of material culture, e.g. a ceramic vessel, […] can be grown and moulded into different shapes and decorated in different styles. Like a piece of clay, thrown on the wheel of culture the human mind and brain is subject to continuous re-shaping […]." As much as this metaphor avails itself to an archaeologist it carries the risk of emphasizing an arbitrariness in the development of cognition that could not be explained from a neuro-archaeological point of view and that would confine studies to the realm of philosophy. However, the view of the brain as an item of material culture supports the evidence of recent research and allows for an archaeological approach to human cognition.

[426] Malafouris 2010, 53.

[427] Gottlieb 2007, 1 after Malafouris 2010, 53. Put simply by Malafouris: "[...] differences and variations in life and learning experiences caused by social, environmental, and cultural factors, can cause individuals of the same genotype to have different neural, cognitive, and behavioral outcomes."

Moreover, when discussing the composite creatures, *e.g.* on the Zakros sealings, it does not suffice to look at how their body schemes are configured or how they compare to other images of the period. Rather, after clarifying the iconographical baseline we need to move on to questions of the immediate context these figures have arisen from, due to the human mind's openness to cultural stimuli and variation "embedded and inextricably enfolded with a *plastic culture*."[428] In the context of Material Engagement Theory, this characteristic of the brain as an "environmentally contextualized adaptive organ"[429] is called *metaplasticity*[430] and focuses on the reciprocal influence of brain and culture.[431] It is necessary to consider this plastic culture, *i.e.* the material world and, in the case of this study, the material engagement of Bronze Age people and the seals and sealings they created and used.

5.2 Questions of Materiality and Material Engagement

Following the iconographical observations of the first chapters and the brief outlook on the neural basis of perception, it is necessary to consider the material scope of Bronze Ages seals and sealings. Their practical function lay in the realms of administration, where seals were impressed on lumps of clay that could secure diverse objects (*e.g.* containers, folded written documents, doors, boxes, and much else) while at the same time providing identification of a person, office or transaction through the impressed image.[432] The resulting impression was a medium of *external symbolic storage*,[433] extending the action and authority of the producer of the sealing through space and time, as the impression could be stored or moved and viewed, as well as understood, by different people at different times making the immediate presence of the seal user unnecessary.[434] In effect, impressing a seal in clay created a "cognitive extension"[435] of the seal-user's body.

While a clear affordance of a seal was to impress it into clay, producing a plastic image of the cut intaglio, not all seals were obviously meant for that task, such as some LB III seals that were produced as grave goods.[436] Most seals were intended to be worn

[428] Malafouris 2010, 55 (emphasis in original).
[429] Malafouris 2013, 45.
[430] Malafouris 2013, 45–50.
[431] Malafouris 2013, 46.
[432] For a detailed account of sphragistic use *cf.* Krzyszkowska 2005, 21–23.
[433] *External symbolic storage* is a key concept developed by Merlin Donald in his seminal work "Origins of the Modern Mind" (1991) where he traces the development of human symbolic capacity and cognition. It signifies "the development of devices outside the human body (hence 'external') devised explicitly or unconsciously to hold and convey information" (Renfrew – Scarre 1998, xi). Applied to archaeology and material culture *cf.* Donald 1998, *passim*.
[434] *Cf.* Anderson 2016, 51, 55.
[435] Malafouris 2013, 4.
[436] Krzyszkowska 2005, 22.

on the body, suspended from the neck or worn around the wrist by strings threaded through the drilled string-holes. Others had hoops and could be worn as finger rings or also suspended.[437] Signs of wear are clearly identifiable in the case of abraded string-holes.

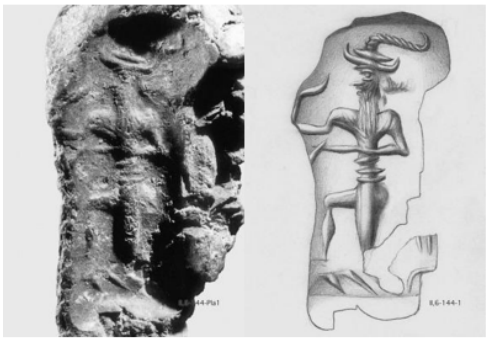

Fig. 9 Minoan impression of a MBA Anatolian cylinder seal (*CMS* II6 no. 144).

It is crucial to understand that the object category of 'seals' cannot be considered as a static, unchanging artefact group with the same functions, affordances and roles in the cognition of Bronze Age social groups throughout space and time. Not only did these groups give shape to seals and their imagery, but in turn the objects shaped the minds of their creators, triggering a reciprocal process of forming objects that in turn formed the people. Emily Anderson explains this dynamic effect material culture has on social culture through its characteristic openness, activeness and responsivity:

> *Things are a vital part of how people relate, their specific character affecting the nature of those relations, just as people's relations, in turn, influence the character of objects made, desired and engaged with.*[438]

This applies not only to the crafted, but also to imported objects, *i.e.* imported seals and their foreign iconography. Often, "the object in its sheer materiality is […] unchanged,"[439] instead, the context of such an artefact, "the social practices, meanings, and traditions connected with the object"[440] changes. A transformation in social practice we can follow within the archaeological record is the use of imported cylinder seals to make not a rolled but a stamped impression *(fig. 9)*. This negates the original affordance of the seal to be rolled and can only be understood against the background of Minoan sealing practices, which were based on centuries of stamping. Transferred to cylinder seals, this practice created a new tradition for this class of seals. Further, it indicates a different understanding of the engraving that was originally meant to compose a complete scene or even narrative, while Minoan users instead could select a part of the design to make an impression, which made the rest of the engraving dispensable.

A considerable aspect of a seal's materiality is naturally its small scale. In the Protopalatial period seal faces usually ranged from 1–1.5 cm in diameter.[441] In early

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[437] Krzsyszkowska 2005, 21. Some hoops are very small, which is why some scholars believe they were used for suspension rather than worn on a finger.

[438] Anderson 2016, 48.

[439] Stockhammer 2012, 50.

[440] Stockhammer 2012, 50.

[441] Krzyszkowska 2005, 83. The author points out that there were also many smaller seals, quoting prisms of "no more than 1.5 x 0.5 cm".

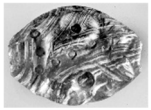

Fig. 10 MD.15, banded agate; scale 1:1.

Neopalatial times seals are seldom larger than 1–2 cm in diameter or width.[442] This calls for a precise working of the object's surface and meticulous planning of the motif to be engraved. Unlike other, larger scale media bearing iconography, there would have been no second chances to correct a line that had been drawn (*i.e.* engraved) too long or in an incorrect way.

Their relatively small size during the Middle and early Late Minoan periods effected a restriction of who could see the objects and the motifs engraved on them. When seals were worn on the body, a fact attested in other media as well as through observed string hole abrasion, the observer could undergo successive stages of perception. The first is the perception of an item of adornment worn on another person's body and therefore closely linked to that person. The observer could next infer whether this was a seal or a piece of jewelry (*e.g.* by observation of the shape, which was grounded on a repertoire of 'canonical' forms from the Neopalatial period onward).

The color of the seal could hint at its material and be a first indicator on the level of social symbolism. A colorful imported stone, such as an amethyst, would likely have been recognizable as such with some distance between the bearer of the seal and an external observer, while the inconspicuous local soft stones would have been less prominent. A member of the community would thus gain information about the status and wealth of the bearer. However, it needs to be pointed out that wearing a seal would only supplement this kind of information, as more subtle and conspicuous indicators such as clothing, hairstyles, and demeanor that cumulate to the *habitus*[443] of the bearer would be perceived before any small object worn on the body struck the eye. Only when the observer got into close range of the bearer of the seal, would he or she have been able to perceive the engraved seal face.[444] A close passerby might still not have been able to make out the motif in the case of multicolored or banded stones that would obscure the engraving (*fig. 10*). Close spatial proximity alone does not suffice to recognize the image in such cases. Moreover, such a seal afforded a close social proximity to and the consent of the seal bearer in order to bring the observer's eyes close enough (and long enough) towards the engraved image.

[442] Krzyszkowska 2005, 126. Metal signet rings pose an exception as they tended to be somewhat larger; 2–3 cm of width is common.

[443] The concept of *habitus* introduced by Bourdieu is followed here. See Bourdieu 2015, 153.

[444] At this point it needs to be added that some seals must have been worn with the intaglio against the skin. In such a case, even a very close range to the object worn on the body would not have given any information on the engraving. For more details on this subject see Anastasiadou 2015, 266–67.

While these observations hold true for most seals of the Middle and early Late Minoan Periods, we can observe an increase in size from LM II on. In this phase, lentoids grow up to 2–2.5 cm and even larger specimens are known.[445] The larger the image, the less close an observer would have needed to come in order to perceive it. Additionally, larger seals worn on the body stood out easier and were seen from farther away. This change hints at a new façade of the object, that in this period was increasingly *meant to be seen*. The same applies to seals that were encased in gold: While there are some Minoan examples, such as *CMS* II3 no. 24 from a LM IB context in Knossos and others from LM II–IIIA grave contexts, most gold-embellished seals derive from the Greek mainland.[446] The adding of gold "caps, circlets and decorated string-holes"[447] emphasizes the appreciation of seals not only as objects of practical use, but above and beyond as items of adornment and value. Furthermore, most mainland seals were made from hard semi-precious stones. The combined evidence of material and gold embellishment demonstrates the seals' role as items of "conspicuous display"[448] in the Aegean Bronze Age and, most notably, on the Greek mainland.

On the level of production, whoever ushered a seal faced a set of choices including the material, shape and engraving of the object. Before being able to produce seals, the engravers needed to select their workpiece from an array of materials they could process, such as soft and hard stones, bone and ivory, metals and glass. These show different degrees of hardness which in turn afford different tools, techniques and, ultimately, the respective know-how and tacit knowledge[449] necessary to apply them. Some materials, such as certain soft stones (*e.g.* serpentine or schist) were available locally, while others had to be imported (*e.g.* hippopotamus ivory or hematite).[450] Metals and man-made materials such as 'white paste' had to be crafted at a preceding stage. While the availability of certain raw materials as well as the technology on hand restricted the selection of materials at times, the shape of the seal followed trends. For example, three- and four-sided prisms occurred frequently in MM II while amygdaloids, cushion seals and lentoids arose in the early Neopalatial period, followed by a high prevalence of lentoids from LM II onwards.[451]

Another point in question is the choice of motifs to be engraved on a seal face. Given their close connection to the body, seals were very personal objects and as such likely to accrue a strong personal value. In essence, these objects played a twofold role, leaving marks of identification in the form of impressions that referred back to the seal

[445] Krzyszkowska 2005, 196.
[446] Krzyszkowska 2005, 240–41.
[447] Krzyszkowska 2005, 240.
[448] Krzyszkowska 2005, 240.
[449] Polanyi 2015, *passim*, esp. 16, 23, 25.
[450] Krzyszkowska 2005, 12.
[451] Krzyszkowska 2005, 12–13.

owner, while at the same time acting as signifiers for the owner's social identity as expressed through the choice of material, shape and motif that had the potential to indicate their (real or desired) place in society. Anderson has pointed out that seals with elaborate motifs could "symbolically assert both social connections (through the shared iconography) and distinctions (through the differentiable attributes of each individual piece)."[452]

Given these points, seals prove to have been deeply entangled not only in administrative acts, but also, in the words of Anderson, "in various crucial and developing dimensions of social life involving identity, control, will and symbolism."[453] They were not only functional, but symbolic and personal objects. Knappett has shown that, generally, "cognition and information are […] implicated"[454] in what he terms "body-object conjunctions"[455]. Accordingly, the wearing of a seal results in "a coalescence of mind, body and object."[456] This is the point where implications for the social cognition are to be sought.

5.3 The Rise of Composite Creatures

> *Il est préférable de considerer la création des animaux imaginaires comme le résultat de l'activité de perception et de description de certains animaux réels, bref, d'une activité cognitive humaine impliquant tant la reconnaissance des formes que les processus de nomination. Les images des êtres composites donnent à voir les évocations que des parties d'animaux réels ont générées mentalement lors de leur perception.*[457]

These observations Dimitri Karadimas made on 16th century tapestries and late medieval to early modern illuminations strikingly resonate the findings of Bronze Age composite creatures. While these transcend the possibilities of nature, they strongly and invariably draw on nature's 'toolbox'. Organic composites are forged by adding parts of different species together in a 'natural' way – the center of the human body (the waist) is attached to the center of an animal body (the abdomen) creating an animal-human hybrid that is composed following the natural rules for the sequence of body parts. The resulting images combine perceived qualities of both species. Not only the visual perception of elements of the natural world, but, significantly, the ideas evolving around them made them adequate constituents for composite creatures. Consequently, it comes as no surprise that animals which dominate the glyptic record, such as bulls, goats, lions and boars, are also chosen for the creation of occasional hybrids.

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[452] Anderson 2016, 50.
[453] Anderson 2016, 48.
[454] Knappett 2005, 33.
[455] Knappett 2005, 33.
[456] Knappett 2005, 34.
[457] Karadimas 2010.

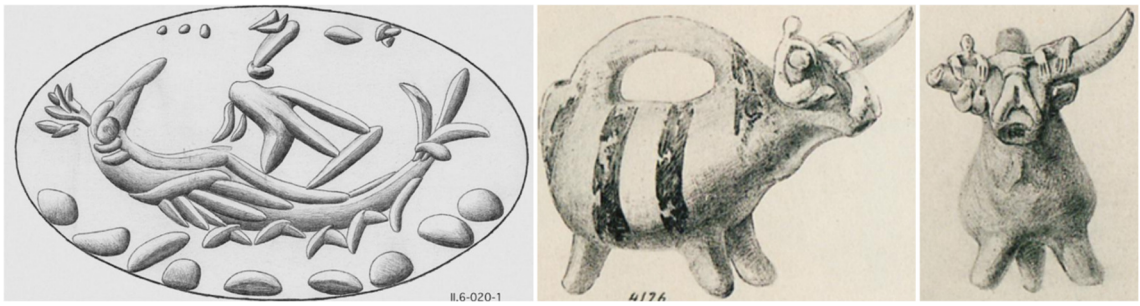

Fig. 11 Left: a rower in a griffin-boat, impression of the metal signet ring *CMS* II6 no. 20. Right: zoomorphic vessel in the shape of a bull with three human figures from Koumasa (Xanthoudides 1924, pl. II).

These combine characteristics of the animal part, such as the strength of the bull, with human athleticism at its best, leading to a hybrid of empowered qualities.

A point often overlooked is the question of what was *not* used as a constituent part of a composite creature. Properties claimed for faunal composite parts, *e.g.* the qualities of the bull used for elite representation, might also be found in man-made things. Take for example ships: the technology of ship-building and the capacity to build up a fleet was an essential motor for the expansion of Bronze Age material culture in the Aegean and likely the major vehicle for the spread of Minoan cultural traits, leading to prosperity in the island's urban coastal centers.

Elite groups would have been the first to have benefited from this, as they could provide the resources for shipbuilding and gain a return on their investment. The ship was the material manifestation of the so-called Minoan 'thalassocracy'[458] and is as such often an item of elite display throughout pictorial media. However, hulls, masts or rudders never constitute composite elements. Accordingly, although an established figure of elite self-representation, ships must have transgressed the cognitive boundaries that limited what could and what could not be used in the creation of composites, as they exceeded the realm of the natural world. Consequently, the creation of 'cybernetic'[459] composites is something that breaches the possibilities of cognition throughout the probably different social groups[460] producing composite creatures in the

[458] Towards a critical evaluation of the concept of thalassocracy' *cf*. Wedde 1991, 91–93.

[459] A cybernetic organism, or 'cyborg' is defined as a hybrid of machine and organism (Haraway 2007, 314). The term derives from the Greek term *κυβερνήτης* which originally belonged to the realm of maritime activity, as it denoted a steersman (e.g. in Hom. Il. 19.43, Od. 9.78). It is rendered here in inverted commas due to its modern meaning which connects it to advanced machineries; something that cannot be found to such extents in the Bronze Age. A neologism coined to express this phenomenon is *fyborg*, "biological organism functionally supplemented with technological extensions" (Chislenko 1995, after Knappett 2005, 20). Knappett proposes to consider the use of most basic tools as a "prosthetic extension of the body" (ibid.) and, ultimately as a constituting element of a *fyborg*.

[460] Unfortunately, we lack a comprehensive study that could inform us on the actual social groups who were making and using the different kinds of seals with composite creatures. Due to the variability of materials, techniques and motifs encountered throughout the range of composite depictions, it can be assumed that different social groups were involved. Their identity can only be sought in an extensive study of the individual seals and their contexts, as well as distribution. Until then, one can only speculate whether these were members of the elite, sub-elite, producing, wealthy or less wealthy social groups.

Bronze Age Aegean. Intriguingly, a metal signet ring whose face was preserved in various impressions shows a boat in the shape of a bird, or possibly even a griffin, as proposed by the CMS (*fig. 11, left*). This demonstrates the capability of the Minoans to transfer organic items to inorganic objects – something that can also be said in the case of anthropomorphic and zoomorphic vessels (*fig. 11, right*). However, there are no instances that prove the reverse was possible, *i.e.* transferring inorganic matter to organic creatures.

Furthermore, not all representatives of the natural world that are frequently encountered in Aegean Bronze Age art and glyptic were adequate for fantastic compositions. While fish and marine animals are present throughout the pictorial media, no composite creatures were created out of them. It was possible to add a fan-tail and wings to an animal not capable of flight, but, on the other hand, neither fins nor flippers where used as devices that would have given a composite creature the ability to swim. Although most of the important seal-using and producing communities were very close to the Cretan shoreline, *e.g.* Malia, Knossos or Kato Zakros, it seems that never once it occurred to the producers and consumers of the seals to create maritime composites.

Perhaps a reason for this lies in a different significance of the sea- from the landscape, the first being even more inaccessible to mankind than the remotest areas of Crete, that could at least be viewed from the distance, whereas there was no possibility to peer behind the blue curtains of the deep ocean. Apart from fishermen and cockle pickers, few people encountered live marine creatures on a regular basis. As has been observed above and in the literature, Late Minoan figural representations bear witness of a close observation of the movements and anatomy of live beings. Considering this, the Minoan's limited possibilities of visual and tangible engagement with *live* marine animals compared to the feasibility of observing land- and air-bound animals' movements and habits is one possible explanation for the lack of marine elements in composite creatures. However, pottery displays abundant maritime imagery, so this is unlikely the main reason. A further explanation lies on a more practical level: Fish and marine creatures might simply not have been deemed suited to conjoin with other species, as they were tied to specific techniques and styles, in particular the 'Talismanic' Style, which was too removed from the near-natural representations used for composite creatures. Therefore, they belonged to a different, more ornamentally conceptualized, mental category.

The rise of individual fixed hybrids has been discussed in the respective chapters. Their occurrence on Crete was first triggered by foreign connections with Egypt and the Levant in the late Prepalatial period. Apart from the hybrids discussed above, one could also assume a fantastic quality of other animals imported to Crete from these areas, such as the lion and the monkey. As Blakolmer has pointed out, these

were not endemic on Crete and might therefore have been attributed to the same 'metaphysical' sphere as griffins, Dragons etc.[461]

Often, it is not possible to attribute a single area of origin to the hybrids. While, for example, the griffin is first attested in the early Elam period, it was further developed in predynastic Egypt from where it was imported to Syria and again transformed according to local tastes and needs. Only then did griffin iconography spread to Minoan Crete, where it was customized to suit local demands.[462] The lesson learned by these observations is that the Bronze Age Mediterranean was open to cultural dissemination, its different social groups always adding own ideas and iconographical preferences to imported pictorial material. It also demonstrates the openness of different groups' social cognition to foreign 'metaphysical' concepts that included 'monsters' like the griffin. However, it seems that while it was conceivable to import composite creatures from places where other beliefs were prevalent, there is no attestation of a high-ranking 'metaphysical' instance, like a god or goddess, being introduced in Crete during the late Proto- and early Neopalatial period.

Wengrow points out that Mesopotamia was the "heartland of composite animals" and at the same time "the region where mechanical methods were first widely applied to the reproduction of images, via stamp and cylinder seals […]." He assumes a spread of composite creatures together with a proliferation of "mechanical modes of image production"[463] that led to a centralized production and use of these by institutions such as palaces and temples. As seals played an important role in Bronze Age administrative systems, they were used by elite groups as a means of accountability and control of the circulation of goods. At the same time, these groups exercised "control over the circulation and modification of designs."[464] While the composites were designed and spread by a small group of people, they were produced and re-produced many times, playing an important role in everyday transactions. Wengrow counts this "among those cultural strategies through which elite groups made 'legible' their cosmological and political roles in society," stating that these circumstances directly influence the "distribution of composite figures in the visual record."[465]

Moreover, he points out two main forces that account for the spread of composite creatures: technology and 'politics', *i.e.* the activities of elite groups. The flourishing of these parameters was accompanied by foreign connections, leading to an influx of exotic imagery and materials, which were in turn incorporated in their new cultural settings. A prominent example for this is the import of *Taweret* on Crete in the early

[461] Blakolmer 2019, 98.
[462] Aruz 2008, 288–89.
[463] Wengrow 2014, 81.
[464] Wengrow 2014, 81.
[465] Wengrow 2014, 81.

Neopalatial period and the demon's consequent transformation into the Minoan Genius, a composite creature with an iconography far removed from its Egyptian predecessor, and characteristics necessitated by its Minoan context. All of this happened during a very transformative time in Minoan culture, the beginning era of the second palaces that had been rebuilt after the destruction in MM IIB and now reached a new acme of power and outreach in the Mediterranean world. It is again in a time of transformation that dyad and triad species composites come into existence. After the LM IB destructions, whose causes are still a matter of debate, a strong Mycenaean influence can be traced on Crete and in Knossos in particular.[466] There is a distinctive break to earlier Minoan customs, and we can only assume that changes took place on a large-scale social level as well. A change in seal engraving can certainly be made out in this phase, *i.e.* a noticeable contraction of the iconographic repertoire – and even a possible interruption in the engraving – of soft stones.[467] The animal-human hybrids, which are rendered in hard stones, are an innovation in the glyptic repertoire, although they were probably not produced for a long period of time.[468]

These observations induce the hypothesis that composite creatures tend to appear in the Minoan glyptic repertoire in times of changes. Contacts to foreign civilizations, be they on a level of commerce, diplomacy or perhaps even a military take-over[469] prove part of a constellation that led to the rise of composite creatures in Minoan Crete.

As Krzyszkowska has noted, the Zakros seals display features that are otherwise unattested in the Cretan glyptic repertoire.[470] This accounts for the device combinations as such, which mostly seem to "lack convincing parallels of any date,"[471] but also for the frequent frontal depiction of heads and entire composites. This lack of connection to Minoan glyptic on an iconographical level and the very counter-intuitive creatures, at times created by bizarre combinations of devices, has led to wild speculations about the nature of the seals.[472]

Perhaps the location of Kato Zakros played an important role in the formation of these fantastic combinations. While it was isolated from the Minoan hinterland by a rugged and mountainous landscape that made travelling over land difficult, its bay

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[466] This can be seen in a change of burial customs, where mainland practices of communal burial are now employed in Crete; but also, administration is now strongly influenced by Mycenaean Greek and Liner B. See Krzyszkowska 2005, 193.

[467] Krzyszkowska 2005, 212.

[468] Krzyszkowska 2005, 208.

[469] A Mycenaean military take-over has been considered likely in the case of Knossos after the LM IB destruction.

[470] Krzyszkowska 2005, 152.

[471] Krzyszkowska 2005, 152.

[472] *Cf*. Krzyszkowska 2005, 151: "Condemned by some as crude and degenerate, they have been praised by others as inventive, if eccentric. They have even been ascribed to an artist in the grips of schizophrenia."

on the Cretan east coast was opportune for overseas trade. It was very likely a well-frequented stopover for trading ships coming from the East and heading to north-central Crete.[473] Due to this, the inhabitants of Zakros could have come in contact with foreign ideas and beliefs that might have given an impetus for the rise of the Zakros creatures.

However, this alone is not a sufficient explanation,[474] but needs to be considered against the topographical background of this specific region. Krzyszkowska proposes the idea that "the Zakros engravers were inspired by local customs, rooted in the wild country east of Dikte"[475] and assumes that perhaps local rites "involving capes and animal masks"[476] were a model for the creation of the types. The remote situation of the palace of Kato Zakros, which nearly closes it off from the rest of the island by way of land, could preserve such unique rites or local beliefs, whose restriction to the area would also explain why the composites did not spread, unlike the specimens of typical Neopalatial glyptic that are also evidenced at this findspot.

5.4 A Relational Outlook on Fantastic Creatures and Humans

This study has shown instances of combined human and animal parts that result in hybrid creatures such as bull-, lion-, goat-, deer- and boar-men as well as bird ladies and other winged hybrids. However, the relation of (whole) humans and composite creatures is another significant aspect in a cognitive approach to this material. On the majority of seals and sealings with fantastic creatures, humans are absent. They only engage with a small range of these, such as the griffin, Minoan Genius and Dragon, *i.e.* fixed hybrids. Most often, the human constitutes a central figure of power, flanked or otherwise attended by the creature. I propose that this does not transfer the fantastic animals from their supernatural realm into the real world. Rather, this allocates the human figure in the abstract sphere inhabited by the creatures.

Let us begin with the most prominent hybrid creature: the griffin. By understanding that the human figure is transferred from the real world to a 'supramundane' world, we can deduce that scenes which we describe as *potnios/potnia theron* depictions display not a human, but an anthropomorphic 'divine' figure of power that is capable of acting on the abstract level of fantastic creatures and has the power to subdue these. The creatures in such scenes, most often griffins, have a protective function – while they may afford danger to other creatures and animals (such as the

[473] Schwemmer 2010, 3.

[474] The supposed merchants from abroad would have introduced their same ideas and beliefs at other ports along the Cretan coast, but none of these places created composite creatures like those of Zakros.

[475] Krzyszkowska 2005, 152.

[476] Polinger Foster 2016 offers an interpretation of the Zakros composites and other hybrids creatures as masks that were worn during ritual.

quadrupeds they can hunt), this affordance seizes is relation to the human/anthropomorphic figures.[477] Blakolmer has noted that humans confronting a griffin are more often male, except when it comes to griffins flanking an anthropomorphic figure, which is more often female.[478] Apart from their association with possible deities, griffins were held in high esteem by rulers. This can be seen by their association in large-scale wall-paintings with architectural structures of power and rulership, such as in the Knossos and Pylos throne rooms, but also on seal images depicting griffins in the context of sitting human figures (*e.g.* **G.70**) or pillars and columns (*e.g.* **G.72–73**). This relation of griffins and rulers is an Aegean typicality that cannot be traced in the hybrid's area of origin in the Near East.[479] On the contrary, in Near Eastern depictions this hybrid is often an adversary of anthropomorphic figures, be they heroes or gods, that fought this creature. This negative connotation of the hybrid is absent in the Aegean understanding. Rather, this might be more closely related to Egyptian cognition, which in turn associated griffins with the protection of the Pharaoh.[480]

Related to griffins and of the same iconographic origin were the sphinxes. These, however, did not occur together with human figures. Perhaps its human head on an animal body dislocated the sphinx entirely from the sphere of human engagement, as this might have been the most counter-intuitive fixed hybrid in the eyes of the Bronze Age beholder. While human-animal hybrids with the head of an animal can appear in animal-attack scenes, the change to a human head shifted the apprehension of the creature away from a bestial and towards a 'humane' character. This may explain the difference to griffin iconography in that there are no attack scenes (or any narrative scenes) involving sphinxes. Moreover, they pertain an emblematic character that leaves open questions regarding the hybrid's relation to humans.

A creature that comes into very close contact with human figures is the Minoan Dragon. While not many seals and sealings display this composite creature, a conspicuous number show the creature as the mount of a female figure, mostly referred to as a goddess. Unlike the griffin, the Dragon does not protect or attend to the human figure. Moreover, it carries the elaborately clad female in a solemn manner (*e.g.* **MD.06**, **12–13**). As proposed in chapter 4.5, the relation of the Minoan Dragon to the human figure is of a much more intimate quality than of any other composite creature while it is at the same time restricted to female figures, in contrast to other hybrids that also engage with humans.

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[477] Similarly, this is also the case for lions, which underlines Blakolmer's observation that these also acted on a 'metaphysical' level; *cf.* Blakolmer 2019, 202.

[478] Blakolmer 2019, 129.

[479] Blakolmer 2019, 130.

[480] Blakolmer 2019, 128, 132.

The most complex relation of fantastic creature and human being is represented by the Minoan Genius. This begins with its iconography that, throughout its evolution in the Late Bronze Age, never seizes to represent an upright creature that can walk on two legs and hold an object in its hands. This humanoid appearance made it possible for an individual to understand the hybrid through their own body. The frequently shown poses of the Minoan Genius could easily be imitated by a human – consciously in an act of mimicry or without any direct association to the creature, *i.e.* when taking part in acts such as processions (*e.g.* **MG.11**) and libations (*e.g.* **MG.02**).

In Minoan cognition, the Genius was capable of doing what humans did, and vice versa (see *fig.* 7). However, it would be wrong to limit the understanding of this hybrid to an '*alter homo*' that could replace humans in depictions. Moreover, I propose to understand the Minoan Genius as an 'avatar' of humans performing rituals such as processions and libations on a supramundane level that could not be accessed by humans themselves. While it was perceived to have a strong agency, the Genius obviously had to observe at least some of the rules that applied to human beings and that were followed in ritual behavior in order to achieve specific aims that elude us nowadays.[481] Humans are not shown supplicating to the Minoan Genius. Rather, it is the Genius that attends to and aids human figures.[482] It can also be subdued in *potnios/potnia theron* scenes (*e.g.* **MG.22**), in which case the human figure should be understood as heroic or divine, as demonstrated above in the context of griffins.

A final comment on human-creature relations applies to all seals that were worn on the body. Wearing a seal around one's arm or neck establishes a very close, bodily relationship between the human bearer and the imagery engraved on the seal. A seal with figural iconography would likely have fostered a close personal association of the bearer with the creature engraved on his or her seal. While it is not possible to reconstruct the concomitant notions and beliefs of any individual, the mere existence of such relations on a very personal level needs to be kept in mind. The Aegean Bronze Age has left us impressive examples for the strong ties of individual seal owners to their seals, some of which were worn for a very long time causing strong abrasion that, in some cases, makes it impossible to recognize the original engraving.[483] While such seals had long lost their functionality on a level of identification and administration, they were kept because they had "[…] an amuletic significance for their owners independent of their function as sphragistics devices."[484] The following chapter will

[481] Likely aims of ritual acts such as libations are connected to the needs of an agriculturally dependent society, e.g. good weather, access to sufficient water etc.

[482] See the frontispiece for an example of a Minoan Genius actively helping a human warrior-hunter.

[483] For examples, see Anastasiadou 2015, 270–71.

[484] Anastasiadou 2015, 271.

pick up this notion of an amuletic function to elaborate on a final aspect in the cognitive scape of Bronze Age seal ownership, which is apotropaism.

5.5 Some Remarks on Apotropaism

> *[…] good and evil are not simply abstract concepts but are bound up with very practical everyday concerns: ensuring good harvests, good health, social cohesion, success in battle. Since prevention is better than cure, many prayers and rituals aim to supplicate and propitiate the supernatural powers, to elicit their favors and to appease them […] seeking to avert famine, plague, suffering and death.*[485]

The cosmology and beliefs of neighboring cultures of Minoan Crete have been preserved through texts that contained myths and religious practices. One of the most important aims of ritual actions was the maintenance of "order and harmony in the cosmos"[486] and the aversion of evil. It seems only natural that the nearby contemporary culture of Minoan Crete was likewise concerned with matters of good and evil and means of establishing the first and deterring the latter. Since there are no written accounts of such means, it may prove worthwhile to consult the imagery produced by the Bronze Age inhabitants of the island.

Iconography allows for the identification of ritual practices, such as libations, sacrifices or activities such as the hugging of a *baitylos*.[487] But the causality of these actions remains enigmatic. Whether these were proactive or reactive rituals intended to influence supernatural forces to enforce prosperity and forestall negative events, *i.e.* apotropaic acts, or performative acts with different intentions, for example worship or thanksgiving, remains elusive. Therefore, representations of ritual actions cannot further our knowledge about apotropaic practices in Minoan times. However, turning to the materiality of seals may offer new insights in apotropaism.

Seals that could be worn on the body, as bracelets or necklaces, have very much in common with amulets and talismans. These are small trinkets worn on the body that bear specific images believed either to "bring good fortune" (in the case of talismans) or to "ward off evil"[488] (in the case of amulets). Seals have the potential to carry symbolic depictions that could serve either case. The range of counter-intuitive depictions on seals presented in this study could well have been intended as apotropaic images. Especially the occasional hybrids that, in most cases, appear isolated on seal faces and cannot be assigned a standard function might have been considered as symbols with the potential to ward off evil or bring good fortune. Particularly the attention-catching dismembered and incoherent assemblage of many non-viable

[485] Krzyszkowska 2016, 115.
[486] Krzyszkowska 2016, 115.
[487] Krzyszkowska 2016, 116.
[488] Krzyszkowska 2016, 117.

composites violates the intuitive expectations a viewer had based on his or her empirical knowledge of the world. Bewildering as they appear, these composite creatures might well have fulfilled an apotropaic function when worn on the body like an amulet or talisman. The MM II Minoan grotesques could also be understood along these lines. While other standard hybrids do not simply stand alone for themselves and are bound up in narrative scenes or at least relational associations, grotesques mostly appear alone. Their bizarre frontal heads are typically bodiless, reflecting the gaze of the viewer with their large open eyes while threatening with their bared teeth. Although no direct relationship to Humbaba or Bes/Beset could be established, the existence of apotropaic frontal heads in the neighboring cultures, whose texts confirm this function, calls for the consideration of a perceived apotropaic quality of the motif also in Minoan cognition.[489]

[489] See Krzyszkowska 2016, 118–21.

6. Conclusion

The aim of this study was to obtain an overview over the extant composite creatures in Aegean glyptic and to draw possible conclusions around the mindset of their creators and users. The so-called 'monsters' were first divided into two analytical groups that defined them as either *occasional hybrids*, with no cross-regional or long-enduring existence, or *fixed hybrids*, that can be witnessed at various sites, often in different media and, in some cases, also throughout many centuries. It is only possible to infer single pieces of the puzzle concerning the social cognition evolving around occasional hybrids by recognizing traits of a constituent animal that were emphasized in Bronze Age pictorial culture. It is therefore possible to comment on the qualities of a bull-man who incorporated the strength and energy of a rampant bull and the athleticism and precision of a human acrobat. On the other hand, it is not possible to say whether the animal-human composites were considered as uniquely existing 'metaphysical' entities or, rather, as a type of 'monster' that occurred as more than one representative. Their rather short existence might have been symptomatic of social needs arising at a certain point in time, when Minoan civilization underwent changes after a crucial turning point in its history. Perhaps bull-men, drawing on Knossian palatial iconography, postulated a link to a past that seemed desirable after the end of the Neopalatial era. After having either fulfilled or disappointed such an objective, human-animal composites seized to occur.

Similarly, the vast array of non-viable composite creatures and motif combinations from Zakros had a very ephemeral existence. Possibly, local beliefs and rituals that reached far back in time and were detached from other beliefs prevalent on the island of Crete gave the impetus for the creation of these unique types. Since they could only have been understood in the remote area of Zakros, there was no place for them in Minoan social cognition across the island, and they did not spread. At the same time, other images, such as bull acrobats, addressed several social groups across Crete, their understanding of this ritual and its social significance leading to the dissemination of bull-leaping scenes throughout the island and even beyond.

In contrast to the many open questions regarding the understanding of occasional hybrids, fixed hybrids are somewhat easier to grasp. Most, if not all, of these derive from contacts with other Mediterranean cultures, such as Egypt and Syria. The griffin, sphinx, Minoan Dragon and *Taweret*, the later Genius, and probably also the grotesques and *bird ladies*, came to Crete from the east at the turn of the Protopalatial to the Neopalatial periods. This was a consequence of trans-Mediterranean contacts involving trade and diplomatic exchanges at a time when Minoan Crete became an important player and trading partner in the Aegean. Items of foreign material culture

were imported and with them came the 'monsters' of the east. While it is far from certain that these fantastic creatures were understood by Minoan individuals the same way they were in their home countries, the iconographical evidence from seals and sealings, but also from prestigious pictorial media such as wall paintings, gold or ivory plaques, and others supports our modern comprehension about the status of the fixed hybrids in Minoan and Mycenaean social cognition. The archaeological evidence proves that it is necessary to differentiate between these cultural categories, as the same hybrid could play a different role in each context. We have seen, for example, how the Minoan Genius has literally changed its face over time and attained new responsibilities and functions, culminating to a prominent figure in Mycenaean elite representational media.

It is possible to connect the appearance of 'monsters' in Minoan glyptic with times of change, such as the transition from the first to the second palaces or in the Final Palatial phase after the LM IB destruction. Not only do composite creatures display a novel level of somatic mastery achieved through the fusion of species, they are also a means of cultural mastery and even socio-political consolidation. This explains their occurrence at times of power shifts and hierarchical consolidation and at places of administrative, religious or political power where such developments and changes had the strongest impact.

Despite the difficulties arising from missing (stratified) contexts and the problematic dating of seals that often refers to time spans over a century long, the study of seals and sealings remains worthwhile, as they deliver the largest amount of iconographical material available for the Bronze Age Aegean. Glyptic media preserve images that derived directly from the heads of prehistoric individuals and social groups for whom these small artefacts offered the possibility to creatively experiment with imagery in ways that would have been out of question in larger scale media. This is likely also the reason why occasional hybrids do not feature on wall-paintings, vessels or other representational objects. Finally, seals prove to be an ideal medium for the study of social cognition due to their entanglement in various parts of social life in the Bronze Age. They played an important role in the web of administration, control and distribution of goods, providing a medium of external symbolic storage, while on another level constructing, emphasizing and giving proof of identity. Like no other pictorial medium, seals were functional and symbolic at the same time. They were closely connected to the human body and the human mind, leaving marks not only in clay, but also on the people that wore them and the minds that created them.

Appendices

FIGURES

Frontispiece: CMS XI no. 208, background editing by the author.
Courtesy of the CMS Archive, Heidelberg.

Fig. 1: Variable elements of bull-men group a
Top row: from left to right: feet of bull-men nos. OH.01, 05 (left), 06 (right), 02, 04.
Bottom row: from left to right: heads of bull-men nos. OH.01, 04, 06 | 03.
Outline drawings by the author after *CMS* XIII no. 61, II3 no. 67, X no. 145, VS3 no. 150; XI no. 251, VI no. 298.

Fig. 2: *Group b* type frontal bull head.
Outline drawing by the author after *CMS* III no. 363.

Fig. 3: OH.42 green contours: plant; blue dotted lines: 'inanimate' parts.
Outline drawing by the author after *CMS* VS3 no. 223.

Fig. 4: The two "bee-ladies" and two bees.
Outline drawings by the author after *CMS* II5 nos. 323, 314, 315.

Fig. 5: wing types 1, 2 and 3.
Outline drawings by the author after *CMS* II6 no. 107, II3 no. 4, VII no. 142.

Fig. 6: Helm with single cheek guard on WH.03
Outline drawing by the author after *CMS* II7 no. 134.

Fig. 7: Becoming (para-)human? Minoan Genii in human roles.
Top row: *CMS* VII no. 95=MG.14; I no. 172=MG.20; VS1B no. 153=MG.13.
Bottom row: *CMS* XI no. 290=MG.22; II8 no. 250; II4 no. 111.
Courtesy of the CMS Archive, Heidelberg.

Fig. 8: Selection of varying griffin depictions dating to the period LM I,
top row: *CMS* II7 no. 96 (Kato Zakros, metal ring sealing); II3 no. 73 (Knossos, sst cushion seal); II3 no. 349 (unprovenanced, sst lentoid); II4 no. 61 (Gournia, sst lentoid); bottom row: II6 no. 99 (Ayia Triada, hst lentoid impression); II8 no. 192 (Knossos, metal ring impression); X no. 220 (unprovenanced, sst lentoid); XII no. 266 (unprovenanced, sst lentoid).
Courtesy of the CMS Archive, Heidelberg.

Fig. 9: Minoan impression of a MBA Anatolian cylinder seal (*CMS* II6 no. 144).
Courtesy of the CMS Archive, Heidelberg.

Fig. 10: MD.15, banded agate; scale 1:1
CMS XII no. 290, courtesy of the CMS Archive, Heidelberg.

Fig. 11: Left – a rower in a griffin-boat, impression of the metal signet ring *CMS* II6 no. 20; right – zoomorphic vessel in the shape of a bull with three human figures from Koumasa (Xanthoudides 1924, pl. II).

ABBREVIATIONS

AA	*Archäologischer Anzeiger*
AJA	*American Journal of Archaeology*
AntCl	*L'Antiquité classique*
Arachne	*Zentrale Objektdatenbank des Deutschen Archäologischen Instituts (DAI) und des Archäologischen Instituts der Universität zu Köln. Corpus der Minoischen und Mykenischen Siegel*. https://arachne.uni-koeln.de/drupal/?q=node/117.
BCH	*Bulletin de correspondance hellénique*
CaJ	*Cambridge Archaeological Journal*
CHIC	Olivier, J.-P. and L. Godart. 1996. *Corpus Hieroglyphicarum Inscriptionum Cretae*. EtCret 31. Athènes: École Française d'Athènes.
***CMS* I**	Sakellariou, A. 1964. *Die minoischen und mykenischen Siegel des Nationalmuseums in Athen*. Berlin: Gebrüder Mann.
***CMS* IS**	Sakellarakis, Y. A. 1982. *Athen, Nationalmuseum, CMS I Supplementum*. Berlin: Gebrüder Mann.
***CMS* II2**	Platon, N., I. Pini and G. Hellenkemper Salies. 1977. *Iraklion, Archäologisches Museum. Teil 2. Die Siegel der Altpalastzeit*. Berlin: Gebrüder Mann.
***CMS* II3**	Platon, N. and I. Pini. 1984. *Iraklion, Archäologisches Museum. Teil 3. Die Siegel der Neupalastzeit*. Berlin: Gebrüder Mann.
***CMS* II4**	Platon, N. and I. Pini. 1985. *Iraklion, Archäologisches Museum. Teil 4. A. Die Siegel der Nachpalastzeit, B. Undatierbare spätminoische Siegel*. Berlin: Gebrüder Mann.
***CMS* II5**	Pini, I. 1970. *Iraklion, Archäologisches Museum. Teil 5. Die Siegelabdrücke von Phästos*. Berlin: Gebrüder Mann.
***CMS* II6**	Müller, W., I. Pini and N. Platon. 1999. *Iraklion, Archäologisches Museum. Teil 6. Die Siegelabdrücke von Aijia Triada und anderen zentral- und ostkretischen Fundorten, unter Einbeziehung von Funden aus anderen Museen*. Berlin: Gebrüder Mann.
***CMS* II7**	Müller, W., I. Pini and N. Platon. 1998. *Iraklion, Archäologisches Museum. Teil 7. Die Siegelabdrücke von Kato Zakros, unter Einbeziehung von Funden aus anderen Museen*. Berlin: Gebrüder Mann.
***CMS* II8**	Gill, M. A. V., W. Müller, I. Pini and N. Platon. 2002. *Iraklion, Archäologisches Museum. Teil 8. Die Siegelabdrücke von Knossos, unter Einbeziehung von Funden aus anderen Museen*. Mainz: Philipp von Zabern.
***CMS* VS1A**	Pini, I. 1992. *Kleinere griechische Sammlungen. Supplementum 1 A. Ägina – Korinth*. Berlin: Gebrüder Mann.
***CMS* VS1B**	Pini, I. 1993. *Kleinere griechische Sammlungen. Supplementum 1 B. Lamia – Zakynthos und weitere Länder des Ostmittelmeerraums*. Berlin: Gebrüder Mann.
***CMS* VS2**	Dakoronia, Ph., S. Deger-Jalkotzy and A. Sakellariou. 1996. *Kleinere Griechische Sammlungen. Supplementum 2. Die Siegel aus der Nekropole von Elatia-Alonaki*. Berlin: Gebrüder Mann.
***CMS* VS3**	Pini, I. 2004. *Kleinere griechische Sammlungen. Supplementum 3. Neufunde aus Griechenland und der westlichen Türkei*. Mainz: Philipp von Zabern.

***CMS* VI**	Hughes-Brock, H. and J. Boardman. 2009. *Oxford. The Ashmolean Museum*. Mainz: Philipp von Zabern.
***CMS* VII**	Kenna, V. E. G. 1967. *Die englischen Museen II. London, British Museum; Cambridge, Fitzwilliam Museum; Manchester, University Museum; Liverpool, City Museum; Birmingham, City Museum*. Berlin: Gebrüder Mann.
***CMS* VIII**	Kenna, V. E. G. 1966. *Die englischen Privatsammlungen*. Berlin: Gebrüder Mann.
***CMS* IX**	Van Effenterre, H. and M. van Effenterre. 1972. *Cabinet des Médailles de la Bibliothèque Nationale Paris*. Berlin: Gebrüder Mann.
***CMS* X**	Betts, J. H. 1980. *Die Schweizer Sammlungen*. Berlin: Gebrüder Mann.
***CMS* XI**	Pini, I. 1988. *Kleinere europäische Sammlungen*. Berlin: Gebrüder Mann.
***CMS* XII**	Kenna, V. E. G. 1972. *Nordamerika I. New York, The Metropolitan Museum of Art*. Berlin: Gebrüder Mann.
***CMS* XIII**	Kenna, V. E. G. and E. Thomas. 1974. *Nordamerika II. Kleinere Sammlungen*. Berlin: Gebrüder Mann.
EBA	Early Bronze Age
hst	hard stone: class of stones from Mohs scale 5 upwards that can only be engraved with fast rotating tools.
LBA	Late Bronze Age
***LIMC* IV**	Ackermannm H.-C. (ed.). 1988. *Lexicon iconographicum mythologiae classicae*, Vol. 4: Eros - Herakles. Zurich: Artemis.
MBA	Middle Bronze Age
MdI	*Mitteilungen des Deutschen Archäologischen Instituts*
mst	medium hard stone: stones ranging from Mohs 3.5–4.5 that can be engraved with hand-held tools with some effort.
OpAth	*Opuscula Atheniensia*
PZ	*Prähistorische Zeitschrift*
SMEA NS	*Studi micenei ed egeo-anatolici nuova seria*
sst	soft stone: class of stones from ranging on Mohs scale 1–3 that can be engraved with hand-held tools.
WorldArch	*World Archaeology*

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Chronology of the Aegean

Crete		**Mainland**	
		MH	2090/2050 onwards
MM IIA	ca. 1850–1780/1750		
MM IIB	ca. 1750–1700/1675		
MM IIIA	1700/1675–1650/1640		
MM IIIB/ LM IA transition	1650/1640– ca. 1600		
LM IA	1600/1580–1520/1510	LH I	1600–1530/1520
LM IB	1520/1510–1440/1430	LH IIA	1530/1520–1470/1460
LM II	1440/1430–1390	LH IIB	1470/1460–1390+
LM IIIA1	1390–1370/1360	LH IIIA1	1390+ –1370/1360
LM IIIA2	1370/1360–1340/1330	LH IIIA2	1370/1360–1340/1330
LM IIIB	1340/1330–1190 ±	LH IIIB	1340/1330–1185/1180
LM IIIC	1190 ± – 1070 ±	LH IIIC	1185/1180–1065

After the revised chronology by Warren 2010.

CATALOGUE OF COMPOSITE CREATURES

Human-Animal Combinations

Cat. no.	CMS/Inv. no.	seal shape	material class	styl. date	find place	Plate
OH.01	XIII no. 61	lentoid	hst	LM	unknown	I
OH.02	VS3 no. 150	lentoid	hst	LB II-IIIA1	Moni Odigitria	I
OH.03	VI no. 298	lentoid	hst	LB II-IIIA1	Dicte?	I
OH.04	XI no. 251	lentoid	hst	LM II-IIIA1	Crete	I
OH.05	II3 no. 67	lentoid	hst	LB IIIA1	Knossos	I
OH.06	X no. 145	lentoid	hst	LB II-IIIA1	unknown	I
OH.07	IX no. 127	lentoid	hst	LB II-IIIA1	Central Crete	I
OH.08	XIII no. 34	lentoid	hst	LM	unknown	I
OH.09	VI no. 302	lentoid	hst	LB II-IIIA1	Athens?	I
OH.10	VI no. 299	lentoid	hst	LB II-IIIA1	Knossos?	I
OH.11	IX no. 144	lentoid	hst	LH IIIA1	Knossos?	I
OH.12	X no. 146	amygdaloid	hst	LM I-II	unknown	I
OH.13	III no. 363	lentoid	hst	LM I-II	Phaistos?	I
OH.14	VS3 no. 154	lentoid	hst	LM II-IIIA1	Moni Odigitria	I
OH.15	VS1B no. 159	lentoid	hst	LB II-IIIA1	Patras-Voundeni	I
OH.16	VS2 no. 112	lentoid	hst	LB II-IIIA1	Elatia, Fiotida	I
OH.17	II3 no. 331	lentoid	hst	LB I	unknown	I
OH.18	VS3 no. 113	lentoid	hst	LB II-IIIA1	Chania	I
OH.19	IX no. 128	lentoid	hst	LB II-IIIA1	Crete	I
OH.20	VI no. 303	lentoid	hst	LB II-IIIA1	Psychro or dicte cave?	I
OH.21	VII no. 138	lentoid	hst	LB II-IIIA1	unknown	I
OH.22	VI no. 300	lentoid	hst	LM II-IIIA1	Malia?	I
OH.23	II3 no. 10	lentoid	hst	LB II-IIIA1	Knossos	I
OH.24	IIS forthc.	lentoid	sst	LM I-II	Malia	I
OH.25	I no. 77	lentoid	hst	LB II-IIIA1	Mycenae	II
OH.26	VS1B no. 94	lentoid	hst	unknown	unknown	II
OH.27	XII no. 238	lentoid	hst	LB I-II	unknown	II
OH.28	I no. 216	lentoid	sst?	LH IIIA1	Prosymna, Argolida	II
OH.29	VII no. 126	lentoid	hst	LB II-IIIA1	unknown	II
OH.30	XI no. 36	lentoid	hst	LB II-IIIA1	Phigalia	II
OH.31	II4 no. 136*	lentoid	sst	LM I-II	Knossos	II
OH.32	II8 no. 200	lentoid	sealing (sst)	LM IIIA1	Knossos	OH.32

Double-Animal-Human Combinations

Cat. no.	CMS/Inv. no.	seal shape	material class	styl. date	find place	Plate
OH.34	HMS 2624	lentoid	hst	LM II	Kato Symi	II
OH.35	II8 no. 202	lentoid	sealing (sst)	LM II-IIIA1	Knossos	II
OH.36	VI no. 301	lentoid	hst	LM II-IIIA1	Milatos?/ Mirambello	II
OH.37	XI no. 336	lentoid	hst	LM II-IIIA1	no	II
OH.38	XIII no. 84	lentoid	hst	LM II-IIIA1	Knossos?	II
OH.39	VII no. 123	lentoid	hst	LB IIIA1-2	Crete?	II
OH.40	II3 no. 332	lentoid	hst	LB IIIA1	unknown	II
OH.41	II8 no. 205	lentoid	sealing (sst)	LM II-IIIA1	Knossos	II
OH.42	VS3 no. 223	cushion	hst	LB II-IIIA1	Midea	II
OH.43	I nos. 325 + 326	lentoid	sealing (hst?)	LB II-IIIA1	Pylos	II
OH.44	XII no. 245	lentoid	medium-hst	LB I-II	unknown	II

Conjoined Animals

Cat. no.	CMS/Inv. no.	seal shape	material class	styl. date	find place	Plate
OH.45	VIII no. 84	lentoid	sst	LH IIIA2-B	unknown	II
OH.46	I no. 381	lentoid	sealing (hst)	LB II	Pylos	II
OH.47	X no. 260	lentoid	sst	LH IIIA1-2	unknown	II
OH.48	VS1B no. 315	lentoid	hst	LB II-IIIA1	Maroulas (Rethymno)	II
OH.49	II7 no. 200	lentoid	sealing (sst)	LM I	Zakros	II
OH.50	I no. 73	lentoid	hst	LBIIIA1	Mycenae	II

Non-Viable Composite Creatures and Motif Combinations

Cat. no.	CMS/Inv. no.	seal shape	material class	styl. date	find place	Plate
NV.01	II7 no. 135A; 135B; 136?	lentoid	sealing (sst)	LM I	Zakros	III
NV.02	II7 no. 128	lentoid	sealing (sst)	LM I	Zakros	III
NV.03	II7 no. 131	lentoid	sealing (sst)	LM I	Zakros	III
NV.04	II7 no. 89	lentoid	sealing (sst)	LM I	Zakros	III
NV.05	II7 no. 177	lentoid	sealing (sst)	LM I	Zakros	III, IV
NV.06	II7 no. 124	lentoid	sealing (sst)	LM I	Zakros	III, V

Cat. no.	CMS/Inv. no.	seal shape	material class	styl. date	find place	Plate
NV.07	II7 no. 167	lentoid	sealing (sst)	LM I	Zakros	III, IV
NV.08	II7 no. 164	lentoid	sealing (sst)	LM I	Zakros	III, V
NV.09	II7 nos. 161A, 161B, 162	lentoid	sealing (sst)	LM I	Zakros	III
NV.10	II7 nos. 155, 156	lentoid	sealing (sst)	LM I	Zakros	III, IV
NV.11	II7 no. 84	lentoid	sealing (sst)	LM I	Zakros	III
NV.12	II7 nos. 153-54	lentoid	sealing (sst)	LM I	Zakros	III
NV.13	II7 no. 157-9	lentoid	sealing (sst)	LM I	Zakros	III
NV.14	II7 no. 119-20	lentoid	sealing (sst)	LM I	Zakros	III, IV
NV.15	II7 no. 198	lentoid	sealing (sst)	LM I	Zakros	III, IV
NV.16	II7 no. 180	lentoid	sealing (sst)	LM I	Zakros	III, IV
NV.17	II7 no. 176	lentoid	sealing (sst)	LM I	Zakros	IV, V
NV.18	II7 no. 147	lentoid	sealing (sst)	LM I	Zakros	IV, V
NV.19	II7 no. 148	lentoid	sealing (sst)	LM I	Zakros	IV
NV.20	II7 no. 199	lentoid	sealing (sst)	LM I	Zakros	IV, VI
NV.21	II7 no. 179	lentoid	sealing (sst)	LM I	Zakros	IV
NV.22	II7 no. 192	lentoid	sealing (sst)	LM I	Zakros	IV, V
NV.23	II7 nos. 196-97	lentoid	sealing (sst)	LM I	Zakros	IV, V
NV.24	II7 no. 178	lentoid	sealing (sst)	LM I	Zakros	IV
NV.25	II7 no. 181	lentoid	sealing (sst)	LM I	Zakros	IV, V
NV.26	II7 no. 182	lentoid	sealing (sst)	LM I	Zakros	IV, V, VI
NV.27	II7 nos. 183-5	lentoid	sealing (sst)	LM I	Zakros	IV, V, VI
NV.28	II7 nos. 189-90	lentoid	sealing (sst)	LM I	Zakros	V, VI
NV.29	II7 nos. 201-02	lentoid	sealing (sst)	LM I	Zakros	V, VI
NV.30	II7 no. 203	lentoid	sealing (sst)	LM I	Zakros	V, VI
NV.31	II7 nos. 204-205	lentoid	sealing (sst)	LM I	Zakros	V, VI

Cat. no.	CMS/Inv. no.	seal shape	material class	styl. date	find place	Plate
NV.32	II7 nos. 169-71	lentoid	sealing (sst)	LM I	Zakros	V
NV.33	II7 no. 168	lentoid	sealing (sst)	LM I	Zakros	V
NV.34	II7 nos. 194-96	lentoid	sealing (sst)	LM I	Zakros	V
NV.35	II7 no. 191	lentoid	sealing (sst)	LM I	Zakros	V
NV.36	II7 no. 72	lentoid	sealing (sst)	LM I	Zakros	V
NV.37	II7 nos. 165-66	lentoid	sealing (sst)	LM I	Zakros	V
NV.38	II7 no. 163	lentoid	sealing (sst)	LM I	Zakros	V
NV.39	II7 no. 186	lentoid	sealing (sst)	LM I	Zakros	VI
NV.40	II7 no. 75	lentoid	sealing (sst)	LM I	Zakros	IV

Winged Occasional Hybrids

Cat. no.	CMS/Inv. no.	seal shape	material class	styl. date	find place	Plate
WH.01	II7 no. 126	lentoid	sealing (sst)	LM I	Zakros	VII
WH.02	II7 nos. 129A, 129B; XII no. 174a	lentoid	sealing (sst)	LM I	Zakros	VII
WH.03	II7 no. 134; 136	lentoid	sealing (sst)	LM I	Zakros	VII
WH.04	II7 no. 137	lentoid	sealing (sst)	LM I	Zakros	VII
WH.05	II7 no. 138	lentoid	sealing (sst)	LM I	Zakros	VII
WH.06	II7 no. 127	lentoid	sealing (sst)		Zakros	VII
WH.07	II7 nos. 145A-B; 146	lentoid	sealing (sst)	LM I	Zakros	VII
WH.08	II7 no. 141	lentoid	sealing (sst)	LM I	Zakros	VII
WH.09	II7 no. 140	lentoid	sealing (sst)	LM I	Zakros	VII
WH.10	II7 nos. 142-143	lentoid	sealing (sst)	LM I	Zakros	VII
WH.11	II7 no. 144	lentoid	sealing (sst)	LM I	Zakros	VII
WH.12	II7 no. 149	lentoid	sealing (sst)	LM I	Zakros	VII
WH.13	II7 no. 150	lentoid	sealing (sst)	LM I	Zakros	VII

Cat. no.	CMS/Inv. no.	seal shape	material class	styl. date	find place	Plate
WH.14	II6 no. 104	lentoid	sealing (sst)	LM I	Ayia Triada	VII
WH.15	II7 no. 86	lentoid	sealing (sst)	LM I	Zakros	VII
WH.16	V no. 400	lentoid	sst	LH IIIA2-B	Medeon, Wiotia	VII
WH.17	I no. 316	lentoid	sealing (sst)	LM I	Zakros	VII
WH.18	X no. 233	lentoid	sst	LM I-II	unknown	VII
WH.19	II7 no. 104A-C	lentoid	sealing (sst)	LM I	Zakros	VII
WH.20	II7 no. 85	lentoid	sealing (sst)	LM I	Zakros	VII
WH.21	II7 no. 210	lentoid	sealing (sst)	LM I	Zakros	VII
WH.22	II7 no. 83	lentoid	sealing (sst)	LM I	Zakros	VII

Bird Ladies

Cat. no.	CMS/Inv. no.	seal shape	material class	styl. date	find place	Plate
B.01	II2 no. 264a	3-sided prism	sst	MM III–LM IA	Kato Zakros	VIII
B.02	III no. 159c	3-sided prism	sst	MM II	unknown	VIII
B.03	VII no. 10a	3-sided prism	sst	MM II	Malia?	VIII
B.04	II2 no. 243a	3-sided prism	sst	MM II	Malia?	VIII
B.05	VIII no. 14	conoid	sst	MM I-II	unknown	VIII
B.06	I no. 416c	3-sided prism	sst	MM II	Neapoli?	VIII
B.07	IV no. 161	figural seal	hst	MM II	Malia?	VIII
B.08	II5 no. 323	unknown	sealing	MM II	Phaistos	VIII
B.09	XIII no. 3	lentoid	sst	LM I?	unknown	VIII
B.10	II6 no. 108	amygdaloid	sealing (sst)	LM I	Ayia Triada	VIII
B.11	VI no. 296	lentoid	sst	LM I	unknown	VIII
B.12	IX no. 165	lentoid	sst	LM I	unknown	VIII
B.13	I no. 477	lentoid	sst	LM I?	Crete	VIII
B.14	II6 no. 106	lentoid	sealing (sst)	LM I	Ayia Triada	VIII
B.15	IV no. 290	lentoid	sst	LM I	Emparos?	VIII
B.16	XII no. 277	lentoid	sst	LM I	unknown	VIII
B.17	III no. 367	cushion	sst	LM I	Knossos?	VIII
B.18	VII no. 143	lentoid	sst	LM I	unknown	VIII
B.19	IS no. 98	lentoid	sst	LM I	unknown	VIII

Cat. no.	CMS/Inv. no.	seal shape	material class	styl. date	find place	Plate
B.20	II6 no. 107	lentoid	sealing (sst)	LM I	Ayia Triada	VIII
B.21	XI no. 168	lentoid	sst	LM I	unknown	VIII
B.22	II4 no. 137	lentoid	sst	LM I–II?	Knossos	VIII
B.23	III no. 365	signet ring	sst	LM I	unknown	IX
B.24	III no. 366	lentoid	sst	LM I	unknown	IX
B.25	XII no. 276b	lentoid	sst	LM I	unknown	IX
B.26	II3 no. 4	lentoid	sst	LM I	Axos?	IX
B.27	II6 no. 108	amygdaloid	sealing (sst)	LM I	Ayia Triada	IX
B.28	II3 no. 77	lentoid	sst	LM I	Knossos	IX
B.29	IV no. D35	amygdaloid	sst	LM I	Knossos?	IX
B.30	VI no. 294	lentoid	sst	LM I	unknown	IX
B.31	VI no. 295	lentoid	sst	LM I	unknown	IX
B.32	VII no. 142	lentoid	sst	LM I	unknown	IX
B.33	VII no. 144	lentoid	sst	LM I	unknown	IX
B.34	III no. 368	lentoid	sst	LM I	Knossos?	IX
B.35	II4 no. 104	lentoid	sst	not datable	Tylissos	IX
B.36	II3 no. 279	cylinder	hst	LB I–II	Palaikastro	IX
B.37	I no. 476	lentoid	sst	LM III	unknown	IX
B.38	V no. 274	lentoid	sst	LM III	Armeni	IX
B.39	XIII no. 4	lentoid	sst	LM III	unknown	IX
B.40	III no. 364	lentoid	sst	LM III	Knossos?	IX
B.41	VII no. 141	lentoid	sst	LM III	unknown	IX
B.42	VS1B no. 263	lentoid	sst	LM III	Armeni	IX

Minoan Genius

Cat. no.	CMS/Inv no.	seal shape	material class	styl. date	find place	Plate
MG.01	II5 no. 321	n/s	sealing	MM IIB	Phaistos	X
MG.02	II5 no. 322	n/s	vessel rim sealing	MM II	Phaistos	X
MG.03	II8 no. 195	n/s	sealing (sst)	MM II-III	Knossos	X
MG.04	II3 no. 105a	cushion	hst	MM III	Kalyvia	X
MG.05	I no. 231	lentoid	hst	LB I-II	Vapheio	X
MG.06	II7 no. 31	lentoid	sealing (hst)	LM I	Kato Zakros	X
MG.07	XII no. 212	amygdaloid	hst	LM I	unknown	X
MG.08	II6 no. 98	signet ring	sealing (metal)	LM I	Ayia Triada	X
MG.09	XI no. 35	amygdaloid	hst	LB I-II	unknown	X
MG.10	I no. 232	amygdaloid	hst	LB I-II	Vapheio	X
MG.11	I no. 179	signet ring	metal	LB II	Tiryns	X
MG.12	VI no. 305	lentoid	hst	LB I-II	unknown	X

Cat. no.	CMS/Inv no.	seal shape	material class	styl. date	find place	Plate
MG.13	VS1B no. 153	lentoid	hst	LB II-IIIA1	Patras-Voundeni	X
MG.14	VII no. 95	lentoid	hst	LB II-IIIA1	unknown	X
MG.15	IX no. 129	lentoid	hst	LB II-IIIA1	unknown	X
MG.16	V no. 440	amygdaloid	hst	LB II-IIIA1	Karpophora	X
MG.17	VI no. 310	amygdaloid	hst	LB I-II	central Crete?	X
MG.18	VIII no. 65	lentoid	hst	LB II-IIIA1	unknown	X
MG.19	XII no. 302	lentoid	sst	LM IIIA1	unknown	X
MG.20	I no. 172	lentoid	hst	LB I-II	Mycenae	X
MG.21	I no. 379	signet ring	sealing (metal)	LB II-IIIA1	Pylos	X
MG.22	XI no. 290	lentoid	hst	LH II-IIIA1	unknown	X
MG.23	V no. 201	lentoid	hst	LH II-IIIA1?	Pirgos Psilonero?	X
MG.24	I no. 161	lentoid	sealing (hst)	LB IIIA1-2	Mycenae	X

Further Genius depictions

CMS no.	seal shape	material class	styl. date	find place
II3 no. 112b	3-sided prism	hst	LB IIIA1-2	Kalyvia
II3 no. 282	cylinder	sst	LM II-IIIA1?	Palaikastro
II8 no. 196	lentoid	sealing (sst)	LM I-II	Knossos
II8 no. 198	lentoid	sealing (sst)	LM I-II	Knossos
II8 no. 199	lentoid	sealing (sst)	LM I-II?	Knossos
II8 no. 200 = **OH.32**	lentoid	sealing (sst)	LM IIIA1	Knossos
II8 no. 542	n/s	sealing (sst)	LM II-IIIA1?	Knossos
II8 no. 545	lentoid?	sealing (sst)	LM II-IIIA1?	Knossos
II8 no. 546	amygdaloid?	sealing (sst)	LM II-IIIA1?	Knossos
II8 no. 547	n/s	sealing (sst)	LM II-IIIA1?	Knossos
III no. 369	lentoid	hst	LM II-IIIA1	Knossos
IS no. 137	lentoid	sst	LM II-IIIA1	unknown
V no. 209	lentoid	hst	LB IIIA1-2	Arkades?
VI no. 290	cylinder	hst	LB II-IIIA1?	unknown
VI no. 304	lentoid	hst	LB I-II	unknown
VI no. 306	lentoid	hst	LB I-II	Milos?
VI no. 307	lentoid	hst	LB II-IIIA1	Knossos?
VI no. 309	lentoid	sst	LM I-II	Knossos?
VI no. 311	lentoid	sst	LM II-IIIA1	Dicte?

CMS no.	seal shape	material class	styl. date	find place
VII no. 117	lentoid	hst	LB II-IIIA1	unknown
VS1A no. 122	lentoid	sst	LM IIIA1	Chania-Kastelli
VS1A no. 128	amygdaloid	hst?	LM IB context	Chania-Kastelli
VS1B no. 167	lentoid	hst	LB II-IIIA1	Kallithea
XI no. 36 = **OH.30**	lentoid	hst	LB II-IIIA1	Phigalia
XI no. 37	lentoid	hst	LH II-IIIA1	unknown
XI no. 38	lentoid	hst	LH II-IIIA1	unknown
XI no. 39	lentoid	hst	LB II-IIIA1	Thessaloniki?
XI no. 208	barrel	hst	LB I-II	Kakovatos
XI no. 295	amygdaloid	hst	LB II-IIIA1	unknown

Grotesques

Cat. no.	CMS/Inv no.	seal shape	material class	styl. date	find place	Plate
Gr.01	VI no. 101a	4-sided prism	hst	MM II	central Crete?	XI
Gr.02	III no. 237b	4-sided prism	hst	MM II	Malia?	XI
Gr.03	TSK 05/322	4-sided prism	hst	MM II	Petras	XI
Gr.04	III no. 238a	4-sided prism	hst	MM II	unknown	XI
Gr.05	VI no. 71b	3-sided prism	sst	MM II	Lasithiou?	XI
Gr.06	Chapoutier seal	3-sided prism	sst	MM II	Malia	XI
Gr.07	OAM 1952.107	lentoid	sst	MM II	unknown	XI
Gr.08	Anast. A.21	3-sided prism	sst	MM II	Malia	XI
Gr.09	TSK05/261	rectangular bar	hst	MM II	Petras	XI
Gr.10a	II7 no. 117	lentoid	sst	LM I	Kato Zakros	XI
Gr.10b	II7 no. 118	lentoid	sst	LM I	Kato Zakros	XI
Gr.11	II2 no. 251	*Petschaft*	medium hst	MM II	Mochlos	XI
Gr.12	III no. 215b	3-sided prism	sst	MM II	unknown	XI
Gr.13	III no. 230b	3-sided prism	sst	MM II	Sitia?	XI

Griffins

Cat. no.	CMS/Inv no.	seal shape	material class	styl. date	find place	Plate
G.01	II5 no. 317	round seal face	sealing	MM II	Phaistos	XI
G.02	II5 no. 318	round seal face	sealing	MM II	Phaistos	XI
G.03	II5 no. 319	oval seal face	sealing	MM II	Phaistos	XI
G.04	XI no. 6	truncated cone	sst	MM II-III	unknown	XI
G.05	II6 no. 215	lentoid?	sealing (hst)	MM III-LM I	Malia	XI
G.06	VI no. 386	lentoid	sst	LM I	Palestine	XI
G.07	II7 no. 90	lentoid	sst	LM I	Phaistos	XI
G.08	III no. 373	lentoid	hst	LM I	unknown	XI
G.09	IV no. 287	lentoid	sst	LM I	Mesara?	XII
G.10	V no. 690	lentoid	hst	LM I	Akrotiri	XII
G.11	I no. 474	lentoid	sst	LM I?	unknown	XII
G.12	XII no. 266	lentoid	sst	LM I	unknown	XII
G.13	I no. 269	cushion	sst	LH IIA–IIIA1	Myrsinochori	XII
G.14	II3 no. 73	Cushion	sst	LM I	Knossos	XII
G.15	II8 no. 183	lentoid	sealing (sst)	LM I-II	Knossos	XII
G.16	II4 no. 116	lentoid	sst	LM I?	Knossos	XII
G.17	VII no. 120	amygdaloid	hst	LB I-II	unknown	XII
G.18	IX no. 104	lentoid	hst	LB I-II	unknown	XII
G.19	III no. 372	amygdaloid	hst	LM I	Lasithiou?	XII
G.20	VS3 no. 73	cushion	sealing (hst)	LB I-II	Livanates	XII
G.21	IX no. 162c	3-sided prism	hst	LM I	Cyprus?	XII
G.22	xiVII no. 93	amygdaloid	hst	LB I-II?	unknown	XII
G.23	II6 no. 101	lentoid	sealing (hst)	LM I	Ayia Triada	XII
G.24	II6 no. 100	cushion?	sealing (hst?)	LM I	Ayia Triada	XII
G.25	VI no. 268	lentoid	hst	LB I-II	Ayia Pelagia	XII
G.26	VS1A no. 203	amygdaloid	hst	LB I-II	Phylaki	XII
G.27	II8 no. 359	signet ring?	sealing (metal)	LM I	Knossos	XII
G.28	XI no. 244	cushion	metal	LM I-II	unknown	XIII
G.29	I no. 510	lentoid	sst	LM I	unknown	XIII
G.30	VS3 no. 402	lentoid	sealing (hst)	LM I	Akrotiri	XIII
G.31	II3 no. 25b	lentoid	sst	LM I-II	Knossos	XIII
G.32	XII no. 228	lentoid	sst	LM I-II	unknown	XIII
G.33	HMS 2092	cylinder	hst	LB I-II	Knossos	XIII
G.34	HMS 3793	cylinder	hst	n/s	Poros	XIII

Cat. no.	CMS/Inv no.	seal shape	material class	styl. date	find place	Plate
G.35	II2 no. 29	cylinder	hst	MM III-LM I context	Knossos	XIII
G.36	II2 no. 335	cylinder	sst	Syrian?	Palaikastro	XIII
G.37	II3 no. 199	cylinder	hst	LB II-IIIA1	Astritsi?	XIII
G.38	V no. 584	cylinder	hst	LB I-II	Kazarma	XIII
G.39	I no. 324	signet ring	sealing (metal)	LB II-IIIA1	Pylos	XIII
G.40	VS1B no. 137	signet ring	metal	LB II-IIIA1	Anthia	XIII
G.41	II8 no. 193	signet ring	sealing (metal)	LM I	Knossos	XIII
G.42	VI no. 321	cylinder	hst	LM I-II	Ayia Pelagia?	XIII
G.43	II8 no. 192	signet ring	sealing (metal)	LM IIIA1-2	Knossos	XIII
G.44	VS1A no. 202	amygdaloid	hst	LB IIIA1	Phylaki	XIII
G.45	VI no. 395	lentoid	hst	LB IIIA1-2	unknown	XIII
G.46	IX no. D20	lentoid	hst	LB IIIA1-2	unknown	XIII
G.47	II7 no. 94	lentoid	hst	LM I	Zakros	XIV
G.48	VII no. 198	lentoid	sst	LM I-II	unknown	XIV
G.49	V no. 596	?	impressio n	LB II-IIIA1	Mycenae	XIV
G.50	VI no. 394	lentoid	hst	LB II-IIIA1	Patsos?	XIV
G.51	XI no. 308	lentoid	hst	LH II-IIIA1	unknown	XIV
G.52	X no. 126	amygdaloid	hst	LB II-IIIA1	unknown	XIV
G.53	II3 no. 276	lentoid	sst?	LB I-II	Sphakia	XIV
G.54	VS3 no. 403	lentoid	sealing (hst)	LM I	Akrotiri	XIV
G.55	II6 no. 102	amygdaloid	sealing (hst)	LM I	Ayia Triada	XIV
G.56	II8 no.188	lentoid	sealing (hst)	LM IIIA1-2	Knossos	XIV
G.57	X no. 268	cylinder	hst	LB I-II	Levantine?	XIV
G.58	I no. 196	lentoid	hst	LB II	Dendra	XIV
G.59	II3 no. 328	cylinder	sst	LM I	unknown	XIV
G.60	II7 no. 95	lentoid	sst	LM I	Zakros	XIV
G.61	VII no. 174	barrel	hst	LB I-II?	unknown	XIV
G.62	VI no. 314	lentoid	hst	LB I-II	unknown	XIV
G.63	VI no. 317	lentoid	hst	LB I-II	Dicte?	XIV
G.64	VIII no. 146	lentoid	hst	LB I-II	unknown	XIV
G.65	II3 no. 167	lentoid	sst	LM I-II	Knossos	XIV
G.66	I no. 223	lentoid	hst	LB I-II	Vapheio	XIV
G.67	VS3 no. 245a	scaraboid	hst	LB I-II	Aidonia	XIV
G.68	XIII no. 39	lentoid	hst	n/s	unknown	XIV
G.69	I no. 102	signet ring	metal	LH II-IIIA1	Mycenae	XV
G.70	I no. 128	signet ring	metal	LB II-IIIA1	Mycenae	XV
G.71	I no. 304	signet ring	sealing (metal)	LB II-IIIA1	Pylos	XV
G.72	I no. 218	signet ring	metal	LB II-IIIA1	Prosymna	XV
G.73	I no. 98	lentoid	hst	LB II-IIIA1	Mycenae	XV
G.74	I no. 196	lentoid	hst	LB II	Dendra	XV

Cat. no.	CMS/Inv no.	seal shape	material class	styl. date	find place	Plate
G.75	VS1B no. 429	disc	hst	LB II-IIIA1	Tiryns	XV
G.76	I no. 171	lentoid	hst	LB IIIA1-2	Mycenae	XV
G.77	VIII no. 95	amygdaloid	hst	LB II-IIIA1	unknown	XV
G.78	VS3 no. 72	lentoid	sst	LH IIIA1-2	Livanates	XV
G.79	V no. 583	cylinder	glass?	LB I-II	Kazarma	XV
G.80	HMS 2242	barrel	hst	n/s	Tourloti	XV
G.81	I no. 293	cushion	metal	LB II	Pylos	XV
Ring of Nestor	VI no. 277	signet ring	metal	LM I	Kakovatos?	XV

Further Griffin Depictions

CMS no.	seal shape	material class	styl. date	find place
I no. 206	cylinder	hst	LB I-II	Prosymna
I no. 269	cushion	sst	LB I-II	Myrsinochori
I no. 271	cushion	hst	LB I-II	Myrsinochori
I no. 282	lentoid	hst	LB II?	Myrsinochori
I no. 285	cylinder	hst	LB II–IIIA1	Myrsinochori
I no. 309	n/s	sst	LB II-IIIA1?	Pylos
I no. 329	signet ring	metal	LB II-IIIA1	Pylos
I no. 383	band-shaped ring	hst	LB IIIA	Spata
I no. 389	amygdaloid	hst	LB II	Acharnai
I no. 472	discoid?	sst	LM IIIA1-2	unknown
I no. 473	lentoid	sst	LM IIIA1	unknown
I no. 475	lentoid	sst	LM I?	unknown
II3 no. 63	lentoid	hst	LB II-IIIA1	Knossos
II3 no. 219	lentoid	hst?	LB I-II	Avdou?
II3 no. 25a	lentoid	sst	LM I-II	Knossos
II3 no. 334	lentoid	sst	LM I?	unknown
II3 no. 349	lentoid	sst	LM I	unknown
II3 no. 73	cushion	sst	LM I	Knossos
II3 no. 79	lentoid	sst	LM I?	Knossos
II4 no. 166	lentoid	sst	n/s	Malia
II4 no. 171	lentoid	sst	n/s	Tylissos?
II4 no. 47	lentoid	sst	n/s	Lyttos?
II4 no. 61	lentoid	sst	LM I-II?	Gournia
II4 no. 71	lentoid	sst	n/s	unknown
II4 no. 72	lentoid	sst	n/s	unknown
II4 no. 73	lentoid	sst	LM I	unknown
II6 no. 103	n/s	sealing (hst?)	LM I	Ayia Triada
II6 no. 265	cushion	sealing (sst?)	LM I	Sklavokambos
II6 no. 99	lentoid	sealing (hst)	LM I	Ayia Triada
II7 no. 87	signet ring?	sealing (metal?)	LM I	Zakros

CMS no.	seal shape	material class	styl. date	find place
II7 no. 91	n/s	sealing (hst?)	LM I	Zakros
II7 no. 93	signet ring?	sealing (sst)	LM I	Zakros
II7 no. 96	signet ring	sealing (metal)	LM I	unknown
II7 no. 97	lentoid	sst	LM I	unknown
II7 no. 98	signet ring?	sealing (metal?)	LM I	Zakros
IS no. 138	lentoid	sst	LM I	unknown
IS no. 149a	lentoid	sst	LM I?	unknown
IS no. 152	lentoid	sst	LM I-II	unknown
IS no. 176	n/s	sealing (metal?)	LB II-IIIA1	Pylos
IS no. 19	cylinder	hst	Mitanni	Tiryns
IS no. 200	n/s	sealing (n/s)	n/s	Pylos
IS no. 54	cylinder	hst	Mitanni	Porto Rafti
IS no. 94b	lentoid	sst	LM I-II	unknown
II8 no. 174	lentoid	sealing (hst?)	LM II-IIIA1	Knossos
II8 no. 176	n/s	sealing (sst)	n/s	Knossos
II8 no. 182	amygdaloid?	sealing (hst)	LM I-II	Knossos
II8 no. 184	lentoid	sealing (sst)	LM IIIA1-2	Knossos
II8 no. 185	n/s	sealing (sst)	n/s	Knossos
II8 no. 186	signet ring?	sealing (metal)	LM I-II	Knossos
II8 no. 187	n/s	sealing (metal)	n/s	Knossos
II8 no. 190	lentoid	sealing (sst)	LM IIIA1-2	Knossos
II8 no. 313	n/s	sealing (sst)	n/s	Knossos
II8 no. 360	signet ring?	Sealing (metal)	LM I	Knossos
III no. 305a	lentoid	sst	LM I?	Malia?
III no. 370	cushion	sst	LM I-II	unknown
III no. 371	lentoid	sst	LM I	unknown
III no. 374	lentoid	sst	LM II-IIIA1	unknown
III no. 375	amygdaloid	hst	LM II-IIIA1	unknown
III no. 376	lentoid	sst	LM I-II	unknown
III no. 508a	3-sided prism	hst	LM I-II	Lasithiou?
IV no. 248	amygdaloid	sst?	LM I-II	Skalani?
IV no. 266	lentoid	hst	LB I-II	Lastros
IV no. 283a	lentoid	sst	LM I	Fortetsa?
IV no. 313	lentoid	sst	LM I	Tylissos?
IV no. 318	lentoid	sst	LM I	Phaistos?
IV no. D39	cushion?	metal	n/s	unknown
IV no. D51	lentoid	hst	LB I-II	Phaistos?
IV no. D58	ringstone	hst	LB I-II	Tourtouli?
V no. 208	amygdaloid	hst	LB I-II	unknown

CMS no.	seal shape	material class	styl. date	find place
V no. 216	lentoid	hst	LB II-IIIA1	Brauron
V no. 266	signet ring	sealing (metal)	LM I-II	Armeni
V no. 437	lentoid	hst	LB I-II	Karpophora
V no. 438	lentoid	hst	LB I-II	Karpophora
V no. 590	amygdaloid	hst	LB I-II?	Nafplio
V no. 642	cushion	hst	LB I-II	Koukounara
V no. 654	lentoid	hst	LB II-IIIA1	Ialysos
V no. 657	cylinder	hst	cypro-aegean	Ialysos
V no. 669	lentoid?	sealing (sst?)	LB IIIA1-2	Thebes
V no. 672	half cylinder	hst	LB IIIA1-2	Thebes
V no. 675	cylinder	hst	LB IIIA1-2	Thebes
V no. 684	lentoid	sst	LB I-II	Tanagra
VS1A no. 101	lentoid	sst	LB IIIA1	Chalkis
VS1A no. 164	lentoid	sealing (sst?)	LM I	Chania-Kastelli
VS1A no. 347	cushion	hst	LB I-II	Tragana
VS1B no. 101	lentoid	hst	LB IIIA1	unknown
VS1B no. 197	cylinder	sst	LB I-II	Angelliana
VS1B no. 222	lentoid	sst	LM IIIA1-2	Armeni
VS1B no. 228	lentoid	sst	LM IIIA1-2	Armeni
VS1B no. 256	lentoid	sst	LM IIIA1-2	Armeni
VS2 no. 32	amygdaloid	hst	LB I-II	Elatia
VS3 no. 327	cushion	sst	LM IIIA1	Chamalevri
VS3 no. 349	amygdaloid	hst	LB I-II	Mochlos
VS3 no. 480	lentoid	hst	LM I-II	Miletos
VS3 no. 64	lentoid	hst	LB I-II	Kalapodi
VS3 no. 67	lentoid	hst	LB I-II	Kalapodi
VI no. 268	lentoid	hst	LB I-II	Ayia Pelagia?
VI no. 269	amygdaloid	hst	LB I-II	unknown
VI no. 270	lentoid	hst	LB I-II	Dicte?
VI no. 385	lentoid	sst	LM I	Milatos?
VI no. 387	lentoid	glass	LB I-II	Dicte?
VI no. 388	lentoid	sst	LB I-II	Palestine
VI no. 390	lentoid	sst	LM II-IIIA1	unknown
VI no. 391	lentoid	sst	LM I	Palestine
VI no. 392	lentoid	sst	LM I	unknown
VI no. 393	lentoid	sst	LM I	unknown
VII no. 116	lentoid	hst	LB I-II	unknown
VII no. 135	lentoid	hst	LB I-II	unknown
VII no. 140	lentoid	sst	LM IIIA1-2	unknown
VII no. 173	cylinder	hst	cypro-aegean	Golgoi, Cy?
VII no. 94	cylinder	hst	LB I-II	Knossos?
VIII no. 88	lentoid	hst	LB I-II	unknown
VIII no. 99	lentoid	sst	LH IIIA2-B	unknown

CMS no.	seal shape	material class	styl. date	find place
IX no. 105	amygdaloid	hst	LB I-II	unknown
IX no. 138	lentoid	sst	LM I	unknown
IX no. 148	lentoid	sst	LM I	Kritsa
IX no. 178	lentoid	sst	LM I	unknown
IX no. 179	lentoid	sst	LM I?	unknown
IX no. 204	Lentoid	sst	LH IIIA2–B	unknown
IX no. D20	lentoid	hst	LB IIIA1-2	unknown
IX no. D22	amygdaloid	hst	LB I-II	unknown
X no. 125	lentoid	hst	LB II-IIIA1	unknown
X no. 134	lentoid	hst	LB II-IIIA1	unknown
X no. 170	lentoid	sst	n/s	unknown
X no. 220	lentoid	sst	LM I?	unknown
X no. 267	amygdaloid	hst	LB II-IIIA1	Levantine?
XI no. 120	lentoid	hst	LB I-II	unknown
XI no. 178	lentoid	sst	LM I-II	unknown
XI no. 179	lentoid	hst	LH I-II	unknown
XI no. 245	lentoid	sst	LM II-IIIA1	unknown
XI no. 302	lentoid	sst	LM II-IIIA1	unknown
XI no. 328	lentoid	hst	LB II-IIIA1	unknown
XI no. 346	lentoid	sst	LM II-IIIA1	unknown
XI no. 40	lentoid	sst	LM I-II	unknown
XI no. 41	cushion	hst	LB II-IIIA1	Symi
XI no. 45	amygdaloid	hst	LB II-IIIA1	Athens?
XII no. 233	lentoid	hst	LB I-II	unknown
XII no. 247	lentoid	hst	LB II-IIIA1	unknown
XII no. 253	lentoid	sst	LM I-II	unknown
XII no. 300	lentoid	sst	LM IIIA1	unknown
XII no. 301	lentoid	sst	LM IIIA1	unknown
XIII no. 54	lentoid	sst	n/s	unknown
XIII no. 55	lentoid	sst	n/s	unknown
XIII no. 56	lentoid	sst	n/s	unknown
BE 36138	lentoid	hst	LH III	Iolkos
BE 46602	amygdaloid	hst	LH IIB–IIIA1	Dimini
Inetzisilogou 2010	signet ring	metal (gold)	LH I?	Georgiko

Sphinxes

Cat. no.	CMS/Inv no.	seal shape	material class	styl. date	find place	Plate
S.01	VI no. 128	*Petschaft*	hst	MM II	Archanes	XV
S.02	P.TSK05/322 -c	4-sided prism	hst	MM II	Petras	XV
S.03	II7 no. 88	lentoid	sst	LM I	Zakros	XV
S.04	V no. 690	lentoid	hst	LM I	Akrotiri	XV
S.05	II3 no. 118	lentoid	hst?	LB II-IIIA1	Ayia Triada	XV
S.06	I no. 129	signet ring	metal	LB II-IIIA1	Mycenae	XV
S.07	I no. 87	amygdaloid	hst	LB II-IIIA1	Mycenae	XV

Cat. no.	CMS/Inv no.	seal shape	material class	styl. date	find place	Plate
S.08	II3 no. 39	signet ring	metal	LM II-IIIA1	Knossos	XV
S.09	VS1B no. 102	lentoid	hst	LB II-IIIA1	unknown	XVI
S.10	XII no. 242	cylinder	hst	LB II-IIIA1	unknown	XVI
S.11	VS3 no. 352	lentoid	sst	LM IIIA1	Mochlos	XVI
S.12	VS3 no. 359	lentoid	sst	LM III A1	Tripitos	XVI
S.13	VII no. 176	lentoid	hst	LB IIIA1-2	unknown	XVI
S. 14	I no. 85	amygdaloid	hst	LB IIIA	Mycenae	XVI

Minoan Dragon

Cat. no.	CMS/Inv no.	seal shape	material class	styl. date	find place	Plate
MD.01	X no. 245a	3-sided prism	sst	MM II	unknown	XVI
MD.02	IV no. D32	figural seal, paw	hst	MM II-III	Tsoutsouros?	XVI
MD.03	XI no. 291a	discoid	hst	MM III-LM I	unknown	XVI
MD.04	III no. 320	amygdaloid	hst	LM I	Knossos?	XVI
MD.05	IV no. D42	lentoid	hst	LM I	Mesara?	XVI
MD.06	II6 no. 33	signet ring	sealing (n/s)	LM I	Ayia Triada	XVI
MD.07	II6 no. 34	signet ring	sealing (metal)	LM I	Ayia Triada	XVI
MD.08	II6 no. 262	signet ring	sealing (metal)	LM I	Sklavokambos	XVI
MD.09	II7 no. 77	n/s	sealing (hst?)	LM I	Zakros	XVI
MD.10	VI no. 362	lentoid	sst	LM I	unknown	XVI
MD.11	VS1B no. 76	lentoid	hst	LB I-II	Mycenae	XVI
MD.12	I no. 167	lentoid	hst	LB II-IIIA1	Mycenae	XVI
MD.13	VI no. 321	cylinder	hst	LM I-II	Ayia Pelagia?	XVI
MD.14	XII no. 291	lentoid	hst	LM I	unknown	XVI
MD.15	XII no. 290	amygdaloid	hst	LM I	unknown	XVII
MD.16	V no. 581	ladder-backed prism	hst	LM I	Kazarma	XVII
MD.17	XII no. 293	amygdaloid	hst	LM I	unknown	XVII

PLATES

Image Sources

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OH.24 inverted digital drawing by the author from the seal face published in Niemeier 1981, 95 fig. 1.

Gr.03 Krzyszkowska 2012, fig. 6c, with kind permission of O. Krzyszkowska.

Gr.06 Chapouthier 1932, 183–201 no. 2.

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G. 34 digital drawing by the author after the drawing published in Rethemiotakis 2007.

G.80 digital drawing by the author after the impression published in Aruz 2008, fig. 378b.

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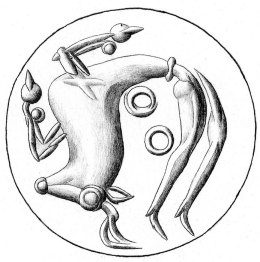
OH.01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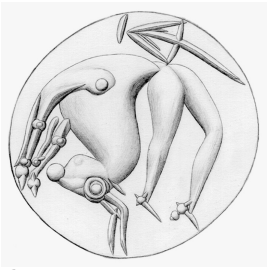
OH.03


OH.04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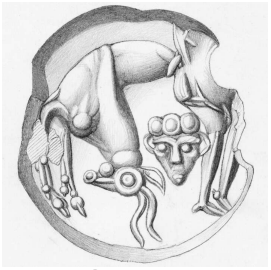

OH.06

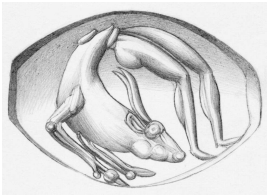

OH.07


OH.08


OH.09


OH.10


OH.11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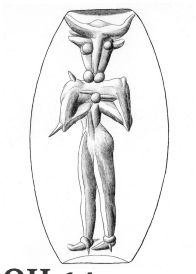
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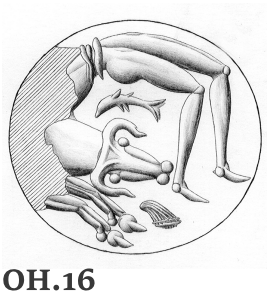
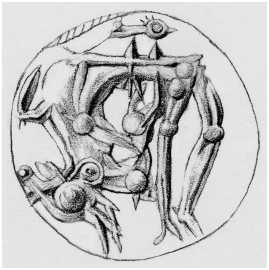

OH.16


OH.17


OH.18


OH.19


OH.20


OH.21


OH.22


OH.23


OH.24

Plate II

OH.25

OH.26

OH.27

OH.28

OH.29

OH.30

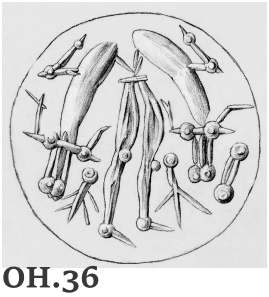
OH.31

OH.32

OH.33

OH.34

OH.35



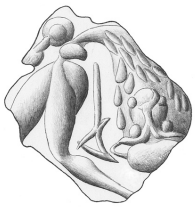
OH.36

OH.37

OH.38

OH.39

OH.40



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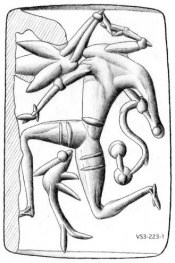
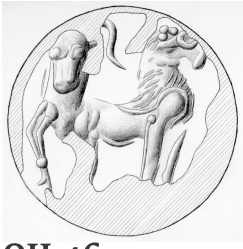


OH.42

OH.43

OH.44

OH.45



OH.46

OH.47

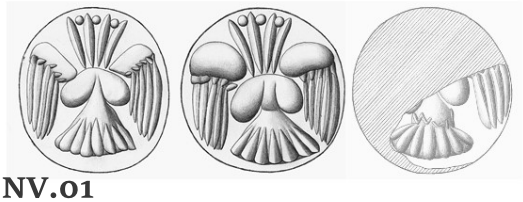
OH.48

OH.49

OH.50

Plate III

Device I: Bird Wings


NV.01


NV.02


NV.03

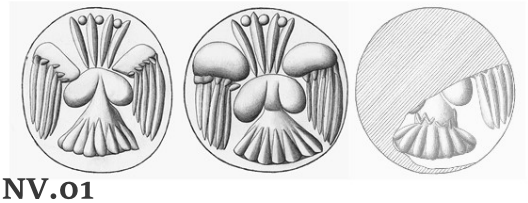

NV.04


NV.05


NV.10


NV.15

Device II: Fan Tail


NV.01


NV.02


NV.06


NV.07


NV.08

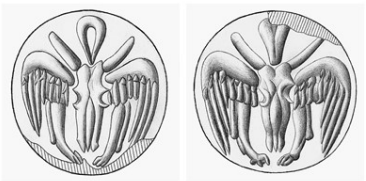

NV.09


NV.14

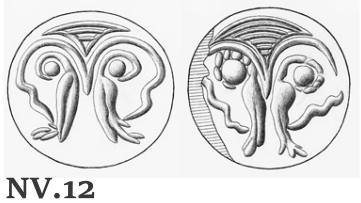
Device III: Lion Legs


NV.04


NV.09


NV.10


NV.11


NV.12


NV.13

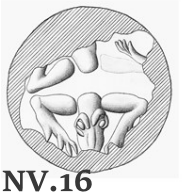

NV.16

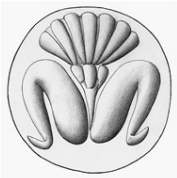
Plate IV

Device IV: Human Legs


NV.14


NV.17


NV.18


NV.19


NV.20


NV.21


NV.40

Device V: Quadruped Heads

a)lion/feline heads


NV.07


NV.15


NV.14b


NV.20


NV.22

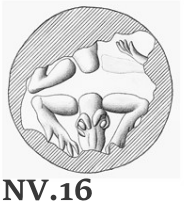

NV.33


NV.40

b) bull heads/bucrania


NV.05


NV.10


NV.16


NV.21


NV.24

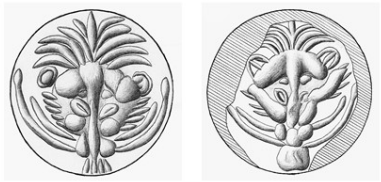

NV.25


NV.26

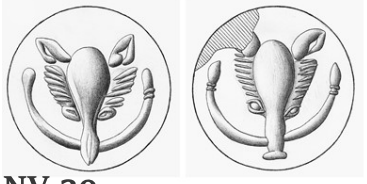

NV.27

c) boar heads

NV.13

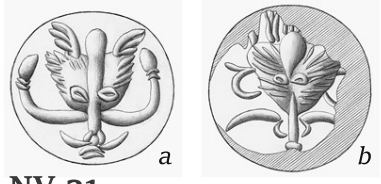


NV.28



NV.29

NV.30



a b

NV.31

d) goat/ram

NV.17

e) deer

NV.32

f) dog

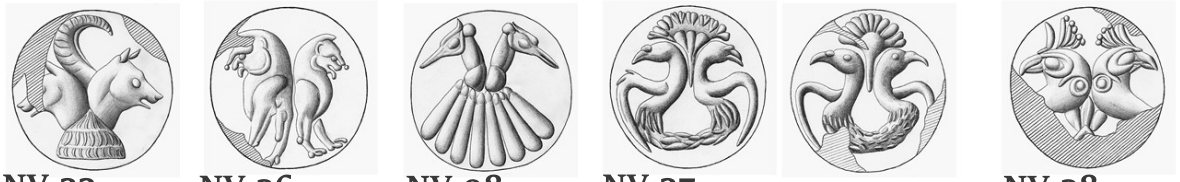
NV.33

g) undefined

NV.34

NV.35 **NV.06** **NV.18**

Device VI: Antithetical Protomes



NV.33 **NV.36** **NV.08** **NV.37** **NV.38**

NV.22 **NV.23** **NV.25** **NV.26** **NV.20**

NV.27

Plate VI

Device VII: Snake Frame Elements

NV.20

NV.26

NV.27

NV.39

NV.28

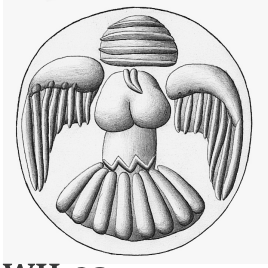
NV.29

NV.30

NV.31a


WH.01


WH.02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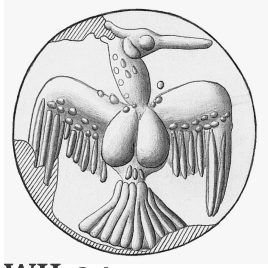
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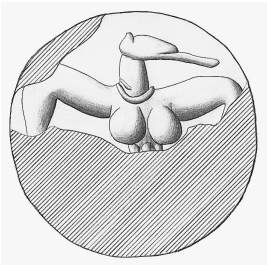
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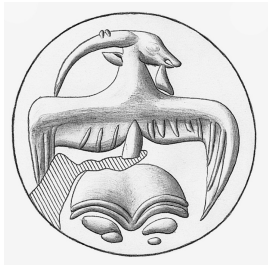
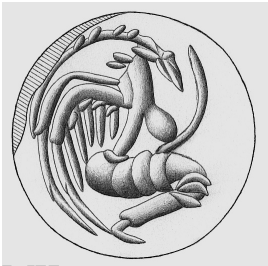
WH.06


WH.07


WH.08


WH.09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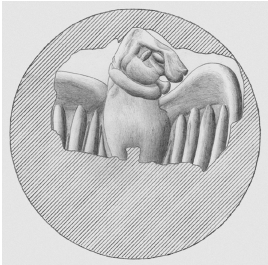
WH.11


WH.12


WH.13


WH.14


WH.15


WH.16


WH.17


WH.18

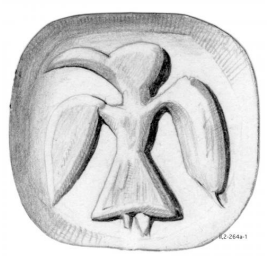

WH.19


WH.20


WH.21


WH.22

Plate VIII



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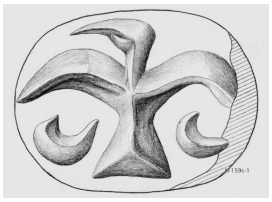

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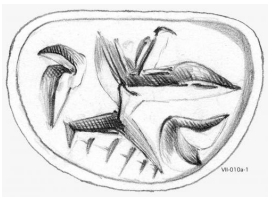

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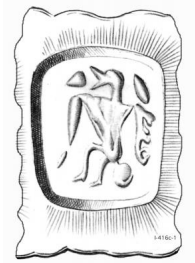

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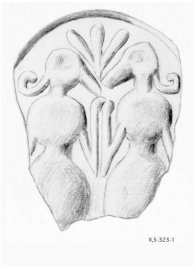

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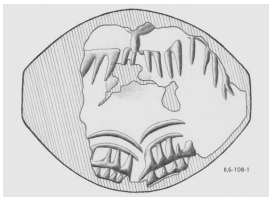

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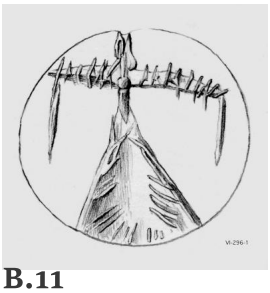

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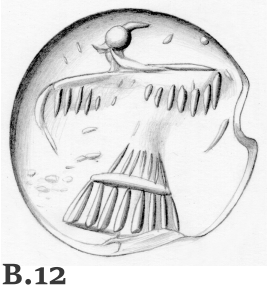

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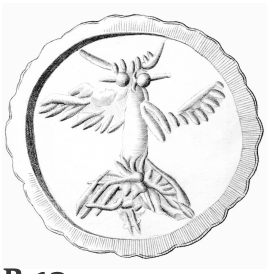

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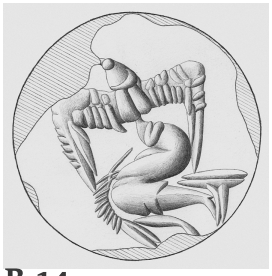

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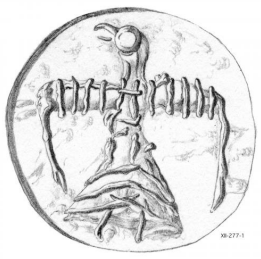

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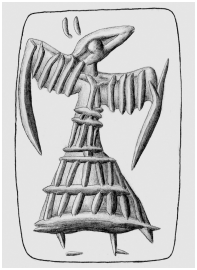

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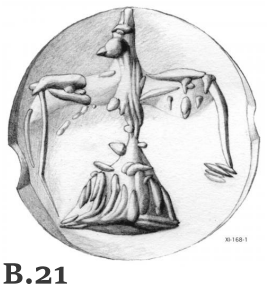

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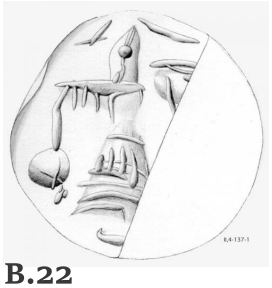

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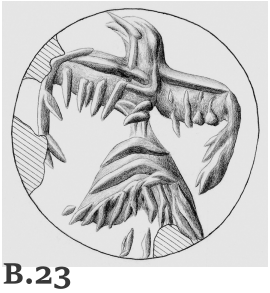

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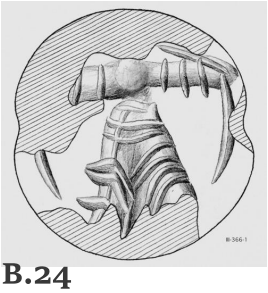

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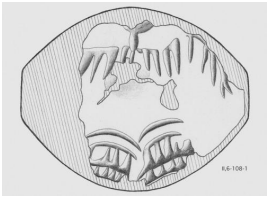
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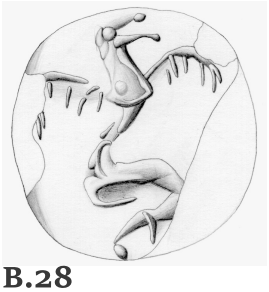
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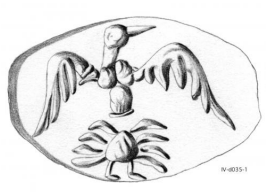
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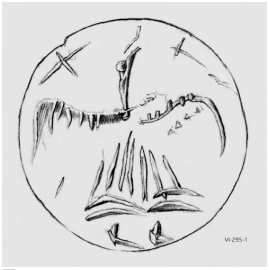
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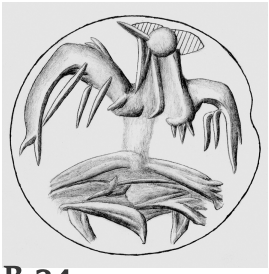
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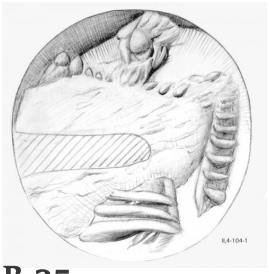
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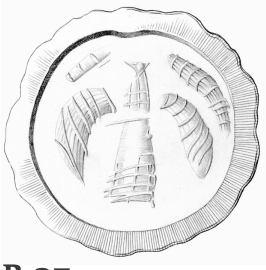
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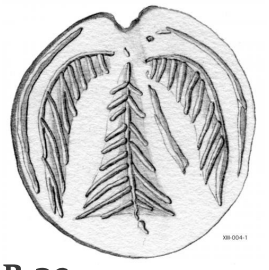

B.39


B.40


B.41


B.42

Plate X


MG.01


MG.02


MG.03


MG.04


MG.05


MG.06


MG.07


MG.08


MG.09


MG.10


MG.11


MG.12


MG.13


MG.14


MG.15

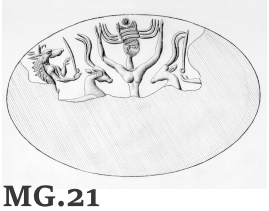

MG.16


MG.17


MG.18


MG.19


MG.20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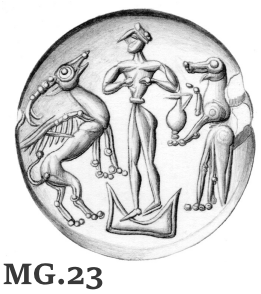
MG.22


MG.23


MG.24

Hard-Stone Archetype Group

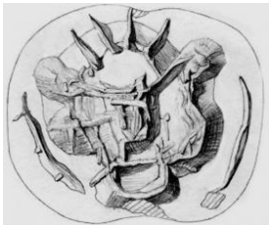
Gr.01

Gr.02

Gr.03

Gr.04

Soft-Stone Archetype Group



Gr.05

Gr.06

Gr.07

Upright Grotesques

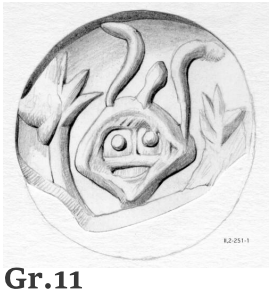
Gr.08

Gr.09

Winged Grotesques

Gr.10

Streamerd Look-Alikes



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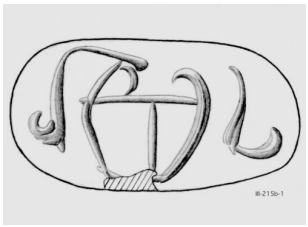


Gr.12

Gr.13

G.01

G.02

G.03

G.04

G.05

G.06

G.07

G.08

Plate XII

Group 1: Complete Profile

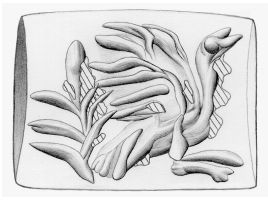
G.09

G.10

G.11

G.12

G.13



G.14

G.15

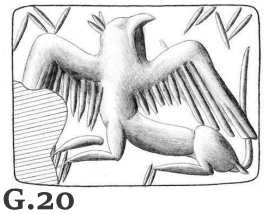
G.16

G.17

G.18

Group 2: Outstretched Frontal Wings

G.19



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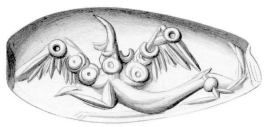
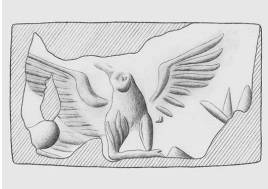


G.21

G.22

G.23



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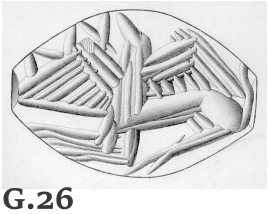
G.25



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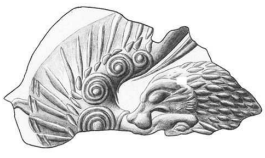


G.27

Plate XIII

Group 3: Narrative Scenes

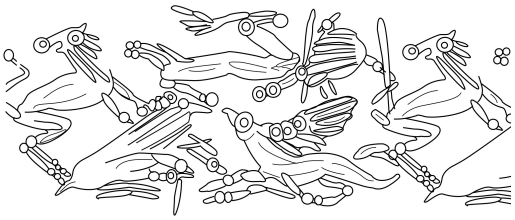
G.28

G.29

G.30

G.31

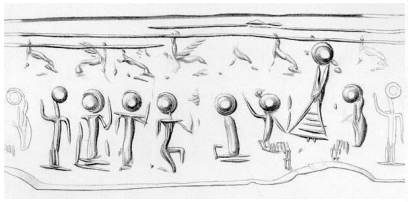
G.32



G.33

G.34

G.35



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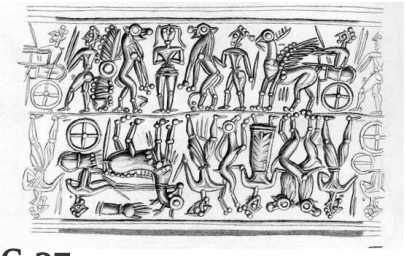

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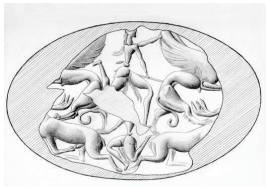
G.38



G.39

G.40

G.41

G.42

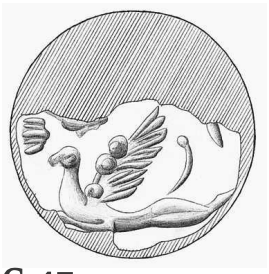
G.43

G.44

G.45

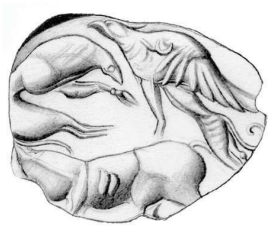
G.46

Plate XIV



G.47

G.48



G.49

G.50

G.51

G.52

Group 4: Heraldic Scenes

G.53

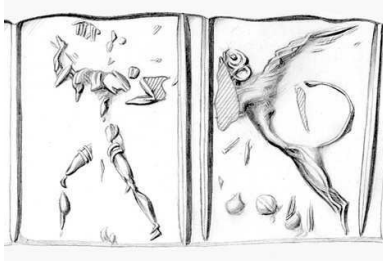
G.54

G.55

G.56

G.57

G.58



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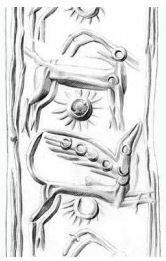


G.61

G.60

G.62

G.63

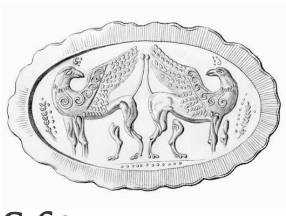
G.64

G.65

G.66

G.67

G.68



G.69

G.70

G.71

G.72

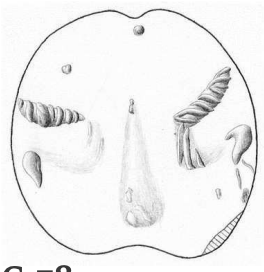
G.73

G.74

G.75

G.76

G.77



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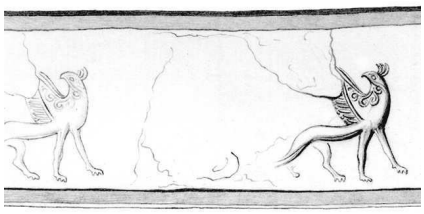
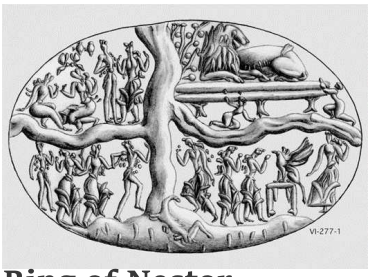


G.79

G.80

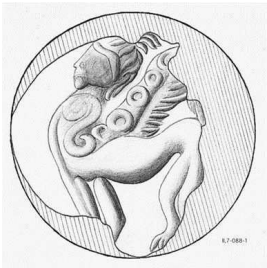
G.81



Ring of Nestor

S.01

S.02



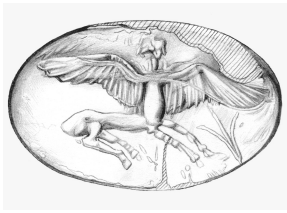
S.03

S.04

S.05

S.06

S.07



S.08

Plate XVI

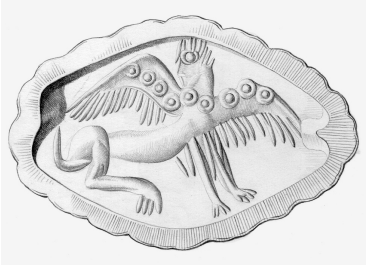
S.09

S.10

S.11

S.12

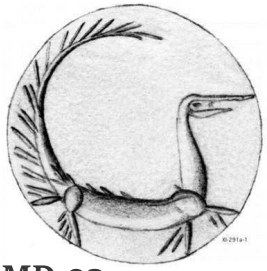
S.13



S.14

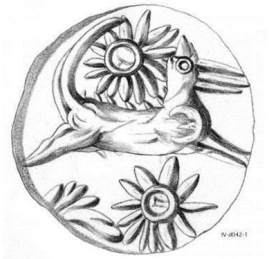
MD.01

MD.02



MD.03

MD.04



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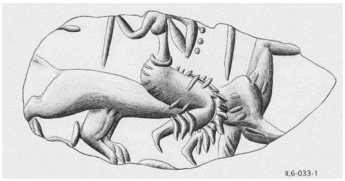

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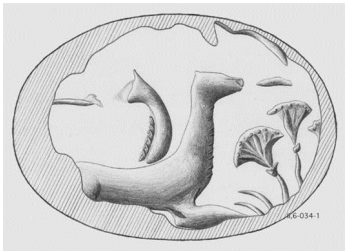
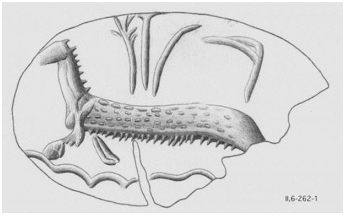


MD.07



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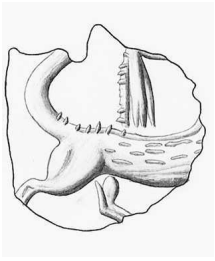
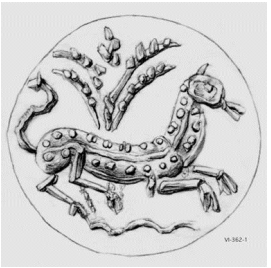


MD.09



MD.10

MD.11

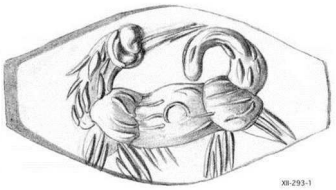
MD.12

MD.13

MD.14

MD.15

MD.16



MD.17

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Diana Wolf, Heidelberg, April 2019