

“Ariadne’s Dance” – Staging Female Gesture in Neopalatial Soft-Stone Glyptic

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Abstract *This paper discusses three closely related iconographic groups of Neopalatial soft-stone seals, an object type often skirted for its technological and material simplicity. While hard-stone seals and metal signet-rings clearly belonged to the sphere of high-ranking social groups, the status conferred to the owners of soft-stone seals has remained rather obscure.*

The soft-stone seals discussed here depict female figures performing a selection of discrete gestures. Due to the high cultural specificity of bodily communicative practices, the gestures on these seals have been interpreted as adoration, part of a procession, or dance. They are here classified and re-evaluated based on evidence available from Neopalatial soft-stone glyptic and, on a second level, appearances on other image-bearing objects. Corresponding gestures found in elite media such as signet-rings and frescoes suggest that these expressed ideologies of high-ranking social units.

Combined with insights from the contexts in which the seals were found – commonly related to palatial and urban centers – this contribution aims at a more careful differentiation of the persisting basic assumption that these objects belonged to very low-ranking individuals in Minoan society. Since the seals appear within the tenure of higher-ranking Neopalatial socio-political units, the selected gestures are analyzed as a possible device of a palatially instigated communication policy that reinforced social status and relations through the choreographed movement of the female body in the context of Minoan ritual.

Introduction

Seals are small, mobile artifacts manufactured in stone, bone, metal, artificial pastes, or glass, engraved with motifs on one or several of their faces and which were worn usually by means of suspension or in the shape of rings (Anastasiadou 2021). Used as sphragistic instruments, tools for identification, jewelry, and, on a secondary level, as amulets and status symbols, they were an indispensable part of life in the Late Minoan Period (Krzyszowska 2012, 739). These manifold functions made the seals potent carriers of messages that contributed to forming, maintaining, and changing social relations.

Engraved using simpler techniques and easily abraded, seals cut in soft materials (Mohs 1–3/4) were less impressive in appearance than their hard-stone (Mohs 4+) and metal counterparts (Fig. 1; Krzyszowska 2005, 16, 20, 124).¹ Nevertheless, this type of seal occupies a markedly prominent position in Late Minoan Crete, indicated by their large number, longevity of production, and wide diffusion over the island of Crete and to the Greek mainland (Pini 1995b, 189; Pini 2010, 325). Previous scholarship has often attributed the Late Minoan soft-stone seals to generally low-ranking social groups due to their less impressive features and common appearance all over the island (Younger 1983, 117–118; Pini 2010, 338). This paper aims to confront this basic assumption by offering an in-depth discussion of three closely related iconographic groups of Neopalatial (ca. 1650/40–1440/30 BCE; dates after Warren 2010, 393, fig. 3) soft-stone seals which depict female anthropomorphic figures performing a selection of discrete gestures. By considering the social as well as the archaeological contexts of these seals and their imagery, it ad-

1 For the materials used in Aegean glyptic, see Krzyszowska 2005, 16, 20, 124; Müller 2007.

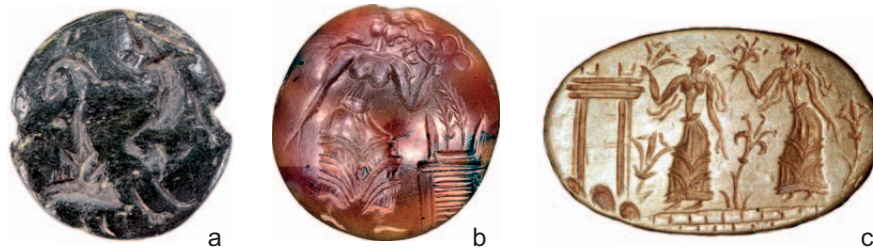


Fig. 1: Comparison of a soft stone, a hard stone, and a metal seal: (a) CMS XI, no. 256, serpentine; (b) CMS I, 279, carnelian; (c) CMS V Suppl. 1B, 113, gold, not to scale (© Antikensammlung, Staatliche Museen zu Berlin – Preussischer Kulturbesitz, photo: Johannes Kramer, Inv. No. FG 4; b, c courtesy of the CMS Heidelberg).

vances the thesis that these particular seals were not products and possessions of low-ranking individuals, but in fact expressed the ideology of high-ranking social units that aimed to reinforce status and transform social relations through bodily practices.

Late Minoan Soft-stone Seals

The large number of Late Minoan soft-stone seals known today (over 1500)² and their continuing appearance in excavations on Crete is at odds with the scientific appraisal of this ubiquitous material group, which has rarely been discussed discretely.³ Soft-stone seals are typically hand-engraved and made from local materials such as serpentine, chlorite, schist, and steatite. They appear undistinguished compared to glyptic materials cut in elaborate techniques made of rarer and more valuable semi-precious stones or gold and other metals. Therefore, seals made from soft materials were very often neglected in archaeological publications or generally considered to be modest objects owned by “common folk” (Younger 1983, 118). It should be noted that the totality of the Late Minoan glyptic material made from soft stones does not constitute a homogeneous artifact group. In fact, the corpus of Late Minoan soft-stone seals is very heterogeneous as regards the quality of artisanship and range of designs. This indicates a more diverse social background of the engravers and owners of soft-stone seals than previously taken into account.

To approach the sizeable corpus of soft-stone seals from a fresh perspective, it is necessary to divide it into smaller, meaningful units. The exact materials of the seals are difficult to define due to the different admixtures that Cretan soft stones are composed of (*cf.* Becker 1976, 364; Grammatikakis et al. 2017, 317; Krzyszkowska 2005, 16), and the style which may vary considerably even within a phase. Therefore, these two parameters are not ideal for arranging the material into representative groups. Instead, iconographic clusters consisting of a core group, one or more groups displaying closely related imagery, and, finally, more loosely correlated specimens – or canonical, variant, and marginal types, following the terminology of Michael Wedde (1999, 911–912; 2004, 155–157) – are more convenient points of departure.

The topic of this conference – gestures, stance, and movement – has incited closer scrutiny of three interrelated clusters of Neopalatial soft-stone seals (Fig. 2). The female figures depicted on these perform a selection of gestures which have, due to the cultural specificity of corporal communicative practices, in the past been variously explained as adoration, salute, part of a procession, or dance (German 1999; Krzyszkowska 2020, 259–260; Murphy 2015, 311–312; Niemeier 1989, 167–169, 170–171, 183; Pini 2010, 332–336; Sakellarakis 1972). These interpretations rely on iconographical studies that usually cover different image-bearing artifacts and features and

² This includes seals with ornamental designs (ca. 400) and representational motifs (>1100).

³ The main contributions to this material group are two articles by Younger (1983, 1986). A critique and

future pathways have been drafted by Pini (1995b, 2010). Case studies for individual motif groups were published by Müller (1995) and Pini (1995a, 2010).

have resulted in an enhanced understanding of female attire, ritual behavior, and the chronological development of these. However, the specific role of the soft-stone seals within Minoan society and their possible connection with the usually more elaborate, plausibly elite, media with related imagery remains enigmatic. This paper is therefore a first attempt at approaching the question of the social specificity of the seals by analyzing three aspects: 1. The materiality of the seals and its ramifications for the engraved imagery; 2. The gestures and possible corporal practices attested in the seal imagery; 3. Evidence from known archaeological contexts and comparisons to other visual media.

Bronze Age images depicting corporal communicative practices have most often been treated in top-down approaches, referencing modern concepts of dance, prayer, or adoration. While one difficulty in this lies in consolidating modern ontologies with prehistoric realities, another lies in the heuristic value of identifying distinct activities from arrested images. As has been pointed out by Céline Murphy in the case of dance, these static images can only be “read as an index for the dance, as a reference to a whole, as a mere fragment, but not as a representation” (Murphy 2015, 316). Following her line of argument, it appears reasonable to question the epistemological value of a reconstruction or even reenactment of a sequence of movements with the aim of reproducing real-world corporal practices, such as a certain kind of dance, from glyptic images.

Rather than tying together the gestures and stances represented on the seals into what may or may not have been a coherent and empirically observable sequence of movement practiced in the prehistoric Aegean, the material is here confronted in a bottom-up approach that focuses first on the object group of seals and theoretical implications connected with the material.⁴ An in-depth consideration of the corpus of Late Minoan soft-stone seals depicting gesturing female figures follows. This enables a broader perspective on the social specificities of the seals which will be the subject of the second half of this paper.

The materiality of the seals and impacts on iconography

Glyptic imagery is produced through subtraction, which could be achieved with hand-held tools like burins, points, and knives or more elaborate techniques involving fast-rotating tools operated on a spindle. As a rule, soft-stone seals were engraved with hand-held tools after the surface of the seal had been prepared through cutting, chafing, and smoothing (Anastasiadou 2011, 38–40; Evely 1993, 146–169). The small size of the seals, regularly under 2 cm in diameter, left little to no margin for committing errors on the carefully prepared image ground, which was convex in Late Minoan glyptic. This could have prompted a preliminary planning of the design prior to the execution of the intaglio or may have been achieved using a template, which in turn would have left less opportunity for creative impulses and contributed to a conservative nature of the craft.



Fig. 2: Examples of Neopalatial seals with gesturing females; (a) CMS III, no. 351, single female figure performing a gesture next to a star-shaped element; (b) CMS II 4, no. 111, female figure carrying a quadruped, likely a caprid; (c) CMS III, no. 359, female figure performing a gesture next to a deer, not to scale (courtesy of the CMS Heidelberg).

⁴ A comprehensive bottom-up study of the ensemble of Late Minoan representational soft stone seals is currently

under preparation by the author and scheduled to appear at the Presses Universitaires de Louvain, 2024.

The small size of the seals affords the miniaturization of representational elements. Human and animal figures are not designed to precisely reproduce naturally occurring forms in an anatomically correct way but to emphasize idiosyncratic physical features while schematizing basic traits. Images rendered on seals are therefore characterized by reduction, compression, and abstraction of a (real or imagined) prototype motif.

Despite the regularly appearing, near-exclusive scrutiny of seals based solely on their imagery for iconographic studies, which is reflected in publications by the abundant depiction of the drawings and lack of images of the objects or their impressions, the seal-stone – the object itself – has a great impact on its imagery and perception. The shape and edges of a seal dictate the boundaries and frame the engraved image. This acts as a window to the engraved design, or, in the words of Meyer Shapiro (1972–73, 11), “it is a finding and focussing device placed between the observer and the image”. This frame, moreover, may even impact the form of the image it encloses. In Late Bronze Age glyptic, the geometric shape, most often a circle, either prompts a centralization of the main object or its orientation along the frame of the seal face (Fig. 3).

Centralized main motifs are predominant on Neopalatial seals that display human figures, among which females performing gestures form the largest group. Such centralized figures often appear isolated and deprived of context. Past studies have brought forth plausible arguments that these images are detached from an extended scene such as a procession, an animal sacrifice, or a dance which is reduced to a single, synoptic snapshot (Blakolmer 2010, 100–101, 108; Sakellarakis 1972; Wedde 1999, 917–918; 2004, 167, 180–182). Such seals can consequently be defined as representing condensed, focused, and framed depictions. These characteristics provide ideal grounds for visualizing more complex existing ideas through abridged designs (*cf.* Günkel-Maschek 2020, 110–111).

Seals with Gesturing Females

In the following, three closely related, synchronic groups of seals will be discussed. They depict female human figures composed in recognizable stances and performing asymmetrical gestures. Different gesture groups can be identified on the seals which are classified based on the iconography of the gesture, on a first level, and the style of the engraving, on a second.

The first iconographic group comprises seals that depict a single female figure, dressed in a long elaborate skirt and belt or girdle (Fig. 4). The body is shown either in profile, which appears to be the case most often, or frontally, which can only be identified with certainty in a few instances (*e.g.* Fig. 2a: CMS III, no. 351). The figures are shown in an upright stance with the head inclined or raised, and arms raised or extended in gesture. Fillers in the shape of a sun- or



Fig 3: Imagery fit to Late Minoan standard seal shapes: (a) cushion seal, CMS III, no. 370, orientation along frame; (b) amygdaloid seal, CMS V Suppl. 1A, no. 55, orientation along frame; (c–d) lentoid seals, CMS VIII, no. 144, orientation along frame, and CMS II 3, no. 218, centralized orientation. All examples are cut in soft stones, not to scale (courtesy of the CMS Heidelberg).

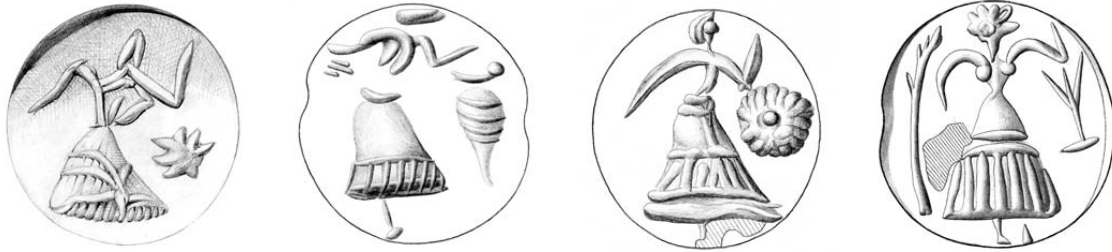


Fig. 4: Examples of the first iconographic group, depicting single figures: CMS II 3, no. 304; III, nos. 350, 352; XI, no. 347 (courtesy of the CMS Heidelberg).



Fig. 5: Examples of the first iconographic group, subgroup depicting pairs of figures: CMS II 3, nos. 17, 169; IX, no. 164; XII, no. 168 (courtesy of the CMS Heidelberg).

flower-like disc, schematic branches or plant elements occur on several seals, and in two cases, a water bird is depicted. Thirty-seven seals are in this group. They are stylistically diverse, but close style clusters can be made out.

A subtype of group one comprises seals that display two female figures performing the same range of gestures (Fig. 5). The figures are arranged symmetrically and, in most cases, face the same direction. Fillers are rare, which is likely related to space limitations on the seal face. There are some variations of the details including a few examples with mixed genders and differences in attire. Variants included, the sub-group comprises eighteen seals.

The second iconographic group consists of seals depicting a female figure in elaborate attire carrying a quadruped over one shoulder (Fig. 6). The stance, habitus, and rear-arm gesture of these figures correspond mostly to those in the previous group, but the front arm is typically not represented or only indicated due to the overlapping quadruped, usually a caprid. Seventeen soft-stone seals display this arrangement.

The third iconographic group shows again a female figure with a quadruped, but the animal is not being carried. Instead, the female figure touches it with her hand on or near its head. This leads to some differentiation in gesture when compared to the previous seals, which is why the type is here treated as distinct from group 2. The quadruped is positioned vertically framing the circular edge of the seal with its back toward the human figure (Fig. 7a–c). Unlike the animals carried over the shoulder, which appear to consist mostly or even entirely of caprids, there is a preference for deer and dogs here. In only one instance, a quadruped (goat) appears standing and facing the woman (Fig. 7d). This composition is otherwise unusual in Neopalatial soft-stone glyptic, but known from contemporary signet-rings (e.g. CMS II 6, no. 30; V Suppl. 1A, no. 175), and possibly frescoes (Hiller 2001, 295), where the female figure is clearly seated and appears to be feeding a goat. The motif with the standing female appears in soft-stone glyptic again much later and slightly more dominant, during LM III A1–2 (ca. 1390–1340/30, dates after Warren 2010, 393, fig. 3; e.g. CMS VI, nos. 328, 331; V Suppl. 1B, no. 261). It has been convincingly argued that imagery of the female figure feeding a goat belongs to the iconographic cycle of the ‘*potnia theron*’ (Mistress of animals; see Hiller 2001, and indicated references), which is an exhaustive subject in its own right and has therefore been excluded from this study.



Fig. 6: Examples of the second iconographic group showing a female figure carrying a quadruped over one shoulder: CMS II 4, no. 111; V Suppl. 3, no. 38; VI, no. 322; XII, no. 239 (courtesy of the CMS Heidelberg).



Fig. 7: (a–c) Examples of the third iconographic group showing a female figure with a quadruped: CMS XI, no. 256; III, no. 359; HMS 2993; (d) Female figure touching/feeding a goat: CMS X, no. 160 (courtesy of the CMS Heidelberg).

Style and provenance

Minoan soft-stone glyptic comes in a great variety of styles, much more so than hard-stone glyptic. Nevertheless, it is possible to identify a rather large Neopalatial style group. This is characterized by deep contour lines that partly delineate the bodies of animals or the clothing of human figures (Fig. 8). Arms and legs are often executed in a very linear manner, and details such as the rib cage of quadrupeds or patterns of textiles likewise. Ingo Pini and Walter Müller first recognized these lines as distinctive for a group of LM I–II bulls and goats and termed the feature “Leistenstil” (Pini 1985, XLVII, XLIX; Müller 1995, 153–154). The idiosyncratic tool marks found on these bull and goat seals can also be recognized in the depictions of other animals, like deer and lions, as well as humans.

Seals cut in the delineated style (“Leistenstil”) cluster heavily around the area of Knossos and close subordinate centers such as Tylissos and Archanes, but single instances can be found at sites throughout north and central Crete. Apart from this style, soft-stone seals in the Neopalatial period *cannot* easily be placed in distinct, larger style groups. A large amount of the seals discussed here belong to the delineated style, while some show variations of or complete departures from the core style group.

Interestingly, the Neopalatial seals featuring gesturing women, no matter which style, follow very similar distribution patterns as seals belonging to the delineated style. The overwhelming majority come from Knossos, including find spots in the Unexplored Mansion (Catling 1986–87, 53, fig. 92) and the House of the Frescoes (CMS II 3, no. 17; II 4, no. 112) as well as the Royal Road North (Krzyszowska 2012, 743, n. 30). Unfortunately, most individual contexts have not been well-documented (*cf.* Platon and Pini 1984, 147, 269 for Tylissos and Gournia) or (yet) published (*e.g.* two to three possible seals from the Stratigraphical Museum excavations mentioned by Warren 1982–83, 63, 69). The picture is further obscured by stray finds (*e.g.* from the Unexplored Mansion; Mylonas 1987, 138) and disturbed contexts. We are merely informed of the seals having been found in large-scale urban houses at Knossos, Tylissos (CMS II 3, no. 124), Gournia (CMS II 3, no. 236), Malia Quartier E (CMS II 4, no. 165), and the villa of Agia Triada (CMS II 3, no. 117). A seal from Archanes was found at Tourkogeitonia,



Fig. 8: Examples of soft-stone seals engraved in the delineated style (“Leistenstil”). The modern impressions reveal the characteristic deep contour lines and linear details such as the ribs and nuchal folds on the bull (a), the dapples on the deer (b), as well as the folds or patterns on human attire (c–d). Large, rounded eyes and linear arms and legs are further traits of the delineated style. CMS II 4, no. 199; XI, no. 246; III, no. 351; VI, no. 286 (courtesy of the CMS Heidelberg).

Area 17, which the excavators identify as a sanctuary (Sakellarakis and Sapouna-Sakellaraki 1997, 696). One seal was recovered from tomb B at Poros-Katsambas (Dimopoulou-Rethemiotaki 2004, 368, 373, fig. 31: 20). Neopalatial seals from dated contexts are in general very rare, which is partly due to the lack of undisturbed or closely dated grave contexts and an overall scarcity of grave goods in this period, as well as a scarcity of sealed LM IA deposits (Driessen and Macdonald 1997, 13; Krzyszkowska 2005, 120). Hopefully, forthcoming excavation reports and publications will shed more light on the contexts of newly found seals. Until then, we can only refer to general observations, such as the predominance of settlement contexts associated with upper-tier urban buildings that are connected with higher-ranking social units.

The gestures: definitions and groups

What differentiates gestures on the seals of all these groups most significantly is the positioning of the arms, which also affects the posture of the figures. In this study, four general types of arm positioning are defined: introversion, extroversion, intensification, and extension (Fig. 9). The first two apply to the front/dominant arm, while the latter characterize the rear arm. The front arm is here considered dominant because it transfers communicative or emotive meaning from the body outwards. When raised, it communicates in conjunction with the head. Depending on its positioning, it invites an upright or inclined posture of the head and neck. When raised close to or even touching the forehead, the head is usually inclined toward the hand, leading to a posture of introversion. When the arm is held nearly vertically upright or at an obtuse angle, the head is usually rendered in a more upright posture, sometimes even slightly looking up. An open space is clearly visible on the seal face between the head and lower arm. This is classified as a posture of extroversion.

In discussions of female gestures on seals, the rear arm has been mostly disregarded as it was not considered to impact the meaning of the gesture (Wedde 1999, 913), which resulted in an over-emphasis of the dominant front arm. It could be argued, however, that in the case of the gesture compounds depicted in glyptic, the rear arm is likewise significant as it is never displayed in a position of rest and has a distinct effect on the body posture. Stretched out behind or to the side of the body, the rear arm affords conscious muscle tension. This tension affects the posture of the body, leading to a very straight or even hollow back. This is especially the case when the arm is, beginning from the shoulder, extended behind the back and curved down toward the hips. This leads to an intensification of muscle tension and can result in a curvature of the spine, bringing about an exaggerated, artificial posture. The second characteristic positioning of the rear arm is that of extension, whereby it reaches out back- and downwards, sometimes with a slight upward proclivity of the lower arm. This results in a posture where the upper body occupies additional space beyond its usual boundaries in positions of rest.

These characteristic arrangements of the front and rear arms can be combined in different ways. For example, depictions of females uniting introversion and extension are not unusual, as

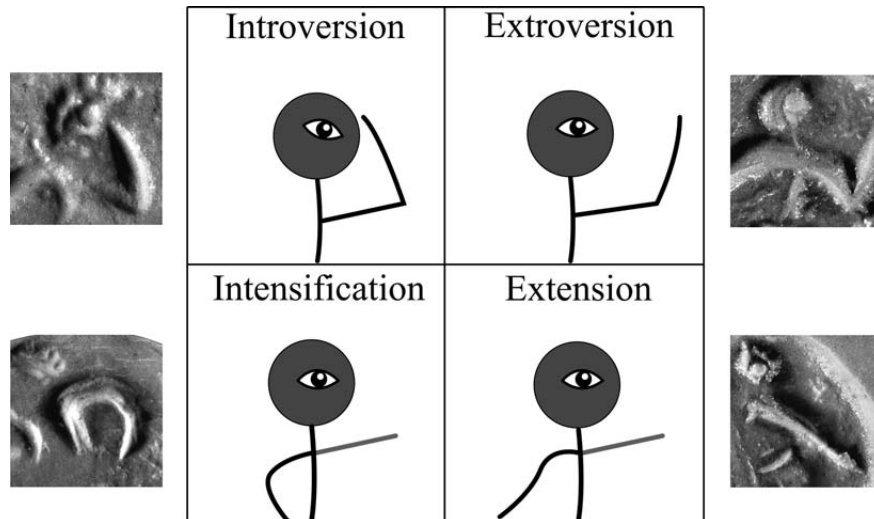


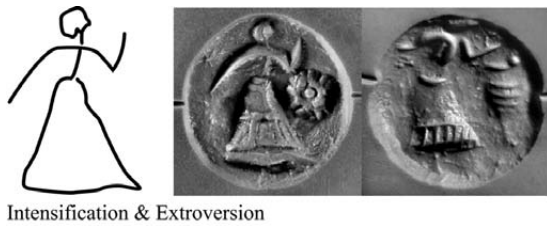
Fig. 9: Arm positioning types encountered on Neopalatial soft-stone seals. Top: front-arm positions of introversion and extroversion. Bottom: rear-arm positions of intensification and extension. Modern impressions of seals CMS III, nos. 351, 352; II 4, no. 125; III, no. 359 (line art by author; impressions courtesy of the CMS Heidelberg).

exemplified by a seal from the Giamalakis collection (Fig. 8c). The importance of respecting both arms in the study of gestures on seals becomes clear in the apparent dichotomy of an introversion of the upper and front part of the body and simultaneous extension of the rear and lower part of the body. On a communicative level, the expansive gesture of the rear arm and the withdrawal of the front arm create a paradox between the physical outreach of the less communicative part of the body, since the figure is facing away in the other direction, and a simultaneous barring of the emotive transmissive potential of the outward-facing part of the body. It may be possible to resolve this paradox by hypothesizing that the resulting artificial postures were not held for a long time but formed part of a compound of movements that have been arrested in time and space on the seal face.

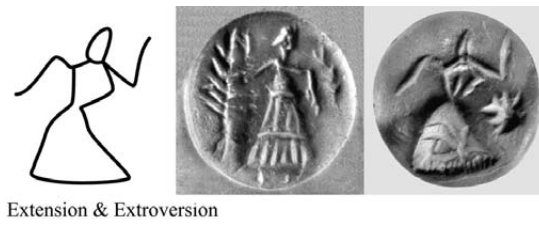
In the following, I would like to discuss what could be considered as gesture groups, rather than a typology, since the gestures on the seals appear to follow somewhat loose compositional rules rather than canonical instances.

A possible compound of movements could be recognized in the case of Gesture Group A. It is characterized by an upraised front arm and a rear arm extended backward (Fig. 10). Both an extroversion and introversion of the front upper body and an extension or intensification of the lower rear body occur. Examples in this group are generally iconographically coherent, although the engraving style may vary. Compositions can include a single figure or a pair of figures. Head, torso, and arms appearing at different degrees of inclination possibly indicate that we are not seeing a stance that was held, but one that was part of choreographed movement. Gesture Group B could be connected to such a compound of gesture and movement (Fig. 11). Here, the front arm is mostly extroverted or only very gradually introverted while the rear arm is held back at an angle. The upper body can be upright or inclined toward the front arm. Seals in this group are few, which may indicate that the gesture may not have been understood in its isolated, frozen manner, but rather as part of a sequence of movement, perhaps in conjunction with Group A gestures.

Gesture Group C, on the other hand, clearly belongs to a different compound of human gesture (Fig. 12). It appears solely in combination with quadrupeds that are either carried or interacted with by the female figure whose rear arm is bent at an acute angle toward her chest or torso, and whose front arm is either hidden, covered by the quadruped that is being carried, or bent and extended, palm outward, toward the animal. Overall, the quality and style of the engravings appear to differ more strongly than in the other iconographic groups. It is not always possi-



Intensification & Extroversion



Extension & Extroversion



Extension & Introversion



Intensification & (gradual) introversion

Fig. 10: Gesture Group A: Front arm raised toward the head, rear arm held back- and downward; variant a: intensification of hind arm, extroversion of front arm; variant b: extension of hind arm, introversion of front arm. CMS III, nos. 352, 350; II3, no. 17; XI, no. 282 (line art by author; impressions courtesy of the CMS Heidelberg).

Fig. 11: Gesture Group B: Front arm bent up, rear arm bent down at a nearly 90° angle; variant a: extension of hind arm, extroversion of front arm; variant b: intensification of hind arm; gradual introversion of front arm. CMS XII, no. D12; II3, no. 304; VIII, no. 128; II3, no. 171 (line art by author; impressions courtesy of the CMS Heidelberg).



Fig. 12: Gesture Group C: Front arm bent up and forward or hidden behind quadruped, rear arm bent at an acute angle toward the torso. CMS XI, no. 256; V Suppl. 3, no. 38; II3, no. 213 (line art by author; impressions courtesy of the CMS Heidelberg).



Fig. 13: Gesture Group D: Both arms raised, usually bent at the elbows. Posture of extroversion with an upward orientation: (a–b) Gesturing females group: CMS IX, no. 164; IV, no. D55; (c) Potnia Theron: CMS II3, no. 327 (line art by author; impressions courtesy of the CMS Heidelberg).

ble to identify the quadruped, but we can differentiate goats and rams (e.g. CMS VI, no. 322; V Suppl. 3, no. 38). Dogs are also shown, but are not carried over the shoulder (CMS XI, no. 256; HMS 2993, cf. Thomas 1995, 242, fig. 2).

Gesture Group D is different from the aforementioned in that both arms are extended upward. The females’ bodies are thus extroverted in an upward direction. There is only sketchy evidence for this gesture from Neopalatial soft-stone seals with female figures (Fig. 13). Most commonly, it is associated with depictions of the ‘potnia theron’ (Mistress of Animals) (Fig. 13c).

Comparisons to other media

The iconography of female figures performing gestures is a typical feature of Neopalatial soft-stone glyptic, but not unique to this medium. An individual female appears on the side of an amethyst scaraboid seal from Aidonia (Fig. 14a; *CMS V Suppl.* 3, no. 245b), and another on a carnelian amygdaloid from Vapheio (*CMS I*, no. 226), albeit in an unusual dress and holding stick-like elements in her hands. Pairs of females occur on two further pieces, a carnelian lentoid from Modi (Fig. 14b; *CMS V Suppl.* 3, no. 80) and a second one without provenance (Krzyszowska 2020). The motif of a female carrying a quadruped appears on a hematite seal from Epidauros (*CMS V Suppl.* 1A, no. 369), and on three hard-stone seals from Vapheio made of chalcedony, carnelian, and agate (Fig. 14c–d; *CMS I*, nos. 220–222), with the chalcedony specimen depicting two females of which the front one carries a goat. Finally, the motif is represented on another carnelian lentoid reportedly from Ilia (*CMS XI*, no. 27). Intriguingly, all instances of hard-stone seals with a secure or reported provenance come from the mainland and were, therefore, most likely consumed by Mainland individuals.

Metal, usually gold, signet-rings also regularly display females performing the gestures observed on the soft-stone seals (Fig. 15). Examples are a gold signet-ring from Mycenae (*CMS I*, no. 86), the figures to the right on another specimen from the Griffin Warrior tomb at Pylos (Stocker and Davis 2016, 640–643, fig. 10), and the females impressed by a signet on a string-end nodule from Agia Triada (*CMS II* 6, no. 13).⁵ A lead bezel from Malia configures three gesturing female figures performing Gesture A (*CMS V Suppl.* 1A, no. 58). Due to their larger size and finer intaglios, signet-ring images contain more information, such as anatomical and decorative details. Often, the gesture is performed in the context of architectural elements, repeatedly a built rectangular structure such as a shrine, an altar, or possible building façades as can be seen on an impression made by a metal signet-ring at Pylos (*CMS I*, no. 313) and on a mold for metal signet-rings which was found at Eleusis (*CMS V*, no. 422b). In general, this action seems to take place outdoors, as indicated by the frequent representation of trees or other plants.

What can we learn from these hard-stone and metal seal examples? First, it is important to understand the connection between Neopalatial Minoan soft-stone glyptic, hard-stone seals found exclusively on the mainland, and signet-rings found predominantly on the mainland and in later contexts up to LH III C. The hard-stone seals, for once, appear to be an instance of a Cretan product adapted to mainland needs, *i.e.* images from the Minoan world were cut in the preferred materials of mainland glyptic, which had a strong predilection for hard-stone seals and no obvious interest in seals made out of soft stones (Krzyszowska 2005, 236). This consumption pattern makes it difficult to draw conclusions regarding the Minoan soft-stone seals and their potential role in society since we are dealing with a possibly different artisanal background, different material properties, and lastly a distinct, mainland society that was using the seals. For instance, it may be tempting to regard the chalcedony lentoid from Vapheio (*CMS I*, no. 220) as providing additional information on the images of females carrying a quadruped over their shoulders as being part of a sacrificial procession (Sakellarakis 1972, 251). This presupposes that the mainland hard-stone seals drew directly from an unknown Minoan prototype. However, it appears more plausible that the mainland seals did not attempt at making exact copies of existing Minoan motifs, but rather selectively picked out elements from the existing pictorial repertoire and combined or re-worked them to suit Mainland tastes. It could be suggested, for instance, that the chalcedony lentoid from Vapheio does not represent a procession in the context of animal sacrifice, but, possibly, rather combines the motif of a woman carrying a quadruped with that of two gesticulating female figures (*e.g.* as seen on Figs. 5–6). Such a re-combination of existing Minoan motifs can also be gleaned from the elaborate gold signet-ring from the Griffin Warrior tomb at Pylos (Stocker and

⁵ Further examples can be gleaned from a lead bezel from Malia (*CMS V Suppl.* 1A, no. 58), a steatite mold for metal signet-rings recovered at Eleusis (*CMS V*, no. 422b), and a seal impression on a string nodule from Pylos (*CMS I*, no. 313).

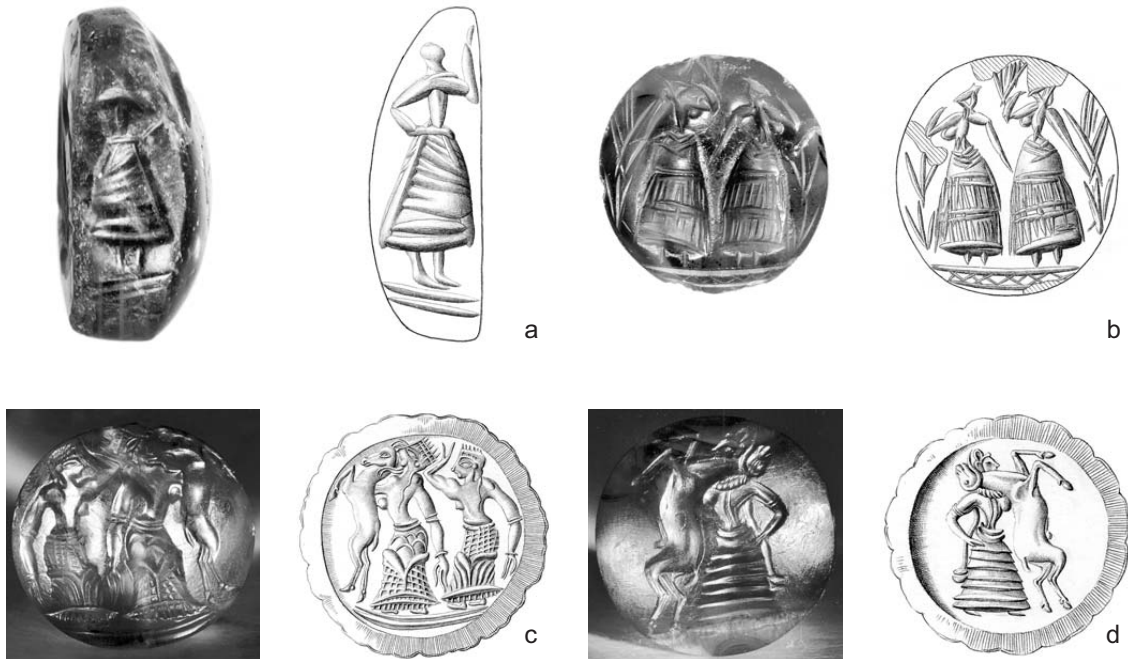


Fig. 14: Hard-stone seal examples: (a) amethyst scaraboid seal from Aidonia; (b) carnelian lentoid from Modi; (c) chalcedony lentoid from Vapheio; (d) carnelian lentoid from Vapheio. CMS V Suppl. 3, nos. 245b, 80; I, nos. 220, 221 (courtesy of the CMS Heidelberg).

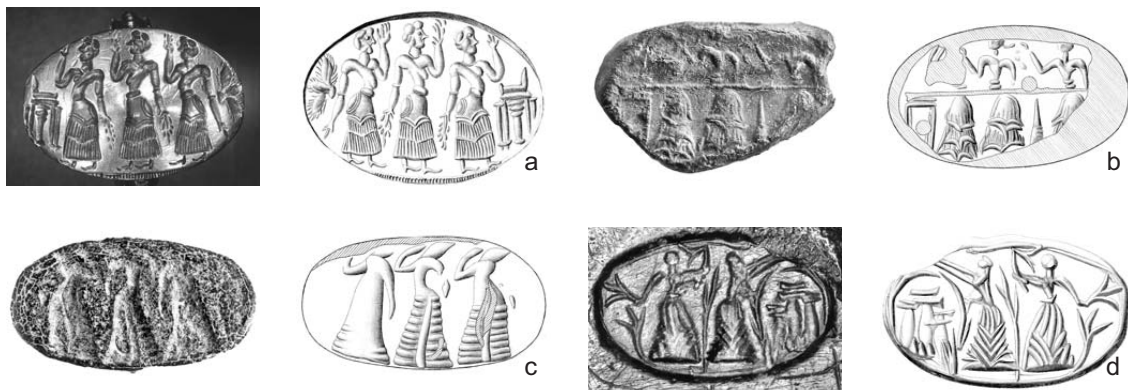


Fig. 15: Metal signet-rings and related objects: (a) gold signet-ring from Mycenae; (b) seal impression on a string nodule from Pylos; (c) lead bezel from Malia; (d) steatite mold for metal signet-rings from Eleusis. CMS I, nos. 86, 313; V Suppl. 1A, no. 58; V, no. 422b (courtesy of the CMS Heidelberg).

Davis 2016, 640–643, fig. 10) that combines several motifs known individually from Minoan glyptic,⁶ but that do not appear together in such an arrangement elsewhere.

It is worth noting two examples of possible Cretan prototypes for the motif of the gesturing female(s) (Fig. 16a–b). A metal, likely gold, signet-ring was used to stamp a small number of string nodules at the Neopalatial villa of Agia Triada (CMS II 6, no. 13). A packet nodule from the same site (CMS II 6, no. 25) preserves part of a metal ring impression showing a single woman performing gesture A. There is a rather coherent group of soft-stone seals featuring pairs of gesturing women (*i.a.* CMS II 3, no. 236; VI, nos. 287–288; XI, no. 282; XII, no. 168) and it has been suggested, among others, by Fritz Blakolmer (2010, 2018) and Olga Krzyszkowska

6 For the heraldic trio of women on the right (impression) cf. CMS II 3, no. 218; for the gesturing pair on the left, cf. CMS XII, no. 168. For the built structure (altar?) with a tree in the context of a gesturing female, cf. CMS IX,

no. 163. The wave pattern in the lower part can be seen on a metal ring impression on a string nodule from Knossos: CMS II 8, no. 264.

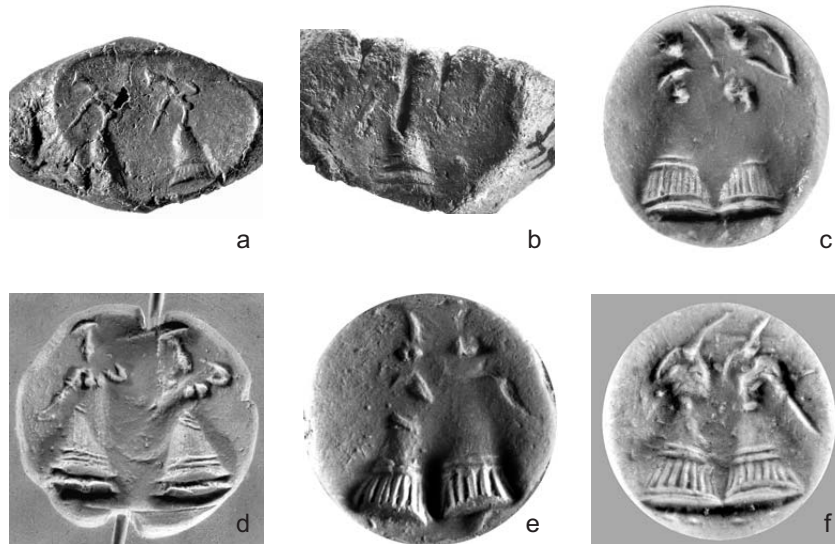


Fig. 16: (a–b) Clay sealings impressed by metal signet-rings from the site of *Agia Triada* showing a pair and a single gesturing female figure, respectively; (c–f) Modern impressions of soft-stone seals iconographically closely related to the signet-rings. CMS II 6, nos. 13, 25; II 3, no. 236; VI, nos. 287, 288; XII, no. 168 (courtesy of the CMS Heidelberg).

(2012, 745; 2020, 260) that these copied the motif from more elaborate media, such as gold rings or possibly unpreserved larger-scale media.

The Sacred Grove and Dance Fresco from Knossos (Fig. 17) is a tempting point of departure when relating the images on the seals with larger-scale media. The fragments of the fresco do not preserve the full gestures of the so-called dancers. Moreover, the preserved gestures differ somewhat from those seen on the soft-stone seals, although they can also be found in glyptic, especially in the case of gold signet-rings. Nevertheless, the fresco informs us of larger-scale public events in which women wearing a range of elaborate dresses – which are also in evidence in the soft-stone glyptic – perform gestures in front of a crowd. If we hypothesize that there is a meaningful link of contiguity between what we see on the seals and on the Sacred Grove and Dance Fresco, could the images on the seals represent snapshots of a larger-scale social performance?

There are several pieces of evidence for this. The array of gestures on the fresco, as well as the range and variation of those on the seals, as argued, perhaps exemplify gestures that were not held. Instead, they could have been performed through continuous movement that may be characterized as a ‘dance’, at least from a modern perspective. Others, especially when quadrupeds are involved in the gesture, are more ambiguous, but plausibly related to sacrificial offerings.

The art historian Ernst Gombrich (1966, 395) pointed out the difficulties in gaining information on gestures through art as a primary source: since movement is necessarily frozen in (graphic) art, the range of gestures that can be depicted is restricted, which causes ambiguity. Gombrich identifies a “manipulation of a vocabulary” (Gombrich 1966, 395), that occurs in the process of transforming observable gestures from the empirical world into art. A conceivable strategy for representing the flow and range of performed gestures would therefore be to feature idiosyncratic positions of the arms without necessarily canonizing these. The variation in arm position that we encounter on the seals would then be a result of the flow and movement of a performed gesture.

On the Social Role of the Seals with Gesturing Female Figures

Late Minoan soft-stone seals, conventionally referred to as the “Cretan Popular Group”, have commonly been regarded as objects which were not engraved with much care and are found in

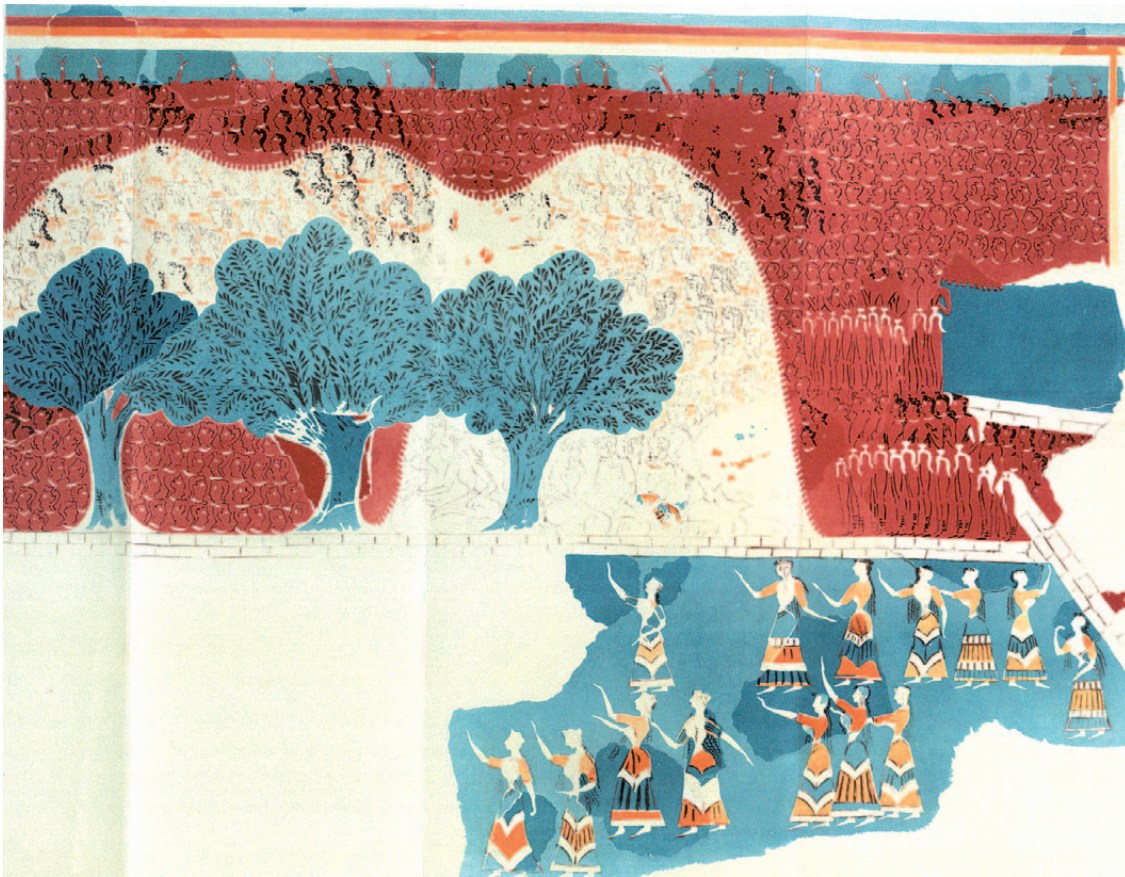


Fig. 17: ‘Sacred Grove and Dance Fresco’ from Knossos (Evans 1930, pl. XVIII, Universitätsbibliothek Heidelberg / <https://digi.ub.uni-heidelberg.de/diglit/evans1930/0100>).

generally modest contexts, indicating that they would have belonged to members of low-ranking social units (Younger 1983, 118, 123). However, ongoing research suggests that it is necessary to differentiate between different typological groups of Late Minoan soft-stone seals, of which the Neopalatial group of seals discussed here is a case in point. Several factors speak for a higher social status of the users and owners of these objects:

1. The (known) find spots of the soft-stone seals examined here are concentrated heavily around elite centers, most importantly the palace of Knossos and its upper-tier buildings, but also the villa of Agia Triada, the palatial building at Archanes, and wealthy urban houses at Tylissos and Gournia. It therefore appears that the users or owners of these seals stood in direct or indirect contact with the core of political, religious, and administrative authority that operated at these significant power hubs.

2. The female figures on the seals wear elaborate dresses, variants of the Minoan flounced skirt and plissé skirt (Stephani 2013, 86–96). Some also display an unwieldy, long and pointed headgear that appears to be connected to ritual actions such as processions and that we know from prestige media such as gold signet-rings (Blakolmer 2018, 32). The iconography featured on these soft-stone seals evidently belongs to the world of high-ranking social units. Whoever was using this imagery would have certainly been allowed to do so, but was permission granted explicitly or was it an implicit privilege?

3. Seals were worn on the body, and this can be seen clearly from wear traces on the soft-stone seals such as worn-out and chipped string holes created by the continuous rub and strain of the string against the perforation (Fig. 18). These objects were intimately connected to the body and mind of the wearer. How does this potentially stimulate connections between individuals who owned seals with the same imagery? Unlike other soft-stone seals, those featuring the

gesturing female figures were seldomly used to create impressions in clay for administrative purposes.⁷ Their prime function, therefore, appears to have been other than sphragistic. The corporal action of the females depicted on the seals as well as their correspondence with bodily actions in the empirical world could be seen both as a reflection of the social group's ideological foundations and as a medium for developing and promoting these (Hoenes del Pinal 2011, 604).

4. The group of seals engraved in the delineated style (Fig. 8), which comprises specimens that are stylistically very close to each other, incorporates a range of motifs such as the females discussed above, single quadrupeds, griffins, and animal attack scenes. The style potentially instigated a connection between seal owners that went beyond imagery. It was probably related to a larger social group that may have been active at different locales, but usually in connection with sites that played significant political, administrative, and religious roles. Leaving aside the mainland seals cut in semi-precious stones, which were most likely inspired by the Minoan soft-stone seals, it is noteworthy that the isolated motifs discussed here occur predominantly (in the case of the single or pairs of gesturing women), even exclusively (in the case of the women carrying a quadruped), on Neopalatial soft-stone seals. Specific kinds of motifs can be found on specific types of object groups as, for example, so-called epiphany scenes are common on gold signet-rings, or resting bovines on hard-stone seals (Niemeier 1989, 169–170; Pini 2000, 251). Accordingly, the Neopalatial soft-stone seals with gesturing females clearly follow a culturally specific convention that dictated the material for this kind of seal motif (*cf.* Günkel-Maschek 2020, 113). The synchronic creation and distribution of seals of a closely related motif group, many in a coherent style, and the use of a distinct material type at different sites point toward a more organized and controlled production mode than would be expected of single objects created and used by very low-ranking and mutually un-connected individuals.

Conclusion

Approaching the question of the function of the seals is perhaps best done by considering their iconography one final time. What do the seals represent? On a primary, formal level, the seals display female human figures clad in elaborate garments and shown in a state of bodily action. This state is evoked by the different observable modes of arm positioning and head posture. The figures appear alone, in pairs of two, or alone in association with a quadruped. On a secondary, perceptive, level, the state of bodily action is identified as a performance of gesture that involves different somatic expressions, here referred to as introversion and extroversion of the front arm and intensification or extension performed by the rear arm. On a tertiary, interpretive, level, the gestures performed by the figures are construed as belonging to a sequence of movement that is indicated by the observed variety in arm positioning and is suggested to manifest different states of gestural motion. Moreover, the attire of the female figures consisting of patterned textiles and elaborate designs implies access to a certain wealth economy that would

have been reserved for representatives of higher-ranking social groups. These three levels of observation may now be taken to develop a hypothesis that considers the possible social role of the seals in Late Minoan Crete.



Fig. 18: Signs of wear: string hole abrasion and chipping caused by the rubbing of the cord used to wear the seal on the body. CMS XI, no. 256 (© Antikensammlung, Staatliche Museen zu Berlin – Preussischer Kulturbesitz, photo: Johannes Kramer, Inv. No. FG 4).

⁷ One exception is the impression of a soft-stone seal showing a female figure bearing a quadruped over her shoulder that was used to impress four string-end nodules

at Kato Zakros, found among the sealings in House A (CMS II 7, no. 23).

I suggest that these seals display scenes of ordered social action, which is choreographed and staged, institutionalized, and repeated (Moore and Myerhoff 1977, 7–8). This social action served to constitute and express the identity of a group or community through a stylization of the body (Butler 1988, 520; Turner 1988, 81). The elaborately dressed female body was employed as a vehicle of communication, a reflection and simultaneous cultivation of the ideological foundation of the social group that regimented and monitored select bodily communicative practices (Hoenes del Pinal 2011, 598; Moore and Myerhoff 1977, 3–5). This could serve, in the case of a (semi-) public performance, as a means of internal consolidation among a group of peers as well as a mode of external differentiation from other social groups or parts of the community who may not have had access, or only restricted access, to the elite world.

The soft-stone seals depicting female figures performing gestures may, in fact, have been tokens distributed among an intermediate social unit. This could have ranged between higher-ranking elites who would have possessed and used seals of more valuable and vibrant materials, such as semi-precious stones or gold, and individuals from the lower rungs of the social ladder, such as agricultural and horticultural workforces. Conceivably, the seals were given to or carried by individuals in service of higher-ranking social entities. This could have contributed, to a certain extent, to giving members of this intermediate social group a sense of inclusion in the world of the elites, a sense of privilege, intended at securing their loyalty.

If we accept that seal imagery was intentionally created to communicate more comprehensive meanings and ideas – while taking a step back from identifying these – it quickly becomes evident why human gesture, stance, and movement accommodate this objective. Codified bodily comportment expressed through these three categories serves to generate socially distinct meaning (Butler 1988, 519–520). Gestures, stance, and movement express discrete behavioral norms and patterns. The visual perception of these, even when movement is frozen in the image, may require such behavioral norms and patterns of the knowledgeable observer.

As modern viewers, we are confronted with the analytical gap that lies between material artifacts and past social structures. Carl Knappett (2002, 168) succinctly pointed out that “material culture and social structures [...] are mediated by activities”. Moreover, meaning has been recognized to emerge from a compound of gesture – target – and response (Wedde 1999, 913). Since the seal depictions discussed here lack a target and, consequentially, the target’s response to a given gesture, we are in want of context, including the sequence of movement in which a gesture was integrated, its target, and the target’s reaction. Nevertheless, for the Minoan observer who was able to re-contextualize the isolated gesture on a seal face, the image, and by extension the seal, could function as a medium that transferred ideas, identity, or ideology and that could thus potentially instigate desired modes of behavior or action.

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References

- Anastasiadou, M. 2011. *The Middle Minoan three-sided soft stone prism. A study of style and iconography*. CMS Beiheft 9. Darmstadt and Mainz: von Zabern.
- Anastasiadou, M. 2021. *About. Whats and whys*. <https://www.aegeansealsstarters.com/about>.
- Blakolmer, F. 2010. "Small is beautiful. The significance of Aegean glyptic for the study of wall paintings, relief frescoes and minor relief arts." In *Die Bedeutung der minoischen und mykenischen Glyptik. VI. Internationales Siegel-Symposium aus Anlass des 50jährigen Bestehens des CMS Marburg, 9.–12. Oktober 2008*, edited by W. Müller, 91–108. CMS Beiheft 8. Mainz: von Zabern.
- Blakolmer, F. 2018. "A 'special procession' in Minoan seal images: observations on ritual dress in Minoan Crete." In *Εἰσαγωγή. Studies in honour of Jan Bouzek*, edited by P. Pavúk, V. Klontza-Jaklová, and A. Harding, 29–50. *Opera Facultatis philosophicae Universitatis Carolinae Pragensis* 18. Prague: Faculty of Arts Charles University, Masaryk University.
- Butler, J. 1988. "Performative acts and gender constitution: an essay in phenomenology and feminist theory." *Theatre Journal* 40.4: 519–531.
- Catling, H. W. 1986–87. "Archaeology in Greece, 1986–87." *AR* 33: 3–61.
- Dimopoulou-Rethemiotaki, N. 2004. "Το επίνειο της Κνωσού στον Πόρο-Κατσαμπά." In *Knossos: palace, city, state. Proceedings of the conference in Herakleion organised by the British School at Athens and the 23rd Ephoreia of Prehistoric and Classical Antiquities of Herakleion, in November 2000, for the Centenary of Sir Arthur Evans's Excavations at Knossos*, edited by G. Cadogan, 363–380. *BSA Studies* 12. London: British School at Athens.
- Driessen, J., and C. F. Macdonald. 1997. *The troubled island. Minoan Crete before and after the Santorini eruption*. *Aegaeum* 17. Liège and Austin: Université de Liège, Histoire de l'art et archéologie de la Grèce antique, University of Texas at Austin, Program in Aegean Scripts and Prehistory.
- Evans, A. J. 1930. *The Palace of Minos at Knossos*. Vol. 3. London: Macmillan.
- Evely, D. 1993. *Minoan crafts. Tools and techniques. An introduction*. SIMA 92.1. Göteborg: Åström.
- German, S. C. 1999. "The politics of dancing: a reconsideration of the motif of dancing in Bronze Age Greece." In *Meletemata. Studies in Aegean Archaeology presented to Malcolm H. Wiener as he enters his 65th year*, edited by Ph. P. Bécancourt, V. Karageorghis, R. Laffineur, and W.-D. Niemeier, 279–282. Liège – Austin: Université de Liège, Histoire de l'art et archéologie de la Grèce antique, University of Texas at Austin Programs in Aegean Scripts and Prehistory.
- Gombrich, E. 1966. "Ritualized gesture and expression in art." *Philosophical Transactions of the Royal Society of London* 251 (772): 393–401.
- Günkel-Maschek, U. 2020. *Minoische Bild-Räume. Neue Untersuchungen zu den Wandbildern des spätbronzezeitlichen Palastes von Knossos*. Heidelberg: Heidelberg University Publishing.
- Hiller, S. 2001. "Potnia/Potnios Aigon. On the religious aspects of goats in the Aegean Late Bronze Age." In *Potnia. Deities and religion in the Aegean Bronze Age. Proceedings of the 8th International Aegean Conference, Göteborg, Göteborg University, 12–15 April 2000*, edited by R. Laffineur and R. Hägg, 293–304. *Aegaeum* 22. Liège: Université de Liège.
- Hoenes del Pinal, E. 2011. "Towards an ideology of gesture: gesture, body movement, and language ideology among Q'eqchi'-Maya Catholics." *Anthropological Quarterly* 84.3: 595–630.
- Knappett, C. 2002. "Mind the gap: between pots and politics in Minoan studies." In *Labyrinth revisited. Rethinking 'Minoan' archaeology*, edited by Y. Hamilakis, 167–188. Oxford: Oxbow Books.
- Krzyszowska, O. 2005. *Aegean seals. An introduction*. *BICS Supplement* 85. London: Institute of Classical Studies, University of London.
- Krzyszowska, O. 2012. "Worn to impress? Symbol and status in Aegean glyptic." In *Kosmos. Jewellery, adornment and textiles in the Aegean Bronze Age. Proceedings of the 13th International Aegean Conference, University of Copenhagen, Danish National Research Foundation's Centre for Textile Research, 21–26 April 2010*, edited by M.-L. Nosch, and R. Laffineur, 739–747. *Aegaeum* 33. Leuven: Peeters.
- Krzyszowska, O. 2020. "Changing views of style and iconography in Aegean glyptic: a case study from the Cabinet des Médailles in Paris." In *Current approaches and new perspectives in Aegean iconography*, edited by F. Blakolmer, 253–271. *Aegis* 18. Louvain-la-Neuve: Presses universitaires de Louvain.
- Moore, S. F., and B. G. Myerhoff. 1977. "Introduction: secular ritual: forms and meanings." In *Secular ritual*, edited by S. F. Moore and B. G. Myerhoff, 3–24. Assen: van Gorcum.
- Müller, W. 1995. "Bildthemen mit Rind und Ziege auf den Weichsteinsiegeln Kretas. Überlegungen zur Chronologie der späminoischen Glyptik." In *Sceaux minoens et mycéniens. IVe symposium international, 10–12 septembre 1992, Clermont-Ferrand*, edited by W. Müller, 152–167. CMS Beiheft 5. Berlin: Mann.
- Müller, W. 2007. "Zur Bestimmung des Materials der Siegel." In *Iraklion, Archäologisches Museum. Sammlung Giamalakis*, edited by A. Sakellariou, W. Müller, and I. Pini, 11–22. CMS III, Vol. 1. Mainz: von Zabern.

- Murphy, C. 2015. “(A) choreographed frenzy: a sequence of steps towards understanding movement and dance in Aegean Bronze Age iconography.” In *Minoan archaeology. Perspectives for the 21st century*, edited by S. Cappel, U. Günkel-Maschek, and D. Panagiotopoulos, 311–318. *Aegis* 8. Louvain-la-Neuve: Presses universitaires de Louvain.
- Mylonas, ed. 1987. “Ἀρχάνες.” *Ergon* 1986: 132–138.
- Niemeier, W.-D. 1989. “Zur Ikonographie von Gottheiten und Adoranten in den Kultszenen auf minoischen und mykenischen Siegeln.” In *Fragen und Probleme der bronzzeitlichen ägäischen Glyptik. Beiträge zum 3. Internationalen Marburger Siegel-Symposium, 5.–7. September 1985*, edited by W. Müller, 163–186. *CMS Beiheft* 3. Berlin: Mann.
- Pini, I. 1985. “Zu einigen Aspekten des hier vorgelegten Materials.” In *Iraklion, Archäologisches Museum. Die Siegel der Neopalastzeit*, edited by N. Platon, and I. Pini, XIX–LXII. *CMS Vol. II.4*. Berlin: Mann.
- Pini, I. 1995a. “Bemerkungen zur Datierung von Löwendarstellungen der spätminoischen Weichsteinglyptik.” In *Sceaux minoens et mycéniens. IVe symposium international, 10–12 septembre 1992, Clermont-Ferrand*, edited by W. Müller, 193–207. *CMS Beiheft* 5. Berlin: Mann.
- Pini, I. 1995b. “Die Spätminoische Weichsteinglyptik.” In *Sceaux minoens et mycéniens. IVe symposium international, 10–12 septembre 1992, Clermont-Ferrand*, edited by W. Müller, 189–191. *CMS Beiheft* 5. Berlin: Mann.
- Pini, I. 2000. “Das Bildthema der zwei gelagerten Rinder.” In *Minoisch-mykenische Glyptik. Stil, Ikonographie, Funktion*, edited by I. Pini, 245–255. *CMS Beiheft* 6. Berlin: Mann.
- Pini, I. 2010. “Soft stone versus hard stone seals in Aegean glyptic: some observations on style and iconography.” In *Die Bedeutung der minoischen und mykenischen Glyptik. VI. Internationales Siegel-Symposium aus Anlass des 50jährigen Bestehens des CMS Marburg, 9.–12. Oktober 2008*, edited by W. Müller, 325–339. *CMS Beiheft* 8. Mainz: von Zabern.
- Platon, N., and I. Pini, eds. 1984. *Iraklion, Archäologisches Museum. Die Siegel der Neupalastzeit. CMS II 3*. Berlin: Mann.
- Sakellarakis, G. A. 1972. “Τὸ Θέμα τῆς φερούσης ζῶον γυναικὸς εἰς τὴν Κρητομυκηναϊκὴν σφραγιδογλυφίαν.” *ArchEph*: 245–258.
- Sakellarakis, G. A., and E. Sapouna-Sakellarakis. 1997. *Ἀρχάνες. Μία νέα ματιά στη μινωική Κρήτη*. Athens: Ammos.
- Shapiro, M. 1972–73. “On some problems in the semiotics of visual art: field and vehicle in image-signs.” *Simiolus: Netherlands Quarterly for the History of Art* 6.1: 9–19.
- Stephani, E. 2013. *Η γυναικεία ενδυμασία στην ανακτορική Κρήτη. Πρόταση ανάγνωσης ενός κώδικα επικοινωνίας*. Thessaloniki: Αρχαιολογικό Ινστιτούτο Μακεδονικών και Θρακικών Σπουδών.
- Stocker, S. R., and J. L. Davis. 2016. “The Lord of the Gold Rings: the Griffin Warrior of Pylos.” *Hesperia* 85.4: 627–655.
- Thomas, E. 1995. “Zur Glyptik der zweiten Phase der spätminoischen Periode.” In *Sceaux minoens et mycéniens. IVe symposium international, 10–12 septembre 1992, Clermont-Ferrand*, edited by W. Müller, 241–250. *CMS Beiheft* 5. Berlin: Mann.
- Turner, V. 1988. *The anthropology of performance. Performance Studies Series* 4. New York: PAJ Publications.
- Warren, P. 1982–83. “Knossos: Stratigraphical Museum excavations, 1978–82. Part II.” *AR* 29: 63–87.
- Warren, P. 2010. “The absolute chronology of the Aegean circa 2000 B.C.–1400 B.C. A summary.” In *Die Bedeutung der minoischen und mykenischen Glyptik. VI. Internationales Siegel-Symposium aus Anlass des 50jährigen Bestehens des CMS Marburg, 9.–12. Oktober 2008*, edited by W. Müller, 383–394. *CMS Beiheft* 8. Mainz: von Zabern.
- Wedde, M. 1999. “Talking hands: a study of Minoan and Mycenaean ritual gesture – some preliminary notes.” In *Meletemata. Studies in Aegean Archaeology presented to Malcom H. Wiener as he enters his 65th year*, edited by Ph. P. Betancourt, V. Karageorghis, R. Laffineur, and W.-D. Niemeier, 911–920. Liège: Université de Liège, Histoire de l’Art et Archéologie de la Grèce Antique.
- Wedde, M. 2004. “On the road to the godhead: Aegean Bronze Age glyptic procession scenes.” In *Celebrations. Sanctuaries and the vestiges of cult activity. Selected papers and discussions from the Tenth Anniversary Symposium of the Norwegian Institute at Athens, 12–16 May 1999*, edited by M. Wedde, 151–186. *Papers from the Norwegian Institute at Athens* 6. Bergen: Norwegian Institute at Athens.
- Younger, J. G. 1983. “Aegean seals of the Late Bronze Age: masters and workshops: II. The first-generation Minoan masters.” *Kadmos* 22.2: 109–136.
- Younger, J. G. 1986. “Aegean seals of the Late Bronze Age: stylistic groups V. Minoan groups contemporary with LM III A1.” *Kadmos* 25.2: 119–140.