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## RATTLING JEWELLERY AND THE CYPRIOT COROPLAST

The appearance of the human body constructs one's cultural and social self definition in human societies. With the manipulation of clothing and ornamentation, the adding of painted decoration such as cosmetics and tattooing, or even the reshaping of certain body parts, groups and individuals negotiate their role in society, their relation to other groups or individuals, and their position in relation to the spiritual world. Dress, as a collective description of all kinds of body modifications and supplements, communicates an individual's identity and personal characteristics.<sup>1</sup> It codifies information about one's gender, age, status, kinship, office and religious beliefs, all of which is co-referential to the broader socio-cultural framework in which one lives.

This multiplicity of knowledge is imparted through the material properties of dress that for the most part are perceived visually, but which can also instigate other sensory responses such as hearing, smell, or even taste and texture (Roach and Eicher 1973; Eicher and Roach-Higgins 1992, 17). The role of these sensory stimuli is equally important to that of visual impression inasmuch as dress properties set off mechanisms evoking associations, albeit one that is manifested less forcefully and detected less often. In contrast with taste and texture that can not be perceived without close contact, sounds and to a lesser degree smells can travel from afar and in effect pre-empt the visual impact of dress.

Sound inducing items feature in the dressing codes of different cultures in most parts of the world and in a wide range of compositions.<sup>2</sup> A common practice that was also favoured in antiquity is to incorporate actual jingles and bells in various clothing and jewellery items.<sup>3</sup> But the easiest way to create a sonorous effect is to group together assorted objects which rattle and clank as they collide with each other. Body ornamentation in its earliest and simplest form consists of shells, bone, teeth, seeds and other organic materials which are loosely strung in cords or tied together in

1. For this definition of dress see Eicher and Roach-Higgins 1992, esp. 16-18 and Table 1.
2. Such objects are usually described as jewels or items of ornamentation which complement clothing and prettify, although in recent classification systems of dress this sort of hierarchical order is abandoned and every piece of attire that modifies the appearance of the body is classed as a body supplement which can be cross-referenced with different sets of properties (Roach and Eicher 1973). Here I use the terms "ornament" and "jewellery" bearing the implications of this framework in mind.
3. A golden bell on a gold and pearl necklace from 4th century Pasargade is illustrated in Tait 1986, 68 pl. 151. See also Porada 1967 for a necklace with multiple pendant bells from the Parthian period in Iran. For bells hanging from necklaces and bracelets in the Graeco-Roman world see Villing 2002 (with older bibliography). For jingles on necklaces and anklets in Pre-Dynastic and Dynastic Egypt see Hickmann 1965. Small golden bells were also sewn directly at the hems of priestly robes in Judaea (*Exodus* 28, 33-35; see also Plutarch *Quaestiones Convivales*, 672a for bells on the garment of a priest of Dionysus); this tradition is attested in the Orient since the fifteenth century BC (Braun 2002, 24-5, 195-7, fig. V.11; Grace 1956, 80, fig. 2).

bunches. Such aggregation results in objects that readily resound upon one's movement, and whose timbre and sonority level is determined by the material of their suspended components. Tribal jewellery from North and Central America, Brazil, Colombia, New Guinea, Africa and elsewhere features several forms of rattling necklaces, bracelets, belts, anklets, knee-rings and head decoration comprising multiple pendant components. Today these acoustic ornaments are reserved mainly for dancers, and it is customary to enrich the sound effect with modern metallic objects such as coins, rings, bottle-tops and other unconventional items, or to replace altogether the traditional natural materials with metal jingles and bells with or without clapper (Marcuse 1975, 90-1; Rault 2000, 63-70, 79-81; Fisher 1984). Primitive jewellery rattled with an unlimited sound potential, and this sonorous quality constitutes a significant part of its appeal. Traditional costumes of various peoples also include compositions of several closely hanging articles made of resonant material (for example glass, ceramic or hard metals such as bronze and iron alloys) with an ensuing sound effect.<sup>4</sup>

These noisy dress accessories characterised by multiple pendant and colliding parts could be defined as suspension or strung rattles, since they share the same structural features with this time-old musical instrument. The suspension rattle consists typically of a number of resonant objects suspended from a rigid bar or ring, or threaded on a pliant cord; the latter variety is also known as strung rattle. The rattling components must be arranged loosely and closely enough so as to clash together when the rattle is shaken (Hornbostel and Sachs 1961, 15; Marcuse 1975, 90).<sup>5</sup> Whether it is viable to classify body ornaments with sound properties as musical instruments in the strict sense of the word is an issue of consideration for musicologists (Dournon 1992, 247-8). Nevertheless, true instruments such as bells, rattles and jingles equally blur the line between a musical device and a body supplement when they double as jewellery or clothing frippery. Coming from the ethnomusicologist's perspective, Sachs argued rather categorically that the strung rattle must be regarded as a sounding amulet, while he considered non-sounding charms as mute survivals of their audible predecessors (Sachs 1940, 26). His emphatically syncretistic view is founded in the prevailing shamanistic character and cultic use of rattles which is evidenced in many different cultures.

The notion that rattling sounds have protective and magical powers is encountered in most parts of the world since the early history of man.<sup>6</sup> It is hard to envisage the grounds on which this widespread concept was initially based, but it seems reasonable to assume that the origins lay in the ways that prehistoric man experienced and interpreted the sounds of his natural environment.

4. See for instance a 19th century child's belt with suspended bangles of glass beads from Uzbek, or a woman's necklet made of glass beads and cowrie shells with pendant Afgan coins from 20th Pashtun (Clark 1979, nos. 21 and 48). Comparable examples of folk jewellery from Europe, Asia and the Far East are illustrated in Gerlach 1971.
5. Suspension rattles should be distinguished from the so-called vessel rattles which consist of a closed container with one or more pellets inside. A variation of the vessel rattle is the common bell with one side open and one or more clappers hanging from the top.
6. A list of references would be too long to include here, but a survey of the relevant entries for rattles and bells (their close cousins) in the series *Musikgeschichte in Bildern* or in music dictionaries such as Sadie 1980 and 1984 or Finscher 1994- would instantly substantiate the statement. See also Sachs 1940 and Marcuse 1975, 53 ff.

Acoustic experiments have shown that animals perceive rustling sounds of unstable quality as a significant threat (Rault 2000, 29). It is a viable supposition that early man had practical knowledge of this fact and he may have even deployed such sounds for his own protection following examples from nature. Taking this assumption further, it seems plausible that in the process of ritualisation rattling sounds were eventually attributed supernatural powers capable of protecting or empowering; as a spin-off, rattling objects acquired culture-specific forms and became valued accessories of personal attire as well as cherished paraphernalia of cultic activities and ritual dancing.<sup>7</sup>

Naturally, all types of ornaments whether sound-producing or not, are commodities that function as social and religious agents operating on both material and conceptual terms. Visually perceived properties such as shape, design, technique, decoration and material are considered to be connotational of concepts of power, status or beauty. I would argue, however, that audio perceptions can express metaphorical relationships as efficiently as visual symbols do. In this respect, the sound-effectiveness of certain types of jewellery should be analysed and appreciated. Ornaments that are audible as well as visible operate on both levels of communication simultaneously and thus reinforce their messages by way of a double sensory experience. More so, following the movements of its bearer, rattling jewellery can be heard even when it is not seen, evoking a somewhat unearthly and divine quality that ultimately becomes attached to the ornament itself and referential to the identity and status of those who wear it. Through the appropriation of the immaterial sound permitted by the physical substance of the ornament, the jewellery bearer is able to negotiate his relationship with gods and men alike and to ensure his safety from spirits and forces that are beyond his immediate control. Detecting such metaphorical associations may help us explicate the underlying symbolic value of "musical" ornaments generally glossed over as talismanic or propitiatory.

Bells and jingles as sound ornaments have been the focus of several studies that explore their symbolic meaning and cultic use in antiquity.<sup>8</sup> The significance of the sound properties of ornaments akin to suspension rattles, however, has been overlooked by large in material culture studies which concentrate on stylistic and technological aspects of jewellery and its role as a commodity. Given their early appearance, diversity, wide distribution, and long lasting presence in the Mediterranean, the sound potential of these ornaments needs also to be explored.

To conclude: body ornaments that double as sound devices are adopted by most cultures as dress features. In many cases, these ornaments resound precisely because they comprise actual instruments such as bells and jingles, which are known to have been attached to necklaces,

7. For a discussion on the connection between percussive sounds, rhythm and ritual see Kolotourou 2005.

8. For bells and jingles (or crotals) as talismanic, dance and cult jewellery worldwide see Marcuse 1975, 81 ff, and note 6 above. For similar uses in the Graeco-Roman world see Daremberg and Saglio 1875, s.v. "tinnabulum" especially 342-3; Pease 1904; Schatkin 1978; Trumf-Lyritzaki 1981, 172; Porada 1967; Price 1983, 57-65; Bélis 1988 for bells in Dionysiac cult, and most recently Villing 2002, 256 n. 67-8, and 285-293; Hickmann 1951 and 1965 (Egypt); Braun 2002 (Israel/Palestine).

bracelets, anklets, earrings and belts. However, these are not the only instances when ancient jewellery would have produced sound. Ornaments with multiple suspending parts other than bells or jingles can also be sound-effective, provided these parts are of adequately resonant material and arranged appropriately. In the following section I wish to review the different forms and sound properties of this latter type of sound-inducing jewellery, which is attested in the Mediterranean from the Palaeolithic period to the Iron Age, although a thorough account and contextual analysis of the existing material is beyond the scope of this paper. In the final section I will address ornaments depicted on certain Cypriot terracottas that could befit under different categories of rattling jewellery and discuss their significance.

### Sound ornaments: strung and suspension forms



**Figure 1:** Early Natufian bone clapper-pendants with plaques arranged in a pair and on a chord. Hayonim Cave, Mount Carmel. Drawing after Braun 2002, fig. II.2.

The earliest remains of body accessories with resounding strung parts date between the 11th and 9th millennia BC and come from Israel/Palestine (Braun 1997, 72 and 2002, 50-53, figs. II.1-2). One of the Early Natufian tombs at Hayonim Cave contained a female that was wearing around her pelvis a belt made of fox teeth pierced at the top, closely spaced and strung from a cord. The belt would rattle as the teeth would collide with every movement of the woman's body, most likely bearing totemistic connotations. Braun noted that the rattling girdle was not a common dress accessory of the burials at Hayonim cave and he suggested that it was emblematic of the social or religious eminence of the woman who wore it (Braun 2002, 51). The same cave has yielded numerous neck ornaments from different burials, such as bone pendants and shell necklaces. The form and workmanship of some of the bone pendants suggests that they were designed with the aim to resonate when worn. These pendants consist of ovoid-shaped polished bone plaques with rounded upper surface and flat underside that resemble small clappers. When strung in groups of two, the flat sides of the plaques strike upon each other just like those of actual clappers. When strung in groups of more, the plaques collide at different angles (Fig. 1).

In each case the pendants produce a pure transparent clapper-like sound that would accompany and accentuate the movements of the body, endorsing each individual pendant bearer with a distinctive and immiscible rustling effect.

Although the components of most shell and bead necklaces which are found in the Mediterranean lack the explicitly sound-inducing workmanship of the Natufian bone pendants, they can still rattle substantially. The shells of molluscs in particular have a transparent stony resonant quality and the natural shape of certain species makes sound production easy. The umbrella-shaped *Cardium*, *Spondylus* and *Patella* shells for instance have broad surfaces that collide and instantly rattle once bound together. A well preserved necklace from Phylakopi on Melos offers an excellent example of such a sonorous neck ornament comprising wide rings of



Patella shells loosely strung from the middle (Karali 1999, 37, fig. 24b). An analogous acoustic effect is feasible when necklaces made of narrow, conical or spherical shells such as *Dentalium*, *Conus* and *Nassa* are arranged in multiple layers which jostle and clatter. All the shell species mentioned here are commonly found in several Neolithic and Bronze Age contexts in the Aegean and Cyprus (Karali 1999, 29-30, 36-40, 58-9, figs. 23-5, 30, with further references). Some deposits have yielded large numbers of such worked shells and shell-beads suggesting that they formed necklaces of considerable sizes. Although in most cases we regrettably can not know with certainty the length and structure of these necklaces or whether they were worn in multiple layers, it is plausible that some of them were compositions which allowed the production of rattling sounds.<sup>9</sup>

Multiple layers of stone, glass, faience, ceramic or metal beads are also capable of producing clear yet delicate clacking sounds. The most emblematic example of multi-layered beadwork that was explicitly made to sound is the Egyptian *menat* or *menyet*, a thick necklace consisting of several loosely strung rows of small faience beads attached by a chain of single glass and stone beads to a large bronze counterpoise (Aldred 1978, 18; Andrews 1990, 185). Both a beautiful ornament and a liturgical object, the *menat* was a symbol of Hathor, the goddess who encompassed various aspects of creation and fertility in Egyptian religion and who was also patron of miners and prospectors. Originally worn by the priestesses of Hathor, this impressive necklace was later carried by high-ranking women as a symbol of their religious duties. The *menat* was used in rituals together with the *seistrion*, the highly elaborate rattle instrument of Hathor *par excellence*. In a scene from a Theban tomb (Fig. 2a) a priestess is wearing the *menat* and she rustles it by shaking the rows of beads between her fingers, complementing in this way the rattling of the *seistrion* which she quivers in the other hand (Aldred 1978, 18). Other scenes in Theban tombs show upper class ladies and priestesses of Hathor brandishing a *menat* by the counterpoise like a rattle (Fig 2b; Hickmann 1961, 46; Andrews 1990, 185, fig. 171; Manniche 1991, 64 fig. 37). Songs written on the walls of Egyptian tombs imply that, through the rattling sounds of *menats* and *seistra* which were "presented to the nostril" of the deceased, the rejuvenating powers of Hathor would give breath back to the dead (Manniche 1991, 71-2). In order to communicate complicated concepts and beliefs about death and the afterlife the *menat* bearers appropriate an archetypal non-

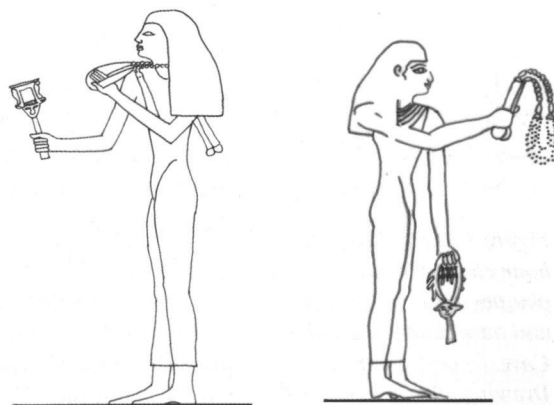


Figure 2: Egyptian *menat*: a) Priestess of Hathor wearing and rustling a *menat*. Thebes, 18th Dynasty. Drawing after Aldred 1978, 18 (figure in text). b) Priestess of Hathor brandishing a *menat* by the counterpoise like a rattle. Thebes, 18th Dynasty. Drawing after Manniche 1991, 64 fig. 37.

9. Multiple shell necklaces are sometimes depicted on mould-made Cypro-Archaic terracottas, but they are spaced too far apart to collide (see for example Karageorghis 1999, 88 fig. 25).

verbal structure, the rattling noise. The cognitive value of the *menat* as a rejuvenation agent within the Egyptian cosmological system is thus constructed, maintained and communicated through the sound property of this heavy necklace.

Apart from necklaces, tinkling sounds were also emitted by beaded girdles known from Pre-Dynastic (Badarian period) and Dynastic Egypt, comprising several long strings of beads strung closely together and separated by spacer-beads. Such girdles, worn initially by both males and females, eventually became a marked female accessory from the 12th Dynasty onwards, and are often represented on tomb frescoes resting loosely on the hips of female dancers or prepubescent girls (Andrews 1981, 22 no. 41, pl. 12, 53 no. 323, pl. 24; Aldred 1978, nos. 17, 19, 22, 23, 50; Andrews 1990, 140 ff., fig. 37; Hickmann 1961, fig. 38). As the girdle followed the movement of the hips, the beadwork must have offered a subtle rustle which would have enhanced the sensuality of the female body, in particular that of the female dancers. Two surviving girdles belonging to princess Mereret as well as the girdle of princess Sit-Hathor-Yunet, daughter of the king Sesostris II (1906-1888 BC), were also equipped with golden jingles shaped as leopard heads and cowrie shells (Aldred 1978, 116, no. 22; Andrews 1990, 141, fig. 1b). The soft chime of the jingles combined with the subtle clacking of the beads indicates that the princesses' girdles were made not only to look lavish but also to sound different from the rest. By enhancing the dress property which most emphasises their femininity, namely the rattling sound of the girdle, the princesses distinguish themselves from the other women on a social and sexual level. Given the potent fertility symbolism of the cowrie shell and its established use as a talisman (Andrews 1990, 173), their rattling girdles codify the concepts of successful birth and proliferation. The manipulation of the sound quality of this principally female dress accessory enables the high-born girdle bearers to manifest themselves as objects of desire who will eventually produce regal offspring.

Magical protection around the genital areas most likely was the *raison d'être* for another type of Egyptian belt with sounding beadwork, the *besau* or bead apron, a clothing item originally worn by the Pharaoh as a part of his insignia but also appearing as a female accessory of high-born ladies from the 12th Dynasty onwards, finally to be appropriated for funerary use by commoners since the Middle Kingdom. The apron comprises a narrow beaded belt with pendant strings of beads long to the knees and spaced at small intervals; the middle string at the back is fashioned like a tail which is also covered in beadwork (Aldred 1978, 44, 114, pl. 9; Andrews 1990, 141, fig. 123). The suspended beads would rattle softly had the garment been worn in everyday life, although such aprons may have been intended only for use in burials. Like the Natufian fox-teeth belt discussed above, the Egyptian apron incorporates a totemistic element, the tail, which nevertheless is refined and merged with the sophisticated beadwork that also includes state/religious iconographic symbols such as the Upper Egyptian lily and the papyrus.

The examples discussed so far demonstrate how the sound properties of strung or suspended parts worn especially around the genital area or the bust in the form of belts, pendants and necklaces may have conveyed the interconnected concepts of distinction, protection and regenerating power which in turn would have been attributed to the wearer. This is not to say that all dress accessories or jewellery types with suspended parts should be regarded as items with inherent sound qualities comparable to suspension rattles. Although ornaments with multiple stems and

pendants of various forms hanging from a string, bar or ring, are very common in the Mediterranean and beyond throughout the Bronze and Iron Ages (see examples in Higgins 1961; Coarelli 1970; Maxwell-Hyslop 1971; Musche 1988; Williams and Ogden 1994), in most cases the suspended parts of necklaces, earrings, armlets, bracelets, broaches, diadems and other headgear are too far apart or much too delicate to resonate substantially, especially when these items are made of gold which is a soft metal that does not reverberate adequately (Price 1983, 60).

Bronze, however, is a highly resonant material whose several uses also include the making of percussion instruments such as cymbals, bells and rattles. In the Iron Age, bronze jewellery with rattling components become widespread across North and Central Europe, the Balkans, Italy and Greece, comprising chest and neck ornaments as well as belt pendants.



**Figure 3:** Bronze crescent-shaped fibula with clapper-pendants hanging from chains. Hallstatt (period C), Tomb 174. Drawing after Kromer 1959, Pl. 21:5.



**Figure 4:** Bronze boat-shaped fibula with five chains and bottle-shaped pendants hanging from a ring. Central Italy, Este, Tomb 246, 7th/6th century BC. Drawing after Eles Masi 1986, pl. 72 no. 958.

Rattling fibulae with suspended or strung parts are probably the most favoured sound ornaments in Iron Age Europe and Italy, evidenced primarily in burial contexts. These become extremely fashionable in the 8th and 7th centuries BC and culminate by the late 6th/early 5th century BC. Characteristic are the fibulae with multiple pendants from Hallstatt dated in the 7th/6th century BC (**Fig. 3**). These have large crescent-shaped bodies often embellished with animal protomes and incised patterns; from suspension rings at their bottom hang several long chains ending in flat disc-shaped or triangular pendants (see numerous examples in Kromer 1959; also Ogden 1982, 59, fig. 4:46). The robust double link chains can sometimes reach over 30 cm in length, endowing the fibulae with remarkable sound potential as they rattle upon movement. Comparable noisy attachments complement boat-shaped bronze fibulae from Central Italy, with the difference that now the chains, multiple rings and various kinds of pendants are suspended from the pin rather than the body of the fibula (see numerous examples in Eles Masi 1986). An example of such a fibula is shown here (**Fig. 4**), found in a cremation tomb at Este and dated at the late 7th/early 6th century BC

(Eles Masi 1986, 109, no. 958). It comprises five long single link chains ending at bottle-shaped pendants; the chains are attached to a wide ring pendant suspended from the pin. Another example from mid-7th century BC Numana (Picentia) on the Adriatic coast has a particularly impressive rattling pendant that hangs from the pin of the fibula, consisting of a rectangular bronze plaque with five human figures at the top, and eighteen chains with smaller human and hand shaped pendants at the bottom (Σταμπολίδης 2003, 567, no. 1140 with references). More modest rattling fibulae of different types with elaborate multiple pendant forms, intersected rings or chains hanging from various parts of the fibula are also found in the Central Balkan area (see numerous examples in Vasić 1999).

Naturally such ornaments were visually stunning as well as demonstrably sonorous. It is reasonable to regard these impressive compositions as status symbols, especially given the elite-controlled aspect of metallurgy and the social kudos that vested metal objects. The jingling of bronze ornaments could thus highlight the social eminence of the jewellery bearer and offer protection at the same time from malevolent powers.<sup>10</sup>

Rattling bangles of bronze chains without pendants may offer a finer sound effect. An example of such composition comes from an elite Enotrian female burial at Cazzaiola dated at 600-550 BC (Σταμπολίδης 2003, 551, no. 1088 with references). At the bottom of a large iron fibula consisting of four spires is attached a bangle of several bronze long chains hanging at different lengths. The burial is rich in bronze, iron and amber jewellery which is thought to be part of the bridal gifts of the deceased. Enotrian burials of the same period have also yielded rattling pendants consisting of several bronze chains (Bianco et al. 1996, 157).

Chains of various sizes can also be attached on pins. A pair of Sub-Geometric bronze pins from Prosymna, and similar examples from Iron Age Silesia and Illyria have chains of rather wide intersected rings (Jacobsthal 1956, 116, figs. 340-2).<sup>11</sup> The chains would hang across the bust as they linked the pins that were placed on each shoulder. The acoustic effect of these ornaments should not be as impressive as that of the Italian or the Hallstatt fibulae, however the underlying concept and intentions remain the same.<sup>12</sup> Pendants with chain-like compositions of several wide intersected rings are also found in the Balkans. An impressive example from Karagač has two sets

10. For the widespread belief in antiquity that that sounding bronze has purifying and prophylactic powers see Schatkin 1978 (with earlier bibliography); Villing 2002, 283 n. 218; also discussion in Kolotourou 2005, 183-186.

11. See Jacobsthal 1956, figs. 58 (Krete) and 123 (Trebenishte) for finer chains. His no. 85 from Artemis Orthia sanctuary does not seem to preserve the chain.

12. Representations of chain-pins on Greek terracottas from Praisos in Crete (Jacobsthal 1956, fig. 329) and from Boeotia (Szabó 1994, fig. 115), as well as on vase painting (Jacobsthal 1956, figs. 331-2, detail of Moirai on the Françoise Vase) show such chains with additional pendant pellets or discs. We should also mention the Scandinavian T-shaped pins of the Montelius 5-6 period (750-550 BC), which have pairs of triangular clackers mounted on the crossbar instead of chains (Jacobsthal 1956, 143, 151, figs. 424 and 472).

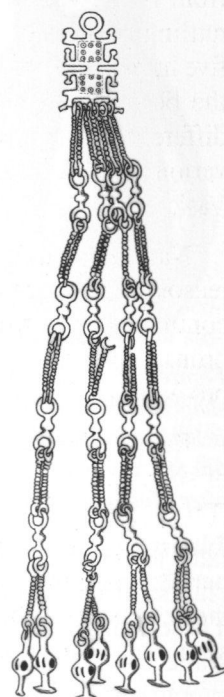


of large intersected rings hanging from a three-looped frame; four smaller rings are suspended from one of the bottom rings (Kilian-Dirlmeier 1979, 211, no. 1318, pl. 75).<sup>13</sup>

Echoes of the elaborate sounding fibulae from Italy and Central Europe may be found in some Iron Age bronze breast pendants from the Balkans and Greece. An example from a grave at Mati Bezirk (**Fig. 5**) consists of eight extremely long chains hanging from an ornate looped frame; at the end of each chain is attached a miniature openwork pendant (Kilian-Dirlmeier 1979, 209-210, no. 1310, pl. 74). Another example from Axioupolis presents five such pendants strung on a single ring rather than on chains (*ibid.*, 210, no. 1311, pl. 74). It is not entirely clear how these ornaments were worn, but Kilian-Dirlmeier interpreted them as breast pendants on the basis of their position within a grave context from Oliveta Citra (*ibid.*, 209).

These artefacts combine the idea of the suspension rattle with the form of the so-called bird-cage pendant, an openwork pendant type found in sanctuary and grave deposits of the 8th-6th centuries BC (Kilian-Dirlmeier 1979, 50 ff.; Bouzek 1971).<sup>14</sup> According to Kilian-Dirlmeier these pendants were worn in the middle of a necklace (*ibid.*, 80). The bird-cage pendants are characterised by vertical cut-out openings on their rhomboid, elliptical or globular body (compare with pendants of **Fig. 5**). An elongated stem with suspension loop, sometimes replaced by animal or human figures, is usually situated on top of the openwork.

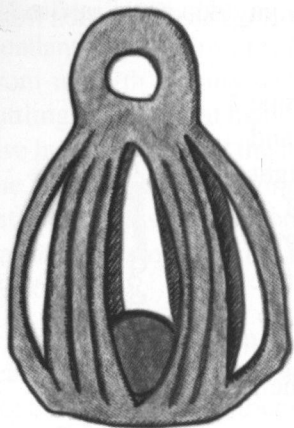
As a single unit the bird-cage pendant is a silent ornament. The form of the bird-cage pendants, however, is associated with actual openwork bronze rattles known from the Caucasus area, Urartu, Mesopotamia, Skythia, Luristan and Northwest Iran since the 3rd millennium BC (Reis 1998, 126, fig. 2a; Rimmer 1969, 39, pl. XIXc; Muscarella 1988, 67 ff. with references). These contain one or more pellets sealed inside that make noise when



**Figure 5:** Bronze pendant with eight miniature openwork pendants hanging from long chains attached to a looped frame. Albania, Mati Bezirk. Drawing after Kilian-Dirlmeier 1979, pl. 74, no. 1310.

13. It is possible that the twenty-one bronze rings belonging to a jewellery group from Aigaion, now in Ashmolean, could have been part of a similar composite pendant (Jacobsthal 1956, 135, fig. 392:1, 2, 6 and 7). Multiple intersected rings are characteristic of the Scandinavian rattles of the Late Iron Age known as ranglers. This type of suspension or sliding rattle consists of an iron ring on which hang several smaller sounding rings (Lund 1981, 250-2, fig. 3); the rattle form is replicated by bracelets of the Viking period with multiple suspended rings (*ibid.*, 251, fig. 2).

14. The large numbers of bird-cage pendants found in Thessaly, Macedonia and the Balkans suggest Northern Greek/Balkan inspiration, although local manufacture of certain pieces from the Peloponnese may also be surmised (Bouzek 1971, 94; 1974, 72).



**Figure 6:** Openwork pear-shaped bronze rattle with one pellet inside. Possibly from Iran, 9th-8th century BC. Drawing after Muscarella 1988, no. 370.

agitated (**Fig. 6**). The openwork rattles assume a range of shapes (globular, elliptical, triangular, pomegranate, pear-shaped), openings on the wall that may vary from narrow slits to sophisticated cut-outs, suspension rings at the top or at both ends, and often animal or bird protomes as decoration.<sup>15</sup>

The Greek and Balkan bird-cage pendants evidently adopt many of the features of their eastern cousins, but they are mute variants without the pellets that would make them rattle. Despite not having acoustic properties in themselves, they strongly allude to the well known openwork rattles whose symbolic value may actually have triggered the production of the pellet-less series. The suspension rattles from Axioupolis and Mati Bezirk restore the openwork bird-cage pendants back to being voiced ornaments like their eastern prototypes, the openwork rattles, albeit adapting them to the requirements of European fashion. These examples are demonstrative of the adaptability and dynamic transformations of the rattling ornaments.

Another type of bronze suspension rattle retains the overall form of a three-dimensional bell, but instead of a clapper it has multiple stems hanging from rings at its rim (**Fig. 7**). These ornaments are associated with exclusively female burials, and in some cases single items are deposited in sanctuaries, such as the sanctuary of Artemis Enodia at Pherai, and the sanctuary of Hera Limenia at Perachora (Bouzek 1974, 93, Group E1, fig. 26:5-12; Kilian-Dirlmeier 1979, 45-48). Although it is not impossible that these rattling items may have been worn as neck ornaments (see below note 20), their congregation and distribution within the graves indicates that many such pendants were apparently suspended from a belt or girdle worn around the pelvis of the deceased (Kilian-Dirlmeier 1979, 46). Our illustrated example from Axioupolis (**Fig. 7**) was found in the middle of a tomb along with five similar pendants and two "jug-stoppers" (*ibid.*, no. 284, pl. 19; Bouzek 1974, 93, Group E1, fig. 26: 11-12). Unless this was strictly a burial custom of funerary decoration or dedication, the sound of the pendants would have accompanied the wearer during her lifetime. Whether worn singly or in groups, the bell-shaped pendants with



**Figure 7:** Bronze bell-shaped pendant with five suspensions. 8th-6th century BC. North Greece, Axioupolis, Tomb 2. Drawing after Kilian-Dirlmeier 1979, pl. 19, no. 284.

15. Iconography indicates that these rattles were suspended from the necks of horses (Muscarella 1988, 68), but a pomegranate-shaped example attached on a chain might suggest that they could also have been worn as pendants (*ibid.*, 274 no. 369). The deposition of an openwork rattle in a 3rd millennium Barbar Temple has led Reis to interpret it as a priestly artefact (Reis 1998, 127).

suspending stems would ring and allude to actual bells which are commonly deposited in Greek sanctuaries and burials from the 8th century onwards.<sup>16</sup>

An associated bronze rattling pendant from the Heraion at Perachora (Fig. 8) that presumably decorated a belt or the bust is cut out in the shape of a bell and sounds by means of colliding rings suspended from four ovoid openings at the bottom of the bell (Kilian-Dirlmeier 1979, no. 1306, pl. 73). Both the form and the tinkling sound of this ornament would be comparable to the actual shape and sound of a proper bell. In fact, bronze ornaments with strung and suspension sounding parts may have produced even more compelling sounds than the customary bells and jingles, given their impressive size and sonorous potential.

Mention should also be made to the well known series of Orientalizing Rhodian golden plaques destined to decorate the bust, either attached to the chest with the help of fibulae or suspended from a chain. Embossed with symbolic religious motifs (Mistress of Animals, Naked Goddess, Woman in the window, Shpinx, and others), these plaques usually have globular, pomegranate or flower-shaped pellets suspended closely from their rims (Laffineur 1978, 78-83, pls. I, III-VIII, XI-XIV, XXIII). The sound of these golden ornaments would have been very light, if at all substantial, but the pieces made of electrum, a gold alloy containing silver and copper, could have been slightly more resonant. It may not be coincidental that the two larger pieces from Camiros described by Laffineur as "pendants de tempes" and which also have long chains with multiple stems and pendants, are made of electrum and thus more likely to produce sound (*ibid.*, 127 ff., nos. 198-9, pls. XXIII:1, 3).

To conclude: ornaments with suspended or strung parts which are sound effective have a very long history and are among the earliest dress accessories that have been recorded in the Mediterranean. Worn from the neck to the knees, these are extremely attractive compositions that often adopt and adapt the shapes and structures of actual instruments such as clappers or vessel rattles and bells, especially during the Iron Age. Their diverse materials and forms result to equally versatile sounds ranging from a subtle rustle to a sonorous rattle. These sounds protect, distinguish and empower the jewellery bearer as they voice metaphoric associations within their respective cultural contexts. In each and every instance, the rattling sounds respond to the movement of the body and clothe one's essence of being during one's lifetime and inside the tomb, where the rattling ornaments are eventually deposited as worthy possessions of both men and women, linking this life with the next.

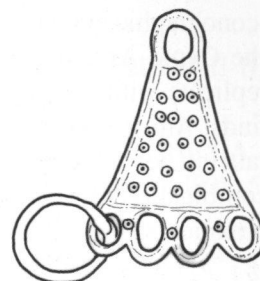


Figure 8: Bronze bell-shaped pendant with suspended rings. 6th century BC. Perachora, Heraion. Drawing after Kilian-Dirlmeier 1979, pl. 73, no. 1306.

16. For a recent survey of Greek bells and their connections see Villing 2002, with further references. Large quantities of bells are dedicated at the sanctuaries of Hera at Samos, Athena Chalkioikos at Sparta, Olympia and the Kabeireion at Thebes; fewer or single specimens come from cult sites at Oropos (Building Θ), Messenia (Apollo Korynthos), Menelaion, Aigiai (possibly Artemis), Perachora (Heraion), Argos (Heraion), Eutresis (possibly Demeter), Delphi, Pherai (Artemis Enodia), Delos, Chios (Apollo Phenaios and Harbour sanctuary), Aigina, (Aphaia), the Athenian Acropolis, and the Corycian cave (Pan and Nymphs). They are also found in tombs at Halae, Thespieae, Thebes, Kerameikos and Messenia, in settlement and grave contexts at Olynthus, Pella and at the Athenian Agora.

### Rattling jewellery: the Cypriot connection

That certain body ornamentation in Cyprus may have produced sound can be surmised from the iconographic evidence rather than the surviving cypriot jewellery. Terracotta figurines especially of the Cypro-Archaic and Cypro-Classical periods are often shown wearing elaborate jewels and replicate with considerable accuracy many types of Cypriot jewellery that are known from actual finds. Among the different ornaments depicted on the terracottas we can exemplify two types of rattling jewellery: i) necklace with a single pendant bell or jingle, and ii) pendant with a combination of suspended ornaments that form a suspension rattle. Rattling girdles, belts and bust ornaments such as those discussed in the previous section do not feature in Cyprus.

#### *i) Necklace with single bell or jingle.*



**Figure 9:** Bell-shaped male terracotta with mobile legs and upraised arms wearing a bell pendant. Cyprus, uncertain provenance. CG II/III. After Karageorghis 1993, pl XXXIII:10



**Figure 10:** Female terracotta with bell pendant carrying a vase. Cyprus, uncertain provenance. CA I. After Karageorghis 1998, pl. XII:5.

A few CG and CA terracottas wear a painted conical or triangular pendant which is hanging from a necklace usually indicated by a V-shaped line (Figs. 9-12). The pendant can be fully painted or rendered in outline. These ornaments are generically described as "triangular pendants". Following the Near Eastern custom, Cypriote horses are often represented wearing bells that hang below their muzzle. In coroplastic these bells are rendered either plastically in clay, or as fully painted triangles situated right below the muzzle (see for instance Karageorghis 1995, 116, fig. 67).

In analogy to those, I suggest that the triangular pendants shown on the human CG and CA clay figurines represent actual bells hanging from a necklace.<sup>17</sup> It is interesting to note that this type of pendant appears in Cypriot coroplastic at roughly the same period with the large amounts of bronze

17. One can not exclude, however, the possibility that they represent clapperless bell-shaped pendants rather than actual bells, like the bell-shaped pendant from a child burial of the Classical period found in Salamis Tomb 73A (Karageorghis 1970, 115, pl. CCX:II:2). Such pendants appropriate the bell form and consequently the bell symbolism, but remain silent ornaments.



bells found at Nimrud (9th-8th centuries BC; Rashid 1984, 112-3), and becomes more common as soon as actual bells start to be deposited in Cypriot burials from the 8th century on.<sup>18</sup>

The bell pendants are depicted on the following terracotta groups:

A) Bell-shaped figurines with mobile legs and upraised arms (**Fig. 9**), dated at CG II-III (Karageorghis 1993a, 79, cat. LGA(ii) 1, 2, pls. XXXIII:10, XXXIV:1).

B) Female figures with upraised arms, with and without a polos, dated at CG III/early CA I (Karageorghis 1993a, 83-4, cat. LGA(iv) 8, 12, pls. XXXVI: 7a-b, XXXVII:6; Karageorghis 1998, 5, cat. I(i) 6, pl. I:8; Hermary 2000, 19 no. 2, pl. 1:2)

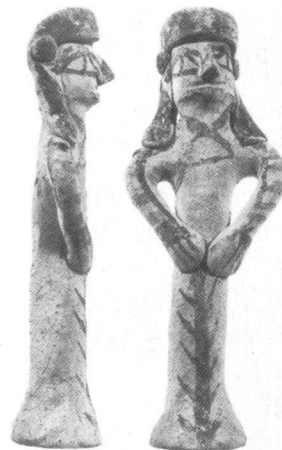
C) Female figures carrying a vase or a lamp on their head (**Fig. 10**), dated at CA I-II (Karageorghis 1998, 18 ff., cat. I(iii) 1, 2, 4, 5, 7, 9-11, pls. XI-XIII).<sup>19</sup>

D) Figures of the handmade solid variety from Amathus workshop holding a disc/tambourine (**Figs. 11, 12**), dated at CA I-II (Karageorghis 1998, cat. I(ix) 2, 6, 31, pls. XVII, XVIII, XX; Hermary 2000, 24 no. 22, pl. 4:22).

The horizontal lines on the majority of the pendants from group C (**Fig. 10**) recall the band decoration of actual clay Cypriot bells found in burials (see Karageorghis 1996, 88, cat. Z(a), pl. L:3-7), and further substantiate our interpretation of these ornaments as bells. The coroplast tries to be true to reality with the details of his bell representations, just like with his vase shapes that reflect contemporary types (Karageorghis 1998, 18). In most cases the pendants are small and reserved to the area just below the neckline and between the breasts, thus having a size consistent with that of actual



**Figure 11:**  
*Tambourine player with bell pendant. Amathus, grotto on the slope of the Acropolis. CA I/II. Drawing after Hermary 2000, 24 no. 22, pl. 4:22.*



**Figure 12:** *Tambourine player wearing a bell pendant. Cyprus, Amathus, tomb 232. CA II. After Karageorghis 1998, pl. XVIII:2.*

18. The earliest Cypriot bells come from Tomb 81 at Palaepaphos-Skales and from Salamis Tomb 79 (Karageorghis 1996, 88, cat. Z(a)1, 2, pl. L:3, 4; Karageorghis 1973, nos. 142 and 163, pls. LXXX, CCLIV). The former are made in clay, probably as substitutes for actual bronze instruments; the latter are bronze and form part of the horse trappings from Tomb 79. The majority of Cypriot bells have been found in burials at Palaepaphos (Skales and Xylinos), Salamis, Amathus, Kourion, Idalion, Nicosia and elsewhere. Considerable quantities of clay bells are also deposited at the Sanctuary of Aphrodite at Amathus, whereas bronze specimens come from the sanctuary of Athena-Anat at Idalion.

19. A similar example that is touching the head instead of carrying a vase also wears a bell-pendant (Karageorghis 1998, cat. no. I(ii)2, pl. XI:3).

bronze bells from Cyprus and Greece. The pendants of group C, however, are exaggerated and as a rule they extend to the whole torso. This is also seen on one of the four examples of group B with upraised arms, which was found at a bothros deposit at the Sanctuary of Aphrodite at Amathus (Hermay 2000, 19 no. 2). It is possible that the coroplast enlarged the bells in order to make them recognisable and to highlight their significance, whether practical or symbolic.

The fact that figures with upraised arms (groups A and B) often wear a bell pendant most likely indicates a deep cultic significance of the bell in Cyprus. If the attitude of uplifted arms indeed connotes the act of divine invocation or epiphany, then the bell must have acted as an evocatory instrument and a metaphor for the divinity. It is interesting that with the figures of group A the shape of the bell pendant is reproduced in the shape of the body of the figure itself (**Fig. 9**). I am inclined to think that this is not coincidental but suggestive of the associative relationship which is established between the sounding ornament and its bearer, as it has been proposed in the first part of this paper.<sup>20</sup> In this way, a successful invocation is guaranteed by the bell sound that sanctifies the human agent and also protects him from the overwhelming effect of the divine presence.<sup>21</sup> The overall protective quality of the bell is probably the reason why it is worn by the figures of group C which carry jars and probably represent a usual activity of everyday life (Karageorghis 1998, 21), suggesting that the bell pendant was not an uncommon piece of female accoutrement.

One CA example from Amathus (**Fig. 11**) belonging to our group D is wearing a triangular pendant painted in outline with a dot roughly at the centre (Hermay 2000, 24 no. 22, pl. 4:22). It is possible that the coroplast is trying to represent a pellet inside the body of the instrument. He would thus attempt to show a closed rattle or jingle rather than an open bell.<sup>22</sup> So far, jingles and rattle pendants have not been found in Cyprus. Both are evidenced in Egypt since the Old Kingdom (Hickmann 1954; 1965, 60). The Egyptian jingles are usually ovaloid or shell-shaped and are characterised by a slit opening, but there is also a triangular or bell-shaped example shown on a relief from the temple at Luxor, which is worn by Nubian dancers and drum players as an anklet (Hickmann 1965, 62, pl. 2; 1961 72, fig. 42). In addition, a clay rattle from Hazor (Iron Age II stratum) with a bell-shaped quasi-triangular contour has a hole for suspension at the top and could have been worn as pendant (Braun 2002, 100, 104, fig. III.25).

20. A similar coupling characterises some of the Late Geometric bell-shaped female terracottas with mobile legs from Boeotia, which have been interpreted as idols alluding to cult images (Grace 1939; Dörig 1958). These often wear large bell-shaped pendants with pendant stems, which recall the types of bell-shaped rattling ornaments discussed in the previous section.

21. According to Hickmann, the bell as an amulet would protect the person who wears it from evil, but would also protect the others from the malevolent power of that person (Hickmann 1965). Accordingly the bell as a ritual instrument has a twofold function: to signal the divine presence and at the same time to protect from the supernatural powers of the divinity (Kolotourou 2005, 185-186).

22. Open bells, as opposed to closed bells, have an open lower body that resembles upturned cups, and their clapper strikes the rim of their body. Closed bells also known as vessel rattles and jingles, have jingling part or parts moving freely inside a spherical body (see also note 5 above). Jingles are distinguished from rattles in that they usually have only one pellet.

It is possible that the Amathusian coroplast wished to depict a rattle pendant similar to those attested in the neighbouring Egyptian and Levantine contexts.<sup>23</sup> Given the deposition of this terracotta in a grotto below the Acropolis of Amathus and the fact that the figure also plays a tambourine just like the Nubian dancers, it becomes obvious that, with its jingling sound, the rattling pendant was rhythmically enhancing a ritual dance and potentially adding to the efficacy of the performance. The other terracottas of our group D depict the bell pendant in outline without the dot (Fig. 12), thus most likely alluding to conical bells with the same function. In stylistic terms the depiction of a tambourine player wearing a bell or a jingle as a neck pendant is a pure creation of the handmade variety of the Amathus workshop.

## ii) Pendant with suspension rattles

Three CA terracottas from Palaepaphos with hollow wheel-made cylindrical body and upraised arms present us with a modest version of suspension rattles (Karageorghis 1998, 1-3, cat. I(i)1-3, pls. 1:1-3, figs. 1-3). The figures wear a large tiara and a sash, and are adorned with earrings and a choker necklace. This impressive attire is completed with a long thick chain passing between the breasts, from which hang three relatively small scarabs or ring-seals. One of the examples shows clearly that the scarabs are not stringed directly to the chain, but are suspended from it with an intermediate chain or cord of some sort (Fig 13).<sup>24</sup> That the reason for this was practical is beyond doubt; however, the extra loop would also allow the pendants to collide more easily and thus rattle more effectively.

Similar chains with a single scarab seal adorn nude bronze and clay figures of the Late Bronze Age (Karageorghis 2003, 355, fig. 2; Karageorghis 1993a, cat. B(iii)1, pl. IX:4). Increase of the seal number by the 7th century possibly indicates more complex hierarchies and the need for additional insignia of office whose noisy accompaniment emerges as an unavoidable condition but also as an expression and projection of identity. We do not know whether the figures from Palaepaphos represent priestesses of Aphrodite, high officials or the divinity herself. It is possible that they could embody all these identities and imprint them upon the rattling of their insignia.

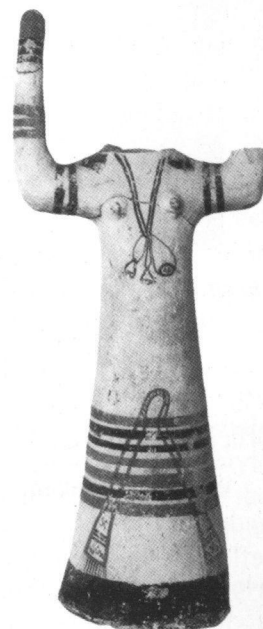


Figure 13: Female terracotta with uplifted arms and pendant with signet rings. Cyprus, Palaepaphos, CA I. After Karageorghis 1998, pl. I:3.

23. The presence of jingles in the Aegean is problematic as they are extremely scarce finds and their documentation is inconclusive. Μυλωνάς reported a golden nut-shaped jingle from the burial of a child female princess at Mycenae Burial Circle B, Tomb Ξ (Μυλωνάς 1973, 178, 184 no. 405, pl. 159a). In her recent study of Bronze Age Aegean jewellery, however, Konstantinidi describes the ornament as an "ivy-shaped pendant probably suspended by a bead-made bracelet" without making any reference to rattling sound (Konstantinidi 2001, 57, NM8620). An Early Iron Age bronze jingle is mentioned by Kilian-Dirlmeier from a Northern Greek grave at Hagios Panteleimon, but she does not provide an illustration and therefore the shape of this object is conjectured to be spherical, as is most common with jingles (Kilian-Dirlmeier 1979, 63 no. 401).

24. On a terracotta fragment from Enkomi (Tomb 33) a mounted scarab is hanging from the chain of a disc-shaped pendant with a loop that passes through two suspension rings at the back of the scarab (Karageorghis 1993b, 97, fig. 76).



**Figure 14: Female mould-made terracottas with rattling ornaments. Cyprus, Achna, CA I/II.**  
After Karageorghis 1999,  
pl. XII:1, 2

The CA mould-made female figurines from the workshop of Achna show a more elaborate version of this theme (**Fig. 14**). All the typological varieties of this workshop wear a majestic costume consisting of a dress and under-dress, a girdle and a mantle, and they have impressive ornaments which include rattling insignia among others. The figures stand with their feet close and their hands holding their breasts or folded underneath the bust, sometimes bringing offerings or playing the lyre (Karageorghis 1999, 48 ff). In all cases they wear a choker, one or two longer beaded necklaces, and finally a thick chain with a large disc pendant. From the bottom of the pendant hang five scarabs, a pendant in the form of a human figure with the hands on the sides, and perhaps a larger ring seal. These multiple pendants hang below the breasts and cover the broad area of the abdomen. The priestesses of Achna, if this is indeed what the figures represent, were rattling more than any other religious

official on the island.<sup>25</sup>

What is so peculiar about the cult of Achna that leads to such ornamental and acoustic excessiveness? Jacqueline Karageorghis suggested that this may reflect the desire to show a magnificent and imposing cult (Karageorghis 2003, 359). This might be true, but the symbolic dimensions of the rattling sounds that we discussed so far suggest that we should probably look for other explanations as well.

An interesting parallel for the lavish garb and the rattling jewellery of the figurines from Achna may be found in a bronze statuette of the Urartian goddess Arubani-Bagbartu from the city of Van (Darabey fortress) dated at the late 8th-early 7th century BC, now in the Historical Museum of Armenia. The goddess is seated and wrapped in a belted cloth once ornamented with gold plaques that passes at least twice around her body and once over her head and back (Loon 1966, 87-8, pl. X). She wears an exceptionally impressive necklace of four rows of beads or chains that cover her bust; from the last row hang three long pendant chains which cover her abdomen (**Fig. 15**), recalling some of the rattling ornaments discussed in



**Figure 15: Bronze statuette of the goddess Arubani-Bagbartu. Urartu, Van, 8th/7th century BC. Drawing after Loon 1966, pl. X.**

25. Two examples from Idalion and Arsos, nevertheless, show a single scarab suspended from the bottom of the disc-pendant (Karageorghis 1999, cat. X(v)42 and cat. X(vi)59, pls. LXXII:2, LXXIII:9).



the previous section.<sup>26</sup> A large pin is situated between the breasts, at the same place where we find the disc-shaped pendant on the Cypriot figures from Achna. It is worth noting that the suspension rattles of both the Cypriot and the Urartian figures are arranged so that they fully cover and apparently protect the abdomen area. Being the consort of the chief Urartian male god Khaldi, Arubani is the archetypal earth goddess of vegetation worshipped as bestower of fertility (Biagov 1978). Her character shares aspects with old river goddesses such as the Iranian-Persian Anahit, the Phoenician Ashtaroot as well as the Greek nature goddess Artemis, and as such it is probably akin to Artemis-Kybele that was worshipped at Achna. Although the ornaments worn by Arubani-Bagbartu and by the priestesses of Achna adopt different sounding insignia which are evidently culture-specific, their distinct sound properties display the same eagerness to appropriate rattling sounds in order to express and define the underlying character of the divinity. It is interesting to note that the rattling paraphernalia associated with the cult of Artemis-Kybele at Achna are different from those that are employed in the Amathusian cult of Aphrodite (see above), a demarcation that may also reflect a dichotomy in the establishment, doctrine or fundamental concepts of the respective cults.

To conclude: through the art of the coroplast we have been able to detect the use of rattling dress accessories in Cyprus which would have otherwise eluded us. Altogether, Cyprus produces an unparalleled amount of representations of bell pendants. The four typological varieties of terracottas wearing bells postulate that such ornaments were worn on a regular basis by male and female worshippers in ritual contexts and most likely in everyday life as well. In this the Cypriots may have shared the tastes and practices of their neighbours in the Levant and further east. Suspension rattles on the other hand are restricted to specifically ritual use and worn only by female priestesses of Artemis-Kybele and of the Paphian Aphrodite. Their form is a mixture of old-style insignia arranged according to contemporary trends of rattling jewellery in other parts of the Mediterranean but still rooted in the local tradition, thus negotiating meanings and relationships within and outside the island.

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26. Especially compare with the pendants from Karagas and Mati Bezirk that feature large rings and very long chains which would cover the upper body in a similar manner.

## ΠΕΡΙΛΗΨΗ

Η εμπειρία από το κουδούνισμα των κοσμημάτων δεν έχει χρονικούς περιορισμούς, γι' αυτό και περιδέρεια, σκουλαρίκια και άλλα κοσμήματα που κροταλίζουν κατασκευάζονταν σε όλες τις περιόδους και σε όλους τους πολιτισμούς της Μεσογειακής λεκάνης. Ο καλλωπισμός, η προστασία και η δήλωση αξιώματος καθώς και η επίδειξη πλούτου αναμφίβολα είναι έργο των κοσμημάτων, σε πολλές όμως περιπτώσεις τέτοιοι συμβολικοί συσχετισμοί μπορούν επίσης να εκφραστούν μέσω του κροταλίσματος που παράγεται από συγκεκριμένα διακοσμητικά σχήματα. Η παρούσα εργασία πραγματεύεται κοσμήματα για το σώμα από την περιοχή της Μεσογείου που κατασκευάζονταν με την προοπτική να παράγουν ήχο, όταν θα φοριόντουσαν. Γίνεται ιδιαιτέρως αναφορά σε αναπαραστάσεις εξαρτημάτων που παρήγαν ήχο και παρουσιάζονται σε κυπριακές τερρακότες, όπως είναι για παράδειγμα τα κωδωνόσχημα αναρτήματα ή τα κοσμήματα από την Άχνα που θα μπορούσαν να προσδιοριστούν ως κρεμαστά κρόταλα.

## BIBLIOGRAPHY

- Aldred, C. 1978, *Jewels of the Pharaohs. Egyptian Jewellery of the Dynastic Period*, 2nd ed. London.
- Andrews, C.A.R. 1981, *Catalogue of Egyptian Antiquities in the British Museum VI. Jewellery I. London*.
- C. 1990, *Ancient Egyptian Jewellery*. London.
- Bélis, A. 1988, "Musique et transe dans le cortège Dionysiaque", in *Transe et théâtre. Actes de la table ronde internationale, Montpellier 3-5 Mars. Cahiers du GITA* 4: 9-29.
- Besseler, H., Schneider, M. and W. Bachmann (eds.) 1961-, *Musikgeschichte in Bildern*. Leipzig.
- Bianco, S. et al. (eds.) 1996, *I Greci in Occidente: Greci, Enotri e Lucani nella Basilicata meridionale*. Naples.
- Biagov, L.N. 1978, "Über die Natur des Gottes Haldi und der Göttin Arubani-Bagbartu", *Oikumene* 2: 149-152.
- Bouzek, J. 1971, "Openwork «Bird-cage» Bronzes", 77-104 in J. Boardman, M.A. Brown, & T.G.E. Powell (eds.), *The European Community in Later Prehistory. Studies in Honour of C.F.C. Hawkes*. London.
- Bouzek, J. 1974, *Graeco-Macedonian Bronzes*. Prague.
- Braun, J. 1997, "Musical Instruments", 70-79 in E.M. Meyers (ed.), *The Oxford Encyclopedia of Archaeology in the Near East*, vol. 4. New York and Oxford.
- 2002, *Music in Ancient Israel/Palestine*. Michigan and Cambridge.
- Coarelli, F. 1970, *Greek and Roman Jewellery*. London (translated by D. Strong, originally published in 1966 under the title *L'oreficeria nell'arte classica*, Milan).
- Clark, R. 1979, *Costumes and Accessories from Central Asia: Alexandra and Leigh Copeland Collection, 27 February-20 May 1979*. National Gallery of Victoria. Exhibition catalogue.
- Daremberg, C. and Saglio, E. 1875, *Dictionnaire des antiquités grecques et romaines*. Paris.

- Dörig, J. 1958, "Von Griechischen Puppen", *Antike Kunst* 1: 41-52.
- Dournon, G. 1992, "Organology", 245-300 in H. Myers (ed.), *Ethnomusicology. An Introduction*. New York and London.
- Eicher, J.B. and Roach-Higgins, M.E. 1998, "Definition and Classification of Dress", 8-28 in R. Barnes and J.B. Eicher (eds.), *Dress and Gender. Making and Meaning*. New York and Oxford.
- Eles Masi, von P. 1986, *Le fibule dell'Italia settentrionale*. Prähistorische Bronzefunde Abteilung XIV-Band 5. Munich.
- Fisher, A. 1984, *Africa Adorned*, London.
- Finscher, L. (ed.) 1994- *Die Musik in Geschichte und Gegenwart (Allgemeine Enzyklopädie der Musik)*, Vols. i-xx. 2nd ed. Kassel and London.
- Gerlach, M. (ed.) 1971, *Primitive and Folk Jewellery*. New York (first published in 1906 under the title *Völkerschmuck, mit besonderer Berücksichtigung des metallischen Schmuckes*, Vienna).
- Grace, F.R. 1939, *Archaic Sculpture in Boeotia*. Boston.
- Grace, V.R., 1956, "The Canaanite Jar", 80-109 in S. Weinberg (ed.), *The Aegean and the Near East. Studies Presented to Hetty Goldman*. New York.
- Hermay, A. 2000, *Amathonte V. Les figurines en terre cuite archaïques et classiques, les sculptures en pierre*. Athens.
- Hickmann, H. 1951, "Zur Geschichte der altägyptischen Glocken", *Musik und Kirche* 2: 3-19.
- 1954, "Die altägyptische Rassel", *Zeitschrift für ägyptische Sprache und Altertumskunde* LXXIX: 116-129.
- 1961, *Ägypten*. Musikgeschichte in Bildern. Musik des Altertums. Band 2/1. Leipzig.
- 1965, "Pharaonic Jingles", 45-70 in C. Reese, and R. Brandel (eds.), *The Commonwealth of Music*. New York.
- Higgins, R.A. 1961, *Greek and Roman Jewellery*. London.
- Hornbostel, von E. M. and Sachs, C. 1961, "Classification of Musical Instruments", *Galpin Society Journal* XIV: 3-29 (translated by A. Baines and K.P. Wachsmann from the original 1914 text "Systematik der Musikinstrumente. Ein Versuch", *Zeitschrift für Ethnologie* 46: 553-590).
- Jacobsthal, P. 1956, *Greek Pins and Their Connections with Europe and Asia*. Oxford.
- Karageorghis, J. 1999, *The Coroplastic Art of Ancient Cyprus V. The Cypro-Archaic Period. Small Female Figurines. B. Figurines Moulées*. Nicosia.
- 2003, "The Goddess of Cyprus Between the Orient and the Occident", 353-361 in N.C. Stampolidis and V. Karageorghis (eds.), *Sea Routes. Interconnections in the Mediterranean. 16th-6th c. BC*. Athens.
- V. 1970, *Excavations in the Necropolis of Salamis II. Salamis Vol. 4*. Nicosia.
- 1973, *Excavations in the Necropolis of Salamis III. Salamis Vol. 5*. Nicosia.
- 1993a, *The Coroplastic Art of Ancient Cyprus II. Late Cypriote II-Cypro-Geometric III*. Nicosia.

- 1993b, *The Coroplastic Art of Ancient Cyprus III. The Cypro-Archaic Period. Large and Medium Size Sculpture*. Nicosia.
- 1995, *The Coroplastic Art of Ancient Cyprus IV. The Cypro-Archaic Period. Small Male Figurines*. Nicosia.
- 1996, *The Coroplastic Art of Ancient Cyprus VI. The Cypro-Archaic Period. Monsters, Animals and Miscellaneous*. Nicosia.
- 1998, *The Coroplastic Art of Ancient Cyprus V. The Cypro-Archaic Period. Small Female Figurines. A. Hand-made/Wheelmade Figurines*. Nicosia.
- Karali, L. 1999, *Shells in Aegean Prehistory*. Oxford.
- Kilian-Dirlmeier, I. 1979, *Anhänger in Griechenland von der mykenischen bis zur spätgeometrischen Zeit. Prähistorische Bronzefunde Abteilung XI-Band 2*. München.
- Kolotourou, K. 2005, "Music and Cult: the Significance of Percussion and The Cypriote Connection", 183-204 in V. Karageorghis, H. Matthäus and S. Rogge (eds.), *Cyprus: Religion and Society from the Late Bronze Age to the End of the Archaic period*. Proceedings of an international symposium on Cypriote archaeology, Erlangen 23-24 July 2004. Möhnesee.
- Konstantinidi, E.M. 2001, *Jewellery Revealed in the Burial Contexts of the Greek Bronze Age*. Oxford.
- Kromer, K. 1959, *Das Gräberfeld von Hallstatt*. Florence.
- Laffineur, R. 1978, *L'orfèvrerie Rhodienne orientalisante*. Paris.
- Loon, van M.N. 1966, *Urartian Art*. Istanbul.
- Lund, C. 1981, "The Archaeomusicology of Scandinavia", *World Archaeology* 12/3, *Archaeology and Musical Instruments*: 246-265.
- Manniche, L. 1991, *Music in Ancient Egypt*. London.
- Marcuse, S. 1975, *A Survey of Musical Instruments*. London.
- Maxwell-Hyslop, K.R. 1971, *Western Asiatic Jewellery*. London.
- Muscarella, O.W. 1988, *Bronze and Iron. Ancient Near Eastern Artefacts in the Metropolitan Museum of Art*. New York.
- Musche, B. 1988, *Vorderasiatischer Schmuck zur Zeit der Arsakiden und der Sasaniden*. Leiden.
- Μυλωνάς, Γ.Ε. 1973, *Ο Ταφικός Κύκλος Β των Μυκηνών*. Athens.
- Ogden, J. 1982, *Jewellery of the Ancient World*. London.
- Pease, S.A. 1904, "Notes on Some Uses of Bells Among the Greeks and Romans", *Harvard Studies in Classical Philology* 15: 29-59.
- Porada, E. 1967, "On Deer, Bells and Pomegranates", *Iranica Antiqua* VII: 99-120.
- Price, P. 1983, *Bells and Man*. Oxford.
- Rashid, S.A. 1984, *Mesopotamien*. Musikgeschichte in Bildern. Musik des Altertums. Band 2/2. Leipzig.
- Rault, L. 2000, *Musical Instruments. A Worldwide Survey of Traditional Music-Making*. London.



- Reis, F. 1998, "Music Archaeological Data for Cultural Contact Between Sumer and the Greater Indus Area: an Introductory Study", 123-164 in A. Buckley (ed.), *Hearing the Past: Essays in Historical Ethnomusicology and the Archaeology of Sound*. Liège.
- Rimmer, J. 1969, *Ancient Musical Instruments of Western Asia in the British Museum*. London.
- Roach, M.E. and Eicher, J.B. 1973, *The Visible Self: Perspectives on Dress*. New Jersey.
- Sachs, C. 1940, *The History of Musical Instruments*. New York.
- Sadie, S. (ed.) 1984, *The New Grove Dictionary of Musical Instruments*. Vols. i-iii. London.
- 1980, *The New Grove Dictionary of Music and Musicians*. Vols. i-xx. London.
- Schatkin, M.A. 1978, "Idiophones of the Ancient World", *Jahrbuch für Antike und Christentum* 21: 147-72.
- Σταμπολίδης, Ν. Χ. (ed.) 2003, *Πλόες...Από τη Σιδώνα στη Χουέλβα. Σχέσεις Λαών της Μεσογείου 1605-605 π.Χ.* Athens.
- Szabó, M. 1994, *Archaic Terracottas of Boeotia*. Roma.
- Tait, H. (ed.) 1986, *Seven Thousand Years of Jewellery*. London.
- Trumpf-Lyritzaki, M. 1981, "Glocke", 164-196 in *Reallexikon für Antike und Christentum* XI. Stuttgart.
- Vasić, R. 1999, *Die Fibeln im Zentralbalkan*, Prähistorische Bronzefunde Abteilung XIV-Band 12. Munich.
- Villing, A. 2002, "For Whom did the Bell toll in Ancient Greece? Archaic and Classical Greek Bells at Sparta and Beyond", *Annual of the British School at Athens* 97: 223-295
- Williams, D. and J. Ogden, 1994, *Greek Gold. Jewellery of the Classical World*. London.