

# Amber in the Mycenaean world and in the Balkan Peninsula during the 2<sup>nd</sup> millennium BC: perspectives of an imported material

Theodoros Zygouris <sup>a</sup>

<sup>a</sup> Greek Ministry of Education, 5 Korytsas Str. Zografos Athens/ Greece 15773; thzygour@arch.uoa.gr

## ABSTRACT

This paper focuses on amber finds in the Balkan area during the 2<sup>nd</sup> millennium BC. Amber beads reached initially Mycenaean sites in the 17<sup>th</sup>–16<sup>th</sup> c. BC. By the end of the 13<sup>th</sup> c. BC the material's geographical distribution expanded significantly in the Peninsula, from Western Balkans and Greece to Bulgaria and Romania. Most beads dated to these centuries are of flattened globular and discoid shapes. There had been greater concentrations of the fossilized resin buried in a few tombs during the initial appearance period in Greece; in contrast to this, fewer amber beads have been discovered, in more sites though, in later phases – these beads are found predominantly again in burial context. The 12<sup>th</sup> c. BC threshold marks a significant differentiation as far as amber distribution and shapes are concerned related probably to the political situation of the period, the fall of the Mycenaean Palaces and the active role of the Italic populations in amber's circulation. Amber beads are used for pendants, necklaces, belts or they are combined with other materials, eg. gemstones, cloths, metal artefacts. Amber seems to have assumed a multiple role in the Balkan communities as burial good, ritual artefact or material employed in societal manipulation, although contextual analysis is necessary in order to specify its functions at any site or in any community separately. During the last decades research has gained a new momentum encompassing the Northern Balkan countries into its consideration, even alongside the Mycenaean World; therefore, amber perspectives can be studied nowadays more elaborately.

## KEYWORDS

Amber, commodity, Bronze Age, Mycenaean, Balkans

---

Amber is a particular material due to its distinctive physical properties. The material is to be found only in specific areas of earth – i.e. predominantly in the Baltic area in Europe – and its deposits were exploited by several communities even during the Palaeolithic Era (Burdukiewicz 1999). Considerable amounts of amber reached the Balkan Peninsula, mostly Southern Greece, in the 2<sup>nd</sup> millennium BC; this paper will focus (following some concise remarks on the material) on three basic parameters concerning “Balkan” amber during the Bronze Age: i) the geographical distribution of amber finds in the Balkan Peninsula; ii) the artefacts that are being assembled/created with this material; iii) the significance, or else the role, of the material in the Balkan prehistoric communities. It is needed to specify that the period range under investigation will be limited in the 2<sup>nd</sup> millennium BC until before the start of the 1<sup>st</sup> millennium, a period during which amber artefacts had been used in the Balkans and a patterning could be recognised and discussed for the first time<sup>1</sup>. Regarding the term “Balkan”, the zone defined as such covers the modern-day states/areas of Slovenia, Croatia, Bosnia-Herzegovina, Northern Macedonia, Serbia, Montenegro, Kosovo, Roma-

---

1 There has been deliberately placed emphasis on the re-occurrence of Mycenaean finds and amber in the Balkans in order to discuss possible correlations in the last part of the paper.

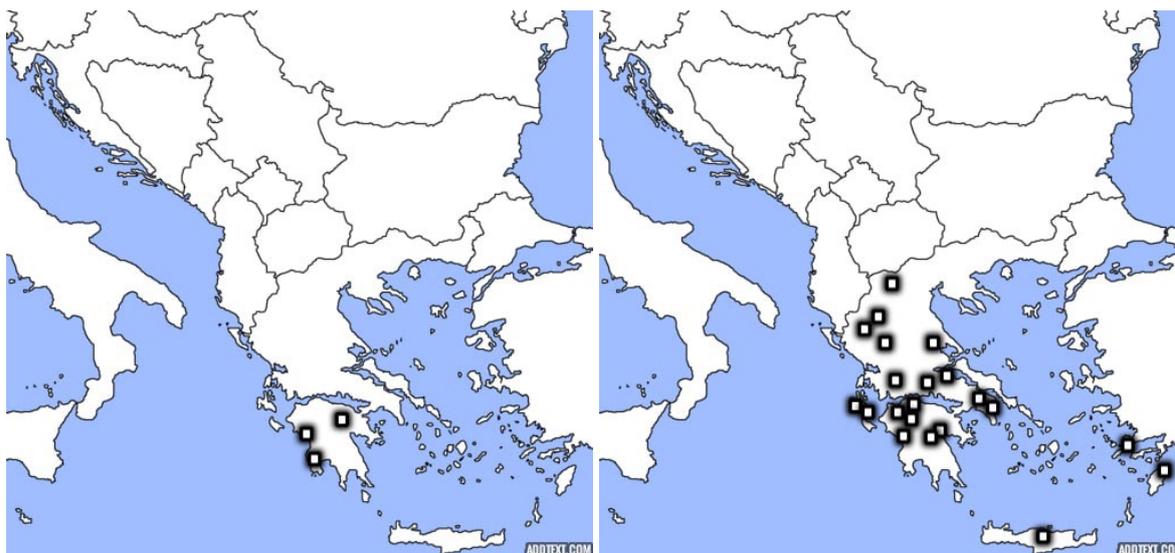


Fig. 1. 1-2. Find places of amber beads in LHI and LHIIB-C Greece (adaptation after Harding, Hughes Brock 1974, 147,150-151, fig.1-3).

Обр. 1. 1-2. Места на находки с кехлибарени мъниста в LHI и LHIIB-C Гърция (адаптирано по Harding, Hughes Brock 1974, 147,150-151, fig.1-3)

nia, Bulgaria and Greece (Todorova 1996 for the politicized term “Balkan”). A chronology stated in centuries or years BC is being largely preferred for the dating of the finds rather a descriptive one, since the various periods, i.e. Middle Bronze or Late Bronze etc, differ significantly in the area.

Starting from the material “*per se*”, it must be noted that amber is a fossilized resin created through long geological processes almost fifty million years ago. Pine wood forests, mostly in northern Europe, retreated by massive earth moves and gradually had been covered by the sea or by land layers. Finally, the forests had been fossilized and they consisted the so called “blue earth” stratum. Modern day Baltic States mainland, the Baltic sea and even Ukraine terrains sit upon “blue earth” amber deposits (Rice 2006, 19-22, 207-213). Amber can be found in various forms, more or less opaque or translucent, in lumps weighing up to one kilogram, though small light lumps reaching few centimeters are far more frequent. Amber is extremely soft and light material and it should be processed delicately. From the ‘60s onwards it is possibly to specify archaeological amber’s provenience due to the use of innovative analysis tools. The new technology was implemented initially in Mycenaean, i.e. Helladic Late Bronze Age, finds. In general, it seems that the major part of amber in the Balkans is “succinite” of northern European/Baltic origin and only a small fraction of it, excavated in southwestern Greece, derives from Sicily, “simitite”, although some Romanian deposits, “rumanite”, might have been discovered in the Carpathian sites (Beck 1966a, Beck 1966b, 1984-1985, 1986; Beck et al. 1968, 1970, 1972, 1995; Beck, Lieu 1973, Todd et al. 1976; Beck, Markova 1998; Teodor et al. 2010).

In the southern tip of the Balkans, in Greece, amber’s earlier appearance is dated to the 17<sup>th</sup>–16<sup>th</sup> c. BC. It emerges initially in a small number of tombs at Mycenae and near Pylos, in Peloponnese, in seemingly important burials (Harding, Hughes Brock 1974, 147). The sites with amber artefacts multiplied gradually and reached more than more than one hundred sites (and even more find places) with over a thousand amber beads: that trend can be detected firstly near the areas where major Mycenaean centres flourished, i.e. Myce-

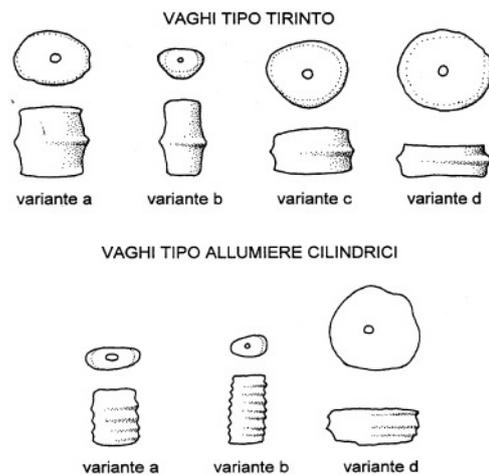


Fig. 2. Allumiere and Tiryns type amber beads  
(adaptation after Negroni – Catacchio 1999,  
244, fig. 2).

Обр. 2. Кехлибарени мъниста  
от типа Алумиере и Тиринт  
(адаптирано по Negroni – Catacchio 1999,  
244, fig. 2)

nae, Thebes, Pylos (Harding, Hughes Brock 1974, 148-149 table I), (fig.1.1-2).

What seems not to be unusual is that amber beads are deposited in the same cemeteries or even in the same tombs in their earlier and later phases persistently from the very beginning until the fall of the palatial Mycenaean culture (Harding, Hughes Brock 1974, 164, 166, indicatively in Prosymna cemetery or at Mycenae).

From the 15<sup>th</sup> c. BC and afterwards amber is found all over the areas of Greece where the Mycenaean Civilisation spread. Dodecanese, Thessaly, Western and Central Greece, the island of Crete, even Macedonia are the new places where the amber artefacts are spotted during the apogee of the palatial Mycenaean culture (Czebreszuk 2011, 140-144, table 15; Zygouris 2014, 99-138; see also Gaslain 2010 for a catalogue of the amber finds in the Mediterranean). However, the 12<sup>th</sup> c. B. C. marks a change in amber's distribution. The Eastern Mediterranean was hit by devastating circumstances that led the whole area to an economic decline and caused social turmoil. Mycenaean palatial culture came to its end (Treuil et al. 448-482). The new sites where amber has been excavated are located in the Ionian Islands, in northwest Peloponnese, in Attica (Czebreszcuk 2011, 145-146, tables 16-17; Zygouris 2014, 144-156). It should be stressed that new forms of amber beads circulate in the Mediterranean, i.e. Tiryns and Allumiere type and there are strong indications of workshops where amber artefacts are processed in Central Mediterranean (fig. 2):

in overall, it seems that there is a shift in trade routes and the Italic populations controlled the amber crafting and "trade" (Negroni Catacchio 1999; 2006 for the new types of beads; Zygouris 2014, 358-361 where literature for post-12<sup>th</sup> c. BC amber circulation) (fig. 3).

The Western Balkans' find – places with amber are adequately documented (Palavestra 1993, 2006; Cwalinski 2014 for a concise overview on amber in ex-Yugoslavia, also in relation to Italy, that expands on theoretical schemes; for Albania see further below) (fig. 4).

A long catalogue of Historic Era amber artefacts often of sophisticated elaboration have come to light, although the prehistoric finds of the 2<sup>nd</sup> millenium are far less "impressive" in terms of shapes and numbers: around 25 sites with over one hundred "simple" beads, i.e. not incised or formed in detailed ways (Palavestra 1993). One of the earliest appearances of amber in the area is in a single grave, in a Sosici tumulus, in Istrian Zmnjak deriving from the 1600–1500 BC. stratum. The amber beads from the Krmedski Novi Grad graves seem to be of a slightly later chronology (Palavestra 1993, 264, 289; Todd et al. 1976, 320; Palavestra 2006, 43). Furthermore, 35 unpublished amber beads from Istria in Vrčin tumulus B bound in necklaces have been examined and found to be of Baltic origin, but with

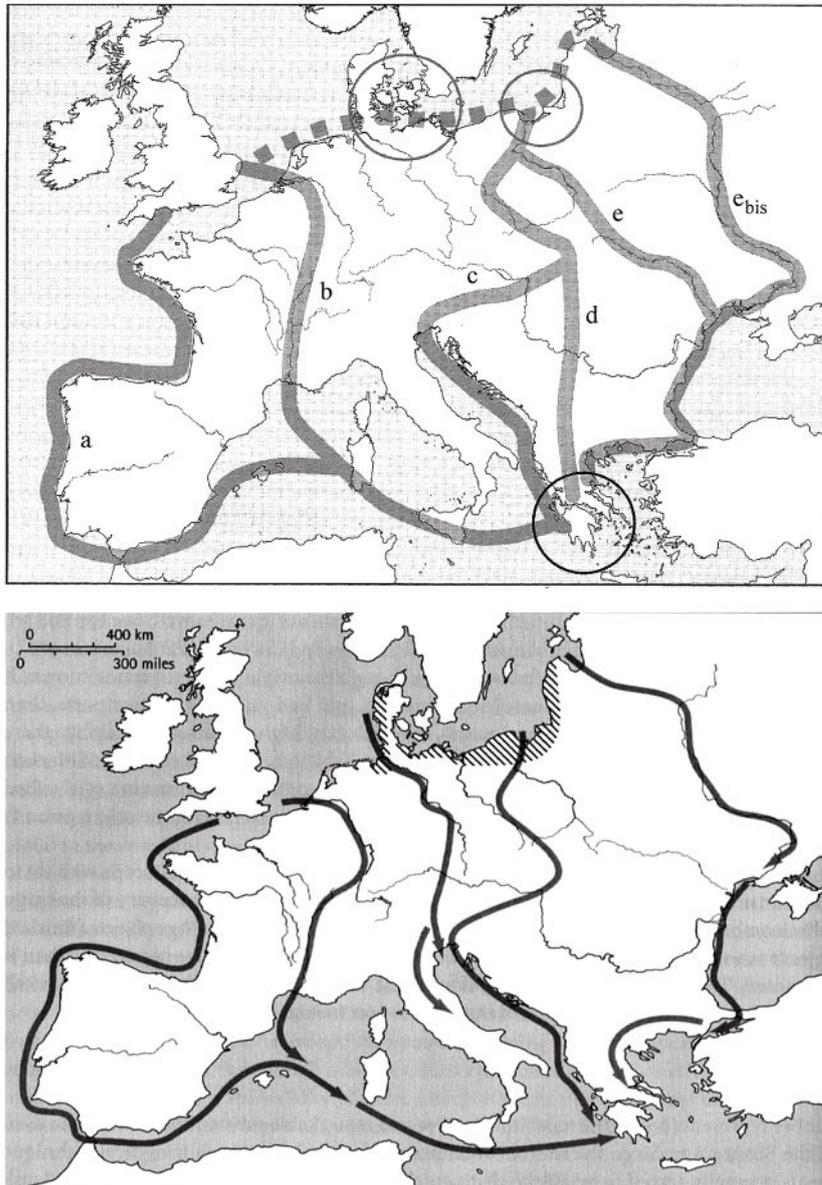
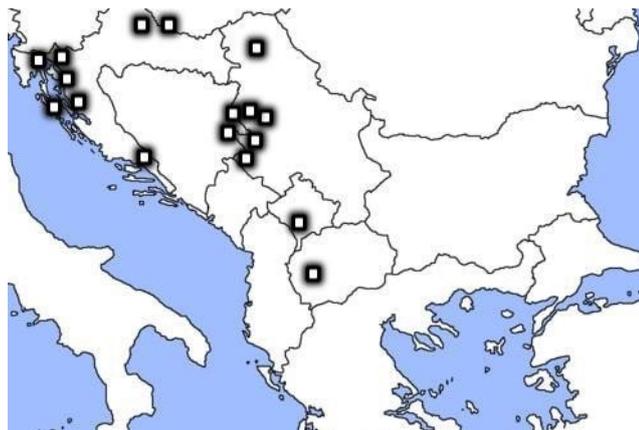


Fig. 3. The amber routes  
(after Cwaliński 2014,  
185, fig. 1)  
Обр. 3. Пътят на  
кехлибара (по Cwaliński  
2014, 185, fig. 1)

no other context attested to them (Todd et al. 1976, 317). The Vrčin finds seem to belong to the 13<sup>th</sup> c. amber beads' offerings discovered elsewhere in the necropolis (Palavestra 1993, 47, 289). There is also another focal point where amber beads have been discovered, in the central hinterlands of the western Balkans, in the plateaus of Serbia and Bosnia Herzegovina. Amber is reserved in these areas primarily for a restricted number of burial mounds; such sites that date to the 16<sup>th</sup>–14<sup>th</sup> c. BC are Paulje necropolis near Loznica town, the burial mound in Bandera, graves in Belotić-Bela Crkva, in Javanin Breg, in Banjevac by Krupanj, in Padjine-Rocevic, in Rudine by Ivanpolje, at Jezero as well as in Sumar, in Belotic (Palavestra 1993, maps in 265; Palavestra 2006, 49-50, 86-87, 290-291, 308-311). A few amber beads had been also excavated in the northern Serbian Majdan by Vršac in a hoard that dates from the 12<sup>th</sup> c. BC to the 10<sup>th</sup> c. BC, and southwards, in Iglarevo's tombs in Kosovo where the fossilised resin was found together with a Mycenaean rapier dated to the 14<sup>th</sup> c. BC (Palavestra 1997, 2006, 51, 311), as well as in a post-11<sup>th</sup> c. BC grave in Popadin Dol in Northern Macedonia (Palavestra 1993, 161-162). The new amber typology is found on the Adriatic shores around the 12<sup>th</sup> c. BC with Tyrins types beads "on the island of Krkm in Privlaka near Nin,

Fig. 4. Amber find places in Western Balkans – excluding Albania (map adapted after Palavestra 1993, 182, table 9 and Cwaliński 2014, 186, fig. 2)

Обр. 4. Места на находки на кехлибар в Западните Балкани - с изключение на Албания (Карта адаптирана по Palavestra 1993, 182, table 9 and Cwaliński 2014, 186, fig. 2)



at Gobubnjanka in Lika and at the site Debelo Brdo near Kocenske in Slovenia” (Palavestra 2006, 43). From the horizon between 1200-1100 BC, there are amber beads from Glasinac, in burial context at several sites such as Borovsko, Crena Lokva, Gucevo, Osovo (Palavestra 1993, 111-129, 266, 276; 2006, 50-51).

Amber reaches Albania in the 14<sup>th</sup> c. BC (Kurti 2013, 99-101, Pl. I, 1-17; Pl. IV 1-9; Kurti 2017; Galaty et al. 2014, 166-168); 61 beads have been discovered in eight sites, in the northern and in the southern parts of the country, at Çinamak, in the valley of Mat, in the Kolonja plateau and in the Korça valley, in Korbasin (Kurti 2013, 77, 82, 100-101, fig. 2-3). Among the earlier dated tumuli with amber, in the 14<sup>th</sup>-12<sup>th</sup> c. BC, there has been one in Shtogj that contained the material and it was also associated with Mycenaean objects (Kurti 2013, 100)<sup>2</sup>. The later dated tumuli of the 12<sup>th</sup>-11<sup>th</sup> c. BC, in BarÇ and in Perlat are endowed with the new shape beads, of Tiryns and Allumiere type, widespread in the Mediterranean area after the Mycenaean palatial collapse in 12<sup>th</sup> c. BC.

Modern day Bulgaria has a remarkable find to show, the Vulchitrun treasure (Gergova 1994; Ivanova, Kuleff 2009, 26-27, 35-36, 38; Gergova 2009, 183-184, Pl II,1,2). An amber grain had been incrustrated in the base of one bronze disc handle. The disc was part of a hoard consisting of a tripartite vessel, a drinking set and seven discs made of gold (Gergova 1994, 69; 2009, 183, 293 pl. II). The artefact, although without general consensus on that, dates from the 13<sup>th</sup> c. to the 11<sup>th</sup> c. BC (Ivanova, Kuleff 2009, 27). The fossilised resin is to be discovered in Bulgaria again in the Iron Age after the 8<sup>th</sup> c. BC with the exception of a 12<sup>th</sup>-11<sup>th</sup> c. BC bead found in a grave at Vrodovadi Veles (Ivanova, Kuleff 2009, 36-41)<sup>3</sup>.

In Romania, amber’s discovery is documented in almost seventeen sites during the local Middle and Late Bronze Age, although it had been excavated even in a local Neolithic site<sup>4</sup>: there is an increase of sites with amber finds in the 16<sup>th</sup> c. BC, a lack of them in the following centuries and a re-appearance of the material in the 12<sup>th</sup> c. BC; the fact that amber came to light in several cave depositions or hoards distinguishes this area from the rest of the southeastern Peninsula (Boroffka 2003, 146, fig. 1 for the geographical distribution, 156-158; Boroffka 2013 for the chronology and an area’s archaeological outline). The majority of amber artefacts date after the 12<sup>th</sup> c. BC and remarkable large quantities of them (around

2 Helladic beads had been also discovered in Albania (Kurti 2017; Tsonos 2015 for a detailed view on the Mycenaean finds in modern day Albania).

3 I would like to thank J. Vasileva for her feedback on Bulgarian amber finds.

4 I would like to thank N. Boroffka for indicating literature on Romanian amber finds.



*Fig.n5. Discoid, flattened globular and spacer amber beads bound in a necklace found in Grave Circle B at Mycenae (after Δημακοπούλου 1998, 260, fig. 280)*

*Обр. 5. Дисковидни, приплеснато-кръгли и разпределителни кехлибарени мъниста, свързани в огърлица, намерена в Grave Circle B в Мусенае (по Δημακοπούλου 1998, 260, fig. 280)*

1000 amber beads) have been discovered in Cioclovina, in a cave in the Carpathian Mountains. It is worth noting that the Cioclovina beads have been studied and found to be of Romanian origin, although the use of the Romanian amber deposits is arguable (Beck et al. 2009, 20-30; Boroffka, Heck 2006; Teodor et al. 2010).

Regarding amber's shapes and artefacts, small amber beads had been predominantly discovered in the Balkan area. Biconical, flattened globular and discoid beads are found in larger quantities mostly during the 17<sup>th</sup>–16<sup>th</sup> c. BC in Mycenaean sites. (fig. 5)

The most remarkable exceptions are the spacer beads, highly elaborated, multi-perforated artefacts excavated in Greece, as well as in Great Britain in Wessex Civilisation and in Germany (Hachmann, 1957; Zygouris 2014, 301-302). The "Vitruchin Disc" in Bulgaria is a unicum and belongs to a category in which the amber disc in Late Bronze Age Crete island can also enter (Evans 1913), totally segregated from the other amber finds in the Mediterranean and in the Balkans. The abovementioned typology of globular or flattened biconical beads prevailed for centuries in the Balkans, in significantly smaller concentration though (Harding, Hughes – Brock 1974, 151, table 2, figure 3 for Greek finds where a pattern can be detected). Only from the 12<sup>th</sup> c. BC and on, after the collapse of the Mycenaean palatial culture, amber typology changes decidedly and, as already mentioned, discoid or elongated Tiryns and Allumiere type beads appear in larger numbers.

Amber beads could have been strung together in necklaces or in belts, sewn in clothes as adornments, combined with other materials such as gemstones, i.e. carnelian in necklaces, used in ceremonial vessels/ artefacts (Gergova 1994; Maran 2013). However, the decreasing number of them and the discovery of one amber bead in sites in Southern Balkans – Greece – or in Western Balkans suggest that from the 14<sup>th</sup> c. BC and afterwards such beads might have been adornment markers by their own, as pendants, if not combined with perishable materials as textiles. At another level, one cannot overlook that the same "fashion" in amber typology is being observed for long periods. A hypothesis is that there might have been an artisan tradition in the production lands or "workshops" that traded similar amber artefacts (Negroni Catacchio 1972 for the Frattesina's "workshop" finds in Veneto area dated to the end of the 2<sup>nd</sup> millennium BC). Alternatively, there might have been common mediators/ "traders" for the amber exchange chain in the Balkans, carrying the material even in a few shipments, although it is not easy to detect who these "mediators" might have been (Harding, Hughes Brock 1974, 152-153).

Apart from the distribution and the use of amber, an axial question that emerges is that of the material's role in the Peninsula: How is amber perceived and used throughout the Balkans during the 2<sup>nd</sup> millennium BC? Moreover, are there contemporary aspects that limit or re-arrange our notion concerning amber? Amber is primarily a burial offering,

especially in the northern and in the western parts of the Balkan Peninsula. The material is found in a non-burial context in few cases and in later dates, as for example in the Mycenaean Palaces (13<sup>th</sup> c. BC) and in Tiryns hoard, Greece (13<sup>th</sup> c. - 12<sup>th</sup> c. BC) in a ritual (?) hoard in later dated Vitruchin, Bulgaria (13<sup>th</sup> c. to the 11<sup>th</sup> c. BC), in a hoard in Majdan, Serbia (12<sup>th</sup> c. BC) as well as in larger quantities in Romanian hoards or cave depositions mostly dated to 1100 BC and afterwards (Ιακωβίδης 2006; 2013, 233-253, 288-301, 471-473; Jung 2007, 234-240; Gergova 2009, 184; Palavestra 2006, 51; Boroffka 2003, 168). The overwhelming grave finds could be attributed to taphonomic reasons, since burial context is the most probable to survive to modern days, even partially. Besides the obvious archaeological explanation, it might be suggested that amber acted as a post-mortem symbol for many Balkan populations; the material might have been embedded into ritual or religious functions too. However, it is not uncomplicated to substantiate such a “spiritual” role without additional data, since the pertinent discussion on hoards/depositions or religion and amber needs further contextual analysis focused on each site separately. Regardless that, ethnographic evidence shows that the fossilized resin was admired for its natural qualities, shine, colour etc., and for that reason it was a source of inspiration for many myths of the Historic Era (Zygouris 2014, 25-38 for ancient written sources on amber, “ήλεκτρον”, “electrum”). Definitely, adornment’s (Cline 2005; Lafineur 2012), thus even amber’s, multiple functions/roles cannot be ignored. To this polysemy even amuletic qualities can be attributed to amber, as the fossilized resin’s beads could also “symbolize vitality and longevity” due to their electricity qualities (Renfrew 2015, 7).

Nevertheless, it seems that there had been restrictions, as far as amber’s possession is concerned, applied at an intra-community level and the material was destined for specific families or clans (?). As already mentioned, several chamber tombs or tholoi in Greece with a long use and constant re-occurrence of the material hint at such a pattern. But also in Albania, in Kosovo and in Serbia, discovering amber in the same necropoleis or tumuli in some cases is indicative of ownership restrictions. Considering the material’s funerary consumption in many Balkan areas and its rare appearance, one might assume that emulation processes had been active also through amber’s appropriation within local communities. This function probably takes place in Northern Balkans in the 15<sup>th</sup>–12<sup>th</sup> c. BC when it had dimmed in mainland Greece. Amber in mainland Greece was utilized earlier in the social competition arena or in wealth accumulation, a trend that begun in the 17<sup>th</sup>–16<sup>th</sup> c. BC, and by the 15<sup>th</sup> c. BC the fossilized resin might have played an insignia role in the Aegean relating subjects to a Wanax/ lord until the 12<sup>th</sup> c. BC crisis in the Mediterranean (Zygouris 2014, 414-422).

Moreover, amber’s acquisition and perception in the Balkans might have been regulated to a certain degree by factors related to the Mycenaeans. Amber finds in storage areas in the Mycenaean Palaces and a constant re-occurrence between Mycenaean artefacts and amber in the Eastern Mediterranean and even in Italy suggest that the “sunstone” had been adopted as a Mycenaean/palatial material; it may be the case that the Mycenaeans and their consolidated palatial system had been the main amber “trade” partners in Eastern Mediterranean until the 12<sup>th</sup> c. BC (Czebreszuk 2011, 280; Czebreszuk 2013; Zygouris 2014, 387-388, 407-415). Based on this and on the fact that most Northern Balkan amber finds date mostly after the 15<sup>th</sup> c. BC a feeble hypothesis could be made; by that century and until the 12<sup>th</sup> c. BC crisis the Mycenaean hierarchy had been established and the Helladic Palaces’ lords felt confident to open -at least a minimal- amber exchange/trade process: amber that reached Southern Greece in a directional way and that was used there in societal competition pro-

cesses, mainly during the previous centuries, can now be dispatched northwards alongside other artefacts of Helladic provenience, as finds in Kosovo, Albania and Serbia may indicate (Cwalinski 188-191, 196 for discussion on possible Mycenaean products in Western Balkans). Thus, maybe the Helladic Wanax – lord, the Helladic elite in general, played an important role as far as the material’s circulation is concerned not only throughout the Eastern Mediterranean and but also in regions of the Western Balkans. The limited number of amber beads in Western Balkans might be explainable due to the exclusivity “rights” on the Palaces’ part, but these “rights” could not always have been kept cf. Serbia or Macedonia sites with different amber typology (Palavestra 2006, 310 where polygonal beads; Zygouris 2014, 141, 356). Eastern Balkans, though, followed a different tradition, independently from any southern influence as the Romanian hoards indicate.

The Mycenaean factor might have had an impact on amber’s viewing for the Northern Balkan communities. However, the content and context of contacts related to amber exchange procedures and possession are not clear yet. If only the Helladic or even Italic or Baltic references were highlighted, a shadow would be cast upon the autonomous ways of the local Balkan development. Even if amber arrives through the Mycenaean World, its significance, its interpretation or “re-invention” lie in the local communities. Amber is used, redefined, re-enacted within any specific community, before or after its deposition, in a string of multifold processes rather than being interpreted in an established or in an absolute way in any different period. Consequently, research must deal with amber’s various aspects implicating theoretical frameworks; Malafouris eg. writes about “visual formulas”, about buried swords and iconography in *stelae* as “a memory in their absence” and as “associative mnemonic enchainment” for the Mycenaean (Malafouris 2015, 306, 309, 310 referring also to Rowlands, 146); a mnemonics’ role could be also extended - alongside other products - to artefacts made of seemingly distinctive (cf above) material such as amber beads. Under this perspective, the amber beads excavated in Kosovo’s Iglarevo tomb or in Albania in correlation with Mycenaean objects (Palavestra 1997, 16-18, 39; Kurti 2013; 2017) might have enjoyed an idiosyncratical “translation” for the local community and they should be examined within the overall local material culture at various time and analysis’ levels, even in terms of self-identity or personhood (Traherne 1995 for an analogy; Fowler 2004).

Finally, it seems that there is a modern twist of politics in amber archaeology. It is mainly the Mycenaean amber that is highly recognisable and thoroughly discussed, although research is continuing all over the Balkan Peninsula. Apart from the undisputable large number of finds in specific sites in Greece, modern day politics and recent history have led to a detailed study of the Mycenaean Civilisation and consequently of “Mycenaean” amber. Mycenae have been perceived as the beginning of Greek, i.e. European culture (Burns 2010, 41-66). Furthermore, better funding and the organized activities of European as well as American institutions and Universities in Greece after the 2<sup>nd</sup> World War have yielded concrete research results (Υπουργείο Πολιτισμού, 2019)<sup>5</sup>. This reality for Greece must not be taken for granted in other Balkan countries; that’s due to recent turbulent circumstances, i.e. the war in ex Yugoslavia or the Cold War’s consequences. Nowadays, though, research has gained a new momentum including the Southeastern European Peninsula’s archaeol-

---

<sup>5</sup> a pertinent thesis is being prepared for History and Archaeology Department at Athens University by F. Balli “Η αρχαιολογία στην Ελλάδα μέσα από τη δράση των ξένων αρχαιολογικών σχολών κατά την περίοδο 1947-1967”.

ogy into its perspectives (Laffineur, Greco 2005; Galanaki et al. 2007; Palavestra 2009).

As a final remark it must be pointed that there is a true notional “catch”, if amber is studied not in context. Research conclusions cannot be based only on amber’s existence. Amber’s elaboration, comparison/ combination with other materials i.e. gemstones and pottery and probable previous use could be helpful. International cooperation and cross-cultural research work to science’s benefit. For these reasons Balkan collaboration and common projects are necessary.

## References

- Beck, C.W. 1966a. Analysis and Provenience of Minoan and Mycenaean amber I. *Greek, Roman and Byzantine Studies* 7, 191-211.
- Beck, C.W. 1966b. Bemerkungen zur Infrarotspektroskopischen Herkunfts Bestimmung von Bernstein. *Jahrbuch des Römisch-germanischen Zentralmuseums*, 13, 292-295.
- Beck, C.W. 1984-1985. Struktur und Herkunftbestimmung des Bernsteins. *Acta Praehistorica et Archaeologica* 16/17, 219-221.
- Beck, C.W. 1986. Spectroscopic Investigation of Amber. *Applied Spectroscopy Reviews* 22(1), 57-110.
- Beck, W. 1996. Spectrographic identification of ‘amber’ and ‘black resin’ from Asine. In Hagg R., Nordquist, G. C., Wells, B. (eds) *Asine III. Supplementary Studies on the Swedish Excavations 1922-1930 Fasc 1*. (Skrifter Utgivna av Svenska Institutet i Athen. Acta Instituti Atheniensis Regni Sueciae 4, XLV:1). Stockholm: Svenska Institutet i Athen, 91-92.
- Beck C.W., Southard G.C., Adams, A.B. 1968. Analysis and provenience of Minoan and Mycenaean Amber, II: Tiryns. *Greek, Roman and Byzantine Studies* 9, 5 -19.
- Beck, C.W., Southard G.C., Adams A.B. 1970. Analysis and Provenience of Minoan and Mycenaean Amber, III. Kakovatos. *Greek, Roman and Byzantine Studies* 11, 5-19.
- Beck, C.W., Southard G.C., Adams A.B. 1972. Analysis and Provenience of Minoan and Mycenaean Amber IV. *Greek, Roman and Byzantine Studies* 13, 359-385.
- Beck, C.W., Beck L.Y. 1995. Analysis and Provenience of Minoan and Mycenaean Amber V. *Greek, Roman and Byzantine Studies* 36, 119-135.
- Beck, C.W., Liu T. 1973. Provenience of Yugoslav amber artifacts. *Зборник Народног музеја* 7, 133-142.
- Beck, C.W, Markova, K. 1998. Finds of amber in the Carpathian Basin in the Bronze Age. In Alhaique, F., Arias, C., Barich, B., Beck, W. C., Conard, N., De Grossi Mazzorin, J., Heyworth M., Krzyzaniak, L., Martini, A., Masseti, M., Negrone Catacchio, N., Patou-Mathis, M., Raynal, J.-P., Karl Striedler, M., Tagliacozzo, A., Tillet, T., Vannucci, S., Wendorf, F., Peretto C. (eds) *Atti del XIII Congresso Forlì 8 – 14/9 1996, Volume 6, vol. 1 Workshop 7, 40*. Forlì: A.B.A.C.O, 409-413.
- Beck W.C., Stout, E., Buck, S.H. 2009. Provenience analysis of Romanian amber artifacts by infrared spectroscopy. In Palavestra, A., Beck, C.W., Todd, M.A. (eds) *Amber in archaeology. Proceedings of the fifth International Conference on Amber in Archaeology, Belgrade 2006 International Conference on Amber in Archaeology, Belgrade: National Museum in Belgrade, 20-28*.
- Burdukiewicz, J.M. 1999. Late Palaeolithic amber in Northern Europe. In Kosmowska –

- Ceranowicz, B., Paner, H. (eds) *Investigations into Amber: Proceedings of the Interdisciplinary Symposium: Baltic Amber and Other Fossil Resins, 997 Urbs Gyddanyzc – 1997 Gdansk, 2-6 September 1997*. Gdansk: The Archaeological Museum in Gdansk, 99-110.
- Boroffka, N. 2003. Observații asupra descoperirilor preistorice de chihlimbar din România. *Apulum* 39, 145-168.
- Boroffka, N., Heck, G. 2006. Resursele minerale din România și stadiul actual al cercetărilor privind mineritul prehistoric. *Apulum* 43.1, 71-94.
- Boroffka, N. 2013. Romania, Moldova and Bulgaria. In Fokkens, H., Harding, A. 2013 (eds) *The Oxford Handbook of the European Bronze Age*, Oxford: Oxford University Press, 897-896.
- Burns, E.B. 2010. *Mycenaean Greece, Mediterranean commerce, and the formation of identity*. New York: Cambridge University Press.
- Cline, E.H. 2005. Multivalent Nature of imported objects. In Laffineur, R., Greco, E (eds) *EMPORIA: Aegeans in the Central and Eastern Mediterranean*. Proceedings of the 10<sup>th</sup> International Aegean Conference/10<sup>e</sup> rencontre egeene internationale. Athens, Italian School of Archaeology, 14-18 April 2004, Université de Liège. *Histoire de l'art et archeology de la Grece antique (Aegaeum 25)*. Liège, Austin: Université de Liège, University of Texas, 42-52.
- Cwalinski, M. 2014. The influx of amber to the circum-Adriatic areas during the Bronze Age. Proposition of an interpretative model. *Fontes archaeologici Posnanienses* 50.2., 183-199.
- Czebreszuk, J. 2011. *Bursztyn w kulturze mykeńskiej: Zarys problematyki badawczej*. Poznań: Wydawnictwo Poznańskie.
- Czebreszuk, J. 2013. Mysterious Raw Material from the far North: Amber in Mycenaean Culture. In Bergerbrant, S., Sabatini, S. (eds) *Counterpoints: Essays in Archaeology and Heritage Studies in Honour of Professor Kristian Kristiansen (BAR International Series 2508)*. Oxford: Archaeopress, 557-564.
- Evans, A. 1913. The tomb of the double axes and associated Group, and the Pillar Rooms and Rituals vessels of the 'Little Palace' at Knossos. *Archeologia* 65, 33-59.
- Fowler C., 2004. *The archaeology of personhood: an anthropological approach*. London, New York: Routledge.
- Galanaki, I., Tomas, H., Galanakis, Y., Laffineur, R. (eds) 2007. *Between the Aegean and Baltic seas: prehistory across borders*. Proceedings of the International Conference, Bronze and Early Iron Age Interconnections and Contemporary Developments between the Aegean and the Regions of the Balkan Peninsula, Central and Northern Europe, University of Zagreb, 11-14 April 2005, (Aegaeum 27). Liège (Belgique) / 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*.
- Galaty, L.M., Tomas, H., Parkinson, W.A. 2014. Bronze Age European Elites: from the Aegean to the Adriatic and back again. In Knapp B., van Dommelen, P. (eds) *The Cambridge prehistory of the Bronze and Iron Age Mediterranean*. Cambridge: Cambridge University Press, 157-177.
- Gaslain, C. 2010. *Archéologie de l'ambre en Méditerranée et en Orient ancien, aux âges du Bronze et du Fer: contextes de découverte, productions et destinations*. Unpublished PhD thesis. Rennes: Département Histoire, Rennes 2.
- Gergova, D. 1994. The treasure from Vulchitran and the amber route in the Balkans. In Ciugudean, H., Boroffka, N. (eds) *The Early Hallstatt Period (1200–700 BC) in South-Eastern*

- Europe*. Proceedings of the International Symposium from Alba Iulia, 10-12 June, 1993. Alba Iulia: Muzeul National al Unirii, 69–80.
- Gergova, D. 2009. Amber in Ancient Thrace. In Palavestra, A., Beck, C.W., Todd, M.A. (eds) *Amber in archaeology*. Proceedings of the fifth International Conference on Amber in Archaeology, Belgrade 2006 International Conference on Amber in Archaeology, Belgrade: National Museum in Belgrade, 178-189, Pl. II, 1,2.
- Hachmann, R. 1957. Bronzezeitliche Bernsteinschieber. *Bayerische Vorgeschichtsblätter* 22, 1-36.
- Harding, A., Hughes-Brock, H. 1974. Amber in the Mycenaean world. *Annual of the British School at Athens* 69, 145-172.
- Ivanova, S. Kuleff, I. 2009. Archaeological Amber from the Late Bronze and Iron Age from the territory of Present Bulgaria. *Archaeologia Bulgarica* XIII, 3, 23-46.
- Jung, R. 2007. Goldene Vögel und Sonnen. Ideologische Kontakte zwischen Italien und der postpalatialen Ägäis. In Alram-Stern, E., Nightingale, G. (eds) *KEIMELION. Elitenbildung und elitärer Konsum von der mykenischen Palastzeit bis zur homerischen Epoche: The formation of elites and elitist lifestyles from Mycenaean palatial times to the Homeric period*. Wien: Österreichische Akademie der Wissenschaften, 219–255.
- Kurti, R. 2013. Amber during Late Bronze Age and Iron Age in Albania. *Iliria* XXXVI, 73-108.
- Kurti, R. 2017. Carnelian and amber beads as evidence of Late Bronze Age contacts between the present territory of Albania and the Aegean. In Fotiadis, M., Laffineur, R., Lolos, Y., Vlachopoulos, A. (eds) *Εσπερος/Hesperos: The Aegean seen from the west*. Proceedings of the 16th International Aegean Conference, University of Ioannina, Department of History and Archaeology, Unit of Archaeology and Art History, 18-21 May 2016, Leuven; Liège: Peeters, 287-298.
- Laffineur, R., Greco, E. (eds) 2005. *EMPORIA: Aegeans in the Central and Eastern Mediterranean*. Proceedings of the 10<sup>th</sup> International Aegean Conference. Athens, Italian School of Archaeology, 14-18 April 2004 Université de Liège. Histoire de l'art et archéologie de la Grèce antique (Aegaeum 25). Liège, Austin: Université de Liège, University of Texas.
- Laffineur, R. 2012. For a Kosmology of the Aegean Bronze Age. In Nosch, M. L., Laffineur, R. (eds) *KOSMOS: Jewellery, Adornment and Textile in the Aegean Bronze Age*. Proceedings of the 13<sup>th</sup> International Aegean Conference/13e Rencontre égéenne internationale, University of Copenhagen, Danish National Research Foundation's Centre for Textile Research, 21-26 April 2010, (Aegaeum 33). Leuven: Peeters, 3-24.
- Malafouris, L. 2015. How did the Mycenaeans remember? In Renfrew, C., Boyd, M., Morley, I. (eds) *Death Rituals, Social Order and the Archaeology of Immortality in the Ancient World "Death Shall have no Dominion"*. New York: Cambridge University Press, 303-314.
- Maran, J. 2013. Bright as the sun: The appropriation of amber object in Mycenaean Greece. In Hahn, H. P., Hadas, W. (eds) *Mobility, meaning and the transformations of things. shifting contexts of material culture through time and space*. Oxford, Oakville: Oxbow Books, 147-169.
- Negrone Catacchio, N. 1972. Le problematiche dell'ambra nella protostoria italiana: le ambre intagliate di Fratta Polesine e le rotte mercantili nell'alto Adriatico. *Padusa* VIII (1-2), 1-20 (riedited in *Padusa* XX, 73-90).
- Negrone Catacchio, N. 1999. Produzione e commercio dei vaghi d'ambra tipo Tirinto e tipo Allumiere alla luce delle recenti scoperte. In Paoletti, O. (ed.) *Protostoria e storia del "Ventorum Angulus"*, *Atti del XX convegno di studi Etruschi ed Italici, Portogruaro-Quarto d'Altino-Este-Adria, 16-19 Ottobre 1996 (1999)*. Pisa: Istituti editoriali e poligrafici internazionali, 241-265.

- Negrone Catacchio, N., Massari, A., Raposso, B. 2006. L'ambra come indicatore di scambi nell'Italia pre e protostorica. In *Atti della XXXIX Riunione scientifica: materie prime e scambi nella preistoria italiana: nel cinquantenario della fondazione dell'Istituto italiano di preistoria e protostoria, Firenze 25-27 novembre 2004*. Firenze: Istituto italiano di preistoria e di protostoria, 1439-1475.
- Palavestra, A. 1993. *Praistorijski cilibar na centralnom i zapadnom Balkanu*. Beograd: Srpska akademija nauka i umetnosti Balkanoloski institute.
- Palavestra, A. 1997. Prehistoric glass and amber beads from Kosovo. *Balkanica* XXVIII, 15-43.
- Palavestra, A., Krstić, V. (eds) 2006. *The magic of amber*. Belgrade: National Museum in Belgrade.
- Palavestra, A., Beck, C.W., Todd, M.A. 2009 (eds). *Amber in archaeology: proceedings of the fifth International Conference on Amber in Archaeology, Belgrade 2006 International Conference on Amber in Archaeology*, Belgrade: National Museum in Belgrade.
- Renfrew, C. 2015. The Unanswered question. In Renfrew, C., Boyd, M. J., Morley, I. (eds) *Death Rituals, Social Order, and the Archaeology of Immortality in the Ancient World: Death Shall Have No Dominion*. New York : Cambridge University Press, 1-11.
- Rice, P. 2006. *Amber: the Golden Gem of the Ages* (4th edition). Bloomington, Indiana: Author-House.
- Rowlands, M. 1993. The role of memory in the transmission of culture. *World Archaeology*, 25.2, 141-151.
- Teodor, E.D., Virgolici M., Manea M.M., Truică G., Lițescu S.G. 2010. Non-destructive analysis of amber artefacts from the prehistoric Cioclovina hoard (Romania). *Journal of Archaeological Science* 37. 10, 2386-2396.
- Todd M.J., Eichel, M. ., Beck, C.W., Macchiarulo A. 1976. Bronze and Iron Age Amber Artifacts in Croatia and Bosnia-Herzegovina. *Journal of Field Archaeology Bronze and Iron Age* 3. 3, 313-327.
- Todorova, M. 1997. *Imagining the Balkans*. New York, Oxford: Oxford University Press.
- Traherne, P. 1995. The warriors beauty: the masculine body and self-identity in Bronze Age Europe. *Journal of European Archaeology* 3, 105-144.
- Treuil, R., Darcque P., Poursat J.C, Touchais G., Πολυχρονοπούλου Ο., Φιλιππά-Touchais A. 1996. *Οι Πολιτισμοί του Αιγαίου κατά τη Νεολιθική και την Εποχή του Χαλκού*. Αθήνα: Εκδόσεις Καρδαμίτσα.
- Tsonos A, K.M. 2015. *Aegean influences in Albania and the SW Balkans during the middle and the late Bronze Age*. Unpublished PhD thesis (in Greek). Ioannina: Department of History and Archaeology, University of Ioannina.
- Zygoris, T. 2014. *Amber in central and eastern Mediterranean (Aegean, Italy, Syropalestine) during the 2nd millennium B.C. and the beginning of the 1st millennium B.C.: its origin, crafting, trade routes, use and symbolism*. Unpublished PhD thesis (in Greek). Athens: Department of History and Archaeology, National and Kapodistrian University of Athens. (available: <https://phdtheses.ekt.gr/eadd/handle/10442/35187>)
- Δημακοπούλου, Κ. 1988. *Ο Μυκηναϊκός κόσμος. Πέντε αιώνες πρώιμου ελληνικού πολιτισμού, 1600-1100 π.Χ.* Αθήνα: Υπουργείο Πολιτισμού-Ελληνικό τμήμα ICOM.
- Ιακωβίδης, Ε. Σπ. και συνεργάτες, 2006. *Ανασκαφές Μυκηναίων. Ι. Η Βορειοδυτική Συνοικία*. (Βιβλιοθήκη της εν Αθήναις Αρχαιολογικής Εταιρείας). Αθήνα: Η εν Αθήναις Αρχαιολογική Εταιρεία: 54-83, 122-124.

Ιακωβίδης, Ε. Σπ. και συνεργάτες, 2013. *Ανασκαφές Μυκηνών. III. Η Νοτιοδυτική Συνοικία*. (Βιβλιοθήκη της εν Αθήναις Αρχαιολογικής Εταιρείας). Αθήναι: Η εν Αθήναις Αρχαιολογική Εταιρεία.

Υπουργείο Πολιτισμού (Greek Ministry of Culture). Ξένες Αρχαιολογικές Σχολές. [https://www.culture.gr/el/ministry/SitePages/archeology\\_schools.aspx](https://www.culture.gr/el/ministry/SitePages/archeology_schools.aspx) (25.03.2019).

## Кехлибарът в микенския свят и на Балканския полуостров през II хил. пр. Хр: аспекти на вноската суровина

---

Теодорос Зигурис

(резюме)

Тази статия е фокусирана върху находките от кехлибар в района на Балканския полуостров през второто хилядолетие пр.Хр. Кехлибарените мъниста достигат до микенските селища през XVII–XVI в. пр.Хр. До края на XIII в. разпространението на кехлибар на полуострова се е увеличило значително. Повечето мъниста, датиращи от тези векове, са със сплеснато- сферична и дисковидна форма. Има по-големи концентрации на вкаменена смола в няколко гробници от времето на първоначалния период на появата ѝ в Гърция. Кехлибарените мъниста в по-късните фази са по-малко – те също се намират предимно в погребален контекст.

Дванадесети век бележи значителна разлика в разпространението и формите на кехлибара. Това вероятно е свързано с упадъка на микенските дворци и активната роля на италийските популации в циркулацията на тази суровина. Кехлибарените мъниста се използват за висулки, колиета, колани или се комбинират с други материали, напр. скъпоценни камъни, дрехи. Кехлибарът изглежда е придобил многообразна роля в балканските общности като погребален дар, ритуален артефакт или материал със социално предназначение и употреба, въпреки че е необходим контекстуален анализ, за да се определят неговите функции за всеки конкретен случай на намирането му.

През последните десетилетия се задълбочиха научните изследвания, които сравняват северните балкански територии с микенския свят, което предоставя благоприятни възможности за по-детайлно проучване на кехлибара като суровина и артефакти.