

Dynamics of internationalism during the Late Bronze Age: circulation of raw materials and products between the Western Indian Ocean and the Southern Levant



Abstract: Although rather distant from the Western Indian Ocean basin, the southern Levant can be considered fairly included in the trading dynamics regulating movement and use of exotic goods, especially luxury raw materials, being frequently the final destination of this kind of items. Southern Levantine jewelry in the Late Bronze Age represents a widely eclectic group revealing a remarkable level of artistic talent and technical expertise. Most products are manufactured of gold and silver, using precious and semiprecious stones originating from eastern Africa and the Indus Valley. The opulence of the jeweler's art, and in particular the extensive use of gemstones, has given rise to several hypotheses which are briefly discussed in the paper. The provenance of the raw materials will be examined, as well as the archaeological context of finds of finished products. The paper addresses the specialized production of personal ornaments, paying attention in particular to the players in this process and the ultimate effect of their work and the ultimate goal of their production.

Keywords: Late Bronze Age, southern Levant, trade, jewelry, carnelian, lapis lazuli

Giulia Tucci

Independent researcher

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Note

This contribution is partly extracted from the author's doctoral thesis "Gioielli ed ornamenti personali nel Levante meridionale durante il Bronzo Tardo: lavorazione, mode e fruizione della gioielleria come *marker* socio-economico ed indicatore culturale", defended in 2017.

SOUTHERN LEVANT IN THE LATE BRONZE AGE

Ancient Near East dynamics are deeply impacted by environmental and climatic features which differ substantially from place to place. The variety of geographical niches is an important element for the development of human societies.

The southern Levant, although of modest size, encompasses a wide variety of geographical environments. Nevertheless, it is well to remember that the territory is not rich in resources and therefore, during its history, it has always been more a consumer than an exporter or producer of raw materials. Thus, the region's "fortune" is closely linked to its geosition: a bridge between the northern Levant and Egypt, but also a territory extending

from the Mediterranean Sea to the Fertile Crescent, playing an important role in the international cultural sphere (Mazar 1990: 232) [Fig. 1].

The Late Bronze Age in Israel/Palestine and Jordan was a period of prosperity which marked a good point in various technological, mercantile and artistic endeavors, characterized by an intense presence of Egyptians (Tucci 2016: 64). To sum up, the period can be described by the domination of the Egyptian Empire, which provides a solid chrono-historical foothold, and the cultural involvement of the region in the "world system" networks of the Eastern Mediterranean and Near East (Panitz-Cohen 2014: 541).

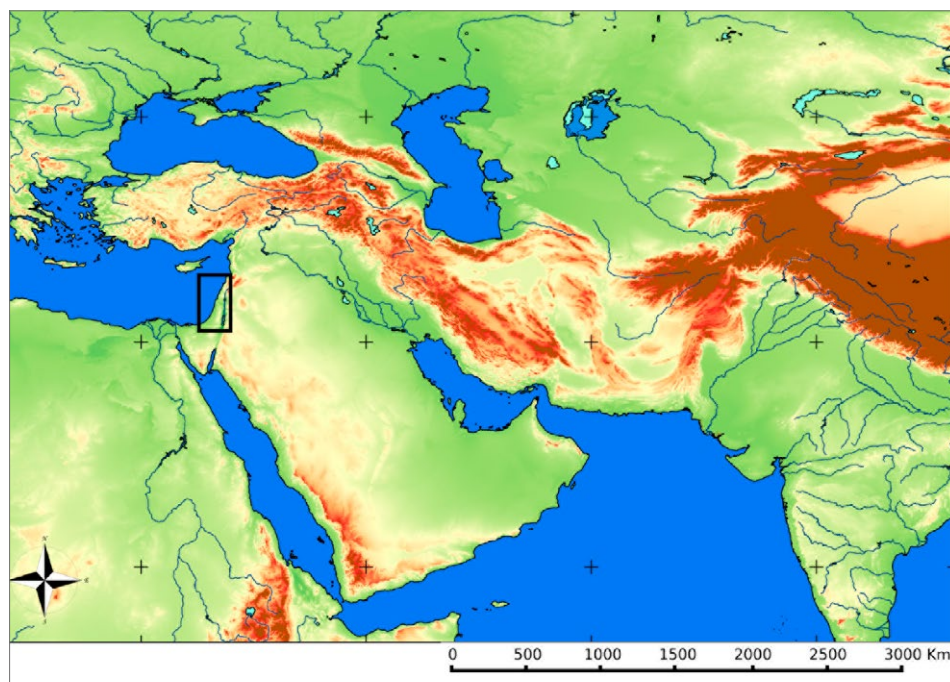


Fig. 1. Southern Levant in the context of the Near East (Graphic reproduction A. Di Ludovico)

SOUTHERN LEVANT AND THE “WORLD SYSTEM”

The Late Bronze Age has been called the “age of internationalism”, and the southern Levant was a perfect participant in the system as a “semi-periphereic” component, serving as a buffer zone and playing a key role in economic interactions (Killebrew 2005: 23).

The advent of metallurgy and the production of bronze objects represents a technological stimulus for the development of network exchanges with the regions where supply sources were located, or with intermediaries involved in the circulation of metals. This fundamental economic interaction was concomitant with a shared artistic *koinè*, generally known as the “International Style” (Caubet 1998), the production of which

reflects an ideology that served the elites in the construction and consolidation of their status and power (Feldman 2006), and furthermore, through emulation, the aspirations of the lower classes.

Despite its submission, the southern Levant enjoyed a fair degree of autonomy in the international trade network. Especially since the end of the Late Bronze Age, Canaanite traders were not only officially employed or palace-dependent, but rather merchants and seafarers apparently operated as middlemen in a “risk-taking trade” (Artzy 1994).

Trade studies are made up of several areas of analysis in relation to the object/goods of exchange and to the stakeholders involved in the action (Peyronel 2008: 25).

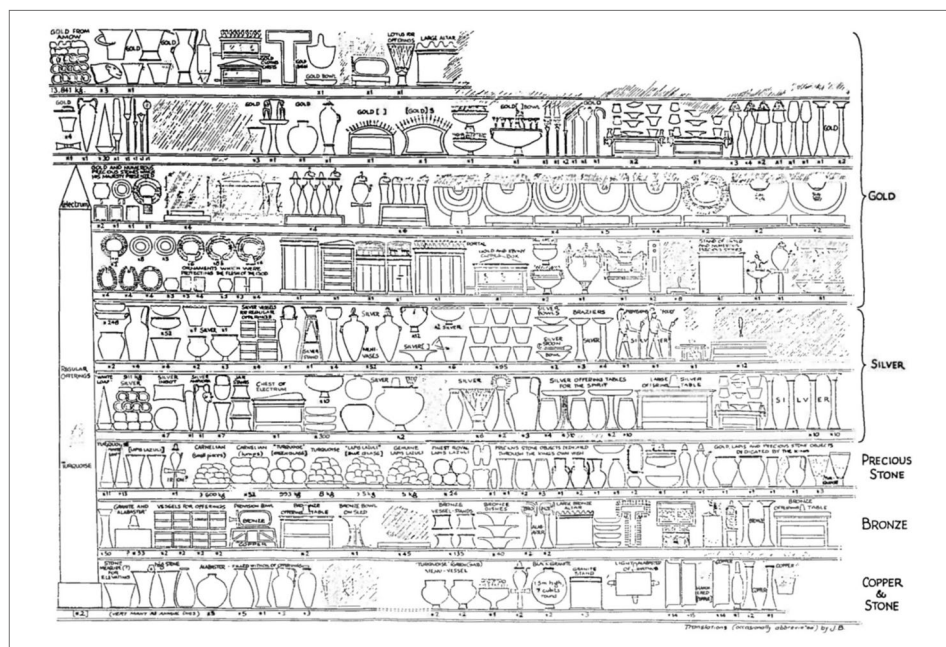


Fig. 2. Thutmose III dedicating his booty to Amun, relief from the temple of Karnak, about 1450 BC (Wreszinski's design edited by J. Baines in Sherratt and Sherratt 1991: Fig. 2)

For the Late Bronze Age, a number of hypotheses have been formulated about the diffusion of pottery and metal scraps as less expensive substitutes of elite luxury items. However, the growing interaction between elite communities and the appreciation for luxury products led to a cross-diffusion of local handicraft prod-

ucts. This system was obviously fueled by the exchange of gifts between courts and the collection of tributes in case of subordinated relationships. The traditional reciprocity in gift exchanges, very well described in the Letters of el-Amarna, is nothing but a kind of pre-planned trade to obtain missing resources [Fig. 2].

SOUTHERN LEVANTINE JEWELRY AND THE USE OF RAW MATERIALS FROM OUTSIDE

A noteworthy quantity of refined jewelry from the Late Bronze Age comes from sites like Megiddo, Beth Shean, Lachish and Tell el-Ajjul. This period undoubtedly represents the moment in which this production achieved its maximum artistic level in relation to the propulsion of cultural dynamism.

The actual provenance of a given item cannot be specified by a typological study alone because technological know-how in the Late Bronze Age was quite widespread throughout the Eastern Mediterranean. Nonetheless, some typical objects of local make were distinguished, such as rounded pendants with incised stars, feminine figure pendants, and a sort of earring inspired by floral elements (Maxwell-Hyslop 1971: 138). However, the raw materials used to make southern Levantine jewelry during the Late Bronze Age may give an indication of trade contacts, because the craftsman's choice of materials for his work reflect their availability (Golani 2013: 15).

Keeping this in mind one should recognize the attributes that differentiate domestic production from a specialized workplace, the latter considered

as a "place or building where a specialized work is carried out" (Di Paolo 2014: 111). The two forms coexisted in the Late Bronze Age, the first one based on non-luxury homemade, easy-to-find materials not requiring any specialistic skills, and the second meeting customer demand. The latter, if present, is strongly connected to the complexity of the community under analysis and the level of urbanization achieved (Tucci 2018). Specialized workplaces are recognized by the presence of specific infrastructure as illustrated by Amir Golani (2013: 55) in his work on Iron Age II jewelry. These are foremost kilns and working tables; tools such as molds, chisels, pounds, drills; raw materials and slag; also partly finished objects and assemblages of finished products.

Regarding precious raw materials, it is evident that with the exception of furniture decoration and cultic objects, jewelry items was where the vast majority of these materials were used. A sample of roughly 1300 pieces of Late Bronze Age jewelry from 41 sites in the southern Levant was catalogued to provide the basis for the following statistics. As it turns out, there appears to be a strong connec-

tion between the typology of the finished product and the raw materials. This association is indeed recurring: there is a tendency to produce similar objects from the same material. The relation between the material and hypothetical duration of use is another aspect, explaining the relative fragility of some artifacts found in funerary contexts. Items produced exclusively for burial purposes do not need to be as durable as everyday jewelry subjected to much longer and more extensive use.¹

Metals constitute the largest percentage among materials used to make the studied set of jewelry (66%) [Fig. 3]. Each metal has its intrinsic characteristics, thus gold and silver were rather easy to work, iron was rarely used, usually for large rigid rings, and copper could become an economical substitute for the more prestigious metals. Other materials include vitreous materials (faience and frit; 23%), semiprecious stones worked into beads and pendants (8%), bone and ivory (2%), shell (1%).

Gold tended to be a primary component of Late Bronze Age jewelry from the southern Levant. Most of this metal came from Egypt and Nubia, presumably reflecting the privileged relationship that the region entertained with these territories. The Egyptians themselves were aware of three goldmining regions as indicated by the documentary evidence, such as, for example, the Turin map of Egyptian gold mines (Museo Egizio, Torino Cat. 1879+1969+1899) and https://collezioni.museoegizio.it/it-IT/material/Cat_1879_1969_1899/?description=mappa&inventoryNumber=&title=&cgt=&yearFrom

[=&yearTo=&materials=&provenance=&acquisition=&epoch=&dynasty=&pharaoh=](#)). Gold from the Eastern Desert mines from Wadi Hammamat was referred to as the “gold of Koptos”, Koptos being an important trade centre that supervised all the production of the Eastern Desert. Further south, the “gold of Wawat” came from Wadi Allaqi and Gabgaba. Still further south, was the “gold of Kush” which came from the territory of modern Sudan and even part of Ethiopia (Ogden 2000: 161) [Fig. 4]. By the Iron Age I and in particular through the Iron Age II period, the use of gold dropped dramatically, replaced by silver which the Neo-Assyrian Empire made its currency (Gitin and Golani 2004: 205).

Egypt held a virtual monopoly over not only gold mining, but also the export of precious and semiprecious stone. Thus, it is hardly surprising to find that the great majority of the most frequently used semiprecious stones came from the Egyptian deserts. Indeed, during the Late Bronze Age the entire Eastern Mediterranean was supplied from Egypt. Egyptians controlled mining activities between the Nile Valley and the Red Sea, stretching over an enormous zone (from the 25th to the 18th northern parallel) for several millennia [see Fig. 4].

Carnelian dominates the category of semiprecious and other stones used in the jewelry from the southern Levant (66%) [Fig. 5]. This is presumably closely related to the stylistic and commercial influence that Egypt exerted on the region. Other stones and minerals represented include: hematite (7%), jasper (6%), lapis lazuli

1 Recently on jewelry related to funerary contexts see Roßberger 2015.

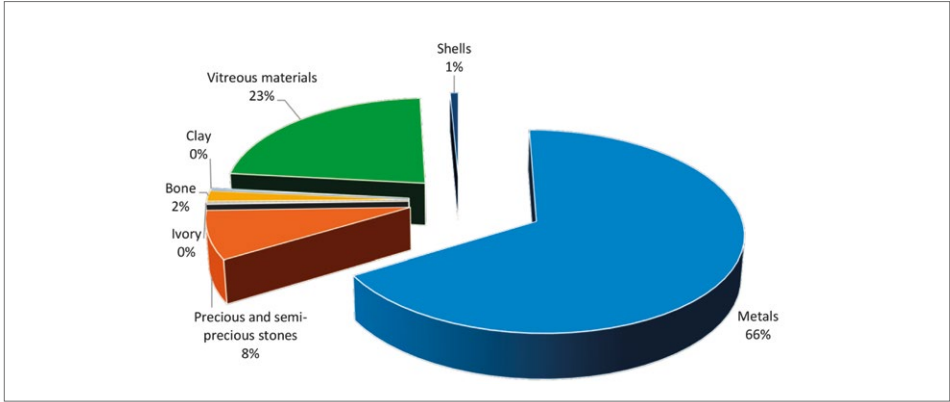


Fig. 3. Percentage frequency of raw materials represented in Southern Levantine jewelry items of the Late Bronze Age ($n=1300$) (Processing G. Tucci)



Fig. 4. Regions of gold mining in Egypt (After Van de Mieroop 2000: 172)

(6%), amethyst (4%), quartz (4%), diorite (4%) and onyx (3%). The relatively very low percentage of artifacts made of lapis lazuli was presumably effected by the development of vitreous material processing technologies (faïence, glass paste, frit and glass) which stimulated a comparatively low-cost production imitating precious and semiprecious stones that were otherwise difficult to find and process. In order to explain the huge difference between the percentage shares for carnelian and lapis lazuli used in the southern Levantine jewels, the following discussion will focus on the different supply routes of these two materials, closely related to their distribution and consumption.

CARNELIAN

Carnelian is a translucent microcrystalline quartz with shades ranging from red to yellow-orange: this coloration is due to a small percentage of iron oxides. In the Near East and Egypt, it was one of the first stones to be worked as jewelry: beads, pendants and small amulets.

The sources most likely exploited during the Late Bronze Age are those found in Egypt: in the Nile Valley and the Red Sea area, the largest deposits being in the Eastern Desert, that is, Wadi Abu Gerida and Wadi Saga. In the Western Desert there are some mines at the site of Gebel el-Asr (Aston, Harrell, and Shaw 2000: 27). Although these are probably the most exploited mining areas in this period, one should keep in mind southern Jordan and the Arabian Peninsula, and the most significant deposits throughout all antiquity, those from the central plain of the Deccan and its peripheral areas in the Indus Valley (Inizian 1999: 128).

It is likely that the carnelian worked in Mesopotamia and partly in the northern Levant during the 3rd millennium BC came from the Indus Valley, while the southern Levant preferred sources that were closer both physically and politically.

LAPIS LAZULI

Lapis lazuli was accorded a considerable value among the precious and semipre-

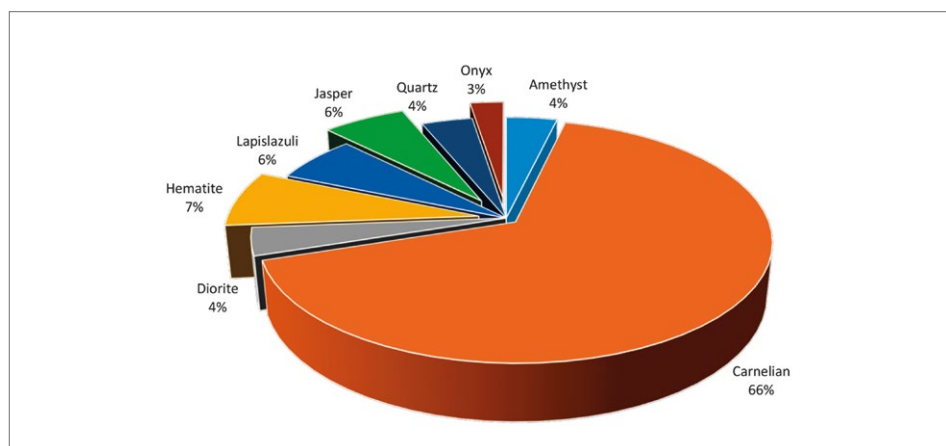


Fig. 5. Percentage frequency of precious and semiprecious stones represented in southern Levantine jewelry items of the Late Bronze Age ($n=1300$) (Processing G. Tucci)

cious stones known in the Near East. Rulers and member of the elites were buried with objects and ornaments made of this stone (suffice it to mention the Royal Cemetery of Ur), kings sent trade expeditions to acquire the stone, deities received votive gift of lapis lazuli (Winter 1999). In Egypt, it was one of the most esteemed stones from the emergence of the first sedentary communities.

It is a rock composed mainly of lazurite, a mineral composed of blue silicates of aluminum, its color ranging from a matt light blue to indigo, occasionally to green. The main sources of supply of the lapis lazuli found in Near Eastern contexts is the area of Badakhshan and northeastern Afghanistan, although the provenance is quite difficult to trace by chemical analysis.

Its presence in rich funerary contexts shows both elitist consumption and specialized production. The stone apparently reached the Levantine region in raw form and was subsequently worked on the spot to better satisfy the demand of local elites which managed the supply and the possible redistribution to nearby sites. The agents involved in the exchange could have been merchants, organized communities, and even itinerant craftsmen (Peyronel 2008: 57).

Lapis lazuli (like turquoise) was affected in the 2nd millennium BC by the development of faïence and colored glass technology, producing items that were more readily available and suited to the

high demand for colored stones at the time, even if they were obviously not equivalent (and very different in absolute terms). Inscriptions from Egypt use the term “lapis lazuli” in reference to blue vitreous paste, while the connotation of “real” indicated the real lapis lazuli.² Moreover, the diffusion of lapis lazuli followed the same trade routes used for other raw materials, such as copper and/or tin (Sherratt and Sherratt 2001: 32).

Copper began to trickle into the Levant from the mines of Cyprus, traveling east from the Mediterranean coast to the nearest points on the Euphrates from where it could be easily shipped downstream to Babylonia. The earliest references to Cyprus copper is from the Old Babylonian period, namely, a text from Mari dated to the fifth year of Samsu-Iluna, Hammurabi's successor.

Afghanistan was certainly the main supplier of tin—used in copper alloys to produce bronze—for Mesopotamia and the Syro-Palestinian region in the 2nd millennium BC and much textual evidence from the period deals with its transport by merchants from Mesopotamian cities. But there is no such information for the later part of the 2nd millennium BC. Some scholars have suggested that Central Asian mines supplied Mesopotamia with the tin that was necessary, but whether or not this was continued during the late 2nd millennium BC is far from clear to date (Van de Mieroop 2000: 169; Crawford 1998: 155).

2 A good example of this differentiation can be found in the relief of Thutmose III at Karnak Temple, presenting the booty reaped by the Pharaoh during his Asian conquests.

CRAFTSMEN VS ARTISTS

As with most of the notions used on a daily basis, the concept of the artist has a long history that profoundly determines its current meaning in the “westernized” contexts. What makes an artist distinct from common people as a creative intellectual in this particular capacity is an attitude that is actually rooted in the written discourse of ancient Western authors, such as Giorgio Vasari (Laboury 2012).³

The objects produced within the International Bronze Age cultural *koiné* were found distributed over a vast geographic area, crossing traditional geo-cultural boundaries. Many scholars have tried to determine the origin and therefore the production of various object categories in order to assign an ethnic or national identity to the craftsman who had produced them and then trace the lines of artistic influences within the Eastern Mediterranean.

Figures of skilled artisans like carpenters, metallurgists and jewelers are known from Egypt, from reliefs and tombstone

representations, as well as texts [Fig. 6]. However, very little is known about the identity and real occupation of craftsmen in the southern Levant during the Late Bronze Age. Jewelers and goldsmiths would have been considered as highly qualified craftsmen. Skilled itinerant artisans traveling throughout the Eastern Mediterranean and Mesopotamia would have created appropriate items for their buyers using the materials at their disposal, which would have been brought either regularly or from time to time. In the southern Levant there would have been a class composed of some local jewelers with a solid local technical and artistic background, working alongside the skilled foreigners. In many cases sharing working space, these local specialists would have benefitted from this cosmopolitan environment in the major centers of the Eastern Mediterranean, learning new techniques and new styles to better meet customer needs (Tucci 2018).

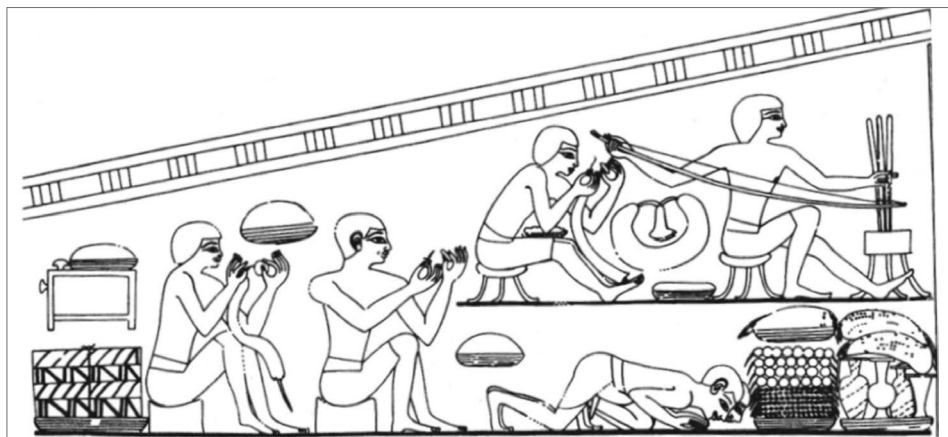


Fig. 6. Jewellers at work, New Kingdom period (After Aldred 1971)

3 G. Vasari, *Le vite de' piu eccellenti pittori, scultori, e architettori*, Florence 1550.

CONCLUSIONS

Bringing together the evidence of manufacture and exchange, and piecing together data from archaeological, iconographic and textual sources, one is persuaded to ask the question whether the region of the southern Levant during the Late Bronze Age was a trade zone that acted as an intermediary between the inhabitants of one region who relied on those from another region for the goods and materials that they needed? Had regional specialization become acknowledged by everyone and had economy become so integrated that one could not survive without imports from abroad?

Power relations often determine the movement of goods and people, thus military activities and the resultant ability to demand contribution from weaker parties were constant factors during the second half of the 2nd millennium. In the case of the southern Levant it can be said that the region had a preferential trading line with Egypt, because of geographical proximity and because of the political situation, and this is evident also from

the high percentage of Egyptian-style jewelry found there.

However, we have also reports of trade relations with the Red Sea area, particularly in terms of shells used to make the jewelry. The processing of mother-of-pearl and shells is often associated with that of hard stones, and the use of species from the Indian Ocean and the Red Sea reveals the long-distance paths followed by these materials. In the author's opinion, skilled artisans—like the raw materials—passed from the Arabian Peninsula to the cities of southern Levant via the trans-Jordanian caravan route, the climate of interaction benefitting also the general area of modern Jordan. The Late Bronze Age jewelry in this region reveals an industry perfectly integrated with the cultural Levantine landscape of the time.

The progress of field research in the future, coupled with a solid reevaluation of the research carried out in the regions in question to date should allow this brief introductory work to become a solid base for more in-depth conclusions.

Dr. Giulia Tucci

Independent researcher
giuliatucci@live.it

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