

Cyprus and the Copper Trade



Entanglements

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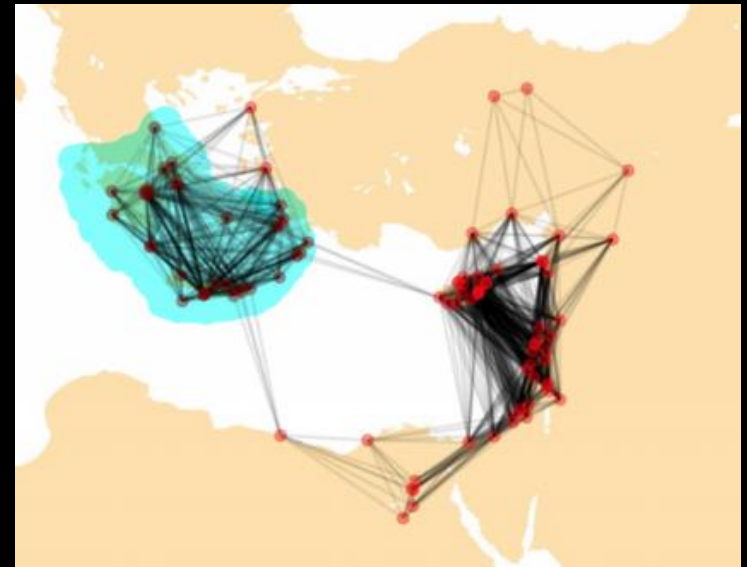
- A relational ontology:
 - How people & things work together
- Builds upon object agency
 - Extends social networks beyond human individual actors to non-human actants
 - Explores the webs of relations between people & the material world



EBA network

Actor Network Theory

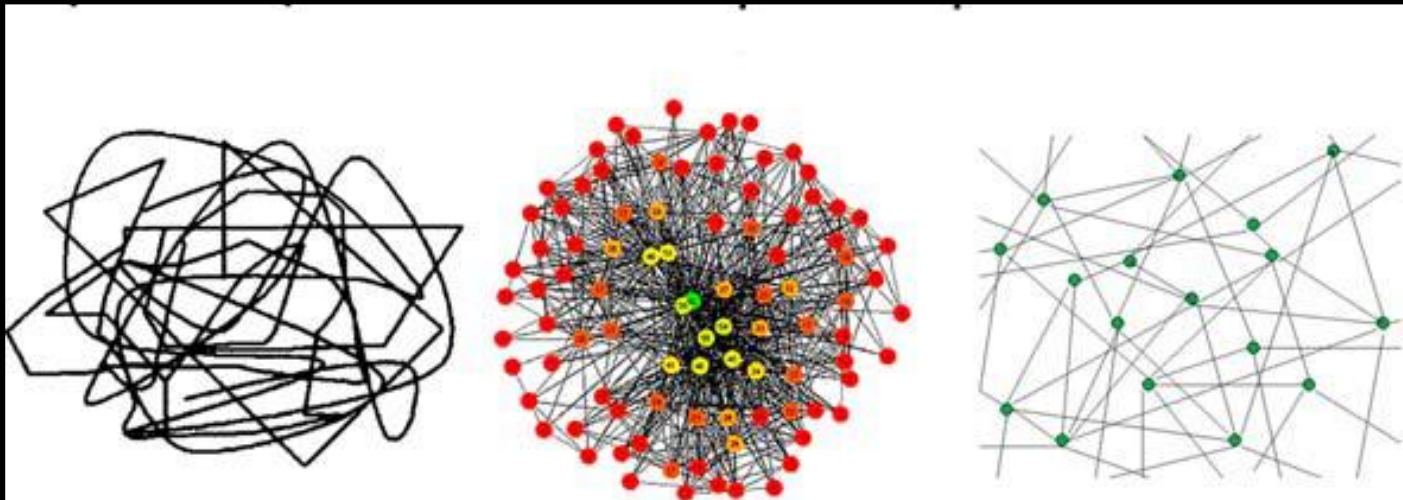
- Actor / actant:
 - Something/someone that modifies a state of affairs & makes a perceptible difference
 - Represented as nodes
- Network:
 - An interactive assembly of actors, group, or 'string of actions'
 - This should leave a physical trace that can be followed & recorded empirically



LBA Networks

Actor Network Theory

- Nodes: human & non human entities with agentive capacity
- Webs/nets: how these entities are (inter)connected
- How to understand the distribution & circulation of these entities
- Places emphasis on showing how associations are made & transformed



“Prehistoric” Background

- Cyprus largely isolated from Mediterranean between Chalcolithic & MC III
- Only handful of imports:
 - Souskiou: segmented faience beads of Mesopotamian type
 - Late Chalcolithic influences from Anatolia
 - Egyptian alabaster vases found in EC tombs at Vasilia
 - MC: some tin bronzes



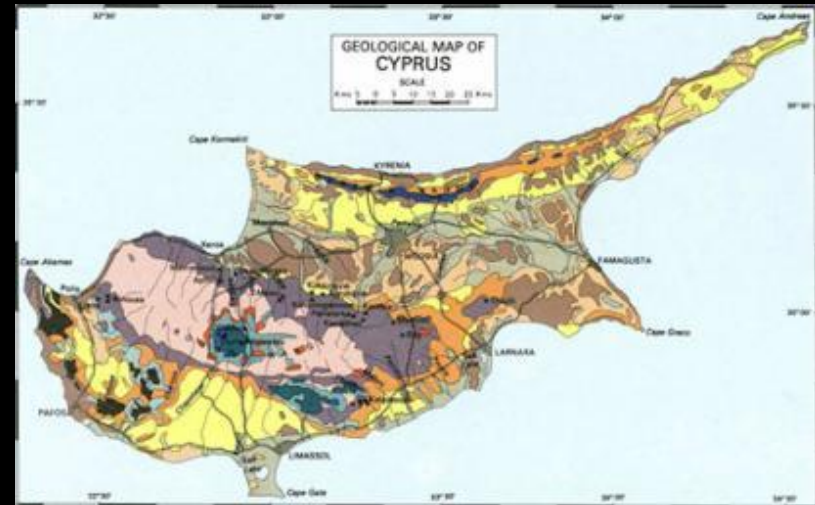
Souskiou, faience beads



Kissonerga stamp seal

Cyprus & the Copper Trade

- Cyprus: strategic position
- Mineral wealth:
 - Potential to play key role in BA economic exchanges
- What evidence is there for copper exploitation?
- Where & when do we see Cypriot copper being traded?



“Prehistoric” Background

- Middle Chalcolithic period:
c.3500-2500 BC
 - Essentially still “stone age”
- Procurement of picrolite:
associated with early
development of copper
metallurgy
- Native copper & hammered
technology



Copper awl



Picrolite cruciform figurine

Philia: c.2500-2350 BC

- Major change in settlement & economy
- Introduction of new social practices from Anatolia:
 - New tools & weapons
 - Cattle
 - New Red Polished drinking equipment
- Frankel (2002): migrant group from Anatolia bringing new *habitus* to Cyprus
 - Interest in copper resources



Philia pottery

Early Bronze Age Metals Trade

- Lead isotope analyses indicate complex metals trade in EB Mediterranean
- Common metal “currency”
 - Cycladic & Anatolian copper traded as ring ingots
 - Cypriot (& Cycladic) copper as perforated axe-heads
- Primarily (arsenical) copper
 - Tin bronze used sparingly – personal adornment



Copper ingots

Copper Trade in the MBA

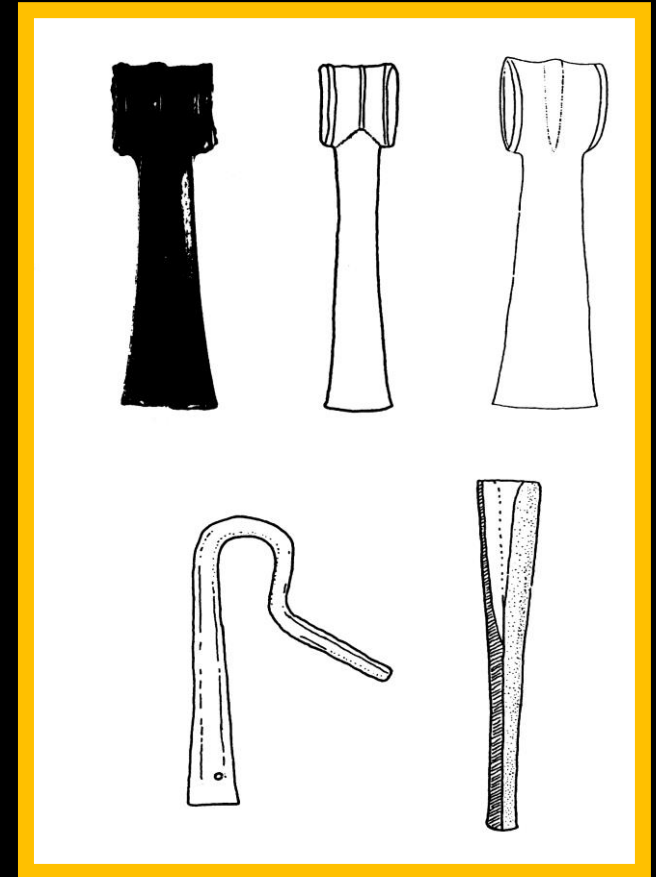
- 18th-17th century BC:
 - Mari & Babylonia archives
 - Alashiya exported (mountain or refined) copper or bronze
- MC II-III Cyprus: small scale regional metalworking industry
 - Usually arsenical bronzes
 - Alambra: occasional tin bronzes



EC-MC metalwork, Alambra

MC III-LC I Burials

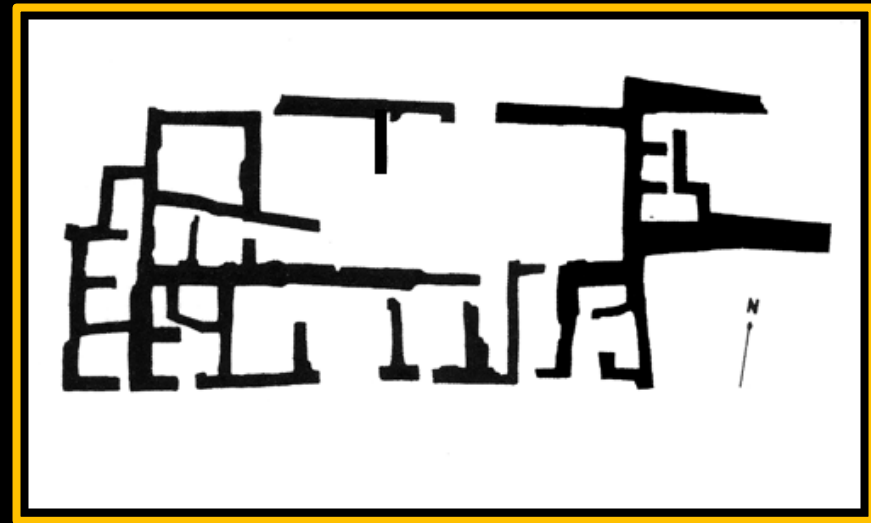
- Warrior burials:
 - Socketed axe-heads
 - Bronze belts
 - Stone maceheads
 - Horse burials
- Near Eastern symbols of power & kingship:
 - Consuming the exotic
- Source of power & wealth lies in control over copper resources



Socketed axe, Dali Kafkallia

MC III-LC I Copper Production

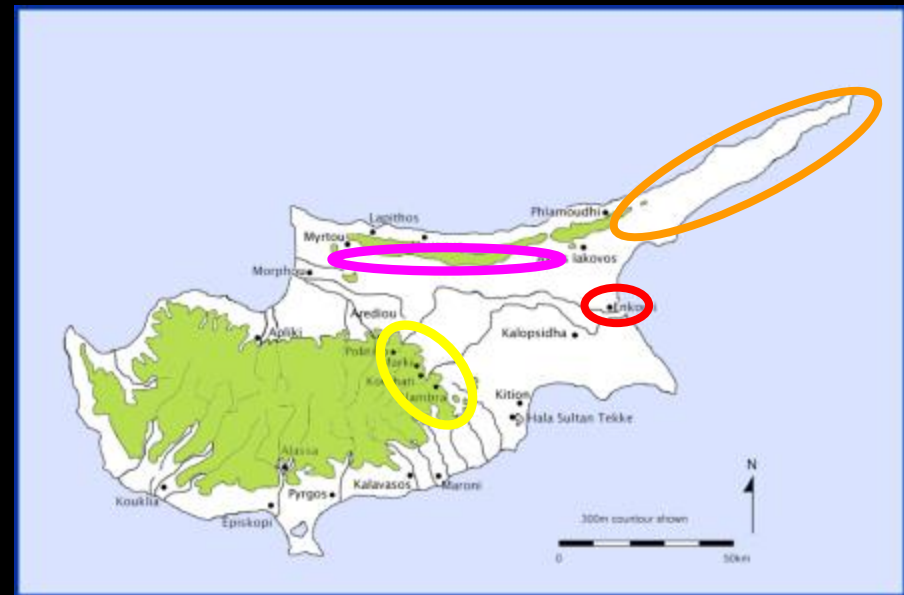
- Establishment of settlement at Enkomi
- Dominated by monumental building:
 - Centralised control over copper production
 - Production of wheelmade pottery & seals
 - Writing
 - Wealthy burials
- Elite control of copper production for trading purposes



Enkomi fort

MC III-LC I Copper Production

- Forts = new feature in Cypriot landscape
- Location suggests strategic communication points:
 - Key role in protection of movement of copper to new coastal sites
- Centralised exploitation of copper controlled by new coastal sites:
 - Procurement, processing, distribution, exchange



LBA Cyprus

Mining Sites

- Mining & **primary smelting** of the sulphide ores
- Debris: furnace conglomerate & slag
- Two sites identified:
 - Politiko *Phoradhes*: 16th century
 - Apliki *Karamallos*: 13-12th century



Politiko *Phoradhes*

Metallurgical Production

- Secondary smelt (of furnace conglomerate) at urban centres
- Extensive finds of by-products:
 - Copper slag, furnace fragments, crucibles, tuyères
- Temple control over metallurgical production
- Also ingots for export & finished artefacts



University of Cyprus:
Experimental archaeology

Metallurgical Production

- Craft production in urban centres:
 - Tools & weapons for daily use
 - Luxury items for temple votives, burials & international gift exchange
- To what extent can we identify attached specialists?



Four-sided bronze stand
(International Style?)

LC II- LC IIIA

- Height of Cypriot copper production
- LC IIC: hemispherical bronze bowl = sign of wealth/status
- Development of distinctive bronze-working tradition:
 - Figurines
 - Tripod stands
 - 4-sided (wheeled) stands



Hemispherical bronze bowl

LC IIC-III A

- Centralised control of bronze working in temples?
- Close association between religious areas & copper production at several sanctuaries:
 - Enkomi
 - Kition
 - Athienou
 - Myrtou *Pigadhes*



Kition

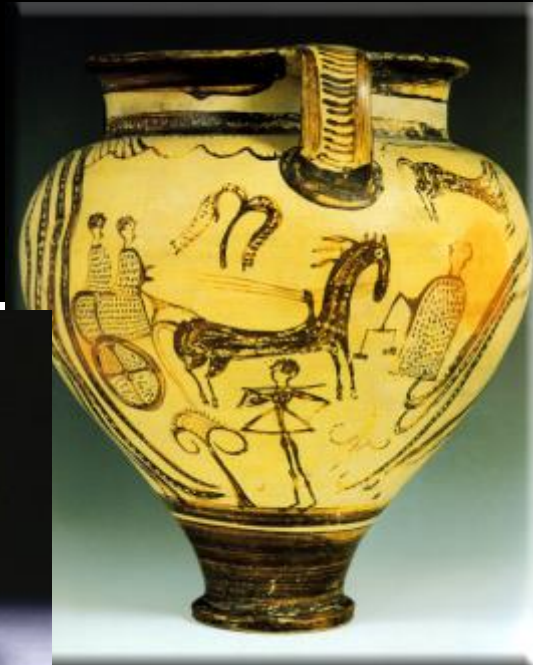
LC IIC-III A

- Two bronze statuettes standing on miniature ingots:
 - Male protective deity & female fertility deity
 - Overseers & protectors of the Cypriot copper industry



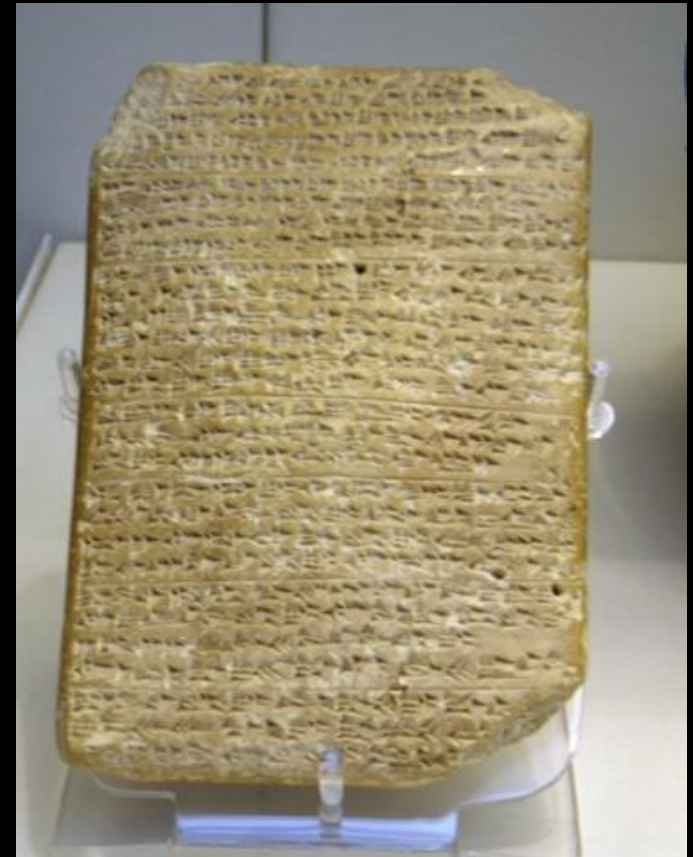
Religion and Copper

- Representations of ingots:
 - Miniature votive ingots
 - Bronze stands: ritual processions
 - Probably depicted on seals
 - On Mycenaean pictorial kraters
- Knapp: Cypriot elite used culturally significant symbols & religious ceremony to legitimise control of the copper industry



Copper Trade: LBA Texts

- Annals of Tuthmosis III:
 - Lists tribute of copper ore from *a-si-ja*
- 14th century Amarna archives:
 - 8 letters from King of Alashiya
 - Gifts always include copper (typically 100-500 talents)
- 13th century: Hittite archives
 - “they have brought the copper & bronze from Alashiya, from Mount Taggata”



EA35: Hand of Nergal

Archaeological Evidence for Trade

- Copper & tin were the basis of the LBA metals trade
- Does this circulate as commodity or gift?
- What is the source:
 - Prior to 13th century no evidence for trade in Cypriot copper
 - Ingots from LM I Crete: non-Cypriot origins
 - Also those illustrated on Egyptian 18th Dynasty tomb paintings?



Copper ingots from Ayia Triadha

Archaeological Evidence for Trade

- Traded in standardised ingots
- Widely distributed throughout Mediterranean
- Lead isotope analysis indicate Cypriot source from 13th century BC



Mediterranean



Copper ingot from Cyprus

Egyptian Faience Bowls

- Concentration of Egyptian faience bowls in LC IIC-III A
- Marsh bowls popular in temples of Hathor associated with mines:
 - Colour & iconography suitable for **Lady of Mefkat** (turquoise)
- Hathor protectress of mining & acquisition of raw materials from abroad



Faience bowl from Enkomi

Hathor & Copper

- “Since Hathor was so closely identified with copper-mining... the unusual concentration of her cultic equipment in copper-producing Cyprus is unlikely to be fortuitous” (Peltenburg 2007: 384)
- Proliferation of Hathor-related objects on Cyprus at end of LBA:
 - Period associated with breakdown in palace trade & more widespread access to luxury products
- Popularity of Hathor bowls:
 - Local metal producers aware of the benefits of invoking cult of Hathor to ensure continued prosperity of copper production (during period of change)

Summary

- Late integration of Cyprus in trading networks but in second millennium becomes pre-eminent for copper
- Texts imply this exchange dates back to the MBA in Near East
- Definite part of Amarna exchanges
- Cypriot copper widespread throughout Mediterranean from 13th century:
 - Gift exchange or commodity trade?