LONG-DISTANCE TRADE
IN THE MIDDLE EAST,
FROM PRE-POTTERY NEOLITHIC THROUGH
URUK PERIOD (ca. 9000-3000 BC)

Introduction
The distribution of some materials far away from their sources, such as shell, started to be apparent in approximately 15,000 BC in Wadi Hasa, Jordan (Roaf, 1990: 34). Shells had been brought more than 100 kilometres from the Red Sea and the Mediterranean to that site (Roaf, 1990: 34). However, the indications of long-distance distribution of certain materials, such as obsidian, other semi-precious stones (greenstone, carnelian, turquoise, lapis lazuli), and metals, became more apparent in the later periods and lead to long-distance trade (Roaf, 1990: 34). Considering this phenomenon, the evidence of long-distance trade in the Middle East, from the Pre-Pottery Neolithic (PPN) through the Uruk Period, will particularly be discussed based on the geographical background and the distribution of cultural assemblages. This will be followed by a discussion about the contribution of long-distance trade to the growth of social complexity and the spread of cultural features.

The Evidence of Long-Distance Trade in the Middle East

One crucial issue that has been assumed to trigger long-distance trade among ancient societies in the Middle East is the difference in geography and its natural resources (Renfrew et al. 1986: 30; Alpaz 1989; Oates 1993: 407). The southern Mesopotamian desert, for example, provided some local resources, such as flint, gypsum, albaster, and obviously the fertile soils and water resources in the alluvium were beneficial to develop agriculture (Oates 1993: 408). Villages in the fertile lowland plain of Mesopotamia were assumed to produce surplus in farming products (Maisels 1990: 35; Merpert 1993: 122). However, this region does not provide semi-precious stones and metals, so importation from other places became a good solution (Maisels 1990: 35; Merpert 1993: 122). Merpert (1993: 123) suggested that in importing exotic materials the southern Mesopotamian farmers offered their surplus of farming production in return. Interestingly, the occurrence of exotic materials in each site, in terms of the variety and quantity, was not the same as time went on, from the Pre-Pottery Neolithic through the Uruk Period. This may suggest that there were some different degree of trading activities along these periods.

The evidence of long-distance trade of the Pre-Pottery Neolithic A (PPNA) Period (ca. 8500-7300 BC) came from obsidian, which was mostly made into cutting tools. At Netiv Hagdud 30 pieces of small flakes of obsidian with indications of use were recovered. By using neutron activation analysis it can be presumed that their source was Gulu Dag in the Çatalhöyük region, central Anatolia (Noy, Schloenbrenner, and Tchernov 1980, cited in Bar-Yosef et al. 1991: 417). A number

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of obsidians were also found in the other PPNA sites, such as Jericho and Tell Aswad, and examinations showed that they also came from the same Anatolian source (Bar-Yosef et al. 1991: 417).

Due to the process of formation, the sources of obsidian are relatively easier to be traced than other stones, i.e. in certain areas of volcanic activities (Renfrew et al. 1966: 35). There are two known areas of sources of obsidian: eastern Anatolia with Armenia, which is centered in Lake Van (Nemrut Dağ) and central Anatolia (Cappadocian sources), including Asiköl and Çiftlik (Renfrew et al. 1966: 35; Wright 1969: 5-6).

Maisels (1990: 75) suggested that the appearance of raw materials, i.e. limestone, alabaster, carnelian, greenstone, soapstone, and obsidian used to manufacture small objects such as beads, pendants, tiny cylinders, and balls at Tell Aswad, indicated the widespread exchange relationships during the PPNA Period. According to Mellaart (cited in Wright 1969: 56) possible sources for greenstone are west of Hasanç and southwest Catal Hüyük. Greenstone beads were also found in the other PPNA sites, such as Jericho, Gilgal, and Netiv Hagdud (Bar-Yosef et al. 1991: 422-23). Carnelian is supposed to come from the same sources of lapis lazuli, the Badakhshan region (Mella art 1965: 130-31, cited in Wright 1969: 54).

However, other raw materials, such as alabaster and limestone are difficult to be categorized in long-distance trade due to the problem in determining their sources. Oates (1976: 20) informed that limestone is the 'commonest rocks in all the folded mountains'.

The commodity of long-distance trade during the Pre-Pottery Neolithic B (PPNB) Period in approximately 7300-6000 BC, was not so different from that of the PPNA. However, in some sites the amounts of obsidian were slightly differed. At All Kosh, during Ali Kosh Phase (7200-6440 BC) in the Deh Luran plain, Khuzistan, obsidian blades had increased from one to five per cent among the abundance of flint blades (Maisels 1990: 101).

The amount of obsidian remained at around 2 per cent among chipped stones during the Mohammed Jaffer Phase in Khuzistan (6440-6100 BC) (Maisels, 1990: 102).

In addition to obsidian, Ali Kosh also provided the evidence of turquoise which was made into beads (Maisels 1990: 101). Cressey (1960: 514, cited in Wright 1969: 55; Asvel 1965: 42, cited in Wright 1969: 55) mentioned that one known source of turquoise is Mesopotamia, Iran, while the other are located in the Negev (in Palestine) and in Sinai. Turquoise was import ed during Mohammed Jaffer Phase, as well as cowry shells (Maisels, 1990: 102).

During the Neolithic and Chalcolithic Periods of the Middle East (ca. 6000-3300 BC) long-distance trade activities were indicated by some noticeable changes, not only in the variety and the amount of commodity, but also the mechanism of trade. During and after 6000 years ago the evidence of trade of raw materials to be made into 'not purely functional' goods tended to increase (Oates 1976: 20). Some new commodities, such as lapis lazuli and metals were added in the trade, while obsidian was still imported.

It seems that copper ores which started to appear in the Neolithic Period were brought from a source in Arava Valley, Palestine (Leroy and Shalev 1969: 354) and Ergani Maden mines in southern Anatolia (Oates 1976: 22, 40).

In Catal Hüyük, one of the earliest Neolith ic site located in Anatolia, obsidian mirrors, metal beads and other precious objects were found in burials (Oates 1976: 96-7). However, there was no information about the differentiation of the amount of grave goods which can be used as the indication of social rank.

The indication of the occurrence of exchange activities during the Hassuna Period in the sixth millennium BC was from Umm Dadaghah, where copper and various types of mirrors, including obsidian, carnelian and turquoise (Merpert 1993: '23) were recovered. Concerning the appearance of such things and the occurrence of distinctive structures in Umm Dadaghah, Kirkbride (1974: 90) suggested that this site was established as a trading outpost, mid dle-man between the hunting and the settled areas, because these two ways of life do not mix'. This site provided small cubi cal rooms (cell buildings) which had been suggested as store-rooms to reserve ongers and gazelles hunting production, in par-
ticular raw rides, before being sent to the other places (Kirkbride 1974: 86, 90). She mentioned that both essential and luxurious materials, as well as plant foods, should be imported due to the environmental condition (Kirkbride 1974: 90). However, the suggestion about the role of Umm Dahabiyeh still needs to be confirmed with the other sites which may evolve in a trading route. This is because there was no evidence about the growth of highly integrated society needed to manage long-distance trade among Mesopotamian villages in this early period. Besides, the suggestion that Umm Dahabiyeh should import plant foods from outside was refuted by Oates (1976: 101-101), because the climate in prehistoric time was supposed to be different from today and probably less environmentally damaging.

At Yarmut Tepe obsidian and flint as weapons and tools appeared with pieces of copper ore, and copper and lead ornaments (Roux 1992: 51). Oates (1976: 131) mentioned that the evidence of metallurgy, including the smelting of both copper and lead, was found in this site. However, there was no information about the sources of the raw materials, which can be used to support long-distance trade of metal. In relation to the source of metals, Wertime (1968), cited in Wright 1989: 56 stated that a great number of copper and lead mines were found in the higher regions of the Near East. So, the possibility of importation of copper ore and other metals during the Hassuna Period needs to be examined further.

During the Halaf Period (ca. 5200-4400 BC) mound sites in the northern Mesopotamia, i.e. Tel Halaf, Tell Arpachiyah, Tell Brak, and Nagar Barad were known to be the centers of attractive pottery manufacture which were exchanged with marine shells, glazed stone beads, and obsidian (from the Euphrates 55). Obsidian was prevalent in most Halafian sites and in a cemetery beads of obsidian were found accompanied by gypsum, crystal, and crystal beads (Roux 1992: 68; Oates 1976: 106). This cemetery may describe the social status of the dead, but it needs to be compared with the Qatir cemetery.

During the Ubaid Period in the fifth millennium BC exotic stones and stamp seals were more common in the northern Mesopotamian than in the southern part (Roux 1992: 63-4). Long-distance trade in this period was indicated by the appearance of bitumen, obsidian (Roux 1992: 63) and specifically lapis lazuli. The source of bitumen is supposed to be the Dead Sea (Shelley 1989: 354).

The early phase of long-distance trade of lapis lazuli appeared in Mesopotamia during the Late Ubaid Period (Hermann, 1968: 21). The possible source of lapis lazuli during this period was Badabshan mines (Is-sa-Sang, Sitram, Chilmak, and Robat-i- Paskarani), Northeast Afghanistan, which was approximately 1,500 miles from Mesopotamia (Hermann, 1968: 22-23). This stone appeared in Mesopotamian sites as stamp seals, beads, or amulets (Hermann, 1968). During the final stages of the Northern Ubaid, three sites in Mesopotamia, Le Niniveh, Arpachiyah, and Tepe Gawra were assumed to be involved in importing lapis lazuli (Hermann, 1968: 29).

Tepe Gawra is an important site, because it indicated a local developed culture of the Northern Mesopotamia at the end of the Ubaid Period (Gawra XIII) (Maysis 1990: 66). This culture continued to the Urak Period in the fourth millennium BC, known as the Gawra XII-VIII (Oates 1976: 129). At Tepe Gawra, lapis lazuli occurred in different proportion at a number of graves, from stratum XIII (Late Ubaid Period) through the Gawra VIII-C.

The appearance of lapis lazuli in the Gawra XII and XIII was rare, but they were plentiful in stratum X. In particular three of the shaft burials were richly furnished with it (Hermann, 1968: 30-31). After the Gawra XIII period, burials were found around and under a new style of temple buildings, and among them there was one tomb which contained over 200 lapis lazuli, electrum, and ivory, besides some 450 lapis beads (Oates, 1976: 129; Maysis 1990: 56).

At the same time, the presence of lapis lazuli was substantially decrease in the Late Urak period of the Gawra IX and was even scarcer in the Gawra VIII-C (Hermann, 1968: 31).

Considering the different proportion of funeral gifts in the Gawra tombs and the appearance of far away source of certain materials, Oates (1976: 129) suggested that those burials indicated not only significant
social differentiation but sites a very consi-
derable increase in trading activities. Be-
sides, Gawra is assumed to provide 'the first
convincing evidence for some form of eco-
nomic activity associated with the temple'
(Oates 1975: 20).

Due to some evidence for the distribution
of lapis lazuli in the northern sites of Mes-
opotamia (i.e. Gawra III-X), but absent in
the southern sites, Hermann (1968: 29; 53)
proposed that: 'A powerful administration
would have been required to source and
maintain this long-distance traffic... i.e. the
northern sites of Mesopotamia. However,
the early northern trade monopoly of lapis
lazuli was taken over by the southern sites
after Gawra VII-C (Hermann 1986: 36).

This was reflected on Iranian sites as
staging posts (Hermann 1966: 36-37); Her-
mann (1968: 36-37) stated that Gilion, Slate,
and Risali, which were located on the princi-
pal route to the east, were an important
chain site during the northern monopoly.
During the southern control of lapis lazuli
reached Mesopotamia via Slate and Susa.

The evidence of the staging posts is shown
by the appearance of a small amount of
lapis lazuli, such as two stamp seals reco-
overed in Gnevin V, some beads at Risali II, a
bead in Risali II (Hermann 1966: 36-
37).

Concerning the evidence of long-distan-
tce trade in the Middle East mentioned
above, some interesting phenomena can be
recognized. Firstly, the quantity of exoxic ma-
teials to be made into rich essential objects
showed a sharp increase in a certain phase,
for example in one tomb of the Gawra X.
This can be seen as an effort to express so-
cial status or rank (see Oates 1952: 403).
Secondly, in relation to obisidian, Oates
(1975: 20) mentioned that obsidian are rare
before 3700 BC in sites as far as Palestine
and Zagros, however they increase 'coni-
derously in proportion to first and short
during the next two millennia'. Obsidian was com-
monly found in most Halafian sites, but at
the end of the Neolithic (Mamie) Jaffar Pass
the proportion of obisidian showed a
sharp decline (Renfrew et al. 1966: 46).

Thirdly, as proposed by Renfrew et al.,
(1966: 37), it was a tendency between the
density of obisidian in a site and the dis-
tance of that site from sources. Renfrew et al.
(1966: 37) mentioned that...obisidian forms
constantly more than 10 per cent of the chipped stone assemblage' at Catal Hawa,
about 200 km from the nearest source, but
at Rehidha, some 600 km from the Caspodo-
mon, only three obisidian were found among
30,000 pieces of chipped stone. Fourthly,
the appearance of obisidian blades in certain
sites far from its source, in a different way
may also relate to social status, as such
other semi precious stones. This is because
new materials for tools and ornaments,
such as flint, were available in those
sites (see Oates 1993: 408).

Insufficient data of long-distance trade
created some questions, such as whether
the exotic things were imported in raw ma-
teials or in ready to use products. Although
Postgate (1992: 206) proposed that such
to things were brought in raw materials, this
needs to be confronted with the diversity
of activities in each site which supposed to import
such things, or by finding out the workshop
sites. The mechanism of long-distance trade,
in particular before the Uruk Period, is
also still in question. Oates (1975: 20)
suggested that: 'it is perhaps more likely at
first to involve a series of relatively short-
distance exchanges between neighbouring
communities, in which pastoral groups may
well have played a part'. However, the sug-
gestion is difficult to be proved due to the
difficulty in recognising the remains of their
encampments (Oates 1975: 32). When
Highly organized society developed, i.e. du-
ring the Uruk Period, some small sites were
involved as 'trading outposts' or even 'colo-
nies' along the route to the sources of mate-
rals acquisition, to control the exploitation
Oates 1993: 410). In this case, Postgate
(1992: 208) suggested that Jesse Aruda
became 'a western branch of the Uruk
trading system' due to the appearance of
lapis lazuli and Uruk architecture in this site.

The Contribution of Long-Distance Trade
to the Social Complexity and Cultural
Spread in the Middle East

Due to the limitation of sources, hazes
such as semi precious stone and metals are
difficult to obtain. The ability to interact with
other people who have access or live close

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to the sources of exotic things is needed to obtain such things. It seems that only certain people can obtain such things in a remarkable number. Therefore, people who have exotic things more than the others have a higher status in social rank. In this case, exotic materials become status symbol.

It seems that the increase in the demand of exotic materials as status symbol in 'highly-integrated' societies such as Urk, had encouraged the growth of the ability to manage long-distance trade (see Alagia 1989; Oates 1993). In this case, Alagia (1989) proposed the expansion of resources to explain the management of the long-distance trade during the Urk Period. Based on the typical Urk cultural assemblages, such as architecture, ceramic and sealing found in certain regions, Alagia (1989: 574-77) suggested that Urk formed enclaves, stations, and outposts to administer trade. The differentiation into those three kinds of trading 'companions' was based on the location of sites. Habu'ak Karan-sud enclaves in Southeastern Syria, for instance, is located at the juncture of the principal east-west overland routes and the main north-south wadis (Alagia 1989: 577-79). Stations are isolated settlements 'alongside overland routes between the enclaves and the alluvium and also along important routes into the northern plains', such as Tell Qara and Hassak Niyuk (Alagia 1989: 580). While outposts are isolated small sites 'deep in the highlands adjoin some of the most overlaid routes' such as Godin Tepe and Tepe Siyak in Iranian Zagros (Alagia 1989: 579-70). Considering the involvement of the strong and less strong societies in long-distance trade, Zagarei (1988: 419) mentioned about the possibility of the appearance of tribute system 'to goods or labor service among them. As the result of long-distance trade, the small sites or 'developed' societies involved in such trading network were stimulated to develop 'more complex sociopolitical configurations' and inflated Urk's material culture (Alagia 1989: 571-72). Moreover, the growth of social complexity had also encouraged the change in domination and authority to manage trade routes, the distance between the northern and southern Mesopotamia, or by the collapse of the Urk trading network around 3200 BC (see Herzfeld 1968: 36-37; Potts: 1993: 383-84).

The growth of social complexity can also be proved by the existence of certain material culture. Zagarrei (1986: 416) claimed that 'seals and the remains of sealing give evidence of the social control system...'. Temples and some facilities related to exchange system such as storage buildings found in Tepe Gawra (Zagarrei 1986: 416), must have been built by organizing a number of workers.

The indication of cultural spread as the result of long-distance trade had also appeared before the Urk Period. Seemingly, the spread of culture during this period took place in different way, i.e. through continual inter-regional interaction. The mobility of a group of people from one place to another in relation to the trading activities, and supported by the ability of a group of society to control trade routes, had contributed the occurrence of cultural intensions. The involvement of small sites as outposts, however, was not so apparent as such in the Urk Period.

The spread of the Ubaid culture, for example, was supported by the occurrence of Ubaid pottery and architecture in wide areas from the south to the north Mesopotamia and down the west coast of the Persian Gulf, and in sites of the northeastern Syria 'aside the major route to the copper mines at Eridu Mardin' (Colban 1976: 125). The Ubaid Period was indicated by widely spread of 'one single culture from the Jazirah (and even beyond) to the Tigris-Euphrates delta and the construction of temples (Poux 1992: 56, 60). Besides that, the spread of culture may also be caused by marriage. Concerning the introduction of pottery at Jarmo, Adams (1943: 223) suggested that 'its early practitioners at Jarmo may have been women from some distant villages, perhaps brought back as wives by men trading for obsidian'.

Conclusion
It is obvious that long-distance trade, which mostly related to the fulfillment of the need of exotic materials, was caused by the lack of such materials in certain places. The appearance of certain materials from far
away sources had proved the existence of this activity during the Pre-Pottery Neolithic through the Uruk Period. Besides the variability of geographical condition in the Middle East had engendered the growth of different economic and cultural background, and the degree of integrity among the societies. Highly-integrated society, such as Uruk, had succeeded in developing a specific trading network to obtain exotic materials. Such trading network had caused cultural intrusion in less-developed societies along the trade routes and encouraged the growth of social complexity among them (see Aagaard 1985). The growth of social complexity of less-developed societies had also increased the need of exotic materials and motivated these societies to break out of the domination of the highly-integrated society in obtaining such materials. Such situation may have finally caused the collapse of Uruk as the centre highly-integrated society and challenged the authority in managing trading networks (see Potts 1993: 183-84).

REFERENCES


