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LAPIS LAZULI AND THE GREAT KHORASAN ROAD

Y. MAJIDZADEH

ABSTRACT. — Archaeological and textual evidence of the fourth and third millennia are used to reconstruct a trade route for lapis-lazuli. Originating in Badakhshan, this route probably traversed Kerman (Aratta), Fars (Anshan) and Khuzistan (Susa). The present reconstruction argues against control of the lapis trade by such northern communities as Hissar and Gawra, and minimizes the role of the Great Khorasan (Silk) Route.

RÉSUMÉ. — Les vestiges archéologiques aussi bien que les données textuelles des 4^e et 3^e millénaires sont utilisés ici pour reconstituer la route commerciale du lapis-lazuli. Prenant son origine au Badakhshan, cette route traversait probablement le Kerman (Aratta), le Fars (Anshan) et le Khuzistan (Suse). La reconstitution présentée ici s'élève contre l'idée d'un contrôle du commerce du lapis par des communautés septentrionales telles que Hissar et Gawra et minimise le rôle de la Grande Route du Khorassan (Route de la Soie).

The Iranian central plateau represents one of the largest prehistoric cultural regions in Iran. A very important feature of this region is its geographical location, because during historical times the main route connecting Mesopotamia and western Iran to northeastern Iran, Afghanistan, and eventually China was through the central plateau. During the Islamic period, as the most important trading route of the country, it was known as the "Silk Road" or the "Great Khorasan Road". Unlike Mesopotamia, where the prehistoric cultural centers were established on the banks of the Tigris and Euphrates, the two main arteries of communication, in the central plateau navigable major rivers do not exist. Therefore, the establishment of a settlement depended on two important factors: an area not only suitable for living, but also with a specific geographical feature which could connect that area with the other cultural centers of the plateau in the shortest and easiest way. The location of the excavated prehistoric settlements of the central plateau along the present main routes of the region testifies that the early prehistoric people of this central highland were using more or less the same routes. Thus, the earliest residents of the plateau must be credited as the first engineers who were responsible for the establishment of the present main roads of the central plateau.

In the absence of a detailed archaeological survey in the central plateau, and the lack of any extensive knowledge of the settlement patterns during the early prehistoric time in this central highland of Iran, one may argue that the location of the already known early settlements along the present routes may be accidental and that the prehistoric peoples of the central plateau may have used a totally different route or routes which passed through other more important settlements not yet known to us. In response to this argument it should be pointed out that the geographical factors of this

region do not support such an idea. The existence of large salt desert basins on one hand, and the ranges of bare mountains within the central plateau on the other hand, has limited the habitable areas to the edges of the deserts and the foot of the mountains. Therefore, all prehistoric settlements had to be limited to the marginal fertile lands of Damghan, Semnan, Rayy, Karaj, the Qazvin plain, Saveh, Qum, and Kashan (fig. 3). A study of the central plateau would show that the present roads crossing the region are the only alternatives and that all the settlements are located within a short distance of the roads. The three major roads of the central highland have always been of great strategic value, especially in connection with long distance trade, one running in an east-west direction, connecting Afghanistan to Asia Minor through Khorasan, Damghan, Semnan, Rayy, the Qazvin plain (1), Zanjan, Miyaneh, Tabriz and farther northwest, into Anatolia. From Miyaneh a second branch of this route extends to northern Mesopotamia by way of the Solduz Valley and the Gorges of the Little Zab. The second route, with a southwest-northeast direction, connected Mesopotamia to Afghanistan by way of southern Assyria, Ghasr-e-Shirin, Kermanshah, Kangavar, Hamadan, Saveh, and Rayy. From this point it joined the east-west route where it continued to Afghanistan (2). This route with its full extension was the famous "Silk Road" or the "Great Khorasan Road". The third major route, with a southnorth direction, connected the southwestern provinces of Khuzistan and Fars to Rayy and farther east to Afghanistan by way of Isfahan, Kashan, and Qum (fig. 2).

(1) The traceable remains of this route in the Qazvin plain shows that it passed by Tepe Ghabristan. See SHAHMIRZADI 1979 : 50.

(2) DYSON 1965 : 215; LEVINE 1973 : 4; LE STRANGE 1905 : 9-10 and map n° V.

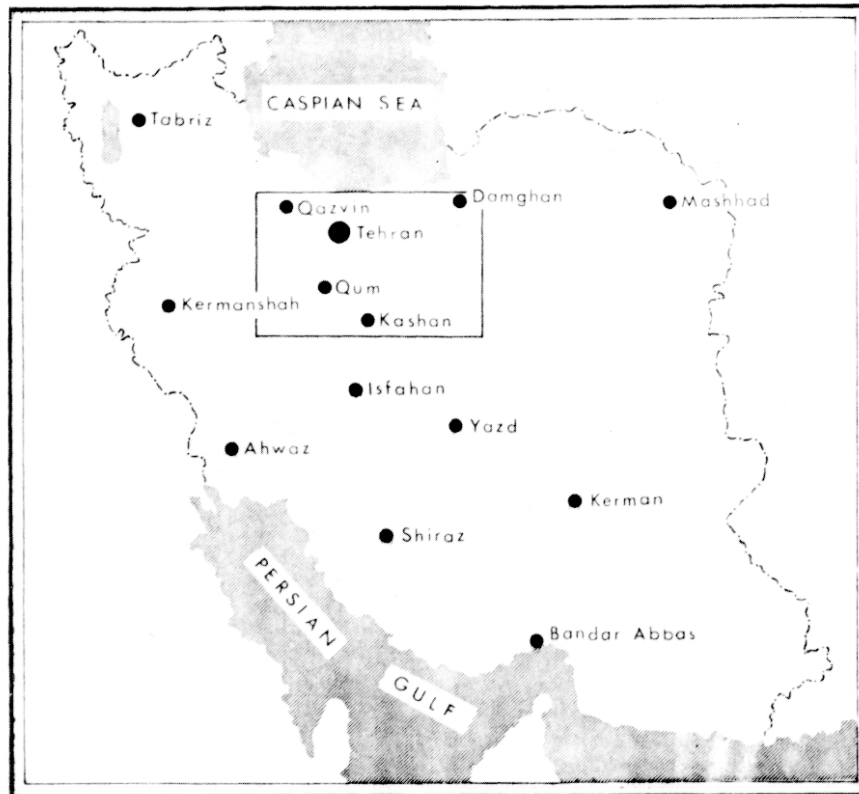


FIG. 1. - Map of Iran.

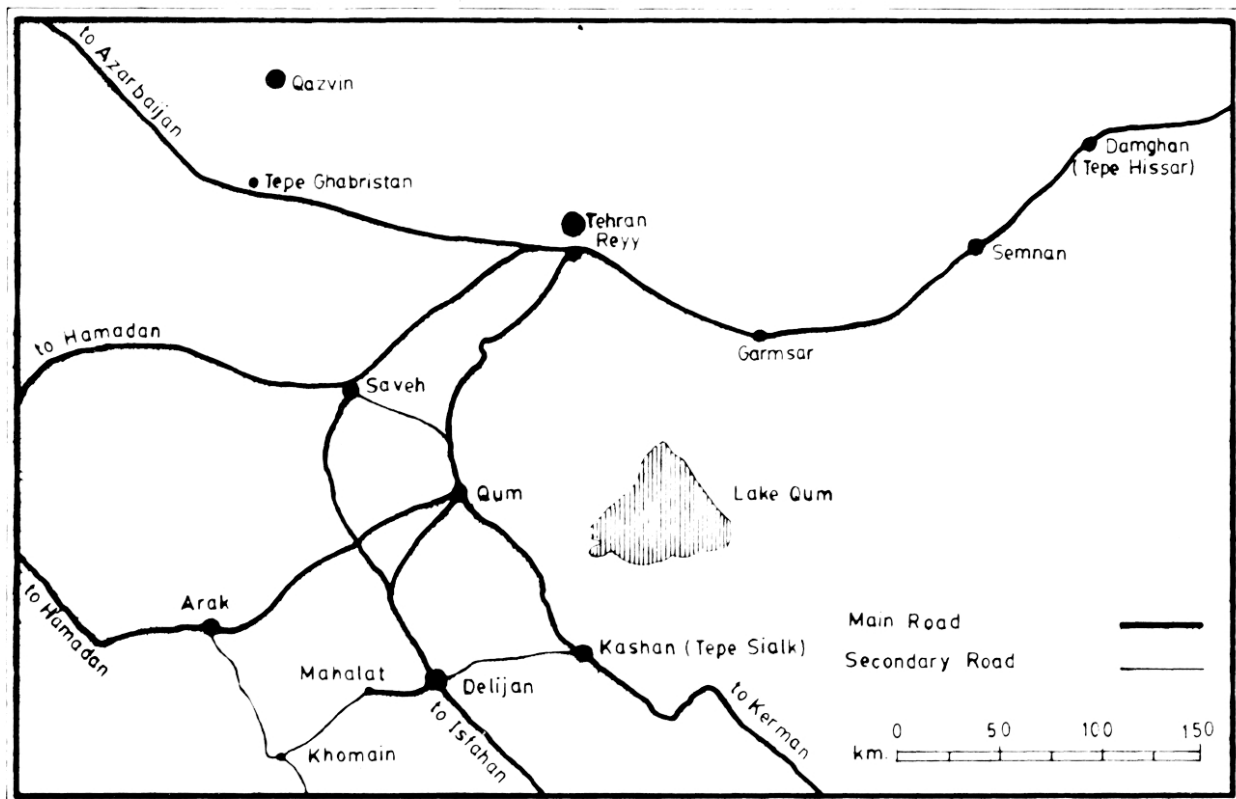


FIG. 2. - The Main Roads of the Iranian Central Plateau.

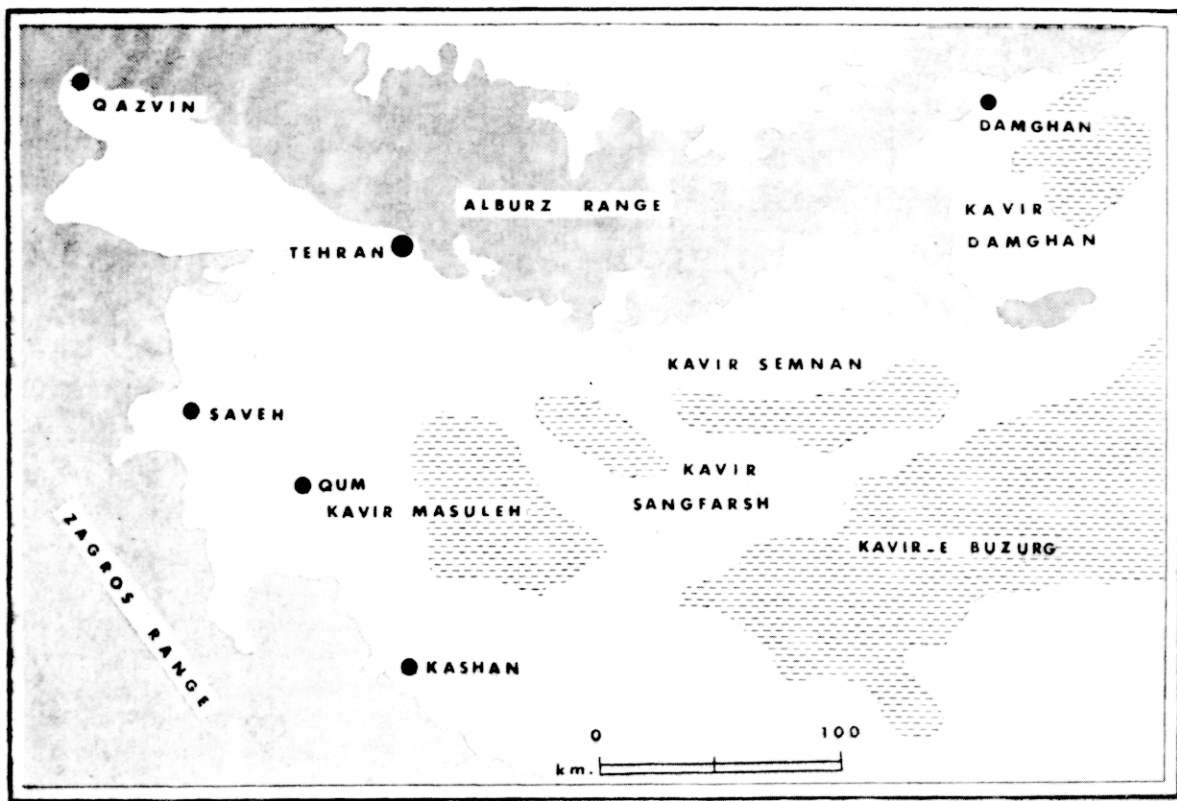


FIG. 3. – Iranian Central Plateau and the Great Kavir Region.

It is equally interesting to see that the early prehistoric settlements of the Qazvin plain, so far as we know, were the only cultural centres in the central plateau which were in direct contact with northern as well as southern Assyria, while Tepe Hissar was isolated from the rest of the plateau's cultural centres and could be reached only through Cheshmeh Ali. The Saveh region was the heart of this central highland with roads going out in all directions; not only was it astride the south-west-northeast road, but it connected the Qazvin plain to Qum and Kashan. Therefore, a detailed survey in the area may produce significant additions to our present knowledge. Tepe Cheshmeh Ali lay on the most important single cross-road; it was the only gateway to the east. There the main roads from southern and northern Assyria, and from southwest and southern Iran join, with a single road continuing to the east. Sialk, in the southwestern corner of the region, like Hissar, was isolated but to a lesser extent from the rest of the central plateau, though it was connected with the rest of the Iranian central highland only through Qum and Saveh. But, due to the closeness of this site to the west central and the southwestern cultural centres, Tepe Sialk played an important role in the diffusion of some Susiana cultural elements into the more northern parts of the central plateau.

Traders travelled through these roads and carried their merchandise from one region to another for millennia, especially during the historical periods. The main

question, however, remains whether or not during the prehistoric time the full extension of either one of these three major roads crossing the central plateau was in use as an established regular trading route. The first scholar to introduce the idea of the use of the full extension of one of these three routes known as the "great Khorasan Road" as early as the Ubaid 4 period was Georgina Herrmann. In connection with the earliest lapis lazuli trade, she has proposed that during the Late Ubaid and the Uruk periods of northern Mesopotamia, and the Jemdet Nasr, Early Dynastic, and the Akkadian periods of southern Mesopotamia, traders travelled through this route all the way from the north, and then from the south in Mesopotamia, to Badakhshan in Afghanistan (3). On pages 53 and 54 of her lapis article she says: "... We have established that Gawra appeared to hold almost a monopoly, from its initiation of the trade in Late Ubaid to the Late Uruk period of Gawra IX, when the monopoly was taken over by the south..."

"When the organization of the lapis lazuli trade was in southern hands there was not only a wider distribution of lapis lazuli within Mesopotamia itself, but..."

"The seizure of the lapis monopoly from Gawra had repercussions in Iran... Elam was then in a position to control the trade, importing lapis lazuli from sites in the north-east, such as Hissar, through Sialk, and exporting the stone west to Sumer and even perhaps to Egypt by sea."

"Early in E. D. I this flourishing trade went into total eclipse; both in Sumer and..."

"According to Sumerian tradition it was Enmerkar of Uruk who re-opened the trade of lapis lazuli by diplomatic bartering with the ruler of Aratta--... perhaps somewhere south or south-east of the Caspian. The very fact that Enmerkar knew about lapis lazuli and where to obtain it indicates a persisting tradition in Sumer and endorses the suggestion that the break in the trade was caused by events in Iran beyond the control of Sumer's rulers. Much as they may have desired the stone it was not until Enmerkar's successful initiative that regular exchange could be re-established after an interval of uncertain duration."

The earliest written sources in which the state of Aratta were mentioned belong to Enmerkar, who according to the Sumerian King List was the second king of the First Dynasty of Uruk (4). In one of the two texts which is known as "Enmerkar and the Lord of Aratta" (5), the king demands the advice of the goddess Inanna in the search for gold, silver, and lapis lazuli from the state of Aratta. According to the advice of the goddess, he (Enmerkar) sends a suitable emissary with a message *"via Susa, the mountain country of Anshan, and over great mountain ranges to the land of Aratta"* (6), and proposes a convenient exchange for goods. But the king of Aratta rejects the proposal. But later on, since famine makes the situation in Aratta seem desperate, he accepts the offer and Enmerkar sends loads of grain to Aratta. Although the similarity of the lapis lazuli found in Mesopotamia to that of Badakhshan is beyond any dispute, G. Herrmann's evidence in respect to the use of the Khorasan Road for lapis lazuli trade by the merchants of Ubaid, Uruk-Jemdet Nasr (Protoliterate), Early Dynastic, or Akkadian periods of either northern or southern Mesopotamia is strongly arguable.

Apparently G. Herrmann's reasons for such a proposal are drawn from the fact that she has located the state of Aratta *"perhaps somewhere south or south-east of the Caspian"* (7), because in the first place she proposes a location for Aratta somewhere in the vicinity of Damghan (perhaps Tepe Hissar itself) and then she suggests that the Elamites imported *"from sites in northeast, such as Hissar"* (meaning Aratta or a site close to Aratta since Tepe Hissar is located on the southeast of the Caspian). This is because, even today, the only known site to the south or southeast of the Caspian which was occupied from before the Late Ubaid to the end of the mid-second millennium B. C. is Tepe Hissar. Thus, it is logical to believe that by locating of Aratta somewhere to the south or southeast of the Caspian, G. Herrmann was probably thinking of Tepe Hissar or a similar site in the vicinity of Damghan as a favored location for the

state of Aratta. Indeed, this is indirectly suggested by G. Herrmann herself; she says that the Elamites imported their lapis lazuli *"from sites in the northeast, such as Hissar"* (meaning Aratta or a site close to Aratta). Further evidence that this was indeed the supposed location of ancient Aratta that led G. Herrmann in 1968 to propose that the distribution of lapis lazuli followed the line of the Great Khorasan Road is clearly based on the following statement, already quoted above: *"The very fact that Enmerkar knew about lapis lazuli and where to obtain it indicates a persisting tradition in Sumer"*. In other words, Enmerkar knew that the place to obtain lapis lazuli was Aratta (somewhere to the south or southeast of the Caspian in all probability, Tepe Hissar), a site where the rulers of Sumer *traditionally* obtained their lapis lazuli. This tradition goes back, at least, to as early as the Jemdet Nasr period, since at the time of E. D. I the lapis lazuli trade *"had gone into total eclipse"*. On the other hand, we know that nowhere in her article does G. Herrmann make any mention of a shift of direction of the lapis lazuli trade route from the Late Ubaid to the Jemdet Nasr period. That means that we can comfortably assume that in her opinion the *traditional* source for importing lapis lazuli (the place known as Aratta to Enmerkar) can go back to as early as the Gawra XIII period.

With the possible location of the state of Aratta to the south or southeast of the Caspian, that is along the "Great Khorasan Road", G. Herrmann proposes that indeed the Mesopotamian lapis lazuli, for at least one thousand five hundred years (from the Late Ubaid to the end of the Akkadian periods) came through this ancient road. The discovery of the exact location of the state of Anshan in the modern province of Fars (8), however, proved that the identification of Aratta by G. Herrmann as south or southeast of the Caspian is dubious, since according to the epic of Enmerkar Anshan and Aratta were two neighboring states. Therefore, with the discovery of Anshan in the province of Fars, and the probable location of the state of Aratta as the modern province of Kerman (9), the route of the transshipment of lapis lazuli from Badakhshan to the southern states of Mesopotamia changes dramatically from the direction of the Great Khorasan Road on the north of the Iranian highland, to the south connecting the lowland of Sumer to Badakhshan through Susa (Khuzistan), Anshan (Fars), and Aratta (Kerman). Even if one does not accept the proposed location of the state of Aratta as the modern province of Kerman, the existence of the large quantity of lapis lazuli in Shahr-i-Sokhta, of which only 10 percent had been worked into objects, while 90 percent occurred as waste flakes, indicates that the Sumerian lapis lazuli was being partly worked at Shahr-i-Sokhta and then shipped to Mesopotamia (10) through a route entirely different from the "Great Khorasan Road" as suggested by G. Herrmann.

(3) HERRMANN 1968 : 21-57.

(4) JACOBSEN 1939, Table 2.

(5) KRAMER 1952.

(6) COHEN 1973 : 30-31.

(7) *Ibid.* 57. Anshan and Aratta were two important Iranian city states. The latter was mentioned for the first time in the Sumerian texts usually thought to reflect the Early Dynastic II period, dated to the first half of the third Millennium B.C.

(8) SUMNER 1974 : 155-175.

(9) MAJIDZADEH 1976 : 105-113.

(10) LAMBERG-KARLOVSKY and TOSI 1973 : 27, 46; TOSI and PIPERNO 1973 : 20-21.

The following analysis of the available material will show whether the lapis lazuli of Badakhshan reached Assyria during the Ubaid 4 and Uruk periods through the "Great Khorasan Road", or under some different circumstances.

Since trade forms part of the productive activities of a society participating in an exchange network, and the motivational factors operative in prehistoric exchange systems cannot be determined solely through an imaginatively constructed cost-benefit analysis (11), our first attempt would be the study of socio-economic structure and the potentialities of the productive activities of the Late Ubaid and Uruk societies of Gawra XIII to IX settlements.

The most important field of industrial activity, and one of the earliest specialities which emerged from the shadow of prehistory, was metallurgy (12). By Gawra XIII this technology was already being commonly practiced in Anatolia, and in Iran in the central plateau, as well as in Kerman and Khuzistan provinces (13), but the very small number of the copper objects reported from Gawra precludes the possibility of any large scale metallurgical activities in that site. The stratigraphic distribution of copper objects at Gawra is as follows:

Below Level XVIII	0
Level XVII	2
Levels XVI-XIV	0
Level XIII	1
Level XII	4
Level XIa	5
Level XI	9
Level X-A	3
Level X	2
Level IX	3

To this inventory, one can add a few copper beads and pendants from a tomb attributed to Level XI, and nine copper bosses and buttons from a Level XII or Level XI-A burial (14). Along with these copper objects, however, no evidence, such as fragments of slag, ore, mold, or crucible, to support the idea of the existence of some sort of metallurgical activities during the involved periods at Gawra has yet been reported. Therefore, one cannot disregard the possibility that at this stage manufactured copper objects were being imported into Gawra rather than being produced there. This is also supported by the result of the chemical analysis of two copper adzes from Levels XII and XI to determine their constituent elements (15). The result of this analysis showed a sharp difference in the composition of the two adzes. The specimen from Level XII contained a considerably higher percentage of copper, while the other comprised considerable nickel inclusion, missing completely in the first one. The result of this analysis is as follows:

	<i>Adze, Level XII</i>	<i>Adze, Level XI</i>
Copper	95.36 %	91.80 %
Iron	0.19	0.02
Nickel	3.49
Arsenic	0.05	1.36
Undetermined ...	4.40	3.06

This analysis indicates clearly that the copper was imported to Gawra from different regional sources, either in the form of raw material or manufactured objects. In view of the above comments, it would be more logical to admit that the copper entered Gawra in the form of manufactured items. Even if we accept the possibility of the existence of some copper workshops at Gawra, and that the metal of different components was imported from various sources as raw material and then smelted, cast, and shaped into objects in the local metalsmith workshops, it is clear that metal production of Gawra was very limited to an extent that could hardly fulfill the needs of its own craftsmen and artisans. Recall both the quantity and the variety of copper tools and implements reported from Susa A, a contemporary phase in southwestern Iran (16), or Sialk III, a phase ranging in time from the mid-Halaf to the end of the Ubaid periods in the central Iranian plateau (17).

Furthermore, the majority of the Gawra copper findings such as beads, pendants, rings, pins, buttons, and bosses are solely ornamental objects, and only a few of them, such as axes, adzes, awls, and chisels, are working tools. This important observation indicates that, in comparison with the major industrial centres of the neighboring regions, during the Late Ubaid and the Uruk periods industrial activities at Gawra were limited and possibly unable to provide the needs of their own society.

Another important factor, indicative of the size of the expansion of productive activities and the scale of the trading network within the agricultural societies is the amount of the pottery production. The industrial revolution in lowland Mesopotamia during the Protoliterate period which led to the accumulation of social surpluses, and the establishment of extensive local and long distance trading systems on one hand, and the employment of the fast-wheel for mass production by the potters on the other hand, was by no means a simple coincidence but absolutely correlative. In ancient times, probably the most common means for the shipment of exported commodities was by pottery vessels. Therefore, along with the expansion of the exchange network, potters employed the fast-wheel in order to be able to supply the productive centres with sufficient containers. The vast distribution of the protoliterate (Uruk-Jemdet Nasr) pottery, particularly the four-lug jars, and the bevelled-rim-bowls throughout almost the entire Middle East, is the best evidence for the degree of the expansion of the trading network during the Uruk-Jemdet Nasr periods in southern Mesopotamia and southwestern Iran. The study of the Gawra pottery shows that the

(11) KOHL 1978.

(12) SMITH 1974 : 7.

(13) For the study of the earliest metallurgical activities in the Near East, see MAJIDZADEH 1979 : 82-92.

(14) TOBLER 1950 : 212.

(15) *Ibid.*, 212.

(16) MECQUENEM 1934 : 177-237, fig. 27-32 and Pl. XXIII.

(17) GHIRSHMAN 1939 : Pl. LXXXIV, LXXXV.

pottery of Level XIII, without exception, was handmade. During Levels XII-A and XII, handmade pottery appeared along with the use of the *tournette*, or slow-wheel. In Levels XI-A, XI, and X the pottery was still handmade, while the use of *tournette* was less than in Level XII. It was only during Level IX that for the first time wheel-made pottery occurred (18).

Apparently, the most important productive activity at Gawra was based on agriculture and animal husbandry. This is indicated by the favorable location of the site: *"Tepe Gawra is about 14 miles east-north-east of Nineveh, under the lee of the snow-capped mountain which is now known as the Jebel Maghlub. In ancient times a Wadi carried water to the foot of the settlement which lay in rich agricultural and pastoral country watered by the river Khusr. This tributary of the Tigris ran into the fertile Ninevite plains, and Gawra is one of the many prehistoric sites along that thoroughfare"* (19). Despite the richness of the region, however, one cannot always depend on dry farming, compared to irrigation agriculture, which can produce permanent food surpluses.

Apart from agriculture, it seems that the main industrial activities during the Late Ubaid and Uruk periods at Gawra was predominantly the lithic industry. This is clearly shown by the varieties of chert and obsidian implements, flakes and cores, and ground stone axes found in almost every level, and by the duplication of many types of already known clay objects in stone by the Gawra artisans (20). This simple lithic industry, however, had already enjoyed a long survival, and was being exercised in almost every contemporary village community, since the raw material was easily accessible.

The appearance of a variety of stamp seals in Levels XIII-IX, however, favors the existence of an extensive trading network at Gawra. But the question is whether this trade involved neighboring societies, or geographically separated societies (21). Important as the emergence of the stamp seals was, they by no means point to the establishment of a long distance exchange system, since seals and sealing systems were understood and accepted only by the trading partners in the network. The receiver of the imported commodities was undoubtedly well acquainted with the sealing system and especially with the seals of the exchange partners of the exporting societies. Otherwise, any unauthorized person could tamper with goods simply by breaking the original sealing and replacing it with a fake one before the delivery was made. Therefore, sealing systems were effectively exercised solely within the related cultural regions, while transactions with geographically separated societies were made with different procedures acceptable to both sides.

To summarize the economic and the social structures of Gawra during the Late Ubaid and the Uruk periods, one can say that Gawra was a small religious township,

with an economy based mainly on agricultural production. Although stone cutting was a major industrial activity, the lithic work-shops apparently were only providing for internal consumption, and probably, an insignificant percentage for export purposes. Otherwise, one should expect to see that at least part of these precious stones are distributed within some of the neighboring societies as worked objects; with the exception of two small lapis lazuli beads a cylindrical one from a deep sounding at Nineveh (22), and the other, unstratified, from Arpachiyah (23), both probably contemporary with Gawra XIII, lapis lazuli was restricted only to Gawra.

Due to its religious importance, Gawra was certainly a trading centre in the region, but trade mainly involved adjacent societies rather than geographically separated territories. Pilgrims came from every direction and brought their sealed offerings for the temples. A considerable number of seal impressions are reported to have been recovered from a partially cleared well, connected with the Eastern Temple at Gawra XIII (24). This may explain, to some degree, the existence of the extraordinarily rich number of seals and seal impressions at this site. Certainly, through the traffic of the worshippers, the residents of Gawra enjoyed certain benefits by making some transaction with the voyagers. This was probably the main source of income for part of the Gawra population. It was probably through these transactions that certain items of imported precious stones, which could be obtained from the neighboring regions, entered Gawra.

Due to the importance of the temples, and the large amount of offerings brought by the faithful pilgrims, the wealth and the prosperity of the temple organization differed entirely from that of the society. This is well understood by the comparison between the temple buildings and the secular architecture. The study of the Gawra architecture shows a sharp contrast between temple construction and the secular buildings; the former magnificently planned, and spacious; the latter irregular and untidy in ground plans, and small in size, *"and it is difficult to discover any systematic development: of town planning there is virtually none"* (25). This sharp contrast which led to the appearance of class society is also apparent from the accumulation of remarkable wealth in a limited number of tombs, which was in contrast to the remaining poorly furnished or completely empty graves.

The study of 55 tomb burials from Levels XIII-IX shows that except for few pieces, almost all the precious offerings such as gold, electrum, lapis lazuli, turquoise, amethyst, agate, carnelian, beryl, obsidian, marble, hematite, steatite, and serpentine were piled up around the deceased only in three burials: Tombs 109, 110, and 114, all from Level 10 (26). A dramatic contrast appears

(18) TOBLER 1950 : 141, 146, 152 and 154.

(19) MALLOWAN 1970 : 53.

(20) TOBLER 1950 : 200.

(21) KOHL 1978 : 469.

(22) BECK 1933 : 179, n. 2.

(23) MALLOWAN and ROSE 1935 : 97.

(24) TOBLER 1950 : 175.

(25) MALLOWAN 1970 : 62.

(26) TOBLER 1950 : 94-97.

when one sees that out of 317 graves, only a few are furnished with insignificant offerings, while the rest are either empty or accompanied with one or two beads of white paste. The richest graves are as follows :

Grave No. 238 was supplied with only a stone mace-head; another one (No. G36-171) with a bone playing pipe or whistle, both from Level XI-A. Graves Nos. 1542 and 167 from Level XI were laid side by side, and each was furnished with a small gold piece as head ornaments. And finally, burial No. 181, in the central chamber of Level IX Temple, next to the podium, was the richest grave burial. It contained a child and was furnished with a gold rosette, a gold disc-shaped ornament, both lying on the skull, and a set of stone gaming pieces (27).

On the basis of all the criteria given above, it seems evident that :

1) Only a small percentage of the Gawra population enjoyed a prosperous and luxurious life, with the rest unable to afford anything but a simple and plain life.

2) These prosperous citizens of Gawra, one way or another, belonged to the Temple Organization.

3) The wealth of the Temple was not obtained through commercial channels or trade ventures, but in part was brought in the form of offerings, by the faithful pilgrims.

4) The majority of the Gawra population either were not interested in precious stones or, more probably, could not afford to possess any.

5) Despite the undisputed appearance of class society, the lack of any large scale architectural complex among the secular buildings disproves the existence of any kind of state administrative organization or a powerful ruling class at Gawra.

6) Finally, Gawra was no more than a regional commercial centre, and most of all, in the absence of a truly extensive productive potentiality, in comparison with, for example, the highly developed productive activities and the establishment of vast trade organizations during the Protoliterate period in southern Mesopotamia, it does not seem logical to believe that Gawra was involved in any major transactions with geographically separated societies, by sending caravans to long-distance territories in search of some semi-precious stones like lapis lazuli from Badakhshan in Afghanistan. This, however, is against G. Herrmann's opinion which is that, from the time of the Late Ubaid to the end of Uruk periods, "A powerful administration would have been required to initiate and maintain this long-distance traffic, and by that the north must have enjoyed a monopoly of the lapis lazuli trade at this time" (28).

At this point, one may argue that Hermann may never have meant that Gawra organized caravans travelling thousands of kilometers across Iran into Afghanistan to bring lapis lazuli direct to Gawra, but she merely assumed some kind of indirect trade over this

long distance culminating in northern Mesopotamia where Gawra exercised a controlling influence. For an appropriate answer, once more we shall go back to G. Herrmann :

- a) "*when the organization of lapis trade was in southern hands...*"
- b) "*Elam was then in a position to control the trade, importing lapis lazuli from sites in the northeast, such as Hissar, through Sialk, and exporting the stone west to Sumer and even perhaps to Egypt by sea.*"
- c) "*... much as they may have desired the stone it was not until Enmerkar's successful initiative that regular exchange could be re-established.*" Here, the words are clearly speaking against a simple "indirect trade" for the following reasons :

1) Although trade may be understood in its widest sense as the reciprocal traffic of materials or goods directed by human agency from one place and/or individual to another, here, by making the above-mentioned statements, G. Herrmann gives some specific meaning to this word : she speaks of the *organization* of lapis lazuli; the *importation of lapis lazuli from Hissar*, a possible location for Aratta, to Susa by Elamites on one hand, and the *export* of this semi-precious stone to *Sumer* and even *to Egypt by sea* on the other hand. This points undoubtedly to a full-time and well-organized trading network system, rather than "some kind of indirect trade."

2) According to G. Herrmann, "*Elamites... importing lapis lazuli from sites... such as Hissar, through Sialk,*" to Susa. Also, according to her "*Susa appeared to have overpowered the final settlement of Sialk III and to have established her authority there.*" This means that "*... due to Elamite expansion on to the plateau*", at this stage Sialk had become part of Elam's territory. Whether Elamites imported the stone directly from Hissar (a distance of about 2,000 km), or through their agents at Sialk (ca. 1,200 km), the merchants or the ruler of Hissar, who in turn, had obtained it either directly from Badakhshan or through intermediaries, would not have handed the lapis lazuli over to Elamites for nothing, but to exchange it with some other goods. The only question is : what could Elam offer in exchange ? Obviously it could not have been manufactured items such as stone objects, metalwork, or ornamental pieces, since no such Elamite objects have yet been reported from Hissar. Therefore, the only possible item for such bartering purposes could have been food products, such as grain. Thus in order to obtain lapis lazuli, the Elamites, the Gawrans or any other organization had to send loads of grain by means of organized caravans travelling thousands of kilometers across the Iranian plateau. Undoubtedly, without such preparations they could never get what they wanted. This is supported very clearly by the epic of Enmerkar and the Lord of Aratta (*Supra*).

The distance between Baghdad and Badakhshan, according to Le Strange, in the direction of the "Great Khorasan Road" is about 2,500 km which would have taken a caravan, directly or indirectly, over three months to cover. Thus a round trip to import lapis lazuli

(27) *Ibid.* : 116.

(28) HERRMANN 1968 : 29.

from Badakhshan to southern Assyria would under normal circumstances have taken a caravan of traders about seven or eight months. It is also true that these journeys were not the job of one person but of an expedition consisting of a large number of crew and guards for the security of the caravan.

A full inventory of the lapis lazuli found at Gawra shows that there was very little use of this stone in that site. Of 317 graves and 55 tombs only four tomb burials yielded lapis lazuli, these being two beads and one pendant from Tomb C in level 9; one seal from Tomb 110, over 450 beads, forming one or possibly two complete ornamental objects like necklaces and three gold studs with lapis lazuli in the centre from Tomb 109; and a rosette in gold with lapis lazuli in the centre, including a seal, from Tomb 114, all in Level X (29), and finally, one unstratified seal which is assigned to Level XIII by the excavator (30), and on the basis of stylistic analysis, to Level XI by B. Buchanan and E. Porada (31).

As the inventory shows, it is only during Gawra Level 10 that a considerable amount of lapis lazuli has been reported from three tombs, while Level IX and Level XIII-XI have yielded only three beads and one seal respectively. In view of the fact that Gawra XIII to IX cover a period of some 500 years, a simple calculation will show that in comparison with, for example, the Early Dynastic period lapis lazuli was by no means a material in popular demand at Gawra, but desired by only a small group of wealthy and prosperous residents. Thus, the question would be whether or not a desire for having this semi-precious stone was worthy enough to persuade traders to organize expeditions and send them regularly on a journey of 1 500 km to Hissar, or even farther to the east to a distance of some 2,500 km to Afghanistan for a period of seven or eight months a year, for five hundred years, just to obtain a few lumps of lapis lazuli, and that, only for the satisfaction of a very small minority (about one percent) of the wealthy population of Gawra. Therefore, it makes more sense to think that instead of the monopolization of the lapis lazuli trade from its initiation of the trade in the Late Ubaid to the Late Uruk period of Gawra XIII by the "powerful administration of Gawra", this stone reached Gawra on a few occasions through some indirect intermediaries. Lamberg-Karlovsky uses the term "Exchange" for the kind of transaction, through which we believe the Badakhshan lapis lazuli arrived in northern Mesopotamia. His definition of an "Exchange" system is as follows: "This form in the dissemination of goods differs from the above (Direct Contact Trade) by lacking a definite organization of standardized value of specific materials. Goods are passed from place to place without specific design or purpose. Thus materials from site A and their arrival at site B represent an arbitrary exchange of merchandise from site to site." (32)

Up to this point our argument could have been valid if in reality the state of Aratta was located, as G.H. has assumed, somewhere south or southeast of the Caspian. But the discovery of Anshan (Tall-i-Malyan), and the likelihood that Anshan and Aratta were two neighboring states, indicate that G. Herrmann's the assumed location of Aratta must now be reconsidered, and one should look for it not on the north but rather in the southern parts of the Iranian plateau. Accordingly, one can no longer accept the possibility of importing lapis lazuli from Hissar-- or any other cultural centre to the west of Hissar-- to Gawra, Elam, or anywhere else in Mesopotamia, because, in such intermediaries, besides some cultural contacts, one would expect to find a considerable amount of lapis lazuli, especially, since lapis would not cost as much as it did at Gawra, Elam, or Uruk, since such intermediary sites were located much closer to the source than any of those three cultural centres. In comparison with the huge amount of lapis lazuli found at Shahr-i-Sokhta II, a site which now is considered as one such intermediary along the lapis lazuli road to southern Mesopotamia, no lapis has been reported either from Hissar I or Sialk III periods. Therefore, accepting Hermann's proposal, one has either to look farther in the direction of the east, for other intermediaries, or to admit that the merchants of Gawra or Elam, instead of collecting their merchandise from Sialk or Hissar, travelled farther towards the east and obtained their desired stone directly from its source.

Lapis lazuli reached Gawra during the time when northern Mesopotamia had close cultural contacts with the Iranian central plateau, namely with the contemporary settlement, Ghabristan IV, at the Qazvin plain, the only known people in the plateau who had direct contacts with the Gawra community (33). This is supported by the fact that the disappearance of lapis lazuli in northern Mesopotamia was contemporary with the end of the Ghabristan culture in the Qazvin plain and the occupation of Hissar II by the Gray-Ware people of the Early Bronze Age, a city which was located farther towards the east, along the east-west route leading from Afghanistan to northern Mesopotamia. This direction, however, is somewhat different from that suggested by G. Herrmann. In her opinion, the Badakhshan lapis lazuli reached Gawra by passing through Hissar (IB) near Damghan, Sialk (III 4-5) near Kashan, and Giyan (VC) near Nahavand during Gawra XIII-XI, and Hissar (IC), Sialk (III 6-7), and Giyan (VD) at the time of Gawra X-A IX, because "these sites are stratigraphically placed on the main route to the east, a route which continued to be used throughout the millennia with little variation. A late, but detailed record of it has been left by Arab geographers who knew it as the "Great Khorasan Road." (34)

G. Herrmann's criteria for such a proposal is based on R.H. Dyson Jr.'s studies of the early chronology of Iran (35). A serious problem with Dyson's studies oc-

(29) TOBLER 1950 : 88-97.

(30) *Ibid.* : 189.

(31) HERRMANN 1968 : 30, n° 31, 33.

(32) LAMBERG-KARLOVSKY 1972 : 222.

(33) MAJIDZADEH 1976 : 113-118.

(34) HERRMANN 1968 : 36.

(35) DYSON 1965 : 215-256.

curs when the Mesopotamian prehistoric cultures are used for comparative purposes. There is a feeling among some archaeologists that, in general, the prehistoric cultures of Iran developed under the predominant influence of Mesopotamian cultures. This feeling is mainly due to the fact that in comparison with the relatively well-established cultural sequence of prehistoric Mesopotamia, very little is known about the Iranian cultures. Thus, in many cases, the prehistoric cultures of Iran have been low-dated, and as a result, almost every innovation has been attributed to Mesopotamia, even if it had, in reality, occurred in Iran. This problem appears to be stronger when dealing with the prehistoric cultures of the central Iranian plateau, since we know so very little about this vast cultural region. The best evidence for such determinations can be seen in Dyson's relative chronological studies of early prehistoric Iran. In his comparison between Sialk III and Ubaid 4 periods Dyson states that "...with Sialk III 4-5 many cultural innovations occur including strong influence from Mesopotamia. These innovations include: (1) the introduction of the potter's wheel, known in the Uruk period of Susa B and Gawra IX; (2) the introduction of the technique of casting copper, known already in... Gawra (36)." The excavations at Tepe Ghabristan, in the Qazvin plain, however, produced enough evidence to make it possible to re-evaluate the previous datings for the various phases of the Middle and Late Plateau (Sialk III) periods (37).

A detailed comparison between the pottery decoration of Sialk III 4-5, which is dated by Dyson to as late as the Uruk period, and that of the northern Mesopotamian cultures of Arpachiyah, Gawra, and Tell Halaf shows that the best, and, in some cases, identical parallels appear in the Ubaid 3 period which overlaps the end of the Halaf period. Accordingly, the introduction of the smelting and casting of copper, and the introduction of potter's wheel occur in the Iranian central plateau long before its appearance at Gawra or anywhere in Mesopotamia (38).

On the basis of the Ghabristan excavations, the relative chronology of the Iranian central plateau in comparison with the Late Ubaid and the Uruk periods at Gawra seems as follows:

<i>Sialk</i>	<i>Ghabristan</i>	<i>Hissar</i>	<i>Gawra</i>
III 6-7	IV 6-4	IC	XIII-XI
....	IV 3-1	IC	X-A-IX
IV	II	VIII

Further evidence supporting the suggested way through which lapis lazuli reached Assyria is as follows:

1) A glance at the map of the region shows that the east-west route from Gawra to Rayy is about 600 km shorter than the road leading from Gawra to southern Assyria, Kermanshah, Kangavar, Hamadan, Saveh, and

Rayy. The route known as the "Great Khorasan Road" never did go through Kashan because this city is some 550 km to the east of Kermanshah or about 400 km to the southeast of Hamadan. Furthermore, there is no direct access to connect Kermanshah or Kangavar to Kashan. In view of the geographical situation of this region, a journey to the east from Gawra by way of Sialk to Rayy would have increased the distance to about 1,900 km. Since the distance from Gawra to Rayy through the Qazvin plain is about 1,000 km, it is hard to believe that the merchants travelled from Gawra toward the east by going through Sialk; it seems unnecessary and would add another 900 km to their long journey.

2) The study of the Late Plateau (Ghabristan II, Sialk III 6-7b, Hissar IC) pottery and its comparison with the pottery of Godin VI-V, in the Kangavar Valley, and the contemporary Susiana plain cultures have shown that the gap between the destruction of Sialk III 7b and the occupation of the site by the people of Sialk IV covered, if not the entire Protoliterate a-b, at least a major part of it. This is indicated by the complete absence of any Uruk elements in the pottery of Sialk III 6-7b, and the appearance of Proto-Elamite clay tablets, cylinder seals and the pottery of Susa Acropolis 18-16 (Susa Cc) (39) during the Sialk IV period, which was contemporary with the Jemdet Nasr period in Mesopotamia. This gap (contemporary with the Uruk period) is exactly the time when lapis lazuli is reported in the greatest quantity in the Late Uruk tombs of Gawra X.

3) At Hissar I and Sialk III (a time, during which, according to Herrmann, lapis lazuli was shipped into Gawra) not even one single piece of lapis lazuli has been reported.

4) Hissar I shows no cultural relations either with its eastern contemporaries or with the Zagros and northern Mesopotamian cultures such as Gawra. At this point further discussion seems to be necessary to examine the possibility of both the destruction of the Sialk III 7b settlement and the occupation of Sialk IV by Proto-Elamites as a trading outpost along the Great Khorasan Road. This idea was also suggested by G. Herrmann in connection with the lapis lazuli trade of the merchants of the Susa C period (40). It was on the basis of the appearance of Susa C type Protoliterate pottery, clay tablets, and cylinder seals, and also the similarity between the painted pottery of Sialk IV and that of Susa C (41), that G. Herrmann considered the destruction of the Sialk III 7b settlement at Sialk by "a strong ruler of Susa, (42)" and the establishment of a trading outpost by Proto-Elamites at this site. G. Herrmann has been regarding the painted pottery of Sialk IV as a characteristic ware of the Proto-Elamites (43). But a closer study of Sialk III pottery shows that during levels III 7-7b a group of wide and narrow painted bands circling

(36) *Ibid.* : 237.

(37) MAJIDZADEH 1978 : 93-101.

(38) MAJIDZADEH 1976, Table 5 on p. 204; 1979 : 89-92.

(39) WEISS and YOUNG 1957 : 11.

(40) HERRMANN 1968 : 37.

(41) LE BRETON : 1957 : 99, fig. 13, n° 2a, 3a and 6a.

(42) HERRMANN 1968 : 37.

(43) *Ibid.* : 37.

horizontally around the vessels, appear together with the older motifs (44), or occasionally alone (45). This new type of decoration was to be the characteristic feature of the pottery of Sialk IV. It is usually accepted that the destruction of the final phase of Sialk III was caused by a people using this ware. In addition, unlike the small proportion of the painted pottery of Susa C, which according to Le Breton "*shows no specific relation to the first style*" (46), it becomes the characteristic feature for the occupants of period IV at Sialk. If Sialk had been occupied by "*a strong ruler of Susa*", it would seem unusual that, instead of the replacement of the Sialk III pottery by the plain Proto-Elamite pottery of Susa Cb-c, a painted pottery so limited in quantity and with no background in the entire plain of Susiana should represent the Proto-Elamite government of Susa at Sialk. Furthermore, as discussed earlier, the destruction of Sialk III 7b took place at least two centuries before the beginning of Susa C and its painted pottery. As a result it seems more reasonable to believe that the destruction of Sialk III 7b had no connection with the Susian government, and it was the painted pottery of Sialk IV which reached Susa in the course of the Proto-Elamite economic expansion into the central plateau, rather than to accept this pottery as a characteristic feature for Proto-Elamites and to regard the appearance of the identical painted pottery of Sialk as result of the occupation of this settlement by the Susian government.

One may still argue that the use of the full extension of the Great Khorasan Road by the Proto-Elamite traders did not necessarily have to be for lapis lazuli but for other commodities. A similar theory, certainly under the influence of G. Herrmann's article, has also been presented by H. Weiss and T. C. Young Jr., who regarded the Godin V settlement as another Susian trading outpost in connection with the lapis lazuli trade along the Great Khorasan Road (47). The excavation results at Godin V have shown that 50 % of the pottery found within the oval complex on the summit of the settlement consisted of early Protoliterate (Late Uruk, Susa Ca-b, Susa Acropolis level 17) type pottery, while in the lower part of the settlement only 20 % of the pottery was of Susa Ca-b type (48). Furthermore, the Godin V clay tablets are closely related to those of Susa Acropolis 17 (49). These two similarities have led the authors to the conclusion that "*the Godin V oval inclosure on the summit of the mound was a Susian trading*

post immediately supported by the local agricultural village or town" (50)". The reason for the occupation of Godin V and Sialk IV, according to H. Weiss and T.C. Young, and G. Herrmann respectively, was basically the control of the Great Khorasan Road. Regardless of the type of commodities which may have been passed along this route, one has to find out how many such outposts would have been necessary for the control of this route of some 3,000 km. from Susa to Badakhshan, or about 2,000 km. to Hissar, since in G. Herrmann's opinion "*Elam was then in a position to control the trade, importing lapis lazuli from sites in the north-east, such as Tepe Hissar* (meaning Aratta or a site close to Aratta since Tepe Hissar is located on the "*south-east of the Caspian*"), *through Sialk, and exporting the stone west to Sumer and even perhaps to Egypt by sea*" (51)". In view of the fact that the control of this route was so vital to the Susian government that it had to establish a colony-type outpost in its very immediate neighborhood, by the peaceful occupation of the local ruler's residential and administrative palace at Godin V, or the forceful takeover of Sialk after the destruction of the entire settlement III 7b by the help of an effective military power, one would expect to find many more such outposts along this road. The archaeological evidence so far has shown no other such outposts. Although a few beveled-rim bowls have been found in the Godin V contemporary levels at Tepe Ghabristan, this site was by no means located along the Khorasan Road. Besides, on the basis of a few beveled-rim bowls, one certainly could not consider the Ghabristan IV settlement as a Susian trading outpost. On the basis of all the available archaeological evidence, at the time of Godin V period the nearest cultural centre along the Great Khorasan Road in the central plateau was Tepe Hissar, period IC, which has yielded neither any Proto-Elamite connections, nor even one single piece of lapis lazuli. Furthermore, during the Sialk IV period, which according to G. Herrmann "*Elam was then in a position to control the trade, importing lapis lazuli from sites in north-east, such as Hissar, through Sialk...*", Tepe Hissar, the only surviving settlement in the northeastern part of the central plateau, was already occupied by the Gurgan Gray-Ware culture which had no relation to the rest of the Iranian plateau or Mesopotamia.

Although no major archaeological investigations have been made to study the prehistoric cultures of Khorasan, the northeast province of Iran, through which passed a major part of the Great Khorasan Road, the absence of any evidence for Proto-Elamite connections between Susa and Hissar, or Godin and Hissar, may very well be taken as an example for the rest of the Great Khorasan Road indicating that no outposts such as the ones at Godin or Sialk existed along this route. Even if we disregard the necessity of multiple trading outposts and accept the idea that the Susian government was able to control the entire road with only one such establishment at Godin and later at Sialk, one cannot

(44) GHIRSHMAN 1939: Pl. LXXI, S.111, S.1771, S.120; LXXII, S. 1778, 1.1749 and S.71.

(45) *Ibid.*: Pl. LXXI, S.51.

(46) LE BRETON 1957: 101.

(47) During the season of 1973 the deep sounding at Godin Tepe yielded an architectural complex on the highest point of the settlement, which was surrounded by an oval fortified wall. This complex, which has been named "Monumental Building" by Cuyler Young, the excavator, was the ruler's residential building, used for official purposes as well as for living quarters. On the basis of pottery and clay tablet comparison this settlement has been dated to 3200-3000 B.C., a period contemporary with Susa Acropolis 17 in Southwestern Iran and Warka IV in southern Mesopotamia. For this information, see WEISS and YOUNG 1957: 3, 4, 8, 13.

(48) *Ibid.*: 6.

(49) *Ibid.*: 11.

(50) *Ibid.*: 14.

(51) HERRMANN 1968: 53.

stop looking for traces of the Susian caravans which travelled regularly along this road and carried various commodities from one area to another. Under normal conditions, it would have taken a caravan some 70 days to go from Susa to Hissar, or 100 days to Afghanistan. A simple calculation will show that if only once a year a Susian caravan of traders journeyed towards the east, during the Godin V and then Sialk IV periods which was at least half a millennium, the Susian traders must have travelled along this route about one thousand times and camped on route between 70,000-100,000 times. Because for such long journeys an additional large number of persons at the service of the merchants and an efficient guard for the security of the entire caravan would have been necessary, obvious traces of this regular traffic should be expected. In fact no such traces have come to light along the Great Khorasan Road.

Thus, in conclusion, the only probable explanation for the appearance of the Proto-Elamite cultural elements at Godin V and at Sialk IV would be that these two cities were simply marketing centres for the Susian well-developed technology and its products, and it was through these commercial contacts that the reported Proto-Elamite pottery, clay tablets, and cylinder seals reached these centres. Furthermore, the lack of any similar situation on the rest of the central plateau indicates that Godin and Sialk were the limits of the direct contacts of the Susian traders in the north and northeast directions, and any further possible transaction with the rest of the central plateau, for instance, with Tepe Ghabristan, were achieved indirectly. Thus, the handful of Protoliterate beveled-rim bowls at Tepe Ghabristan must have reached the Qazvin plain indirectly through Godin V, the residents of which had at this time an identical culture (52).

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(52) MAJIDZADEH 1976 : 108-112, and fig. 113-117.