

PROTOHISTORIC MARGIANA: ON A RECENT CONTRIBUTION. (REVIEW OF:  
"IASCCA (INTERNATIONAL ASSOCIATION FOR THE STUDY OF THE CULTURES  
OF CENTRAL ASIA) INFORMATION BULLETIN" 19, MOSCOW 1993).

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In the last fifteen years ex-Soviet Central Asia raised to the role of a privileged archaeological area thanks to the growing interest of international scholarly community. This was surely due to the closing to archaeological research, since that time, of culturally and historically important large Central Asia regions like Eastern Iran and Afghanistan. The process was later sped up by the opening to the West of the Central Asian Republics after Soviet Union's disintegration, a fact which determined a newly oriented political and economic behaviour finding its roots in the perestroika years. Since 1979 American, French (1982), and Italian (1989) scholars, among others, begun to weave new and intense relationships with Soviet colleagues to open the way to a direct sharing in those areas archaeological research. Formal collaboration with USSR institutions was firstly settled by American scholars of Harvard University in 1979 with a meeting held at Cambridge, Massachusetts, which yielded the volume edited by Ph. Kohl in 1981 (Kohl 1981) and a number of periodical USA/USSR archaeological meetings (Lamberg-Karlovsky 1994:354). Among the first fruits of that clever and intense co-operation we can mention the French-Soviet congresses at Dushanbe in 1982 (Gardin 1985) and at Paris in 1985 (Gardin 1988); the excavations by Turin University at Nisa (Turkmenistan); the masterly planned survey and excavations project of the Italian Institute for Middle and Far East (IsMEO) in the Murghab delta (AA.VV. 1994); more recently the archaeological excavations by the Ligabue's Study and Research Centre at the site of Gonur 1 (Salvatori 1993, 1994a, 1994b) and the resumption of Anau tepe excavations by Harvard University archaeologists. All the above mentioned activities have paved the way to a new season of Central Asia archaeology opened to a wider and more dialectic archaeological and historical research in a field previously reserved to Soviet scholars only (Kohl 1984; Frumkin 1970).

The opportunity to deal with protohistoric Central Asia is offered by the recently published issue nr. 19 of the IASCCA Information Bulletin which is the

result of an international co-operative effort, bringing together Russian, Turkmenian, American and Finnish scholars to deal with the many problems raised by Bronze Age Margiana civilisation. This monographic issue of the Information Bulletin is centred around the results of two excavation trenches made by F. Hiebert in 1989 along the southern slope of Gonur 1 North, one of the more than hundred Bronze Age sites recognised in the fossil Murghab delta (south-eastern Turkmenistan). The site is since several years under systematic excavation, mainly at its southern mound, by V. Sarianidi, of the Institute of Archaeology of the Sciences Academy of Moscow (Sarianidi 1990). To the same scholar is also due the excavation of other sites in the same area as Togolok 1 and 21, and above all a long surveying activity in the ancient Murghab delta with the mapping of more than hundred Bronze Age sites (Sarianidi 1990; Kohl 1984).

The intensive work carried on by Sarianidi and other Russian and Turkmenian archaeologists (Masson 1981; Masimov 1981) gave back an impressive bulk of data which, when properly studied, will lead to a first comprehensive picture of Murghab delta peopling dynamics during Middle and Late Bronze to the beginning of Iron Age (Sarianidi 1990; Kohl 1984, 1992). Nevertheless it is already possible to recognise very close connections between protohistoric Margiana and Bactria (northern Afghanistan, southern Uzbekistan and Tadjikistan), the wide region crossed by the Oxus river (Amu darya) (Francfort 1989). As we noticed above IASCCA Inf. Bull. nr. 19 is devoted to protohistoric Margiana and the individual contributions deal with several aspects of the many still unsolved historical and archaeological problems of the area, starting from Gonur 1 as a privileged point of view. The last settlement is undoubtedly of paramount significance for Murghab delta regional history because of its considerable extent, and its relatively long sequence.

Gonur 1 is characterised by two different, but contiguous mounds, a larger one to the north, and a smaller one to the south. The southern mound has



been systematically explored with the complete exposure of a fortified settlement in the years 1987-1993; the northern one has been only partially investigated through a large square trench on the top of the hill between 1981 and 1983. Here the south-western corner of a very large building has been brought to light. Moreover few randomly located test trenches, one of which excavated to the natural soil, have been opened on the northern mound.

Hiebert's 1989 test trenches were placed along the southern slope of Gonur North bringing forward important contributions to the knowledge of the site sequence.

Individual contributions to the volume can be listed under three different, but strictly correlated, indexes according to the themes they deal with:

1- Chronological and cultural sequence of Gonur 1 (F. Hiebert; F. Hiebert & K. Moore; N. Miller; K. Moore; V. Sarianidi)

2- Protohistoric cultural developments of Margiana region. (C. Lamberg-Karlovsky; L. P'jankova; S. Kussov; F. Hiebert; F. Hiebert & D. Killick; I. Nachesova & K. Burakov; K. Moore; M. Mamedov; V. Sarianidi)

3- The place of Margiana Bronze Age civilisation in a macro regional perspective. (C.C. Lamberg-Karlovsky; A. Parpola; V. Sarianidi; L. P'jankova; R. Meadow).

We will review the individual contributions following the above tripartite outline. Hiebert's excavations at Gonur North (*Excavations of Domestic Quarters from Gonur depe (north): Excavations of Spring 1989*, pp. 78-95), even if limited in extent, yielded a set of fundamental data useful to highlight the oldest segment of the site sequence. He has recovered the evidence of two living phases both pertaining, on the base of pottery typology, to the Late Namazga V Period, according to the traditional Turkmenian repartition.

The second, most recent phase, seems to be contemporary with the palatial structures unearthed by Sarianidi on the top of the mound and it consists of a domestic architecture. The plan of the house finds actual analogies only at Kelleli 4, the only other Late Namazga V site at present excavated at a significant extent in the Murghab delta.

To similar conclusions on chronological and cultural grounds leads the other test trench excavated by Hiebert in a garbage heap located on the southern slope of Gonur North (F. Hiebert & K. Moore, *New stratigraphic Excavations at Gonur depe (North)*, pp. 96-108). Here too the Namazga V deposits were

recognised as arranged in two sub phases (Period 1). Furthermore the sequence is here capped by a layer which yielded a different pottery assemblage (Period 2). This latter material presents strong parallels with the material assemblage known at the southern Gonur mound and is judged to be the by-product of ceramic furnaces installed there during the living period of the southern mound.

Hiebert's work suggests that the Namazga V Period was an extremely important one for the cultural development of the Murghab delta so that a new appraisal of the data V. Sarianidi published from his excavations at the northern mound (Sarianidi 1990) becomes necessary. Now it is possible to guess an unexpected stage in the local Namazga V developmental process. During this period the growing of a quite large still unexplored settlement (the first inhabitation level at Gonur North) possibly lacking of palatial structures and fortifications can be assumed. In a later phase of the same Period (NMZ V) a large, imposing palace was built in the centre of the mound surrounded by domestic architectures of the kind Hiebert has brought to light with his excavations.

It is then possible to suggest that during the local Namazga V Period Margiana society went through major changes with the emergence of a stable centralised political power bearing structural elements as the palatial architecture partially unearthed on the top of the Gonur North mound. Such a societal organisation pattern will experience even more dramatic changes during the following Namazga VI Period. The new settlement (Gonur south) was decidedly smaller indeed and took the shape of a fortified village.

Period 2 of Hiebert sequence is represented by an anthropic layer dating to Namazga VI, a period which is well attested at the pluristratified site of Gonur South. Here, unfortunately, excavation techniques and publication standards don't allow to enter in every detail of its, at least three, architectural phases. Nevertheless the change in the site planning is evident when compared with Gonur North. The southern mound has revealed a fortified settlement with a square pattern and corner towers. Inside the walls several functions seem to have been performed: religious, administrative, productive, dwelling and even centralised storage facilities as suggested by a series of rectangular storage rooms lined up along the northern side of the boundary walls (Sarianidi 1993, fig. 24 at p. 319). This kind of town planning is well known at several Bactria and Margiana Late Bronze



Age sites. As to the distance between Namazga V (Gonur North) and Namazga VI (Gonur South) site planning it seems possible to perceive it more as the result of a radical transformation of socio-political organisation than of a slow evolutionary process. Due to the small animal bone sample collected at the site is not yet possible to see if changes from Middle to Late Bronze Age are highlighted even by palaeozoological data published by K. M. Moore (*Animal Use at Bronze Age Gonur depe*, pp.164-176).

Moore report offers significant data on the age structure of the herd from sheep and goat bones at the site (pag. 175, Tav. 2). The trend one can notice from Period 1 (Namazga V) to Period 2 (Namazga VI) is that of a change in the age of slaughtered individuals. While during the first period goats and sheep from 0 to 36 months old represent the 100% of the sample, during Period 2 they are the 60% against a 40% of individuals from 37 to 61+ months old. Moore rightly interprets the data as suggesting an use of sheep and goats not only as a meat supply but even for wool, hair and milk products. Such a highly differentiated exploitation of the herd is linked by Moore to a change in herding practices "...observed in large sites on the Iranian Plateau ... by the second millennium BC." (p. 165). The last general statement is tenable, but it has to be underlined that, judging from data at Tab. 2 (p. 175), a change on age structure of the herd could fall between the first (NMZ V) and the second (NMZ VI) period, when the most impressive changes can be noticed in regional town planning.

Nevertheless we expect the picture of animal exploitation at the site will turn out to be more complex and variegated when animal bones from NMZ VI sites in the Murghab delta will be collected through more appropriate recovering procedures than the case of the Gonur South sample.

A further contribution to the knowledge of primary production comes from a paper by N.F. Miller (*Preliminary Archaeobotanical Results from the 1989 Excavation at the Central Asian Site of Gonur depe, Turkmenistan*, pp. 149-163). As the case of the previously reviewed paper we are dealing here with a very preliminary work based on a very limited sample. Nevertheless both are of great value mainly because they provide with the first palaeozoological and palaeobotanical studies from a Margiana Bronze Age site. The palaeobotanical analysis gives preliminary information on barley dominance over wheat. Well attested among pulses are lentils, grass peas, peas and chickpeas; grape, plum and possibly

apple-tree among fruits trees. A substantial amount of *Alhagi* sp. in the sample proves a predesertic environment while the river branches were undoubtedly active and their water used for agricultural purposes probably through irrigation channels.

With the general field of primary production a precious contribution is offered by R. Meadow paper (*Continuity and Change in the Agriculture of the Greater Indus Valley*, pp. 63-77). Meadow traces a picture of agricultural and breeding developments and transformations in the Indus Valley basin, making somehow possible to measure the distance between Indus Valley and Margiana primary production at the beginning of the second millennium BC. He describes a very important change occurring in the Indus Valley at the right beginning of the second millennium BC: the introduction of new cereal crops (sorghum, various millets e rice) together with new domestic animals (camel, horse and donkey). This allows to add a fall harvesting (summer sowing) to the traditional and well established spring one (winter sowing) based on crops like barley and wheat (with the as much as firmly established zebu, sheep and goat breeding). No one of the new cereal crops has been found at Gonur North where agricultural practices seem to flow in a traditional way (but we have no data from Gonur South, that is to say for the NMZ VI period !!). At Shortughai, an Harappan outpost in south-eastern Bactria, the general picture seems very similar to that envisaged by N.F. Miller for Gonur North, even if at the first site the presence of *Panicum miliaceum* (only from post-Harappan layers) and the introduction of a fall harvesting cycle is attested (Willcox 1989).

To go on to the contributions dealing with problems of regional magnitude we meet with the paper by F. Hiebert and D. Killik (*Metallurgy of Bronze Age Margiana*, pp. 186-204). The authors rise a first problem by the following statement: "Preliminary results of composition indicate that the Bronze Age artefacts of Margiana are copper-arsenic alloys. The stylistically similar artefacts from Bactria are mostly characterised as tin bronzes" concluding that: "In the future we may find that Margiana is separate centre of metallurgical production from that of Bactria, producing its own style and its own artefacts" (p. 199).

If it is true that the Margiana finds belong to the area of bronze metallurgy based on copper arsenic alloys, the statement that contemporary Bactrian artefacts are tin bronzes finds no roots in the actual



evidence or, at best, it is largely approximate within a so wide geocultural region.

We have listed at Tab. 1 a number of analyses of bronze artefacts from Susa and Shahdad (Vatandoost-Haghighi 1977), Khinaman (Curtis 1988), and southern Bactria (Amiet 1988). For aggregation purposes we added few analyses from Iranian tin bronzes (Vatandoost-Haghighi 1977) and clustered them by means of a similarity matrix (figg. 1-2). The cluster analysis (fig. 1) shows a close relationship at main components level between Bactria, Susa, Khinaman and Shahdad items, all being arsenical bronzes. The assumed belonging of Bactria bronzes to the class of tin-copper alloys is not supported by laboratory analyses (Sarianidi, Terekhova & Chernykh 1977:37). In fact there is no evidence to sustain any significant difference between the metal assemblages of southern Bactria and Margiana as far as arsenic copper alloys are concerned (Tab. 2; Fig. 2). Other elemental components cannot be taken in consideration because analyses from Margiana bronzes are, at my knowledge, still lacking or unpublished. Analogous conclusions, based on a very large body of analytical data, were reached by E. N. Chernykh (1992:179). This author has shown that only the northern Bactria production (Sapalli and Dzharkutan) (Namazga VI period) can be considered as tin-bronzes alloys oriented. This could be a meaningful sign of a regionalization process acting during the Namazga VI period. Such a regionalization is expressed not only at the level of pottery (see P'jankova contribution to the Bulletin), but even of the metalworking production through differentiation which is possibly linked to different sources of rough materials (Chernykh 1992; Besenval 1988).

A second type of problem is produced by the chrono-cultural narrowness of the sample which covers only the Period 2 (NMZ VI) layers and graves. This would have lead to extreme caution above all in the use of ex-silentio arguments. Few examples will be enough to illustrate the matter. First of all the circular mirror with raised edges from Grave 40 (NMZ VI cemetery on the slopes of Gonur North). Its typological setting is given by the raised edges, a trait which seems to be absent in the mirrors of the former NMZ V Period (Salvatori 1993; 1994a; 1994b). This distinctive trait was missed by Hiebert with the consequent loss of the possibility to discriminate between the two main periods of Gonur sequence material culture style. For the bronze mirror Hiebert confines himself to single out its formal links with

other sites (Hissar III, Shahdad, Khinaman and graves from Afghanistan and Baluchistan), while about personal ornaments in general he ventures less neutral statements. From the apparent lacking of precious metal (silver and gold) objects from the Margiana inventory he worked out a distance from Iranian sites like Hissar "*which have 'Central Asian' assemblage of goods found in burials and in hoards*" (p.189). Later on (p.199) the same argument will be used as a measure of a supposed distance between Margiana and Bactrian complexes, in the last the presence of golden and silver items being well attested. The true is utterly different as the Gonur Late NMZ V graveyard is starting to show (Salvatori 1993; 1994a; 1994b). Gold and silver are present in Bronze Age Margiana archaeological record and moreover with items strongly related to those coming from looted Bactrian graves. A cultural *koiné* embraces both the regions not only during the NMZ VI but also before, during the Late NMZ V Period. One and the same culture which goes through more or less notable transformations though strictly parallel in time. I will come back on this point when dealing with other contributions to this same volume.

Now it is possible to face the chronology of Margiana cultural developments. Two papers deal with this problem in some detail (F. Hiebert, *Chronology of Margiana and Radiocarbon Dates*, pp. 136-148; V. Sarianidi, *Margiana in the Ancient Orient*, pp. 5-28).

Both the authors make use of new C14 dates from the site, a practice which will surely play a positive role in the solution of the still present incomprehension between Western and Soviet archaeologists on the ground of Central Asia absolute chronology. While we are still far from a firm chronological setting of local cultures, I think that the new radiocarbon dates can furnish a good working platform for the future.

Let us have a look to the new dates published by Hiebert:

Gonur North (=Late Namazga V )

Beta-33562 Gonur N. r. 48 3700±60 2090 BC 2194-1965 BC

Beta-35125 Gonur N. r. 2 3630±90 1995 BC 2132-1829 BC

Beta-33560 Gonur N. t. 2 3580±60 1900 BC 2011-1776 BC

LE-1207 Gonur N. Pal. 3560±70 1902 BC 2009-1744 BC

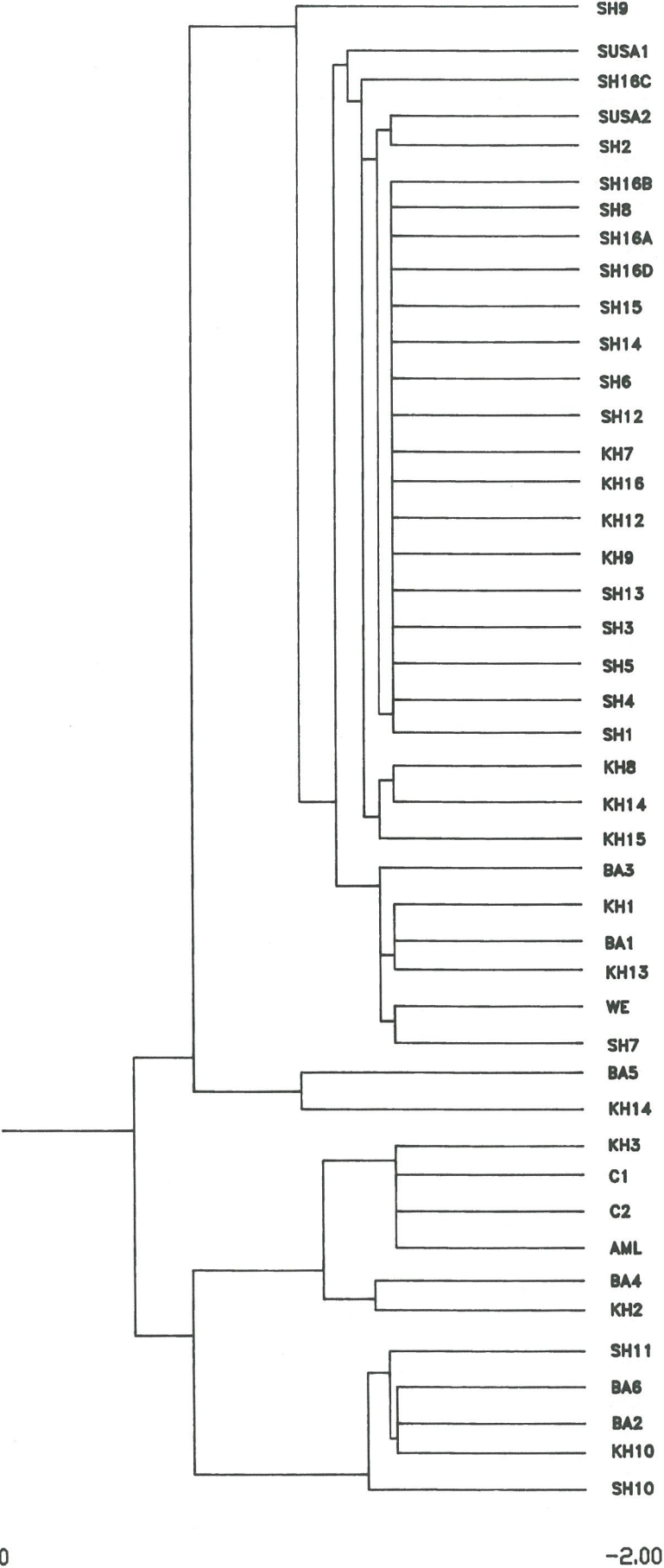


Tab. 1

SITE Samples	Cu	As	Sn	Pb	Fe	Ag	Ni	Sb	
Khinaman 1	98	1,40	,10	,60	,10	,05	,10	,10	Axe-head
Khinaman 2	95,50	1,80	2,50	,10	,10	,05	,10	,10	Axe-head
Khinaman 3	90,10	1,30	8,10	,10	,20	,07	,20	,10	Dagger
Khinaman 4	98,70	,20	,10	,10	,10	,05	1	,10	Lancehead
Khinaman 7	97,70	2	,10	,10	,10	,05	,10	,10	Pin
Khinaman 8	94	4,50	,30	,20	1	,06	,10	,10	Pin
Khinaman 9	94,70	5	,20	,10	,10	,05	,10	,10	Bracelet
Khinaman 10	99,30	,20	,10	,40	,10	,05	,10	,10	Bowl
Khinaman 12	96,90	3	,10	,10	,10	,05	,10	,10	Bowl
Khinaman 13	95,60	2,60	,10	1,40	,30	,06	,10	,10	Bowl
Khinaman 14	94,10	5,20	,10	,10	,70	,05	,10	,10	Bowl
Khinaman 15	99,30	,40	,10	,10	,20	,06	,10	,10	Bowl
Khinaman 16	95	4,70	,10	,10	,10	,05	,10	,10	Bowl
Shahdad 1	96,76	2,47	,54	,02	,02	,03	,13	0	Axe-head
Shahdad 2	97	2,02	,19	,34	,01	,01	,38	0	Axe-head
Shahdad 3	96,77	3,09	0	,02	,03	,05	0	0	Axe-head
Shahdad 4	97,56	2,01	,21	,02	,04	,01	,12	0	Axe-head
Shahdad 5	95,55	3,70	,32	,06	,17	,02	,03	0	Axe-head
Shahdad 6	95,15	4,58	0	,17	,02	,02	,05	0	Adze-head
Shahdad 7	96,94	1,90	,28	,75	,01	,01	,08	,01	Adze-head
Shahdad 8	97,11	2,36	,12	,32	,04	,02	,02	0	Adze-head
Shahdad 9	90,36	4,66	,24	,17	,02	,27	,02	4,14	Mace-head
Shahdad 10	97,91	,09	,18	,62	,10	,17	,01	0	Axe-head
Shahdad 11	92,84	2,31	,31	4,27	,13	,09	,01	,01	Axe-head
Shahdad 12	96,56	3,15	0	,14	,01	,06	,06	0	Tapering bar
Shahdad 13	94,31	5,63	0	0	,01	,03	,01	0	Pin
Shahdad 14	95,78	4	0	,09	0	,06	,05	0	Pin
Shahdad 15	93,76	5,09	,34	,69	,02	,04	,03	0	Pin
Shahdad 16a	95,34	3,92	,11	,47	,02	,04	,06	,01	Standard
Shahdad 16b	95,21	3,91	,37	,37	,04	,04	,06	0	Standard
Shahdad 16c	97,76	1,19	,54	,20	,18	,02	,01	,08	Standard
Shahdad 16d	94,73	4,16	,34	,62	,02	,03	,07	,02	Standard
Susa 1	96,10	1,69	,59	,34	,13	,04	,79	,27	Tube
Susa 2	97,22	1,80	,28	,07	,09	,02	,49	0	Axe-head
Weill	97,02	2,03	0	,64	,02	0	,29	,36	Dish
Bactria 1	94,09	3,30	,21	1,70	,16	,04	,20	,30	Knife
Bactria 2	77,09	4,70	,34	16,60	,70	,08	,29	,20	Axe-head
Bactria 3	96,07	2,10	,04	1,60	,04	,06	,08	,01	Adze-head
Bactria 4	94,46	2,20	2,20	1,10	0	0	0	,04	Sickle
Bactria 5	95,71	1,20	,02	,62	1,20	,03	1,10	,12	Mirror
Bactria 6	95,50	,90	,02	3,40	,03	,05	,08	,02	Flagon
Caspian 1	91,90	0	6,90	,81	,12	,34	0	0	Spear-head
Caspian 2	90,64	,44	8,52	,09	,23	,04	,02	0	Dagger
Amlash	90,06	0	9,11	,16	,11	,08	,01	,40	Dagger



Fig. 1





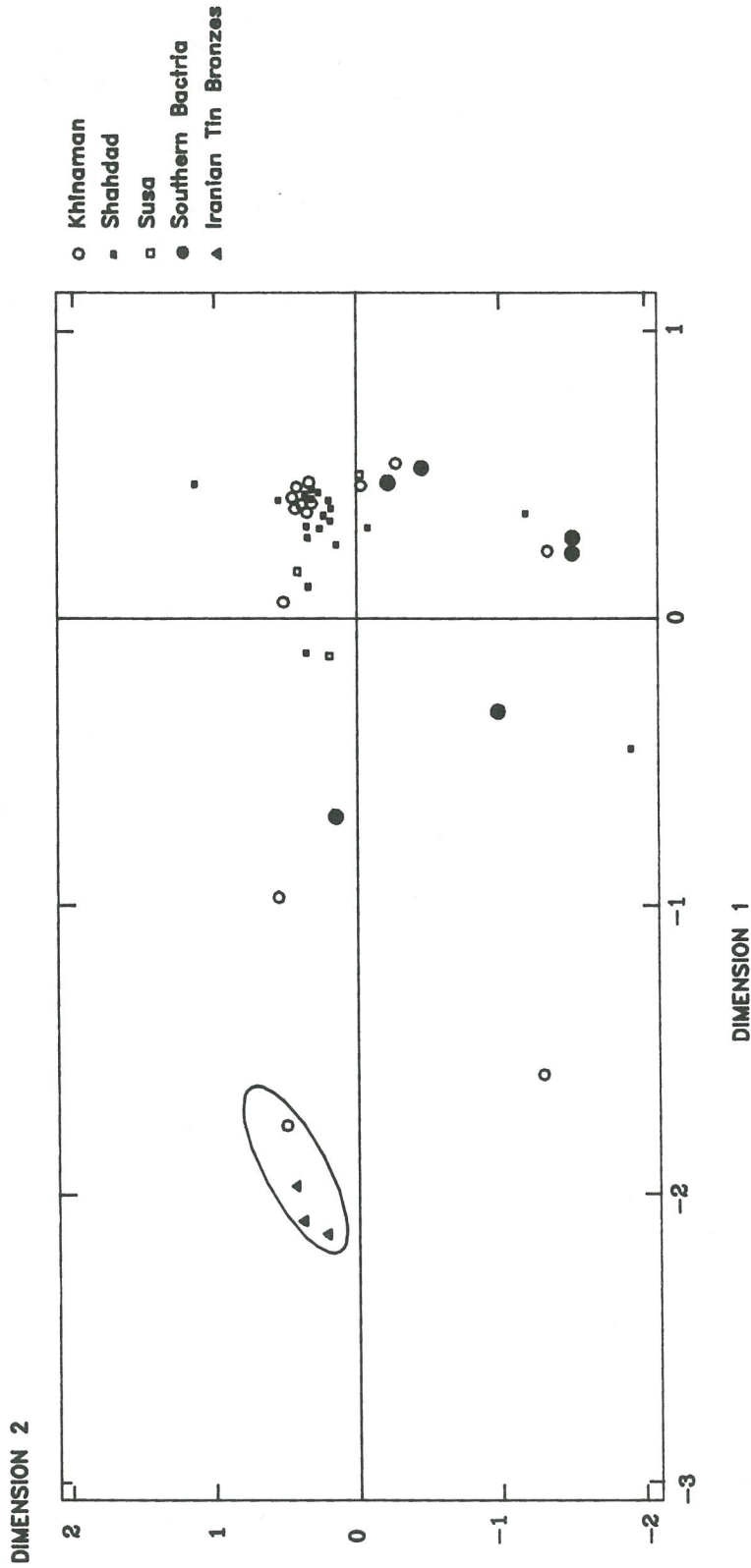
Tab. 2

## COORDINATES IN 2 DIMENSIONS

VARIABLE	DIMENSIONS	
	1	2
Khinaman 1	,46	-,10
Khinaman 2	-,96	,60
Khinaman 3	-1,76	,53
Khinaman 4	-1,58	-1,26
Khinaman 7	,38	,30
Khinaman 8	,45	,41
Khinaman 9	,37	,32
Khinaman 1	,23	-1,37
Khinaman 1	,38	,31
Khinaman 1	,53	-,26
Khinaman 1	,47	,35
Khinaman 1	,54	,53
Khinaman 1	,39	,31
Shahdad 1	,14	,36
Shahdad 2	,26	,15
Shahdad 3	,41	,31
Shahdad 4	,28	,34
Shahdad 5	,32	,34
Shahdad 6	,41	,27
Shahdad 7	,30	-,08
Shahdad 8	,37	,19
Shahdad 9	,45	1,15
Shahdad 10	-,44	-1,89
Shahdad 11	,36	-1,15
Shahdad 12	,42	,27
Shahdad 13	,40	,31
Shahdad 14	,41	,29
Shahdad 15	,34	,19
Shahdad 16a	,39	,20
Shahdad 16b	,30	,25
Shahdad 16c	-,11	,37
Shahdad 16d	,33	,19
Susa 1	-,13	,23
Susa 2	,16	,41
Weill	,49	-,01
Bactria 1	,49	-,22
Bactria 2	,24	-1,49
Bactria 3	,52	-,48
Bactria 4	-,69	,18
Bactria 5	-,33	-,96
Bactria 6	,24	-1,52
Caspian 1	-2,14	,27
Caspian 2	-1,98	,46
Amlash	-2,10	,41



Fig. 2





Gonur North (= Namazga VI)

Beta-33561 Gonur N. t. 4  $3520 \pm 60$  1818 BC 1919-1737 BC

From the above quoted dates, and from previously published radiocarbon determinations (Kohl 1992), Hiebert derives the following chronological proposal for the site of Gonur 1:

Period 1 2100-1900 = Late Namazga V (Northern mound)

Period 2 1900-1700 = Namazga VI (Southern Mound)

Nevertheless the American scholar is very conscious of the possibility and need of future revisions and refinements of his proposal.

V. Sarianidi, while focusing on southern mound chronology, reach similar conclusions publishing a series of new C14 dates from samples collected at different places, mainly at Gonur South (the only exception is Hel-2964 which is from a Gonur North sample):

Hel-2963 Gonur S. r.200  $3540 \pm 90$  1840 BC 2009-1694 BC

Hel-2964 Gonur S. r.65  $3750 \pm 80$  2139 BC 2278-1979 BC (NMZ V)

Hel-2965 Gonur S. r.226a  $3550 \pm 80$  1838 BC 2009-1740 BC

Hel-2966 Gonur S. r.226b  $3410 \pm 80$  1690 BC 1855-1534 BC

Hel-2967 Gonur S. r.178  $3380 \pm 110$  1659 BC 1770-1509 BC

Hel-2968 Gonur S. r.134  $3600 \pm 80$  1923 BC 2031-1776 BC

Hel-2969 Gonur S. r.208  $3480 \pm 90$  1761 BC 1916-1639 BC

Hel-2970 Gonur S. r.266  $3380 \pm 90$  1659 BC 1766-1524 BC

Even if Hiebert and Sarianidi proposals are tenable it is possible, on the base of the same C14 dates, to suggest a slightly different chronology. The above listed radiocarbon determinations fix the shifting from Gonur North to Gonur South around 2000 BC. It is actually impossible to evaluate at a good level of confidence the duration of the first period, but it cannot be shorter than 2 centuries. With the above limitation in mind it would be possible to date the two periods as follows:

Period 1 (2300)-2100

Period 2a 2100/2000-1800

Period 2b 1800-1650

Such a proposal fits better the C14 dates concerning Period 1 and 2 transition at Gonur 1, but a firm chronology for Central Asia Bronze Age cultures needs additional C14 determinations from highly controlled samples.

Much more remarkable seems to discuss Hiebert and Sarianidi cultural interpretations of the above referred working chronologies.

To tell the truth Hiebert limits himself to the specification of his own work at the site and only rarely refers to more general considerations. The more organic synthesis offered by Hiebert is found in the introductory paragraph to his paper on the domestic quarters (*Excavations of Domestic Quarters from Gonur depe (north): Excavations of Spring 1989*).

Here he only cursorily quotes the presence, in the Murghab delta, of pottery which dates to the first half of the third millennium and even before. The present evidence of NMZ III and IV materials in Margiana is very scanty and confined to the extreme north-western section of the delta (Masimov 1979; Kohl 1992). Future researches, with the help of a more accurate geomorphologic study of the delta area, which was surely larger than actually thought, will yield a different picture of the peopling of the region (Marcolongo & Mozzi 1992; Cremaschi 1994). On the other side, if it is true that we have an indisputable evidence of a consistent peopling of the region during NMZ V times (Kelleli 1 and 4 in the Northwest: Udeumuradov 1993; Togolok 1 -where a deep sounding has reached layers of this period- and Gonur 1 North: Sarianidi 1990), we should not forget that we are far from having a realistic knowledge of Late NMZ V site distribution and dimension.

More substantial, though I think only apparently, is our knowledge of the NMZ VI site distribution in the delta. Nevertheless we are dealing with an archaeological evidence at some degree distorted by sites shifting processes and by the still unsatisfactory perception of the complex development of that archaeological period. NMZ VI was indeed a very long period and material culture underwent a continuous process of change in time as well shown by L. P'jankova in this same volume (L. P'jankova, *Pottery of Margiana and Bactria in the Bronze Age*, pp. 109-127). The Russian scholar provides us with a first attempt to seriate Bactria and Margiana ceramic assemblages. Late NMZ V archaeological cultures in the two regions are far from being clearly fixed and their understanding is perhaps made difficult, as Kohl has well realised, by the fact that "with the advent of the Middle Bronze period, use of the Namazga sequence



*terminology becomes more problematic since material from beyond the Kopet Dagh piedmont strip are not necessarily or only indirectly related to southern Turkmenistan"* (Kohl 1992, p. 186). Neither satisfactorily clear is the sequence of NMZ VI ceramic assemblages which still has dark areas affecting the knowledge of the cultural development of the Margiana and Bactria macro region. The picture is complicated by the fact that only few of the more than one hundred Bronze Age sites at present known in the Murghab delta have been archaeologically investigated and systematic surveying activities are going on only in a southern sector of the delta by a team jointly directed by A.G. Gubajev, G.A. Koshelenko and M. Tosi.

This is just to underline that too many are the missing pieces to the mosaic of Bronze Age Margiana and Bactria cultural developments. This topic is well illustrated by the previously criticised conclusions Hiebert has drawn from the supposed lacking of precious metal items from Margiana archaeological inventory. Few graves from the Gonur Late NMZ V cemetery were enough to contradict those conclusions.

This is the point. Hiebert points to NMZ VI as the formative period of a culturally homogeneous macro region labelled BMAC (Bactrian-Margiana Archaeological Complex). This thesis is not detailed by Hiebert in the reviewed volume so that we have to refer to a slightly earlier paper (Hiebert & Lamberg-Karlovsky 1992) to find a description of the BMAC. There is possible to see how a misunderstanding of the archaeological evidence can lead to very questionable conclusions.

Reviewing archaeological complexes of protohistoric Bactria one thing is immediately and dramatically evident: the distance between material assemblages from Sarianidi excavations in the oases of northern Afghanistan (Sarianidi 1977) and the items from looted graves of the same area which have reached the Kabul antiquary market in the seventies. The evidence speaks of the existence of a cultural phase characterised by a substantially homogeneous material assemblage from cemeterial contexts even if the actual contemporary sites are still elusive. If we consider, for example, the distribution of compartmented and *ajoure* bronze stamp seals, a class which have a high typological and cultural value, we can notice that they are known in southern Bactria only from the decontextualised "funerary complexes".

The same kind of bronze stamp seals have been

collected in Margiana from the surface of decidedly few bronze age sites and mostly from the surface of Gonur northern mound. The Margiana sites which yielded this peculiar class of stamp seals (e.g. Gonur 1 North and Togolok 1) are even characterised by the presence of ceramic assemblages of Late Namazga V type. Now we can add that some specimens of this class of seals have been found in graves from the Late NMZ V cemetery we are digging to the west of Gonur 1 North (Salvatori 1994b).

From this kind of evidence, which could be notably enlarged taking into account other classes of archaeological materials, it seems legitimate to infer that the Bactrian-Margiana macro regional *koinè* was well established at least since the last centuries of the IIIrd millennium BC., during the Late Namazga V Period. This cultural horizon is actually represented in Bactria almost exclusively by materials from looted graves while related settlements, with the possible exception of Dashly 3 palace, level 1 (Kohl 1992), are still waiting to be recognised and excavated! Both the regions therefore pertain to one and the same cultural sphere and show analogous developmental processes during Middle and Late Bronze Age. Sub regional differences in the ceramic assemblages as noticed by L. P'jankova are not so deep to alter the essential cultural unity of the Bactria-Margiana macro region.

The above outlined picture forces the genesis of this macro regional cultural entity to shift back to a period which at present is practically unknown. Whatever hypothesis one could put forth on this matter would actually be a pure fantastic exercise in the vacuum of any consistent archaeological evidence.

V. Sarianidi reasoning seems to share in some details Hiebert's historical perspective while emphasises in a disproportionate way the evidence from the smaller Gonur 1 South (Namazga VI) at the larger settlement of Late NMZ V age (Gonur North) expenses. Let us read what he writes at p.11: "*So we can see that even taking the calibrated dates into account the existence of life at southern Gonur wholly fits in with the first half of II millennium BC, not earlier, which is very indicative. And so radiocarbon dates indicate the extensive, intensive peopling of Margiana in very early II millennium BC, but not earlier, which is extremely symptomatic. Now it's becoming obvious that it was at that time that the extensive settling of ancient agricultural tribes was taking place...*". Such a perspective leads to put in the shade, through an interpretative process whose roots are difficult to understand, the evidence from the large



Late Namazga V settlement of Gonur North and its recently discovered graveyard (Salvatori 1993, 1994b). I will not deny a NMZ VI demographic increase in the region, but just say that the archaeological evidence shows already during the Late NMZ V period a substantial peopling of the delta so large to sustain the growing and development of a settlement like Gonur North and other contemporary sites in the Murghab delta.

Few words more on NMZ VI demographic expansion in the area have to be spent. NMZ VI period, as we perceive it in Margiana and Bactria, is a very long period and as P'jankova has shown, variegated enough. This imposes, and the problem has been already raised by Ph. Kohl (1992), a different evaluation of site distribution based on a more precise definition of the various sub phases of its long sequence. Finally I would suggest to abandon the idea that the NMZ VI settlement pattern in the Murghab delta was organised on three hierarchical levels with Gonur 1 as the capital (Ist level), sites of >10 ha. as sub regional capitals (IInd level) and the many smaller sites as a IIIrd level. This picture favoured by Sarianidi and accepted by Ph. Kohl (1984: p. 146) and by the reviewer (Salvatori 1993) has to be rejected because the Gonur settlement of Namazga VI date is not larger than the others "sub regional or oases capitals".

Now we can turn to those papers which deal with more general themes (C. Lamberg-Karlovsky, *Reflections on the Central Asian Bronze Age*, pp. 29-40; A. Parpola, *Margiana and the Aryan Problem*, pp. 41-62; V. Sarianidi, *Margiana in the Ancient Orient*, pp. 5-28).

The three papers we are going to review are somehow tied together. But let us see in detail the crucial points which need to be critically examined.

Lamberg-Karlovsky paper is, as usually, impressive for complexity, richness and breadth of thought. He develops here an intriguing hypothesis on complex urban or protourban society formation based on the premise that at the base of the crucial transformations which lead to such political formations is "the rapid emergence of institutional power". This surely stimulating hypothesis has been tested by the author on Margiana-Bactria developments.

On this subject we have to recall the three points the author lists as a key to the understanding of cultural developments of the Margiana- Bactria macro region (p.37):

"1) An indigenous development of the Central Asian Namazga IV/V culture into its subsequent Namazga VI

expression in Bactria. This may involve complex shifts in settlement distribution between the piedmont zone, Margiana and Bactria which remain poorly understood.

2) The rapid development of an urban complexity within the Namazga VI period in Bactria-Margiana.

3) Following the development of an urban complexity, manifest on the archaeological sites of Margiana and Bactria, there is a movement of actual populations to the south, evidenced in the material culture of the cemeteries at Shahdad, Khinaman and Sibri."

The first point re-proposes at some extent the arguments of M. Tosi (1988) on local and not intrusive developments of Margiana and Bactria urban society. But in the vacuum of positive data on the beginnings of the process Lamberg-Karlovsky leaves in the background the problem of peopling dynamics. Here it is possible to perceive the problem of the urban crisis of southern Turkmenistan piedmont sites at the end of Namazga V period. Such a crisis has been seen by some authors as the cause of a population shifting from that area to Margiana first (NMZ V) and then to Bactria (NMZ VI). On this topic I will comment only that, as previously noticed, the shifting thesis is not supported by the archaeological evidence which, though scarce, shows the presence of a NMZ V significant presence in both the areas (Kelleli sites, Gonur North settlement and graveyard, Togolok 1, in Margiana; the plundered graves of Northern Afghanistan, in Bactria).

The second statement reveals that the caution with the first point was covering author belief in a population shifting from west to east, from the Turkmenian piedmont belt to the Murghab delta first and then to Bactria. The end of such a process would be the stage of urban complexity reached by the two regions during the NMZ VI period. This is more surprising even because scholars as Ph. Kohl (Kohl & Heskelt 1980; Kohl 1992) have convincingly shown that the situation was much different and that the evidence doesn't support such a reconstruction.

The third point, which has been discussed at length and widely argued in a previous paper (Hiebert & Lamberg-Karlovsky 1992) is even more uncertain. It is based on the assumption of Central Asia "population movements" to the south (Iran e Pakistan). To deal with this hypothesis it is necessary to discuss some specific aspects of the problem. Regards to the assumed "strong Central Asian presence on the edge of the Indus Valley" (Hiebert & Lamberg-Karlovsky 1992, p. 1) we have to refer at some length to a recent contribution by Jarrige on Nausharo (Jarrige 1994). I will not deny the presence of



Bactria-Margiana materials at the western periphery (Kachi plain) of the Indus Valley but only try to see them in their proper quantitative, qualitative and chronological dimensions. As implicitly noted by J.-F. Jarrige (1994) the Nausharo evidence, as regards pottery, is confined to very few shapes:

- 1- *"trumpet-shaped bowls with a grooved rim"*;
- 2- *"pedestal bowls"*;
- 3- *"Jars with moulded base with a rough surface"*.

The three recorded shapes can be compared with specimens from Sapalli graveyard, the early phase at Dzarkhutan (Northern Bactria), from Dashly 3 graves, Dashly 1 complex (Southern Bactria) and from Gonur 1 North Namazga VI graves (Margiana). Incidentally, and only to avoid any possible misunderstanding, shape 1 must not be confused with the clipped rim bowl, a type very distinctive of the Namazga V middle and late assemblages in Margiana (Udeumurov 1993; Sarianidi 1990; Salvatori 1993, 1994a, 1994b), and southern Turkmenistan (Ganjalini 1967; Udeumurov 1993).

Shapes 1 and 2 are distinctive of early Namazga VI complexes of Bactria and Margiana, while shape 3 is a *"long duree"* one, being well attested along the entire sequence of NMZ V and VI periods. Incidentally a moulded base jar with high neck and everted rim from Sibri (Santoni 1984: Fig. 8:22) has a very close parallel at the NMZ V graveyard of Gonur 1 (unpublished material from the 1994 campaign).

Those shapes, as far as we at present know about the periodization of the Bactria-Margiana NMZ VI period, seem to pertain to an early phase which, on the base of the still limited but coherent set of available C14 determinations, can be dated between 2100 and 1800 BC (see the Sapalli and Gonur 1 south dates in Kohl 1992:158,195). Such a chronological position of the early Namazga VI complexes from Bactria and Margiana fits well with the dating of Nausharo IV where some of the above mentioned shapes are attested in a post-Mature Harappan context and doesn't allow, as Jarrige (1994) suggests, to see them as originating in Baluchistan and then borrowed to Bactria, Margiana and beyond.

The case of Mehrgarh VIII (Jarrige 1985), Sibri (Santoni 1984, 1988), and Dauda Damb (Jarrige 1974-86) is different and could attest the presence of a foreign community in the area. Anywhere these foreign elements at Sibri, where two architectural layers were excavated, were associated with painted pottery of Mehrgarh VIIC affiliation (Santoni

1984:56), that is to say to a post-Mature Harappan date. As M. Santoni clearly states (pp.58-59), Sibri, Mehrgarh VIII and now Dauda Damb graves are contemporaneous and slightly post date Mehrgarh VIIC. Comparisons with Sapalli and Dzarkhutan materials in northern Bactria point to a date of the Kachi complexes at about 2100-1800, a date consistent with the C14 dating of Nausharo IV (Beta 65845: 3620±50 bp; calibrated: 2029-1834 B.C.) (Jarrige 1994). Sibri, Mehrgarh VIII and Dauda Damb finds could attest the presence of a foreign northern community in the Kachi plain at the western border of the Indus Valley Civilisation as the result of a complex interacting system which sees the presence of Iranian, Bactria-Margiana and Harappan material at the same place.

A third case is posited by the Quetta Serena Hotel findings (Jarrige 1987; Jarrige & Hassan 1989). Jarrige analysis makes clear the strong affiliation of the cenotaph materials with Namazga V complexes of southern Turkmenistan. I can add that to the same cultural sphere point the plain edge mirrors and the bronze palette which is very close in its sub rectangular shape to the specimen from Takhta Bazar (Udeumurov 1993). Again to Middle and Late Namazga V period could be dated the stone barrels (see Gonur 1 North palace, rooms 4, 9, 17, 20: Sarianidi 1990: Tav. XXIX:9, 11-14), even if they are attested in northern Bactria at a slightly later date (Sapalli: Askarov 1973, Grave 41, Fig. 32 at p. 68). Nevertheless in the Quetta cenotaph, together with possibly Bactria-Margiana materials of Namazga V date, several objects of clear Indus provenance have been found (Jarrige 1987:4). Together with an impressive set of complete objects, sheets of gold and other fragmentary objects have been found in the Quetta cenotaph. The presence of fragmentary items and sheets of gold could be interpreted as an hoard of precious materials buried possibly in a period not necessarily coinciding with the date we usually assign to them all.

It is interesting to note that many stone columns have been found in the Central Building at Togolok 21 (NMZ VI context). Among a number of complete examples, several were cut and broken in an area which could have been a stone cutting workshop (Sarianidi 1990: Tav. LXXXIX; Hiebert 1994:381). While the Quetta cenotaph or hoard can be dated to the Middle Bronze Age, the grave excavated nearby gave back pottery with strong relationships with Late Bronze Age northern Bactria materials (Sapalli) and then contemporary to the Mehrgarh VIII, Sibri and



Dauda Damb assemblages.

How to explain the presence of Middle Bronze Age items in a Late Bronze Age context? An hypothesis can now be drawn from our work at the NMZ V graveyard at Gonur 1. This large graveyard has been systematically plundered in antiquity (Salvatori 1994b) and now we know, as a result of the 1994 excavation campaign, that it happened at an early stage of the NMZ VI period. From this systematic spoliation of the Gonur and possibly other cemeteries in the area, an enormous amount of "precious" objects entered in the following archaeological contexts. Their re-utilization at Togolok speaks of an intensive request of raw materials in a society which seems to have a different access to natural resources, in contrast with the preceding period. Their presence at the Indus Valley western border can obviously be linked to the early NMZ VI materials in the same area at Sibri, Mehrgarh VIII and Dauda Damb. Is this due to the movement of trade oriented communities from Margiana and Bactria? In the same period a strong reorganisation of local communities in Margiana and Bactria is evidenced by the changing settlement organisation which is now characterised by relatively small fortified villages at the "oasis" centres, surrounded by an high number of satellite small compounds. It seems we are dealing with a crisis of what we can label as the NMZ V urban phase in Margiana (and I suppose in Bactria too), and then a transformation of the general layout of the settlement shape. From such a perspective it seems at least hazardous to interpret the presence of Bactria-Margiana groups as the result of the expansive tendency of an emergent urban society of the kind of the Uruk expanse at the end of the IVth mill. B.C. (Hiebert & Lamberg-Karlovsky 1992; such a comparison has been re-proposed by Hiebert 1994:386).

From a general point of view I think that Lamberg-Karlovsky went too far applying the idea, possibly correct when pristine states are concerned, that colonizing aptitudes are congenital with pristine stages of state or protostate formations, to Bactria-Margiana cultural processes. As a matter of fact, at the end of the IIIrd/beginnings of the IIInd millennium BC. several different archaeologically well documented situations support the presence of alloctonous groups of people in the core or at the periphery of culturally and politically firmly established territorial states. Trade entrepôts (e.g. the Assyrian Karum in Cappadocia or the "Meluhha village" at Lagash) and coastal bases on maritime

trade roots (e.g. Ra's al-Junaiz, on the horn of Arabia) are all examples of a varied typology to which we can reasonably add the case of market places at the intersection point of two cultural spheres (e.g. Shahdad). The evidence from Shahdad is surely against the hypothesis of a colonising process of the kind of Habuba Kabira in the Khabur or of Naqada III settlements in Palestine and Sinai. On the contrary it speaks of the presence of "specialised" people settled and integrated in a culturally different context. Shahdad (Hakemi 1972) and Khinaman (Curtis 1988) are the different facets of one and the same problem at least to judge from the substantial and close relationships we can draw from their material culture and from their geographical proximity. On this subject we have to mention the remarkable evidence of metallurgical activities at Shahdad which is shown by the craftsmen quarter there uncovered and excavated in 1977 (Salvatori 1978; Bayani 1979-80; Hakemi 1992). The activity of the metallurgists quarter at Shahdad can be dated to the last quarter of the IIIrd mill. BC. according to a yet unpublished C14 date and to pottery vessels there recovered which find good parallels at Damin (Tosi 1970), Bampur V-VI (During Caspers 1970; De Cardi 1970), Hili North Grave A (Vogt 1985), Umm an-Nar (Frifelt 1975) Bahrein (Lowe 1986), etc.. The Shahdad evidence points to a wide, local bronze production in the context of a well documented, large and differentiated artisan quarter (Ligabue & Salvatori 1979; Salvatori 1978; Salvatori & Vidale 1982). Even the Khinaman bronzes, recently revisited (Curtis 1988; Maxwell-Hyslop 1988), have to be re-considered at the light of the above mentioned evidence to bypass the explanatory problems stressed by Maxwell-Hyslop. Incidentally the bulk of Khinaman finds has no relationships with Bactria-Margiana nor with southern Turkmenistan materials. The only links could be drawn from the two axes there recovered. We can remember that this last type of objects has a very large distribution (Curtis 1988) as other kind of distinctive items like columns, alabaster bowls on high stands etc., which has been convincingly addressed by Francfort (1989:410) as *supracultures*.

The presence of Bactria-Margiana tradesmen at Shahdad is highly probable and justified by the geographical position of the Kerman region, a true hinge, as I suggested several years ago (Salvatori 1978: 13-14), at the eastern border of the elamite world. But this has nothing to do with a massive, politically meaningful presence of settlers. A more or



less similar explanation of the presence of Central Asian materials at the border of the Indus Valley civilisation (Mehrgarh, Sibri, etc.) could be given.

Nevertheless to this Lamberg-Karlovsky paper, as to his whole production, we have to ascribe a strong stimulating pressure to rethink the main themes of middle eastern archaeological research in a wider and larger frame. This is surely the lesson the author gives to us when he states that: *"The system of interconnectedness in the late third millennium was not hierarchical, in the sense that no single region exercised hegemony over the other. In this respect no single region dictated terms of production and trade; no geographic entity could be said to be at the centre."*

*The end of the third millennium and the first centuries of the second millennium involved a degree of cultural interaction that incorporated a vast geographical expanse.*

*This interaction brought into contact Mesopotamia, the Persian Gulf, the Arabian Peninsula, the entirety of the Iranian Plateau, the Indus Civilisation and Central Asia"* (p. 38). This system has been recently re-worked within a very consistent both synchronic and diachronic frame by M. Tosi (1994).

Such an *"economic world system"* (in the terms of the theory advanced in Kohl 1989) is not convincingly explained by the classic solutions based at time on *"differential access to resources"*, *"asymmetrical development of technology"*, *"intensification of labour and surplus"*, all *"causes"* which can be even regarded as effects of the interaction. So that his invitation to a more effective attention to political systems in antiquity deserves the utmost consideration.

V. Sarianidi paper - sections of which have been previously reviewed - emphasises possible iconographic relationships between IIInd millennium Margiana and the Syro-Anatolian world. His analysis of a cylinder seal impression from Gonur South is extremely suggestive of close formal relationships with Syro-Hittite glyptics and particularly with the seal impressions from Achemhoyuk. As in the Anatolian counterparts the Gonur seal impression shows a winged manbird holding goats in the hands. The very difficulty of Sarianidi hypothesis is that the winged man or demon with bird head is well attested in Bactrian iconography since the end of the IIIrd millennium BC. On the other side if there is no doubt about IIInd millennium dating of the Gonur seal impression, we don't know which layer of the pluristratified site it comes from and its real archaeological context. The Gonur impression is

obviously of great interest even because it preserves a complex scene which therefore needs to be contextualized in the macro region iconographic system as H.-P. Francfort has suggested in recent papers (Francfort 1992, 1994). A further evidence offered by Sarianidi to strengthen his hypothesis of Margiana western contacts is a stone amulet on which *"a rushing bull over which a man is jumping"* is depicted. The Russian scholar suggests that the amulet, which has been found in the south courtyard of Togolok 21 architectural complex, proves a Cretan influence via Syrian inter mediation. We will only remember that the *taurokathapsia* is even attested in the Indus Valley at Mohenjo-daro (Fábri 1937). The motive presence on Harappan seals and sealings could be used as well to suggest an Indus Valley inspiration for the Margiana amulet. Furthermore even the date of the object could be questioned if we apply to him the same reasoning applied above to the miniature columns from Togolok 21 central building. Nevertheless the problem will be left open waiting for new and more substantial evidence.

A large section of Sarianidi paper deals with a critical appraisal of the Indo-Aryan hypothesis of A. Parpola (1988, and this volume).

Parpola suggests an Aryan affiliation of Namazga V south Turkmenistan population. His work is an undoubtedly well supported review of the Aryan problem, mostly from a linguistic point of view, a field I am not prepared to deal with. Nevertheless the aim of Parpola paper was to join the linguistic evidence with the archaeological one and on this ground some of his points are not to be subscribed.

One of the more debated topic in the literature is surely the possibility to archaeologically single out the traces of Indo-Aryan presence on the Iranian plateau and Central Asia. On this subject Parpola seems to be rightly sceptical about Ghirshman (1977) hypothesis of a Mitannian provenance from the Gurgan plain. Such an hypothesis was based on an assumed relationship between Hurrite-Mitannian grey ware and the ceramic production of Gurgan plain sites as Hissar IIIC and Tureng Tepe IIIC. Sarianidi too underlines the difficulty of that argumentation because, apart from their belongings to the class of grey ware (Cleuziou 1986; Wright 1984), there is no link on technological and formal or typological ground. As we referred above Parpola don't share Ghirshman's thesis and even criticises all the arguments on which the French scholar built his interpretation like the horse and war chariot argument and the presence at Hissar III B of



trumpets thought to be used in directing cavalry and chariots in battle (Ghirshman 1977).

The most critical points of Parpola archaeological reasoning are with the paragraphs listed below:

- Bronze Age Margiana and Bactria: Connection with Gurgan.
- Bronze Age Margiana and Bactria: Connection with Syria.
- Bronze Age Margiana and Bactria: Connections with Baluchistan.

The first one lacks of accuracy in dealing with Margiana and Bactria NMZ V and VI periods. The interconnection system we can extract from the archaeological record mainly involves items which can be referred as luxury and status goods and others which can be easily connected with the administrative control of goods circulation. From this largely univocal shape of the material evidence, scattered through an area much wider than Parpola describes, it seems to me arbitrary to draw ethnolinguistic conclusions. The links between Margiana and north eastern Iran are structural in nature (Kohl & Heskell 1980), not so those between Margiana and the Gurgan plain. The Sunbar (Chlopin 1973; 1981) and Parkhai (Chlopin 1975) cemeteries demonstrate that the different cultural affiliation of the two areas is attested at least to the end of the late Bronze, beginning of the Iron Age (Kohl 1992:193). The last consist in a handful of imported black burnished ware vessels (Hissar IIIC and Tureng Tepe III C 1) found at Gonur 1. One BBW vessel is recorded from the upper layers at Gonur North and two BBW sherds from the Late NMZ V graveyard at Gonur. Few imported items don't allow to think to a structural link between the two areas in terms of population shifting nor as a marker of a ruling elite. Circulation of luxury goods is well attested through an immense territory from Syria to the Indus Valley, from Central Asia to the southern coast of the Persian Gulf and to isolate an arbitrary section of such a complex system of international trading activities to attract it into a linguistic theory cannot help to solve the Aryan problem.

As regards the second paragraph the links with the Syrian world have to be read at the light of the above mentioned exchange system within a chronological span wider than supposed by Parpola. These links can be drawn as back as the 19th-18th century BC (Beyer 1989) and future research will surely amplify our knowledge of the Mesopotamian and transmesopotamian dimensions of the large

economical interaction suggested above. Once more the diffusion of iconographic traits or even actual alloctonous items does not justify ethnolinguistic equations.

For other objections to Parpola reasoning we can refer to Sarianidi's paper in the same volume. Nevertheless even if at list a part of the Parpola complex reconstruction could be correct, it would require more substantial evidence firmly contextualized and contextually tested.

The last highly interesting section of Parpola paper suggests that Namazga V population of Turkmenistan could represent the first Aryan wave to be identified with the Dasas of the Vedic tradition. Dasas are indeed described in Rigveda as enemies of the Aryans and they settled in the Margiana-Bactria region according to Persian, Greek and Latin sources. Again, according to the Rigveda, Dasas forts were circular in shape and often with multiple concentric walls. This tradition leads Parpola to refer to the circular fortress at Dashly 3 in southern Bactria. Anyhow circular fortresses are otherwise not attested during the NMZ V period and the Dashly 3 plan is unique in the region until mid 1st millennium BC (Sarianidi 1986: Kutlug-Tepe and At-Tschapar). But something else is prominent here and we don't find any trace of it in Parpola reconstruction: continuity is a very strong factor in the material culture of Bronze Age Turkmenistan as largely recognised by many scholars (Masson & Sarianidi 1972; Kohl 1984; Tosi 1988), and it speaks against any massive population intrusion.

If the linguistic hypothesis is undoubtedly suggestive, less convincing is the method which interpolates evidences so different in quality and significance as the linguistic and the archaeological one before a preliminary firmly settled reconstruction of the two possible histories has been accomplished. From the archaeological point of view, as we have tried to show in this paper, there is still much to do before an organic picture of Middle and Late Bronze Age of northern Iran and Central Asia can be drawn. It seems dangerous and misleading to build on such an unstable ground ethnolinguistic hypotheses though suggestive they can be.

To conclude this review of the monographic issue of the IASCCA Information Bulletin, in spite of the limits I tried to point out for each contribution, this volume is a valuable and necessary attempt to trace an inclusive picture of Bronze Age developments in a key area of the larger Central Asian world. Such an attempt, though using almost all available data,



suffers of still large margins of uncertainty, due to several objective reasons.

Very large Central Asian areas have not yet been adequately investigated, while other regions, Bactria and Margiana among those, suffer of generally low excavation, surveying and data editing standards. My personal experience in Margiana made me sceptical about the possibility to positively use the data on the Murghab Bronze Age settlements as they are published by pioneers of the archaeological research in the area. This depends on the fact we still lack of a typological arrangement of the material culture on a diachronic scale enough detailed and complete (an exception is represented by the northern Bactria sequence: Askarov 1981) to allow to assign each single site to a specific phase or sub-phase. Without this kind of information it is very hard, if not impossible, to systematically reconstruct demographic trends and the cultural change.

On the other side, the rapid growth of the archaeological research in the ex-soviet Central Asian republics extends constantly our knowledge and the very complexity of the Bronze Age cultures of the area. We will hardly solve the problems at hand using old paradigmatic explanations such as population shifting to demographically low density areas.

The discovery of the large Bronze Age site of Sarazm, in the Zeravshan valley (Tadjikistan) (Isakov 1981, 1985, 1991; Besenval 1987) with its strong ties with Mundigak, to the far south, and with southern Turkmenistan sites of NMZ II-III and IV age, to the west, set the problem of the severe inadequacy of the archaeological data in the large area which lies between the Kandahar region, in southern Afghanistan, and the Zeravshan valley.

In the next future archaeological research have to be directed to detail sequences well anchored to a large corpus of C14 determinations and to intensify surveying activities which can now be largely improved and made effective by means of sophisticated prospecting systems (AA.VV. 1994). We feel that only a resolute development of the two above mentioned strategies will help to face, with some hope of success, the study of the ancient peopling of those areas and of seminal historical problems like Indo-Arian population movements.

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