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Sintashta, BMAC and the Indo-Iranians. A query.

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in Prehistoric Western Central Asia**  
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### **Transhumance, Trickling in, Immigration of Steppe Peoples**

There is no need to underline that the establishment of a BMAC substrate belt has grave implications for the theory of the immigration of speakers of Indo-Iranian languages into Greater Iran and then into the Panjab.

By and large, the body of words taken over into the Indo-Iranian languages in the BMAC area, necessarily by bilingualism, closes the linguistic gap between the Urals and the languages of Greater Iran and India. Uralic and Yeneseian were situated, as many Iir. loan words indicate, to the north of the steppe/*taiga* boundary of the (Proto-)Iir. speaking territories (§2.1.1). The individual Iir. languages are firmly attested in Greater Iran (Avestan, O.Persian, Median) as well as in the northwestern Indian subcontinent (Rgvedic, Middle Vedic).

These materials, mentioned above (§2.1.) and some more materials relating to religion (Witzel forthc. b) indicate an early habitat of Proto-Iir. in the steppes south of the Russian/Siberian *taiga* belt. The most obvious linguistic proofs of this location are the FU words corresponding to Iir. *Arya* "self-designation of the Iir. tribes": Pre-Saami \**orja* > *oarji* "southwest" (Koivulehto 2001: 248), *årjel* "Southerner", and Finnish *orja*, Votyak *var*, Syry. *ver* "slave" (Rédei 1986: 54). In other words, the Iir. speaking area may have included the S. Ural "country of towns" (Petrovka, Sintashta, Arkhaim) dated at c. 2100/2000 BCE (see the archaeological and linguistic summary in Witzel 2000a, Lamberg-Karlovsky 2002). This, however, is not the place to engage in a detailed discussion of all of the relevant archaeological materials.

It is a truism that "Linguists too often assign languages to

archaeological cultures, while archaeologists are often too quick to assign their sherds a language" (Lamberg-Karlovsky 2002: 74), but Mallory (in Lamberg-Karlovsky 2002: 79) is equally right in asserting that "there are still degrees of geo-linguistic plausibility".

Indeed, we cannot be sure that (Proto-)Iir. was actually spoken at Sintastha-Arkheim around 2100/2000 BCE (Witzel 2000a), but it must be pointed out that the archaeological assemblage and the geographical position of these sites close to the *taiga* makes this quite likely: the Sintastha-Arkheim complex has the newly developed spoked (proto-)chariot and many other items (horse sacrifice, grave structure, Dadhyañc style replaced horse head in a grave at Potapovka, *pur*-style forts, etc.) overlapping with the early IA and Old Iranian cultures and texts (Witzel 2000a, Anthony in Lamberg-Karlovsky 2002: 75). The discussion of all such relevant Iir. words and concepts is unfortunately missing in Lamberg-Karlovsky (2002) and with most of his interlocutors in that issue of *Current Anthropology* (with the partial exception of Anthony and Mallory); instead they operate with rather vague, bloodless notions of Iir., hardly progressing beyond Benveniste's IE(!) linguistic reconstructions of the social sphere (Benveniste 1973).

That the oldest Iir. texts (Rgveda, Avesta) are about 1000 years later than the date of the Sintashta-Arkheim complex (Lamberg-Karlovsky 2002) is *not* of as great relevance as thought. First, the relevant words from the two very closely related languages can easily be reconstructed from the extant texts for the P-Iir. period. In addition, both texts are notoriously archaic in their language, culture, and religion, and actually contain some reminiscences of Central Asia (Gr. *Rhā* "Volga" ~ N. Iran. *Rahā*, Ved. *Rasā*, *Parna* ~ Ved. *Pañi*; N. Iran. *Daha*, *Dahā-ka*, Ved. *Dāsa*, *Dasyu*; *Sarayu* = *Harōiiu-m/Harē* = Herat R., Ved. *Sarayu*; \**Sindh-* ~ *Sindēs* River (Tedzhen) ~ Iran. *Həṇḍu*, Ved. *Sindhu*, etc., (see above, Witzel 1984, 1995, 1999c).

The *older* forms of Iir. words have been taken over into Uralic and Proto-Yeneseian, as has been discussed above (see Kott *art'a* §2.1.2; see n. 151 for *asura* > Mordwin *azoro* not, e.g., from the later, Iran. *ahura*). This again underlines the early age of contact, before and around 2000 BCE. In this light, the geographical location and spread of the eastern Catacomb,

Sintastha-Arkheim, Afanasievo and finally the early (northern) Andronovo cultures make for a more or less widespread overlap with speakers of (P)Iir., though occupation by some other languages (also lost ones) cannot be ruled out altogether, at least for part of the area: i.e., Uralic and Yeneseian at the northern borders, while Altaic is excluded (perhaps except for some Proto-Turkic in the extreme East, Róna-Tas in Lamberg-Karlovsky 2002: 82 sq.).

It is likely that, like in Turkic and Mongolian times, there was use of a *lingua franca* in the wide steppe (and desert) belt. This cannot have been Uralic, Yeneseian, Altaic or another unknown language as we do not have any indication of any respective influence on the southern languages (BMAC, Elamite, or later, on attested OIA, OIr.) This *lingua franca* most likely was an Iir. *koine* (cf. Kohl in Lamberg-Karlovsky 2002: 77-78), a form of P-Iir. (and later on, of pre-OIA, then of pre-Ir.), as is witnessed in the various levels of Iir. loans into Uralic and Yeneseian.

The clearly defined situation described above contradicts Mallory's assertion, in spite of his principle of "degrees of geo-linguistic plausibility", that "there are clear instances, the Indo-Iranians being a case in point, in which there is no hint of the distribution of any archaeological assemblage that might correlate with the target language group" (loc.cit., p. 80). The use of an Iir. *koine* also does *not* contradict, as Kohl seems to think, the model of a tree-like linguistic divergence model: the Iir. "mythical homeland" is indicated by the correlation of linguistic and zoological/botanical evidence, and as the various stages and branches of the IE/Iir. tree model are visible in the "quasi-archaeological" layers of loans words taken over from the Iir. languages into the Uralic and Yeneseian languages. A *koine* (Hellenic Greek, Latin, French, Russian, English) simply does not imply "fusion" of languages à la Trubetskoy (Kohl in Lamberg-Karlovsky 2002: 77, cf. Makkay p. 78). Such fusion is rarely if at all visible even in the developments of Pidgin and Creole languages. They always have a strong basis in one extant language but have taken over some grammatical traits and words from others (not unlike medieval English!).

In sum, the agnosticism of Lamberg-Karlovsky and other archaeologists with regard to a correlation between Iir. languages and the steppe archaeological cultures is repudiated by the increasing wealth of "archaeologically" stratified linguistic data, generally neglected, that locate PIIr. in the steppe belt *just south* of the Uralic/Yeneseian *taiga*, in other

words, in the very archaeological areas discussed above (eastern Catacomb to northern Andronovo).

Finally, as outlined elsewhere (Witzel forthc. b), there is an additional number of words from the religious sphere (*anc' u* ~ Soma, etc., Lubotsky 2001) that again indicate a gradual spread of IIr. speaking tribes southwards from the "quickly filling steppes" (Kohl) of the Catacomb - S. Ural - Afanasievo areas, all of which is not unlike the attested eastwards and southwards spread of the Andronovo culture that has created well documented overlaps with the BMAC in the Merw delta, on the Zerafshan River and at Kangurtut in S. Tajikistan (see Lamberg-Karlovsky 2002: 71, 73).

Against this background of a (partial) overlap of the steppe archaeological cultures and the location of tribes speaking various forms of IIr., a scenario of cultural and linguistic interactions and actual movements can be drawn up. In the form of a brief summary, this would include the following steps.

- Gradual immigration of the cattle herding speakers of common Proto-Indo-Iranian (or of pre-Old Indo-Aryan) from the steppe belt into the general BMAC area (cf. Mallory in Lamberg-Karlovsky 2002: 80). This general, seasonal migrational pattern was continued, just as in Afghanistan transhumance, well into our time. (Meridional migrations of Kazakhs took place down to 1929 CE, Olsen in Lamberg-Karlovsky 2002: 81). Again, the IIr. languages *must* have come from the northern steppe areas as the *early* (Proto-IIr.) loans into Proto-Uralic (*asura*, Koivulehto 2001: 247) and Yeneseian (*art'a*) clearly indicate. This contact persisted for several millennia as the virtually "archaeological" layers of loans indicate.
- Amalgamation of BMAC/Central Asian words into the (late) common IIr., pre-Vedic and pre-OIr. languages then took place, along with their underlying concepts (*\*bhiš*, *\*kapauta*, etc.), religion (the *\*sauma* drink, *\*-rwa* beings), animals (*\*uštra*, *\*khara*) and plants (*\*bhanga*, *\*anc' u*). The non-IE BMAC religion, as depicted in its seals and other art (Francfort 1994, 2001, Anthony in Lamberg-Karlovsky), seems to have directly influenced the Avestan and Vedic form on certain IIr. beliefs, such as the Avestan version of the hero fighting the dragon of drought

(*Aži/Ahi/* *'\*Vərəθra'* / *Vrtra*), transforming the IE (and Eurasian, Witzel 2001b) myth of the killing of the dragon into one of releasing the waters by the late spring snow melt in Afghanistan (Avesta) and in the northwestern Indian subcontinent (RV). The prominence of the BMAC Goddess of waters and fertility has influenced, to some extent, the character of the Avestan river Goddess *Anāhitā* and of the Vedic *Sarasvatī*.

While such interaction can be deduced from linguistic analysis and comparative religion, it is very difficult to indicate, by archaeological means alone, the actual "form of symbiosis" of the two antithetical and dissimilar cultures, the agro-pastoral Andronovo and the settled BMAC culture with its irrigation agriculture (Lamberg-Karlovsky 2002: 74). However, there are many steppe type sites near the BMAC settlements (Lamberg-Karlovsky: 71, 73).<sup>1</sup> While there is some indication of steppe materials in actual BMAC sites, the opposite is not true. Some degree of avoidance (Lamberg-Karlovsky 2002: 73) between the bearers of both distinctly different cultures seems likely. However, some details of the BMAC culture *must* have been taken over, at some time in the second mill. BCE, by the speakers of Iir. (note the list of BMAC words of agriculture, settlement religion, above § 3.3-4, and see below).

The incoming steppe people with Andronovo cultural traits must have shed many of these characteristics in the Greater BMAC area (Mallory 1998, in Lamberg-Karlovsky 2002: 80, cf. Kohl, p. 78) before moving on, as "not a single artifact of Andronovo type has been identified in Iran or in northern India" (Lamberg-Karlovsky 2002: 74), all while keeping their Iir. language - and, somewhat differently from Mallory, also much of their spiritual culture.

Mallory thus is right (in Lamberg-Karlovsky 2002: 80) in pointing out that "this would require far more intimate relationships between the Andronovo and the Bactrian Margiana complex than the existing distribution of "mutually exclusive" material culture would permit." However, the question that has not been put yet is: exactly when should the extensive exchange as seen in the BMAC loan words in Vedic and OIran. have taken place? The steppe pottery found in the BMAC (see n. 196, 197) may just reflect the *forerunners* (no horses!) of a more massive

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<sup>1</sup> For early steppe-Bactria/Margiana contacts see Francfort 2001: 153 about Kelteminar pottery and a Afanas'evov funary stone circle found at Sarazm II, i.e. before 2500 BCE. For late steppe pottery see the preceding note.

IA influx at the end of the BMAC, around 1600 BCE. While Lamberg-Karlovsky (2002) is still looking for a model of such cultural change, the actual state of affairs may be still have been remembered in and is reflected by the conservative poetry of the RV: the Paṇi (wealthy, "stingy", rich in cattle) are depicted as holed up in their forts (*pur*) while the Rgvedic Aryans are depicted as being *outside* and desiring to *get in* and acquire the cattle (Elizarenkova 1995). As has been pointed out above (cf. §1.1) this *topos* may very well be a reminiscence of the situation in the BMAC area where the steppe tribes opposed the Parna (*Parnoi, Parni*) on the Sindes (Tedzhen/Sindh river).

Incidentally, a tradition of avoidance similar to the one in the BMAC area is still seen, much later, in the Sistan/Arachosian area (Falk 1997) and in the Rgvedic Panjab (Witzel 1995, 1997b): while, conveniently, many agricultural, musical, and a few religious terms of the *small tradition* were taken over (Kuiper 1955, Witzel 1999a,b,c), the local settled Dasyu populations as such were avoided and were despised (note, e.g., RV 3.53.14 about the Kīkaṭa and the "misuse" of their cows). What else may one expect of proud, semi-nomadic cattle herders with their habitual disdain for farmers?

The obvious solution to look for, out of Lamberg-Karlovsky's and Mallory's dilemma of contact/avoidance of the steppe and BMAC cultures, is the one indicated just now: some trade and exchange, but also occasional friction and warfare (fortresses of the BMAC!), perhaps even including some steppe mercenaries(?), existed between the impoverished pastoralists at the fringes of BMAC settlements (cf. Kohl in Lamberg-Karlovsky 2002: 78) and the occupants of the BMAC, perhaps not unlike the relationship arising between the nomads and the occupants of fixed settlements in later history.

Some sort of contact is clearly in evidence in the borrowed vocabulary found in the Iir. languages, and just as in the RV later on, it is restricted to agriculture, village life, small tradition religion, but it also included a few more prominent terms for priests (*atharwan, uc'ij*), ritual (*anc'u, yātu*) and deities (*c'arwa, g(h)andharw/b(h)a*). Even then, the IE and Iir. pattern (Father Heaven, drink of immortality, the hero killing the dragon, the Iir. Asura deities, etc.) is clearly maintained in the early Iranian and Vedic texts (Witzel forthc. b), and little influence seen of the prominence of the BMAC goddess or the anthropomorphic dragon and eagle (Frankfort 1994, 2001: 154). Equally so, the Dumézilian three-level

IE social structure (poet/priests, nobility, commoners) was maintained but it was enlarged, both in Iran and in the Panjab (or, e.g., in Greece, the *pan-hellenes*), by a fourth class (*Śūdra*) that made room for persons from the local populations that had joined the *arya/ariya*.

Such adjustments will be difficult to detect by archaeology. If they have indeed been looked for, then in the wrong direction: we cannot expect Zoroastrian rituals in the BMAC in 2000 BCE but only around 1000 BCE, not every hearth is an IIr. "fire altar", and the findings of Ephedra ("Soma") in the BMAC have not been substantiated (see the discussion in *EJVS* 9). The occurrence of certain steppe vessels in BMAC contexts could point in that direction -- if they had indeed been found with Soma presses and filters. Most notable is the absence, so far, of horse remains, horse furniture, chariots (invented around 2000 BCE) and clear depictions of horses in stratified BMAC layers. One can hardly imagine the IIr.s without their favorite prestige animal, the horse. The archaeological picture of avoidance/contact by the forerunners of the massive IA move onto the Iranian plateau so far remains sketchy. Perhaps it can be explained if the main period of major contacts was as late as c. 1500 BCE.

Once the successor settlements of the BMAC were abandoned around 1500 BCE, a partially changed IIr. speaking, entirely pastoral culture (Anthony, *op. cit.* p. 76), probably swelled by some of the Bactria-Margiana populations, spread all over Greater Iran. This is accompanied by a clear cultural change, with the appearance of painted handmade pottery in the former BMAC area (Frankfort 2001: 154) at 1500 BCE and the accompanying disappearance of tomb and grave structures in Central Asia (reflecting some Vedic and Zoroastrian customs). The proposed comparatively late date of the onward migration towards Mesopotamia and the Panjab at c. 1500/1200 BCE fits this scenario better than an early influx into, and cohabitation with, the late Indus civilization, as some have assumed (e.g., Allchin 1995: 47, at 2200-2000 BCE sqq.).

- This new, amalgamated, *late* IIr./pre-OIA speaking entity moved -- *Kulturkugel* fashion (Mallory 1998, 2001: 360 sq.)-- into Iran and towards the Panjab. By this term, Mallory means a culture that has kept its IIr. language but has taken over (much of) BMAC cultural and societal

structures. Conversely to the situation during the BMAC period, this expansion can only sparsely be substantiated, so far, by linguistic data as the relevant spade work in (Old) Iranian has not yet been done.<sup>2</sup>

It is probable that this move was preceded by successive spearheading forays of (non-Iir. speaking) mountain peoples into Mesopotamia, such as the Guti, Lullubi, and Kassites<sup>3</sup> (c. 2250-1750 BCE), who were as yet only marginally influenced by Iir. languages and customs. Some of them are perhaps represented by the sudden expansion of BMAC materials into Susa, Shahdad, Tepe Yahya, Hissar, the Gulf, Baluchistan, the S. Indus area (Lamberg-Karlovsky 2002: 72, 74, 84) and Harappa (R. Meadow, pers. comm.).<sup>4</sup> Lamberg-Karlovsky (2002: 84), however, thinks of this spread as "the prime candidate for Indo-Iranian arrival on the Iranian plateau," which in the light of the above discussion is too early, but he (correctly) suggests that "the indigenous people, although in the majority, adopted their language," -- later on, that is (cf. below, § 6, end). A similar move may have brought speakers of PDrav. to Bolan and Sindh.

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<sup>2</sup> Only some initial guesses are possible, for example about the ethnic nature of the *Tukriš* (see above n. 102) which might be connected with Ved. *tugra*, *tugrya* (both personal names), Iran. *tuyr-*. If true, we would have continuing RV (and later Vedic, BSS) links with Bolan, Aratta, and Shahdad -- recalling the more northern trail that lead the Mitanni-Indo-Aryans westward into N. Mesopotamia. However, note the pre-OIA words in Kassite (c. 1740 BCE-), and cf. now Blažek (1999, 2002a) on early Elamite connections with Vedic.

<sup>3</sup> Only a few Kassite words seem to come from Iir., e.g. *Šuriiš* "sun god", *Maruttaš* "divine Marut comrades of Indra", *Bugaš* "god Bhaga?"; see Balkan 1954, for horse names such as *akriyaš* = *agriya-s* "(running) in front?", *timiraš* "black?", etc.; note the direct loan from Iir. with Nominative -s, as seen in some *old* FU loans as well (above, or cf. later on, Finnish *kuningas* "king" < P.Germanic *\*kuningaz*, as seen in Dutch *koning*).

<sup>4</sup> In this context, a remarkable overlap between BMAC and Indus shamanistic concepts has not been noticed, as far as I see: a cylinder seal (Sarianidi 1992: 25, fig. 33) and a terracotta tablet from Mohenjo-daro (Kenoyer 1998: 83, fig. 5.6) show remarkably similar scenes of processions of flag and standard bearers (cf. Avestan *ərəδβō.drafša* V. 1.6), the latter involving carrying animals on a pole and being accompanied by a figure beating a typical shamanic circular drum (still found with in Kalasha ritual, in the eastern Hindukush). Sarianidi (1992: 24, 26) takes the scene as one depicting jumping athletes or acrobats. There is, however, comparatively little shamanism in the Veda, and the use of the circular drum is not attested so far.



- Later, apparently after the abandonment of the BMAC and successor settlements around 1650/1500 BCE and the spread of pastoralism all over Iran (Anthony, in Lamberg-Karlovsky 2002: 76), the actual spread of speakers of pre-Vedic IA took place, that is of Mitanni-OIA, into N. Iraq/Syria (c. 1400 BCE), an area settled by the Caucasian-speaking Hurrites. The speakers of the linguistically slightly later, though still pre-Iron Age Rgvedic then moved into Arachosia (\**Sarasvatī* > Avest. *Haraxʾaʿtī*), Swat (*Suvāstu*) and Panjab (*Sapta Sindhu*), before c.1200/1000 BCE -- depending on the local date of the introduction of iron (Possehl and Gullapalli 1999), which still is missing in the Rgveda but found in the next level of Vedic texts.

æ The intermediate Hindukush area has been largely neglected in scenarios of this kind. However, the Rgveda does not only take note of some its geographical features (*Kubhā* = Kabul River, *Suvāstu* = Swat, the opposition *giri: ajra* "mountains: flat valley pastures"), it also is influenced by certain religious ideas of the Hindukush area, such as the concept of Yakṣ(īṅ)ī/Apsaras (\**Śucī* "pure" > Kalash *sūci*) and Rudra/Gandharva as inhabitants of the pure snow mountains, snow/ice dragons engulfing the flowing waters (the later Kashmirian Nāgas), and the like (Witzel, forthc. b: §1.5.6.). The RV also contains a number of words that can be linked with the local Pamir language, Burushaski (Witzel 1999 a,b), such as Bur. *kilāy*, RV *kīlāla*- "biestings, a sweet drink". Indeed, the Hindukush/Pamir area is one of transhumance that was well suited for the Indo-Aryan pastoralists (Witzel 2000a). Movements between the mountain pastures of the Hindukush highlands and the Panjab/Sindh lowlands and the continue to this day, including that of cattle (Meadow, oral comm. based on personal observance).

Furthermore, it is precisely in this area that the phonetic feature of retroflexation, so typical of Vedic (and of South Asian languages in general), must have set in (Witzel 1999 a,b). This feature is *missing* in Mitanni-IA and Old Iranian but typical for all languages of the Hindukush/Pamir areas, whether they be Burushaski, E. Iranian, N. Iranian (Saka), Nuristani, or IA (from RV to modern Dardic); retroflexation even has affected the eastern (i.e. S. Asian) dialects of the newcomer, Baluchi, a *West* Iranian language.

- The move toward the Panjab may have been independent of and

may actually have been preceded by that of the speakers of the third group of Ir. languages, now called Nuristani, whose speakers, originally called Kafirs by their Muslim neighbors, live in the Hindukush mountains of NE Afghanistan. They have preserved some archaic features until today (Nur. *c* is older than RV *ś* or Avestan *s*, all from Ir. \**c*' ). Such movements may also have included that of the speakers of the non-Ir., western-IE group now represented in the substrate of Bangani, a NIA language in the high Himalayas of Uttarkhand, on the border to Himachal Pradesh. However, the people who spoke that substrate language may just as well have come, as potential IE neighbors of the "western-IE" Tocharians, *across the mountains* from the general area of modern Xinjiang. People often establish their alpine grazing grounds (and settlements) *across* the mountain range they border on: German speakers in Wallis/Valois and S. Tyrol, Slovenian in Carylthia, Ossete north and south of the Caucasus range, Iranian Yidgha in the NIA speaking Chitral, Kafiri in westernmost Chitral, Tibetans (Sherpa, Bhutanese, etc.) on the southern side of the Himalayas.

It might be added that the general path of immigration of the speakers of Indo-Aryan from the north into the Panjab, via the general BMAC/Hindukush area, is also indicated by an early loan from Nuristani. This is Nur. \**kat's'a* > Ved. *kāca* "shining piece of jewelry" (K. Hoffmann 1976, *EWA* I 33),<sup>5</sup> also taken over into O.P. as *kāsa-ka* "semi-precious stone."

- All of this is followed by the spread into Greater Iran of the earliest Iranians (c. 1000 BCE, Hintze 1998, cf. K. Hoffmann 1976-92 [= 1941], for some pre-Ir. names in the RV), with the introduction of E. Iranian (Avestan) into E. Iran (1200/1000 BCE -- note the overlap with AV *Balhika* "Bactria", Witzel 1980). The movement of the West Iranian tribes, Median and Persian, into W. Iran, is later still, c. 900-700 BCE.<sup>6</sup> Lamberg-

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<sup>5</sup> However, this may also be a post-Rgvedic loan from these isolated mountain languages, the archaic third branch of the Indo-Iranians (Morgenstierne 1973) that has survived in the mountains of northeast Afghanistan and in neighboring Chitral (Pakistan). Note O.P. *kāsaka* "semi-precious stone", *kāsaka kapauta* "lapis lazuli," and *si<sup>n</sup> kabru* "carnelian" described as brought from Sogdia, and *kāsaka axšaina* "from Choresmia" (DSf 37-40). One would expect Bactria/Badakhshan.

<sup>6</sup> It remains to be investigated whether the Persians (*Pārsa* < \**pārc' va-*) are related to

Karlovsky (2002: 74) stresses the fact that the spread of BMAC materials cannot be linked to the later archaeological developments on the Iranian plateau in the later 2nd and 1st millennium as would be required by the spread of the Iranian speaking groups.<sup>7</sup>

In sum, as far as South Asia is concerned, it can now be stated more securely that speakers of an IE language, early OIA (pre-Rgvedic) entered the Greater Panjab from Afghanistan, acquired local words from the Northern Indus dialect (such as *śaṇa*, *lāṅgala*, *vrihi*, *godhūma*, *kaṅgu*, *Gandhāra*, Witzel 1999a,b). About the same time(?) speakers of Proto-Dravidian entered Sindh, acquired related words from the southern Indus dialect (*gōnu*, *ñāñcil*, *variñci*, *godī*, *kaṅku/kampu*), and perhaps it was they who brought the first horses to South Asia (Pirak, Eastern Baluchistan near the Bolān Pass, c. 1800 BCE, see Allchin 1995: 31, Kenoyer 1998: 78, Witzel 1999a,b), rather than the IA(?) Bhalānas (RV 7.18), whose name seems to be reflected by the modern Iranian place name.

A similar scenario for Greater Iran cannot yet be written as the relevant linguistic investigations have not yet been carried out: we do not

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the Parśu (< \**parc' u*) of the Vedic texts (RV, BŚS), where they are located next to the Arattas (*āratta*, *arāṭṭa*), thus in Afghanistan. These are likely to be the ancestors of the Pashto (*paštō* < \**-rš/\*xšt-* < \**parštu/parštawā* or [improbably] < \**paxšt-*; or cf. Avest. *paršta* "back" thus, "the hill people"; see Morgenstierne 1927: 61; Pashto has often been compared with Herodotus' *Paktues* which however cannot reflect expected *-ršt-*, only *-xšt-*, at the time). Notably, whether \**parc' va* is connected with Pashto or not, Old Persian *-s-* (as in < *asa* "horse") < \**śś* < *śv* < *c' v* < IE *k'w* shares the development of Iir. *c' v* > *śś* with Saka *-śś-*, while the rest of Iranian has *-sp-* (*aspa*) and Vedic has *-śv-* (*aśva*). This feature and others (cf. further grammatical features in Witzel 1989, ch. 10) may point to an ultimately northeastern (Bactrian?) rather than a northwestern (Urartu/Median) origin of O.P., and thus to a track of immigration from the NE via Media to the Persis, somewhat like Nichols' (1997-98) "southern trajectory". A northeastern origin would be close to the location of the Ved. *Parśu*.

<sup>7</sup> The question of the location and spread of early Iranian is not discussed here. It is likely (see above) that this form of Iir. developed further north in the steppes and spread both westwards (Scythians) and eastwards (Saka) as well as southwards (E. Iranian), and still later, also south-westwards (W. Iranian: Median, Persian). This took place only after an early southward move of the (pre-)OIAs from the northern steppes, as suggested by Burrow in 1973; cf. Lubotsky 2001: 308 sq. and Chlenova (1984) who "shows a correspondence between Iranian place names and the distribution of the Timber Grave, Andronovo, and related cultural groups. Place names of Indo-Aryan character are scattered or absent in that area" (Makkay in Lamberg-Karlovsky 2002: 79).

have a comprehensive study of loan words in early Iranian (and Hurrite/Urartian, Elamite, etc.). Instead, it has often been alleged that Old Iranian has fewer loan words from the local substrates than Rgvedic, all in spite of the well attested pre-Iir. archaeological cultures of Greater Iran, from Tepe Hissar to Mundigak. The assumption is a fallacy, as a closer look at the Avestan vocabulary will indicate (see n. 158 for the direction to be taken.) Scholars apparently have been misled by the glaring archaisms of Zoroaster's IE poetic language (cf. Kuiper 1979) as to assume a "pure" Iir. language.

The whole process of "Aryanization" in Iran and India, progressing with a large degree of intervening bilingualism, may be summed up in the words of Polomé (1990: 337). He discusses the introduction of Indo-European into Northern Europe, supplanting the local language, but not without leaving many substrate words (and ideas) with the emerging Proto-Germanic speaking peoples:

whichever way .... [the area] was indo-europeanized, the new population initially constituted a mere *adstratum* or *superstratum* to the long-established set of peoples. When and why the language shift took place remains a widely open question, but one thing is certain : it did not take place without leaving clear traces of the prior language(s) in the lexicon.

To which we may add: and, of customs, beliefs, rituals, religion,<sup>8</sup> and material culture.

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<sup>8</sup> For an initial discussion see Witzel (forthc. b); to be added is the comparison of a shamanistic BMAC seal and its Hindukush and Vedic relationships, see n. 200.