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## **Aryan and non-Aryan Names in Vedic India. Data for the linguistic situation, c. 1900-500 B.C..**

### **§ 1. Introduction**

To describe and interpret the linguistic situation in Northern India<sup>1</sup> in the second and the early first millennium B.C. is a difficult undertaking. We cannot yet read and interpret the Indus script with any degree of certainty, and we do not even know the language(s) underlying these inscriptions. Consequently, we can use only data from

- \* archaeology, which provides, by now, a host of data; however, they are often ambiguous as to the social and, by their very nature, as to the linguistic nature of their bearers;

- \* testimony of the Vedic texts, which are restricted, for the most part, to just one of the several groups of people that inhabited Northern India. But it is precisely the linguistic facts which often provide the only independent measure to localize and date the texts;

- \* the testimony of the languages that have been spoken in South Asia for the past four thousand years and have left traces in the older texts. Apart from Vedic Skt., such sources are scarce for the older periods, i.e. the 2 millennia B.C. However, scholarly attention is too much focused on the early Vedic texts and on archaeology. Early Buddhist sources from the end of the first millennium B.C., as well as early Jaina sources and the Epics (with still undetermined dates of their various strata) must be compared as well, though with caution.

The amount of attention paid to Vedic Skt. and to the supposed Dravidian of the Indus seals has tended to overshadow other possible aspects of the situation in early, (post-)R̥gvedic India. We should re-focus on the multitude of possibilities in this period. Note that for decades Pinnow (1953, 221), Kuiper (1955, 1991), Burrow 1955, Southworth (1979, 1986), and Masica (1979) have mentioned languages other than Dravidian and Munda as possibilities. Kuiper's list of some 300 possible 'foreign words' in the RV bears ample testimony to the influence of the local substrate on the lexicon of the speakers of Indo-Aryan, and even on the hieratic language of the RV poets.

However, "common objections are that we cannot even identify most of those non-IA languages, now died out, or that we have no Dravidian or Munda documents from that time (Kuiper 1991, i)." In other words, the evidence for the various languages spoken in early South Asia that appear in (all of) the Vedic texts needs to be re-investigated and re-evaluated against the background of the attested non-IA languages (Burušaski, Dravidian, Munda, Tibeto-Burmese) and some remnant languages (such as Kusunda, Nahali). This evidence must be compared with the testimony from non-IA forms in the Vedic texts, whose typologies point to several languages that have long disappeared. This applies especially to the loan words, and the names of persons, of clans/ tribes, of localities and of rivers (also of mountains, lakes).

In this paper, attention is limited to the names found in the northern part of South Asia for which the evidence is earliest and most copious. However, "it should be recognized

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<sup>1</sup> For a characterization see Pinnow 1953: 220-222; Burrow 1955, Emeneau 1956, Kuiper 1967, 1991, Southworth 1979, 1990, 1995.

that [Vedic] Sanskrit had long been *an Indian language* when it made its appearance in history. The adaptations to foreign linguistic patterns cannot be dismissed." (K. 94). There is a possible time frame of up to 700 years for the Rgvedic period, during which the development of such phenomena could have taken place, i.e. from the end of the Indus civilization at c. 1900 B.C. to c. 1200 B.C., the occurrence of iron and its attestation in the next following text, the Atharvaveda.

For Central India I point to Southworth's study of Maharashtrian place names (in this volume). The South is in need of a separate investigation by Dravidianists (cf. Nachimuthu 1987): it must be determined exactly which words and names actually are of Dravidian origin in the areas of the major Dravidian languages, and secondly, what is preserved by them of a pre-Dravidian substratum, both in the early Dravidian texts, in more recent sources and in place names. Kuiper's and Southworth's investigations have indicated that there are early loans from Munda,<sup>2</sup> and we can expect influence from such languages as Proto-Nahali, Proto-Vedda.

For want of space, only a relatively brief summary of all languages involved is presented here; details will follow elsewhere.

## § 2. Overview of the languages involved

Actually *attested* for the period are only OIA<sup>3</sup> in its Vedic form and the yet unknown language(s) of the Indus seals. Other texts are of later redaction to be used as *primary* evidence for the present purpose (e.g., Pāli canon or the Epics),<sup>4</sup> though they should certainly be compared, -- also as a check on the local form of names when they are different from the archaizing tendencies of Vedic.<sup>5</sup>

Of the non-IA languages spoken then, there is only indirect attestation: the etyma of persons, tribes, rivers, mountains, and loan words -- mostly relating to agriculture, animals, plants, and music (Kuiper 1991).

They must go back, not only to Dravidian and Munda, but also to one or more unknown languages, Masica's "language X" which has also supplied, for example some 30% of the Hindī words for agricultural plants (Masica 1979).

In the present paper, those items known or discernible in the Vedic texts are presented, with stress on their *geographical location* (based on a new study of the location of the Vedic texts)<sup>6</sup> -- and juxtaposed to the present distribution of languages.

There are indications in the Vedic texts of the four great language families present in modern South Asia: Indo-European, Dravidian, Austro-Asiatic, Tibeto-Burmese, and there are others pointing to remnants of some other families. These are isolates among the world's

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<sup>2</sup> Such as the word for 'plough', see below.

<sup>3</sup>For the oldest period, see Kuiper 1955, 1991; for the rest of the Vedic period, we need a detailed study, -- with the exception of some river names (Pinnow 1953).

<sup>4</sup>Pāli is later than c. 400 B.C.; the texts were probably collected in the 3rd cent. The Epic definitely is too late; its Gupta time redaction has latecomers such as the Hara-Hūṇa (c. 500 AD), Pahlava, Śaka, Yavana, etc., and an uncertain date of its various text portions (cf. Witzel 1990, 1995).

<sup>5</sup> Pinnow 1953, on *śaravatī* etc.

<sup>6</sup> See Witzel 1986, cf. 1989.

languages<sup>7</sup> and include, among less clear cases: Buruṣaski<sup>8</sup> in the Hunza area of N. Pakistan, Kusunda<sup>9</sup> in the hills of Central Nepal, perhaps the substrate of the Tharu living in the Indian and Nepalese Tarai jungles at the foothills of the Himalayas, and<sup>10</sup> the substrate of the Vedda language in Sri Lanka. One would also like to know a little more about the nomadic Rauṭe or Ban Rājas of Nepal, hunters and gatherers who now speak a Tibeto-Burmese language.<sup>11</sup> The lowest substrate level ("language Y") of the central Indian Nahali<sup>12</sup> is an even more interesting case.<sup>13</sup>

Nahali is spoken by a few thousand people on the Tapti River, N.W. of Ellichpur in Madhya Pradesh. In this language we find, below its present form Indo-Aryan appearance, at successively "lower" levels, traces of Dravidian, and Munda words. According to Kuiper<sup>14</sup> Nahali vocabulary has 36% of Kurku (Munda) and 9% of Dravidian words.<sup>15</sup> The oldest substrate level (here called language "Y") is represented by some 24% of Nahali words that do not have any cognates in India; they must be regarded as belonging to the oldest level of languages traceable in India.<sup>16</sup>

It is typical, as in other parts of the world, that the older languages, such as the substrate language "Y" of Nahali, are represented on the map as islands in a sea of newer languages. In mountaineous terrain, e.g. in the Himalayas or southern China, but even in

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<sup>7</sup> Barring such omni-comparativist undertakings as those of the Pan-Gaeian/ "African Eve" linguists.

<sup>8</sup> For a possible early attestation, see O. von Hinüber, 1980, 1989 s.v. *puruṣa* (n. 33 below).-- For an earlier location of Proto-Buruṣaski in the plains of NW South Asia, see P.W. Schmid, 1926, 44sq., Pinnow 1953, 221; cf. Tikkanen 1988. -- For possible loans (both directions?), see below n. 34. Tikkanen 1988: 320 sqq. even assumes a pre-Buruṣaski substrate in NW South Asia

<sup>9</sup> T. Toba 1971; J. Reinhard 1969, 89-106.

<sup>10</sup> For other studies, see B.C. Mazumdar 1932, W. Koppers 1948, R. Shafer 1974: 10 sqq. (Nahali, Kusunda, Buruṣaski), S. Bhattacharya 1957, T. Burrow 1955, 1958; Fürer Haimendorf 1943, 1945, 1956; R. Shafer, 1966: 145, n.3. For a Muṇḍa substratum in some Tib.-Burm. languages of the Himalayas, see S. Konow 1905, refuted by P.K. Benedict 1972: 7, n. 23.

<sup>11</sup> D.B. Bista, 1976, esp. p. 15, and a Swadesh word list, p. 19-21; J. Reinhard 1974. The Rauṭe may represent a regressive group such as the Austronesian Tasaday in S. Mindanao.

<sup>12</sup> The people are also called Nihāl or Nāhal (first 'detected' as unique by R. Shaffer 1940), are found in: Hemacandra's Grammar as *lāhala*; Padma Pur. *nāhalaka*, with *bhilla*, as mountain/jungle tribe; Puṣpadanta's Harivaṃśapurāṇa as *nāhala*, synonym of *bhilla*, *savara* (Berger 1959: 35); also in Vikarmaṅkadevacaritra of Bilhaṇa, Rājasekhara's drama *Bālarāmāyaṇa* (on the Narmadā). -- Berger wants to identify them with the *ḍahala*, (etc.) in inscriptions of the Kalacuri dynasty of Tripurī and in Albiruni. All of this is c. 400 km off from the modern eastern Nahalis near *Nimar*. -- Berger also identifies the name of the *Daśārṇa* with that of the *ḍahala*, already in Periplus as *Dosarēnē*. -- Further *Daśeraka*/*Dāṣeraka* from Merwar; and also *Daśārha*/Pkt. *Dasāra*; *Niśāda* / Pāli *nesāda* 'hunter', *dasra* lex., 'hunter'; S. Bhattacharya, Field notes on Nahali, *Indian Linguistics* 17, 1957, 245-258; Shaffer 1954: 349 wanted to see it as the original language of the Bhil, who now speak Gujarati-like IA (W. Koppers 1948: 23).

<sup>13</sup> Note that all of these languages are possible candidates for the language of the Indus inscriptions.

<sup>14</sup> See F.B.J. Kuiper 1962, 50; and Kuiper, 1966, 96-192.

<sup>15</sup> Kuiper pointed out an older Austroasiatic level, some Dhimal (E. Himalayan Tib.-Burm.) and S.E. Asian words. K.H. Pinnow derives the Nahali verbal system directly from Proto-Munda.

<sup>16</sup> The linguistic relationship of this substrate is untraced. Kuiper has pointed out some superficial similarities with the equally isolated Ainu language of N. Japan. It would be useful to compare this with Masica's Language "X".

the hills of central India, the older languages appear at successively higher altitudes, while the newcomers occupy the more fertile valleys and lower terrains.<sup>17</sup>

This sort of evidence suggests, just as in other parts of the world, successive levels of immigration by speakers of the several large language families involved (Indo-European, Dravidian, Austro-Asiatic, Tibeto-Burmese) and a gradual retreat of the speakers of the older languages into inaccessible areas such as hills and jungles. On the other hand, there also is the successive taking over, as Pidgins and adaptation as Creole of the newly immigrant languages by populations which stayed in their old habitat.<sup>18</sup>

The situation in early northern India cannot have been very different from the pattern known from other parts of the world. There are clear indications, to be detailed below, that the speakers of Ṛgvedic Sanskrit knew and interacted with speakers of various languages, including Dravidian, Munda (Kuiper 1991: 39sq., see below!)<sup>19</sup> and at least one unknown language (perhaps the ancestor language of the agricultural Hindi words coming from "X").<sup>20</sup> In the AV and in later Vedic texts we even have some indications of Tibeto-Burmese.<sup>21</sup> Other evidence points to some more unknown, otherwise unattested languages.<sup>22</sup>

### § 3. Loan words in Vedic texts

To indicate this, a comprehensive investigation of the Vedic texts is necessary, only a brief excerpt of which can be given here. The fairly large number of loan words from various non-IA languages is immediately visible by taking a glance at M. Mayrhofer's new *Wörterbuch des Altindoarischen*: many entries are labeled '*unklar, wohl Fremdwort*,' etc.

Among the known languages, there is, first of all, OIA, which is, however, not uniform at all. We can discern various, non-standard dialects of Vedic (Witzel 1989). Already the RV has quite a number of dialect forms. (Emeneau 1966, G. Pinault 1989: 45 sqq, Scharfe 1996, *sūre duhitā*, with zero grade of *sva*r, EWA II 794). The same is visible in the post-Ṛgvedic texts (Witzel 1989). At the end of the Vedic period, when Middle Indian

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<sup>17</sup> Cf. Witzel 1993 for Nepal.

<sup>18</sup> More on this question, below.

<sup>19</sup> "...prefixes. They are unknown in Dravidian but were common in Austro-Asiatic. They may also have been characteristic of other Indian languages that have disappeared." (In mod. Munda only some petrified relics...). "The occurrence of Munda borrowings in the Rigveda raises some questions. According to some scholars Munda was never spoken west of Orissa, Bihar, Madhya Pradesh and eastern Maharashtra (Burrow 1958, quoted by Southworth 1979, 200). The obvious occurrence of Old Munda names in the Rigveda points to the conclusion that this statement should be revised or that some parts of the Rigveda (e.g., book VIII, see p. 16) stem from eastern parts of North India." (Kuiper 1991)

<sup>20</sup> Kuiper 1991: 1 recapitulating Kuiper 1955: 137: "We should not 'suppose that all foreign Rigvedic words to be explainable from either Dravidian or Munda. Many, indeed, may derive from different but unknown sources.'" Similarly, Kuiper 1991: 4: "Indo-Aryan seems to have borrowed in the Rigvedic period from other languages, which have disappeared"; see: F.B.J. Kuiper 1948, 1955: 137-185, 1962, 1991; Emeneau 1956.

<sup>21</sup> For example, the name of the *Kirāta*, AV+ (see below), *Kosala*, the River *Kosi* (below), words for cooked rice in NIA (*cāmal*, *cāval*, CDIAL 4749, but cf. Pr.Austro-Thai \**Csamaq*, Benedict 1990: 175), cf. also *pīpīla* 'ant' and Tib. *p'yi*, EWA II 133; see Witzel 1993.

<sup>22</sup> This may include many of Kuiper's non-IA words in the RV.

dialects are already well attested, Patañjali quotes, in his *Mahābhāṣya*, some OIA dialect forms such as *śaśa* : *ṣaśa* 1.1.14: 14.19, *goṇī* I: 2.24, *gopotalikā* I: 2.24, 5.22, *dātra* (*lavanārthe*, among the easterners) I: 9.27, *śavati* (Kamboja, see below), *raṃhati* (eastern), *hammati* (among the Surāṣṭras) I: 9.26. A later text, Śabara Bhāṣya 1.3.5.10, adds a few "mleccha words", i.e. Dravidian terms such as *pika* 'kokila, cuckoo' (DED 4126; cf. Pat. Mbh. 4.1.63: 226.2 who does not allow \**pikī* 'a bird'), *nema* 'ardha', *sata* 'dārumaya pātra, parimaṇḍala śatacchidra, vessel' (DED 2306), *tāmarasa* 'padma'.

Second, various dialects of Old Iranian were bordering the South Asian plains. The Avestan texts indicate a number of E. Iranian dialects in Afghanistan and on the boundaries of the Panjab and of Sindh.<sup>23</sup> Both OIA and OIr were mutually understandable perhaps in the way speakers of Dutch and German can, after a few weeks stay in the country, understand each others language but cannot quite speak it.

At the same time we should not overlook the possibility of early coexistence and contact between the OIA and OIr dialects, even after their split along the *s/h* isogloss line. There is an overlap in grammatical forms that occur, successively in Ṛgvedic and post-Ṛgvedic OIA and OIr. This is something that cannot be pursued here in detail. These East Iranian dialects include those close to Young Avestan (Bactrian, Kamboja, Varṇu, Proto-Pashto, O.P. dialects)<sup>24</sup>. Of special interest are the two words for script in Pāṇini: *dipi* ( < O.P. *dipi* ) and *lipi* ( < \*EIr.). Even the modern Pashto seems to be pre-figured in the name of a NW tribe, the *Parśu* (BŚS) > Pašto.

In passing it should be mentioned that there are a number of words common to IA and OIr which are not easily etymologizable<sup>25</sup> and must go back to a W. Central Asian substrate that affected Proto-Indo-Aryan or Common IIr<sup>26</sup> (in the Bactria-Margiana area?).

<sup>23</sup> See Videvdaḥ 1; cf. Witzel, paper at Miami meeting of AOS, 1997.

<sup>24</sup> *Sindhu* > *Həṇḍu/Handu*, *Sarayu* > *Harōiū*, *Kanīta*, *Kaśu*, *Tirindra* in RV; *Bāxδī-* in local Bactrian Avestan :: *Balhi(ka)* in AV (Witzel 1980b); *Kamboja* :: *Ka<sup>m</sup>būjiya* in O.P.; *śavati* in Pat., Mahābh. and Nirukta, as Kamboja word :: YAv. *šauuaiti*; *kanthaka* - 'citizen' of Bannu (Varṇu) instead of \**kanthika*, Pāṇini 4.2.103; note that EWA II 734 *śīsa* AV+ 'lead' assumes a SW- Iranian loanword \**siṣa* 'white' (= *śvitra*); while this would be a little too early, cf. nevertheless YAv. *Bāxδī* > *balhika*.

<sup>25</sup> Cf. Kuiper, 1997: 153

<sup>26</sup> Common IIr words of this type and early loans include: (1) *iṣṭakā*, *iṣṭikā* 'brick' : Avest. *iṣṭiia*, *zəmoištuua* 'clay brick'; OP. *iṣṭi*, MP., NP. *xišt*; > Toch. *iścem* 'clay?'; (2) *kapota* 'pigeon' : O.P. *kapauta* 'blue'; Khot. *kavūta* 'blue', MP. *kabōd* 'grey-blue', *kabōtar* 'pigeon'; (3) *kadru* 'red-brown', *Kadrū* 'a snake deity' : Avest. *kadruua.aspa* 'with brown horses'; (4) *liṅga* 'mark, penis' : Avest. *haptō-iriṅga* 'the seven marks' = the seven stars of the Great Bear/Wain (*ursa maior*) :: Ved. *ṛkṣāḥ* 'the bears' RV, ŚB > *sapta ṛṣayaḥ* 'the seven Ṛṣis'; (5) *kubja*, *kubhra* 'crooked' ~ *kunṭha* 'defective' CDIAL 3260, 3290 ~ Iran: NP. *kund* Bal. *kunt*; perhaps also (6) *piṇḍa* 'lump' Khotan. *piṇḍaa*, Arm. *pind* 'compact, firm' < Iran. (EWA II, 128); perhaps also (7) *khaḍga* 'rhinoceros' MS+, EWA 443, cf. N.P. *karka-dān*, Arab. *karkaddan*, Aelianus *kartázōnos* (\**kargazōnos*) 'Indian rhinoceros', all from a pre-Aryan source? However, cf. Kuiper (as Munda) 1948: 136 sqq.

Other common IIr words are very old loans from an unknown Central Asian substrate: (1) *siṃha* 'lion' : Khvar. *sary*, Parth. *šarg*, Khot. *sarau*; O.Chin. \**suān-ŋei* > Jpn. *shi*-(shi), Tib. *señ-ge*; cf. also Armen. *inc*, *inj* 'leopard', Toch. *śīśāk*, *śecake* 'lion' which all(?) stem from \*\**sengha*? (Henning: \**sĵengha*); (2) *prḍaku* 'snake' RV, *prḍakū* AV, *prḍāku* BŚS (EWA II 163), with Munda prefix *pər*?; cf. *sṛḍaku* 'lizard' lex., *Sṛḍaku/gu* MS (with Munda prefix *sṛ*-+ *dak* 'water?'), *Sṛdara* 'snake', etc., KEWA s.v. *sṛḍaku*, NIA: W.Panj. *parṛā*, Khovar *purdūm* < \**prḍhūma*? KEWA II 335, CDIAL 8362, Bur. (Yasin) *phúrdum* :: Iran. NP. *palang* 'leopard' all < \*\**pard* 'wild animal?', > Gr. *párdalis*, *párdos*, *léo-pardos* 'leopard'; \*\**parθ* > Gr. *pánthēr*, Skt. *puṇḍarīka* KEWA II 301; (3) *śaṇa* 'hemp, cannabis' : MP. *šan* 'hemp', Khot. *kaṃha*, Osset. *goen*, *goenoe*, Gr. *kánnabis*, Russ. Church Sl. *konoplja*;

This substrate has also influenced several of the surrounding language areas (Tibeto-Burm., Chinese, IE).<sup>27</sup>

There also is some evidence of the existence of the third branch of IIR, Nuristani or Kafiri (K. Hoffmann 1975-1992),<sup>28</sup> apparently in the present habitat of the Kafirs in N.E. Afghanistan and in Chitral in Pakistan.

Among the northwestern peculiarities there is also the strange interchange between *k/ś*, which does not reflect the old Eastern IE pattern (*k' > ś/ś*) but is limited to non-IA words, such as *karkoṭa/śarkoṭa* (cf. Kuiper 1991, 71, 44).<sup>29</sup> Apparently, in the NW area, the pronunciation of *k* was close to that of palatal sibilant *ś*, thus either *k'* or *ky*.<sup>30</sup> This is not a case of secondary palatalization (as it is found not only before *i* but even before *-a-*). This

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Germ. *Hanf* < \**kanap*-.; note that the substrate which delivered the Ved. and M.P. words must have had the same palatal quality of \**k* which lead to a Vedic realization *k/ś*, was noted, above, in *Karkōṭa/Śarkoṭa*; (4) *saṣarpa* 'mustard' Br+ > MIA, NIA *sāsapa* 'mustard seed', Khot. *śśaśvāna*, Parth. *šyṣ-d'n*, Sodg. *šywp-δn*, MP. *span-dān*, NP. *siṭan-dān* 'mustard seed'; Gr. *sinapi*; < pre-Iran. \**sinšapa* < \*\**sinsap* (Henning *s1ens2ap*); - also: Malay *sawi*, *sasawi*, or Austro-As. \**sapi*, *sV(r)-sapi*; further cf. EWA 712, 727: *śimśāpā* RV+ 'Dalbergia sissoo' NP. *šīšam*, Pashto *šawa* < \**śīšampā*, CDIAL 12424, Elam. *še-iš-šā-ba-ut* = /*šeššap*/; (5) *madhu* 'sweet, honey, mead', EWA II 302, KEWA II 570: Avest. *maḍu*, Sogdh. *mδw* 'wine', Khot. *mau* 'wine', (cf. Bur. *mel* 'wine, from grapes'); Osset. digor *mud* 'honey', N.P. *mai* 'wine'; Gr. *méthui* 'wine', OIr. *mid*, OHG *metu*, Lith. *medūs*, OChSl. *medŭ*, Toch B *mit* 'honey'; further: Uralic \**mese*, *mete*; Finn. *mete*, Hung. *méz* 'honey', Chin. *mi* < \**m<sup>i</sup>et*, Sino-Kor. *mil*, Jpn. *mitsu* < \**mit(u)*; Iran. \**maḍu* > Turk., Mong. *bal* 'honey'; Arab. *mādi*?; > Toch B *mot* 'intoxicating drink'; ~ (extra-)IE \*\**melit*: Gr. *méli*, Hitt. *milit*; cf. also, still further afield, in Polynesia: Samoan *melī*, Hawaiian *mele*, *melī*; *mele*, *melemele* 'yellow', Maori *miere*; Tongan *melie* 'sweetness, sweet, delicious', Rarotongan *melī* 'honey', Mangareva *mere* 'honey'.

From W.Asia, however, stem: (1) *godhūma* 'wheat'; Nur. *gūm*; Hi. *gohū/gehū/gahū* :: Avest. *gaṇtuma*, MP, NP *gandum*, Pashto *yanəm* < \**gandūma*?, Khot. *ganama* < \**gamdama*, Shughni *žindam*; cf. Burush. *gur*, Pl. *guriṇ*, *gurey*; ultimately, from Near Eastern languages: Semit. \**ḥnt*, Hitt. *kant* (EWA 499); however, Brahui *xolum*, with Tel. *gōḍi* is the Drav. re-interpretation of the word, just as in Ved. *go-dhūma* 'cow smoke' (cf. DED 2226 Konda etc. *goyi* 'smoke'). -- cf. also the overlap with Dravidian: *gardabha* 'donkey', EWA 473 :: Toch B *kercaṇo* :: DED \**garda* > Tamil *kaṇṭai*, etc. and note that Southworth 1979: 203, 228 sq., 1990: 222-3, 1995 reconstructs other early contacts between Dravidian and IA outside the subcontinent, including \**tanu* 'self'. - Finally, note Altaic connections, (n. 27, 34) and some with S.E and E. Asia, n. 48.

<sup>27</sup> Note also Altaic connections, e.g. KEWA s.v. *paraśu*; cf. Veenker 1994.

<sup>28</sup> Ved. *kācā* 'pearl', Hoffmann, AZI 827 sqq. instead of RV *kṛśana*, Skt. *muktā*; Nur. \**kāt's'a* > Ved. *kāca*, O.P. *kāsaka*, a semi-precious stone from Sogdiana/Xorezm. -- Some of the place names reported by Alexander's historians and other Greek sources may fit the Kafiri (and also a Proto-Kashmiri) pattern, for example *Kaśmīra*: Gr. *Kaspature* which is attested from early on as Pali *Kasmīra*, Patañjali, Mahabhaṣya *Kaśmīra*, Epic *Kaśmīra*, but Kashmiri *Kāšīr* (Witzel 1994). Further, names in *-aśva*, if not heard by the Greeks from NW/E. Iranian interpreters (Mede, Avest. *aspa*); note *Aspakenoi* which can be the Greek pronunciation of bilabial *f* in Nuristani (Kafiri) *asf(a)* 'horse'; note the contrast to the Prakṛtic form: *Assakenoi* which points to \**aśvaka*-.

<sup>29</sup> *Karkoṭa* RVKh+ / *Śarkoṭa* PS, with Munda prefix \**śər*? Cf. Kuiper 1991 on *Sṛ-binda*, *Kur(u)-vinda*; note the instability of *k/ś* (cf. below); cf. also *Śarku* AV 'a demon'. -- An earlier case may be that of RV *kīsta-* / *śīṣṭa*, if the identity of the two words can be established. The ultimate source of this may be Proto-Burušaski, cf. the Bur. words noted below, n. 34: Bur. *goro* 'stone': Ved. *śar-karā*, -a. Further: *kambu* 'shell' Ep., *kambūka* 'husk' AV / *Śambu* 'name of a man' NidānaS, ĀśvSS, *Śambu-putra* AV, *śambu(ka)* lex., *śambūka* 'shell' class. Skt.; -- *Śambara*, 'a demon, demonic adversary' RV+, *śambara* RV (note, however, < \**Samvara*, Parpola 1997) / *kambala* 'blanket' AV+ > Drav.: Tam. *kampalī* 'blanket'; however, note also, *kambara* 'spotty' Up., *kambalika* 'spottiness' JB; cf. EWA I 318 s.v. *karvara*, *karbara* 'spotty' lex.

<sup>30</sup> The case of Nuristani. \**kāt's'a* > Ved. *kāca* is different: *k` > c` > ś/s*.

clearly points to the non-IA origin of words whose pronunciation was taken over into Vedic and furnishes one item of the substrate language "X" (or "Z"?)

The case of an old W. IE substrate in the Pahari language Bangani is still unsolved.<sup>31</sup>

However, there is some evidence of other remnant languages in the mountainous areas north of Gandhāra. The best Soma, *maujavata*-, is supposed to come from the \**mūja-vant* mountain,<sup>32</sup> "having *mūja*/*Mūja* (people)". This can be compared to Avestan, *Muža* (Barthomolae, col. 1190): *Parō.dasma*, son of *Dāštāyni*, a *Muža* from *Muža* country; it may also be compared to *Mozontes* in Plinius 6.20(23), the present name *Munjān*, an area north of the Hindukush, perhaps even the modern Turkish name *Muz Tagh Ata* 'Ice Mountain-Father' for the mountain range dividing Tajikistan and China (Hsinking), and finally, the name of the inhabitants of Hunza, the Burušo, if from \**mruša*/*mruša* (note early Tib. *Bru-ža*). Their name is found in 10th cent. inscriptions as *Prūšava* (Jettmar 1989: xxxvii) and probably Sanskritized in mid-first millennium inscriptions as *puruša*.<sup>33</sup> If it is indeed Proto-Burušaski,<sup>34</sup> note should be taken of the word for river in Burušaski, *sinda* (Pinnow, 1953), one of the possible sources for Ved. *Sindhu* /Avestan *Həndu*<sup>35</sup> (but see below).

In the neighboring area of Kashmir, we do not have old attestations as the area may not have been Vedic from early on (Witzel 1994) but was inhabited by 'Piśācas and Nāgas' (Nīlamata Pur). In this very conservative area,<sup>36</sup> there are some pre-OIA place names in *-muša*,<sup>37</sup> such as *Khonamuša*, *Katīmuša*, *Rāmuša*; they may be compared to Burušaski *muš*

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<sup>31</sup> Zoller 1988, 1989, 1993, S. Sharma and G. van Driem 1996, 1997; Anvita Abbi (Jawaharlal Nehru University, New Delhi) recognizes three layers in Bangani: words of the type *ḍakra*, *lakti*, *gosti*, the general NIA Pahari level, and recent loans from Hindi etc. According to H.H. Hock, the following words are clearly western IE: *ḡnō*~ 'unborn' (not Skt. *a-ja*) and *ḡñō* 'give birth' (not Skt. *jan*), *kōtrō* 'fight' (not Skt. *śatru*), *ḍakru* 'tear' (not Skt. *āśru*); the initial *d*- is W. IE, cf. Gk. *dakru*, Engl. *tear*, as opposed to E. IE : Skt. *āśru*, Avest. *asru*, Lith. *ašara*. For details see: H.H. Hock at <http://www-personal.umich.edu/~pehook/bangani.html>. -- I draw attention to the preservation of some remarkable OIA, MIA, NIA features in loan words in Kanauri, a Tib-Burm. language of the same Himalayan, see D.D. Sharma 1986; cf. n. 29, 34 on Burušaski.

<sup>32</sup> In post-Vedic normalized as *Muñjavant*.

<sup>33</sup> As suggested by O. v. Hinüber (oral comm.) a few years ago. Cf. further unexplainable names of the area, in v. Hinüber 1980: 67, 1989: 62.- On Tib. *bruža* and *burušo* see Poucha 1959.

<sup>34</sup> See Lorimer 1935-38, Morin 1989, H. Berger, 1974, 1992. -- Tikkanen 1988 mentions as early loans: Ved. *kilāla* / Class. *kīlāṭa* 'a milk product, alcohol?' (RV+), Bur. *kīlāy* 'curds'; Ved. *meṣa* 'sheep', Bur. *mēṣ* 'skin bag' (Slav. *mex*<sup>u</sup>, Lith. *maišas* 'skin bag'). Some other possible loans (both from/ into IA), were incidentally noticed by me: Bur. *baluqá* 'big hammer', cf. "Ural-Altaic" \**paluqa* 'hammer, EWA II, 214 s.v. *paraśu*; the Bur. word is closer to the prehistoric source, the same seems indicated by the Bur. game of 'hammer, scissor, sword' where *baluqa* stands for our 'stone', cf. Berger 1974: 178; compare also CDIAL 7799h *paraśu*, 7947 *parśu*; further *śon* 'blind' (Ved. *kāṇa*); *ḡoro* 'stone' (Ved. *śar-karā*, -a); these words seem to have the same variation of *k/ś* as in *Kar-koṭa*/*Sar-koṭa* (see below); cf. also *ḡupas* 'cotton' (Ved. *kārpāsa*), *ḡoqares* 'raven' (cf. Ved. *kāka*); further(?) *ḡaśú* 'onion' (cf. Ved. *laśuna*), *ḡon* 'quail' (cf. Ved. *laba*?). These few tentative comparisons need further investigation, something that cannot be done here.

<sup>35</sup> Bur. *sinda*, Yasin/Werchikwar dial. *sēnde* (< Shina *sin* ?), Pinnow 1953: 12-13.

<sup>36</sup> It also has kept such old Vedic names as *Abhisāra* (BĀU 3), also known from Alexander's time king *Abisarēs*, in *Dārvābhisāra*, *Naubandha-śikhara*, *Plakṣāprasravaṇa*, *Plakṣāvatarāṇa*, etc.; see Witzel 1994: 280 n. 19 sqq. Cf. below on place names.

<sup>37</sup> In Kashmiri written also as *muša*; *ṣ/ś* represent a Kashmir pronunciation *ṣ*, see Witzel 1994.

"edge", if location on the dry upland sections (*kharewa*) of the valley is intended. Kashmir also has preserved a local river name, the *Ledarī* (see below).

Then, there is the curious Akkadian word *Aratta* for a an eastern country with lapis lazuli. This can be the N. Afghanistan area (Badaxšān) from where it has been exported since the 3rd millennium B.C. at least (Kohl 1978:467). The name is found, apart from the similar one of a Mesopotamian city (*Arattā*), and an adjective (*arattū*, 'in the manner of Aratta, noble'), as that of an area called *Aratta* somewhere to the east of Mesopotamia, probably beyond the Zagros mountains, or at least east of Anšan (W. Persis); it also seems to be the name of a river in the Zagros.

Comparable is the name of a tribe in the neighboring Panjab, the *Aratta* BŚS 18.44 / *Āratta* BŚS 18.13, Mbh. tribe in the Panjab. This could, otherwise, be understood as *Prākṛtism* for *a-rāṣṭra-* (v.l. of BŚS 18.13), cf. the Avestan *a-sāra*, V. 1.19.

Another mountain tribe that has a non-IA name and that is described as 'non-Vedic', are the *Kirāta*. They are known a mountain tribe from the AV onwards, living in caves (VS, TB), and collecting plants (*Kairāta* girls), something typical to this day of the Himalayan belt.<sup>38</sup> Hsuan Ts'ang, Hsiyuki (c. 600 AD)<sup>39</sup> still reports *Kilito* (Karlgren 1923, no. 329-527-1006) people in Kashmir, who had their own king shortly before. A variant of the name may be found in *Kīra(-kāśmīra)* people mentioned in BṛhatS 14.29 at c. 550 AD. About the same time, the *Kirāta* are historically attested in the early inscriptions of Nepal, of the Gupta (Licchavi) period (cf. further details, below).

If these accounts are correct, we may assume a tribe that originally lived in the general area of Kashmir. Their name was then transferred to their eastern neighbors, the Tibeto-Burmese. This kind of transfer is well known, cf. *Veneti* > *Wenden/Winden* = *Slavs*.<sup>40</sup>

Other Himalayan languages can be discerned, though not from Vedic sources. There must have been a settlement of the speakers of Proto-Kusunda in Nepal.<sup>41</sup> The Kusunda are now found, with very few remnant speakers if any, in the central Nepalese hills.<sup>42</sup> The language has not been connected with any other language family. Note however, that there are other names in *-nda* in the area: Mbh. *Kalinda* JB 1.154: § 47 (*with* Gandharva, Piśāca), whence *Kalindī*, the upper course of the Gaṅgā, JB, AB *Pulinda* (cf. Pāli *Bulī*).

In the same general area we may look for a remnant of a north Indian population, the Tharus who practise simple slash and burn agriculture in the swampy jungles of the Tarai lowlands, south of the foothills of the Himalayas in Uttar Pradesh and Nepal. They now speak the languages of their neighbors: Hindi, Awadhi, Bhojpuri, Maithili); a study of the substratum is necessary, but has not been carried out.<sup>43</sup>

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<sup>38</sup> Attested since AV/PS: *Kirāta* VS 30.16, VSK 34.3.3; *Kilata* PB 13.12.5, JB 3.167, ŚB 1.1.4.14 *kilata-ā/akuli/ī*, the two priests of the Asuras), *kirātākulī* JB 190; *Kairātika-* PS 16.16.4a *Kairātikā kumārīkā*, ŚS 10.4.14; *Kailāta* PS 8.2.5. See below.

<sup>39</sup> See T. Funayama 1994: 369.

<sup>40</sup> Such eastward movement is not unheard of. The *Khaśa* (Manu+, mod. *Khas*, the speakers of *khas kurā*, i.e. Nepālī, are attested in S.E. Kashmir foothills at 1150 AD, but by 1600 already in the Kathmandu Valley and have reached, in this century, Sikkim, Assam and Burma. See Witzel 1993.

<sup>41</sup> T. Toba 1971; J. Reinhard 1976 p. 1-21, esp. p. 15; J. Reinhardt and T. Toba 1970.

<sup>42</sup> Hodgson has described them in some detail (Hodgson 1848, 1880).

<sup>43</sup> Cf. Hodgson 1880: 171 sqq. (his words are too close to Nepali and Hindi); cf. Grierson, *Ling Survey* 3, 403; a few words look like a Tib.-Burm. substrate *ti-* 'water', *suitī* 'small river'; further comparisons should be carried out for

Due to the present location of the Tharu, it may be speculated that this substratum may be related to or be identical with the Language "X", which has provided Hindi with some 30% of its agricultural plant names (Masica 1979), e.g. for various types of millet: *kaṅgnī* (CDIAL 2606 \**kaṅkunī*; Tam. *kampu* DED 1242), *kuṭkī*, *kodon*, *khil*, *junhār*, *j(u)wār*, *bājṛā*, *ma(ṇ)ṛūa*, *sāṇwāṇ*; various pulses: *ur(a)d*, *kulthī*, *g(a)wār/guār*, etc.<sup>44</sup>

To sum up Masica's detailed investigation, only 19.4% of the agricultural terms are IA, while those of already IIR origin may be 3.2%, and some 8.2% are recent descriptive formations within Hindi itself. Out of the remaining c. 70% words of non-IA origin, Dravidian etymologies cover only 9.5%, Austro-Asiatic 5.7%,<sup>45</sup> (and more recent loans from Persian with 21.3%, from Chinese, Amerindian, etc. with 2.5%), while the unexplained rest is 31%.

This surprisingly large number of unexplained words from one or more substrate languages extends to other areas, such as designations for 'river', for example, the correlatives of W. Nepali *gād* (vs. general Nepali *kholā*<sup>46</sup>), Munda *gada*, Dravidian Kan. *kaḍḍa* 'pitfall', Brah. *kaṛak* 'hole', CDIAL 285) point to a common source from which these languages have taken their word for 'ravine, river'.<sup>47</sup>

A similar deep substrate is found in the isolated Proto-Nahali language of Central India, which has, below substrates of Dravidian and Munda, that of an unknown language ("Y") which still is present in about a quarter of their words.<sup>48</sup> The Munda element in

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such words as: *yedi* 'brick', *khūdi* 'sugar cane', *tīra* 'afterbirth', *gukhā* 'shaman', *nimak* 'salt', *koṅhila* 'tiger'. The terms for agriculture, however, are of NIA origin: millet *bājṛā*, rice *dhān*, maize *makai*, wheat *gehūm*.

<sup>44</sup> Note that this list does not fit the Kusunda words for millet: *kwā chō*, *mādyi*, *mazyi*. Since we do not know of the prehistory of Kusunda, it may be useful to draw attention to the introduction of maize from S. America. While it usually is called *makai* (Nep.), the Kusunda words for 'millet' are closer to the Amerindian ancestors of the European words for 'maize' (Span. *maíz*): Antill. *maysi*, *mahiz*, Arawak *marise*.

<sup>45</sup> The relatively small percentage of Austro-As. words may be due to the fact that the north Indian terminology was already established by language "X" when Muṇḍa speakers immigrated; differently, Burrow 1968: 328 (see below).

<sup>46</sup> Note that even the *Khaśālī* area southwest of the Kashmir Valley (Rāj.tar. 7. 399, Witzel 1994: 281 n. 44) has several rivers called *-kholā* but not their neighboring areas; *Khaśālī* is the home (see Rāj.Tar.) of the *Khaśa* (Manu, Mbh+) = Nepali *Khas*, *Khas kurā* = now 'Nepālī language'. -- For *kholā* see CDIAL 3945: *kholl* 'to open', *khōlla*, *khōḍa*, *khōra*: Pashai *khol* 'ravine', Panj. *khol* 'cavity, hollow', W. Pah. *khol* 'stream', Hindi *khol* 'cavity, cave', Bih. *khol* 'trough', Assam. *kholabā* 'to hollow out', Or. *kholibā* 'to dig'. - CDIAL 3943 \**khōḷa* 'cavity, hollow'; \**khōlla*, \**khōḍa*, \**khōra*: Paś. *khol* 'ravine', Hi. *khol* 'cavity, cave' etc. -- But a similar word is also found in Dravidian: DED 2137: Tam. *kolli* 'valley', Kan. *kolli*, *kolle* 'bend, corner, gulf, bay', Kod. *kolli* 'small stream with rocky bed', Tulu *kolli* 'bay'; DED 2147 Kan. *koḷḷa* 'deep place', Tulu *kolamē* 'a very deep pit'; note also: Kan. *kaḍḍa* 'pitfall', Brah. *kaṛak* 'hole', CDIAL 2851; cf. Witzel 1993: n. 3. -- Further evidence below s.v. *Gaṇḍakī*, *Gaṅgā*.

<sup>47</sup> See n. 46 and below, n. 148, 160.

<sup>48</sup> Kuiper 1962: 43 sq. : Earlier pan-Asian connections may include the word for 'dog' in Kherwari *seta*, Kurku *cita*, *tsita*, *sita*, with Ainu *seta*, *sita*; for 'monkey': Mundari *sara*, Kurku, Ho *sara* ('baboon'), Dharni Kurku *saraq*, Ainu *saro* (Jpn. *saru*); as well as for 'fire': Nahali *apo*, Ainu *ape*, *apoi*. These seemingly random correspondences, should be investigated further; cf. Witzel, 1997; cf. above on mustard, honey etc.

To be added to the list of S. Asian- S.E. Asian connections are the following: (1) Some Mal.-Pol. cognates, such as Ved. *phala*, Tam. *paz.am* ~ Proto-Austrones. \**paḷam* 'to ripen a fruit' Southworth 1979: 206, but see now Benedict 1990: 197 PrAustrones. \*(*m*)*bu-l-ay* 'fruit' and note CDIAL 9051, 9057, DED 4004 *paru* 'ripen'; and further Munda: Kh. *be'lom*, Santali *bele*, Mu/Ku *bile*, Bh *bili*, Gu *bullo* Pinnow 1959: 120 § 232. (2) Words for 'rice' such as Drav. \**variñci*, Dayak *bari*, Malagasy *wari* but also with Somali, Bantu, which Southworth 1979: 206 explains by sea faring contacts. (3) New. *tu* 'sugar cane', Tagalog *tu* etc. < PrAustrones. \**təbus*. (3) Further:

Nahali (c. 24 %) and some clear indication of Munda words in older Vedic (*lāṅgala*) contradict Burrow's summary (1968, 328) that "these languages in ancient times as well as now were situated in eastern India." (cf. Kuiper 1991, 1962, 1966, Shaffer 1940; Southworth 1979: 200).

Finally, we must assume for the South, where the Veddas represent a surviving specimen of an old population, similar to the Tharus. Their old language has been lost<sup>49</sup> and they now speak Sinhala, but there should be substratum influences which still are to be investigated. Further, the substrates, if any, of such languages as Toda need to be studied (cf. Pinnow 1954).

All of this accords well with Koppers' and Burrow's opinion about the original Central Indian population<sup>50</sup> which both regard as neither Dravidian or Munda. The Nahali and Baiga are remnants of such populations. In sum, "what goes for Central India was originally the case in northern and southern India and the universal adoption of Indo-Aryan in the North and Dravidian in the South have covered up an original linguistic diversity." (Burrow 1968: 332)

In general, what needs to be done in the future is to take Kuiper's non-IA words in the RV, add to them other Vedic evidence of non-IA words (*busa*, *kuśīda*, *Kosala*, *Balbūtha*, *prḍāku*, *lāṅgala*, *mayūra*, etc.), and compare it with Turner's reconstructed IA words that are not found in the texts and must have come from the lower strata of speech. They agree with Kuiper's words in many respects, notably *-ṇḍ-*, *-ll-* etc. (cf. K. Hoffmann 1941, Masica 1979:138)

These words should then be compared by specialists scholars of Dravidian, Munda and the remnant languages such as Buruṣaski, Kusunda, Nahali in order to sort out the remainder. This may show diverse phonetical tendencies, for example a northwestern one of *k/ś*, a Panjab/central one with *-ṭa*, *-ṇḍ-* opposed to a northern one with *-ta*, *-nd* (see below). This, in turn, will lead to a geographical distribution of certain elements (sounds, suffixes) of the underlying substrates and to the establishment of one or more unknown substrate languages. I believe that, even at this stage, we can distinguish between a several of them.<sup>51</sup>

Finally, we briefly turn to the familiar, frequently discussed presence, in the Vedic period, of speakers of Dravidian<sup>52</sup> and Munda in the northern part of the subcontinent.

Dravidian and Munda.

The Dravidian languages, which usually are seen as autochthonous to the subcontinent, nevertheless have been suspected of having an origin outside the

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Hindi *cāwal*, Nep. *cāmal* (cf. Ep. *śāli* 'cooked rice?') etc., CDIAL 4749 \**cāmala* (cf. *tāṇḍula*!) < Tib.-Burm., note Newari *ja*, Lushai *chaw*, etc.; however, note also Benedict 1900: 175: PrAustro-Thai \**Cśamaq* (PrAustrones. \**maq-maq*, PrMiao-Yao \**mam*; for \*C, see p. 51 n. 2: a spirant cons., cf. p. 17); S.K. Chatterji, ZII 9, 31 ( < Tib-Burm., not < AAs.). Further cf. Masica 1976, on connections with Central Asia and Ethiopia and cf. Southworth 1979: 200.

<sup>49</sup> See Geiger 1973, de Silva 1982

<sup>50</sup> Masica 1979: 137, quoting Burrow 1968: 327-32, cf. Zide and Zide 1972: 4; Koppers 1948 on the Bhils.

<sup>51</sup> See in general, Southworth 1974, 1990; J. von Munkwitz-Smith 1995; for unlikely speculations on a W. African connection, A. Winters 1988.

<sup>52</sup> Note that S. K. Chatterji 1926, vol.1, 176 sq. wanted to explain many Bengali place names as Dravidian. Note that Malto and Kurukh are spoken within the borders of W. Bengal.

subcontinent, to the west or northwest.<sup>53</sup> Separately from the question whether the speakers of Brahui were originally settled in Baluchistan or only immigrated into the area during the middle ages, there are settlement areas of North Dravidian speakers in the Vindhya and in Orissa that indicate a far wider spread of Dravidian in northern India in the past. Further, a Dravidian substrate of place names<sup>54</sup> has been shown to exist in Maharashtra<sup>55</sup> (Southworth 1995: 269, 1996), Gujarat<sup>56</sup> and even in Sindh.<sup>57</sup> However, the relationship with Elamite is very much open to discussion and actually denied by Dravidianists (Krishnamurti 1985).

Against this background the investigations by Burrow, Emeneau, Kuiper into Dravidian loanwords in the R̥gveda acquire special significance. In his early work Burrow (1945, 1946, 1947, 1947-48, 1955) listed 26 words in the RV with a Dravidian origin. Emeneau supported some of them, Mayrhofer challenged 8, and Thieme 3 of them (Sjoberg 1992<sup>58</sup>). The 19 remaining ones include:

*kuṇḍa*, *kūṭa*, *daṇḍa*, *ulūkhala*; *phala*, *naḍa/naḷa*, *mayūra* (Tam. *maññai*, *mayil*); *kulpha*; *ukha*; *vriś* (Tam. *viral*, Go. *wirinj*), *kāṇa*, *kuṇāru*; *kulāya*, *bila*, *piṇḍa*; *karambha* 'flour mixed with curds'; *kaṭu(ka)*, *bala*.

Yet even some of these can be challenged. There is a relationship with Iranian in the case of *kuṇḍa* 'vessel' :: Avest. *kunda/-ī*, *kundižā* as names of demons and a Daēuuī, *kāṇa* :: *karəna* 'deaf'/*karəna* 'ear'.

Similarly, the word for 'peacock', Ved. *mayūra*, is more problematic. It is attested since the RV: *mayūra* 'peacock' PS+, *mayūrī* RV, *mayūra-roman* RV, *mayūra-śēpya* RV, and supposed to be a loan from Drav.: Tam. *mayil*, *maññai*, etc., but equally probably a loan from Munda \**mara*, Kharia *ma'ra* 'peacock', Santali, Mundari, Ho *mara* 'peafowl, Pavo cristatus'; Kurku *mara*, Sora *'mārān* ditto, Pinnow 1959: 205 § 90; Skt. *marūka* (lex.) 'peacock, dear, frog, Curcuma Zerumbet' or from language 'X'; cf. also Santali *rak* 'to call, cry'; Mon *mrā* (prefix *ma*-?), Malay *mera* etc.; cf. also Khot. *murāsa* 'peacock' (EWA II 317, KEWA II 587, CDIAL 9865, add. 9865, DED 4642, Bagchi 1929 sqq., 131, Southworth 1979: 191 sqq., 200).

<sup>53</sup>For an original herding culture of Dravidian (Southworth 1979, 1995) see also McAlpin 1979: 180: "PDrav vocabulary is that of a transhumant society where herding dominates", and cf. W. Fairervis 1997 for the Indus civilization. McAlpin sees connections with a W. Asian wheat-barley-goat-cattle-sheep complex (as opposed to a S.E. Asian rice-water buffalo-chicken complex). The evidence "points to Gujarat and on to Baluchistan. Thus, the pattern of distribution supports the concept of a fairly recent expansion of Dravidians into the Indian peninsula through Gujarat ... relatively late : second mill. B.C."; they "moved through the Indus valley during the formation and height of the Harappan civilization and must have played some part in it" (McAlpin 1979: 182). Cf. further Southworth 1979, 1995 and Lahovary 1963. - For linguistic connections of Dravidian with Uralic, see Marlow 1974, Tyler 1986.

<sup>54</sup> S. Das 1967.

<sup>55</sup> Southworth 1996, Lalitha Prabhu 1987; cf. V. Khair 1977; H.D. Sankalia 1977. - For Gujarat cf. Sankalia 1949.

<sup>56</sup> H.D. Sankalia 1949.

<sup>57</sup> Southworth lecture at the present conf., see elsewhere in this volume: he stresses the preponderance of Drav. names in the coastal area, Konkan.

<sup>58</sup> Sjoberg 1992 is a detailed report on the developments in comparisons of Drav. with other S. Asian languages during the past 30 years of study, however, with stress on Drav. and with neglect of Munda, Lg. "X" etc. See also Emeneau and Burrow 1962. Southworth 1995: 264 has 27 for the early Vedic period and only 8 new ones for the later Vedic period.

Other words with Dravidian correspondences are complicated as well and ultimately stem from an unknown substratum (Southworth 1979: 205). They include items such as Ved. *vr̥hi* 'rice' < \**vr̥jhi* : \**vari*, \**vari-ñci* 'rice, grain', DED 5285, > Iran. \**brinj*, mod. Pers. *birinc*; \*(*v*)*ariki* > Tam. *ari*, *arici*, etc.; DED 215; Nūristānī *wr̥ic*, Burušaski *bras*, Tibetan 'bras, but note also Proto-Muṇḍa \**ərig* 'Panicum militare' < 'rice'?; or Ved. *lāṅgala* 'plough', Tam. *ñāñcil*, *nāñcil* DED 2907, Kan. *nēgal*, Ga. *nāngal* < \**ñān-kel/kil/kal* 'earth stone' (Southworth 1988; 1979: 200,205; 1995: 268), clearly with popular etymology; it must have been borrowed from Austric: Santali *nahel*, Khasi *lynkor* [*lənkor*] < \**lēnkol*, Khmer *aṅkal*, Malay *tengala*, Makassar *naṅkala*.<sup>59</sup>

There is also further evidence of contact between the two language families in India : The words for 'date', millet (*Panicum militare*) and 'horse gram' are shared by Munda and Dravidian (Southworth 1979: 663).<sup>60</sup> This allows us to assume that Munda speakers were present in or near Malwa which agrees with the hydronomic evidence (along the Banās river, Pinnow 1953). Burrow (1958, 1968), on the other hand, maintained that Munda speakers had never lived farther west than Orissa, S. Bihar, Madhya Pradesh, and Maharastra where they are settled now, (cf. Southworth 1979: 200). Kuiper 1991: 53 contradicts this perception on the basis of his R̥gvedic material: "Burrow and Emeneau understandably and rightly ignore the Pan-Indic aspects, but ... their dictionary, by omitting all references to Munda, sometimes inevitably creates a false perspective from a Pan-Indic point of view." Kuiper 1991 also admits other unknown languages as source. Southworth 1979: 206, however, thinks that there was no early direct contact between Munda and Drav. or IA (cf. p. 200), but contrast the materials collected by H. Berger 1963.

Southworth traces back much of this kind evidence to language "X" (1979: 206, 1995:273), from where it spread to both IA and Drav. (the speakers of which, according to him, arrived in the subcontinent c. 1000 -2000 years before the IA).<sup>61</sup> Indeed, evidence such as Skt. *piṇḍa*, 'lump', Arm. *pind* 'compact, firm' < Iran. (EWA II, 128), or \**rt* > *ṭ* seems to indicate, that retroflexes developed only inside the subcontinent. This has, in fact occurred even in historical time. The W. Iranian Baluchis who came to the borders of the Indus Plains only about a thousand years ago, have developed retroflex sounds ( *ṭ*, *ḍ*, etc.) in some dialects. The E. Iranian Pashto has them, (as does the marginal, but indigenous Burušaski) but not the rest of Iranian. If the connection of Dravidian with Elamite or Uralic can be established beyond doubt (but note Krishnamurti 1985), the same would hold for the development of retroflexes in Dravidian. In addition, Southworth (1979: 201) quotes the parallel development of \**rt* > *ṭ* in Drav. and IA; cf. now Hamp 1996.

Against this background, the old proposal of K. Hoffmann (1941) to regard words with -*ṇḍ*- as indigenous gains new importance. Words such as Skt. *daṇḍa* 'staff' DED 3048, 3051, (taken as Drav. by Emeneau 1956), *śaṇḍa* 'a demon' EWA II 605 < \**caṇṭai?* 'conflict' DED 2318, may very well go back to the substrate language "X".

<sup>59</sup> Bagchi 1929, 9; cf. also Kuiper 1997: 307sq. s.v. *laṅgula* 'tail.' -- Note that both Munda and Dravidian also have taken over the IA word, *s̥tra*: Kharia *si'lo* / *ši'lo* < \**si-slo?*, to plough, Mundari *si*, *siu*, ditto, Santali, Ho *si*, Bhirhor *si*, *siu* ditto, cf. Skt. *s̥ta* 'furrow', Pinnow 1959: 87; *s̥tra* > Tam. (c)*er* 'plow' etc. DED 2815; note also Skt. *kāta* 'part of plow, share' :: DED 2147 Tam. *koru* 'bar of metal, plowshare' in IA languages.

<sup>60</sup> Also Munda \**bid* 'sowing seed' and Tam. *vittu* etc., Zide and Zide 1972: 6. Note also Munda > Drav.: Kharia *u'la* 'leaf' > Tam. *olai* 'palm leaf' (Pinnow 1959: 75 § 50).

<sup>61</sup> Among parallel phonological developments . in IA and Drav. he mentions like *rt* > *ṭ*, (Southworth 1979: 201); cf. now Hamp 1996.

Nevertheless, early Munda impact on (Rgvedic) Sanskrit can be detected as well, see Kuiper 1955, 1971. Examples include (cf. Berger 1963):

RV *kuliśa* 'ax', Munda \**koḍeś* > *kuḍiśa*, note Mundari *koṇḍe'j* 'the smaller kind of wood ax', Kharia *te'j* 'break'. The word thus has a clear Munda root. It is reflected in NIA 'hoe', CDIAL 3286 *kuddāla*, *kōḍḍāla*, *kuḍḍāla* (Pkt.+) 'a kind of spade or mattock'; however, cf. also RV *kūṭa* 'hammer' CDIAL 3391 9 ~ Drav. *kuṭṭ*, but see now EWA I 384. Probably due to the similarity of shape of the instrument in question, the word also is found as *kūṭā* lex. 'plough, plough share' CDIAL 3393, (which exactly fits the hoe, *kuddāla* etc., in shape). Obviously there are several layers of loans into Skt.

Santali *hoṛo*, *huṛu* 'rice plant' > Skt. lex. *oḍī(kā)* 'wild rice' found already in RV *odana* 'pap, milk rice' (Berger 1963: 420), with hyper-Sanskritism for \**oḍana* ('Vedic substitution', Berger, cf. Kuiper 1950: 179).

Later loans include: \**mbil*, \**bil-uṇ* 'salt' > *viḍa* Mbh, Suśr.+ , Pāli *bila* 'salt'; or Kharia *buṇ'gom*, Mundari, Ho etc. *biṇ* 'snake' (cf. Nikobar *pai'c*) > Skt. *panna-ga* Suparṇādhya, AVPar., with popular etymology 'going while creeping', cf. *panasa* 'kind of serpent' Suśruta, cf. CDIAL 7781-2; Munda \**koḍaXj* 'horse gram', Skt. *kulattha*, Pāṇ. (Zide and Zide 1972: 15).

Kuiper 1991 has supplied a number of further candidates, among which the *-prima facie*- unlikely prefix *pra-* which, however, occurs in definitely non-IA names such as *Pra-maganda* and is found interchanging with the equally non-IA prefix *śar-* (see above). While prefixes "are unknown in Dravidian but were common in Austro-Asiatic. They may also have been characteristic of other Indian languages that have disappeared." (Kuiper 1991: 39, cf. p. 67). Both an origin in "language X" as well as in Munda are definite possibilities for the stage of the RV; in modern Munda, however, they have left only some petrified relics. Pinnow 1959: 12, therefore, warns against too much use of prefixes in etymologizing (as was common earlier this century); in addition, many of them are mere phonetical variants due to *anlaut*.

The connection of Munda with Tib.-Burm. (Konow 1905) has been refuted by P.K. Benedict 1972: 7, n. 23. Nevertheless, there is some overlap in vocabulary, especially in loanwords (Kuiper 1962).

At this occasion, I cannot go into the history certain animals or plants; however, their successive introduction provides an inkling of the languages involved. Four key innovations, the introduction of the wheat, millet, rice, and the horse (along with the two-wheel chariot), took place from four different regions and at different times.

Wheat was the staple food of the Indus civilization, which, however, has been introduced from W. Asia as its designation clearly shows: Avest. *gantuma*, Skt. *godhūma*, Dravidian (Kan. *gōdi*, Tam. *kōti*, cf. DED 1906), etc. go back to a word found in Egypt. *xnd*, Hittite *kant*, Semit. \**ḥant*. Wheat is not prominent at all in the Veda where the old IE grain, *yava*, 'barley' is of singular importance; *godhūma* first turns up only in the linguistic level 2, the YV Mantras (MS, VS etc.)

Rice is indigenous to S. Asia and S.E. Asia; consequently we find a variety of words for wild and cultivated rice in the various language groups involved. But it was first farmed in the northwest only during the late Indus period. It does not yet occur even in the first post-Indus text, the RV; it does so only in the second linguistic level, AV+, as *vr̥hi*. This word is connected both with Dravidian \**vari*, \**vari-ñci*, \*(v)*ariki*, Munda \**ərig*, but also with Tibeto-Burmese (*hbras*), Buruśaski (*bras*), and even with Old Japanese *uru-shine*, (cf. mod. Jpn. *uru-chi*). The word most probably goes back to a local S. and S.E. Asian word (cf. Dayak

*bari*, Malagasy *vari*, etc. Southworth 1988: 664, Witzel 1995). Southworth, however, thinks that the Malayo-Polynesian words for rice are borrowed from Dravidian. Is that likely for a local staple otherwise called *\*pajay*, etc.?

Millet was introduced from Africa during the Indus period. (Southworth 1988: 665, Randhawa 1980: 504). As Masica's list (1979) of agricultural terms in Hindi (see above) and their difference from the Vedic words (*aṇu*, *\*aṇuni* CDIAL 195; *priyaṅgu*<sup>62</sup> EWA II 190; *\*kaṅkunī* CDIAL 2606, Munda *\*gañ(-)gay*) indicate, the proto-Indian word for 'millet', too, must belong to a lost substrate language which received it, together with the plant, straight from Africa or via a language along the path.

Horses (Ved. *aśva*, Avest. *aspa*) were introduced from Central Asia only by c. 1700 B.C.; they are first found at Pirak, and in the area of the Kacchi plain in Baluchistan. All reported earlier finds are hemiones (half-asses). The horse was introduced along with the chariot with spoked wheels (*ratha*, Avest. *raθa*), which is first attested west (c. 2000 B.C.) and east (c. 1700 B.C.) of the Urals. The Ilr word for horse, however, is not reflected in the other languages of the subcontinent. (O.)Tam. *ivuḷi* 'horse' and Brahui (*h*)*ullī* 'horse' < 'hemione' (Burrow 1972, DED 500); S. Drav. *kutiray* 'horse' (> Koraput Munda *\*kuXrtag*, Zide and Zide 1976, 1331) has been compared with Elamite *kuti* 'to bear, carry', *kutira* 'bearer' (McAlpin 1981:147-8; Southworth 1979: 181, DED 1711). Munda *sadom* (Pinnow 1959: 78), Tib. *rta*, E. Himalayish/Dhimal *ōnyhā*, Bur. *hayur*, have different origins as well. All of this points to adaptation of local terms for the new animal (cf. N.Amer. Engl. *mountain lion* = *puma*, *moose* = elk, *caribou* = reindeer), or introduction of the animal and its designation along different routes.

In sum, there is evidence for a wide-spread cultural network of exchange of goods, products, plants and domesticated animals even during the prehistoric period which can be established through the study of loan words.

The detailed discussion in the last sections will have indicated that a pan-Indian approach is necessary to study etymologies of Vedic words, and even of those that look superficially IA. The question may be summarized as follows. It is, *a priori*, to be expected that words for fauna and flora are heavily influenced by local expressions (Kuiper 1991, 14sq., Witzel 1997: xxi). For the RV, Kuiper adds terms for agriculture (1991:14), music and dancing (1991:19) and some religious terms (1991:15), and sums up the sociological evidence: "persons, families and tribes who obviously belonged to the Rigvedic society, took part in social life and were recognized as members of the group" (1991:20). "The contact with the community of Indo-Aryan speakers must primarily have been maintained by bilinguals, particularly among the lower strata of artisans and peasants (an aspect often overlooked by Vedists) and these must have been the essential factor in conforming the Vedic language to foreign patterns of the Indian linguistic area." (Kuiper 1991:96)

Against this background, a study of Vedic names, especially that of Vedic hydronomy, is offered on the following pages.

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<sup>62</sup> With the prefix *\*pər*? (see Kuiper 1991), and popular etymology *\*priya+gu* 'dear cow', like *go-dhūma* 'cow smoke' = 'wheat'; cf. Burm. *proñ*, EWA II 190.

#### § 4. Names<sup>63</sup>

Many of the items and their respective designations mentioned above are not geographically localizable easily (even if some of the texts that they occur in can). Especially items of material culture are difficult to localize. It is necessary, therefore, to find a way to literally put such data on the map, both historically and geographically. It is advisable, then, to study the names of persons, clans, tribes and place names that occur in the texts as they are less likely to travel than items of culture (e.g., Ved. *kāca*; O.P. *kapautaka*); obviously, place names are even less likely to 'travel' than names of person or tribes who can easily relocate. In the words of Nicolaisen (1976: 34): "Because they have ... distribution in space and time, i.e., geographical scatter plus linguistic stratification, place-names have come to be recognised as valuable raw material for the study of settlement history ... or of the settlement history of speakers of various languages."

The time frame is given by the stratification of the Vedic texts, roughly following that of traditional Indian division into Saṃhitās, Brāhmaṇas, Āraṇyakas and Upaniṣads, and Sūtras, however, with a five-level linguistic layering (Witzel 1989). The geography of the Vedic texts is better known now than a few decades ago (Witzel 1986). This framework allows to trace Vedic names in time and space; in other words, one can establish a series of historical maps of their occurrence.<sup>64</sup>

Clearly, not all the personal and place names found in the older Vedic texts, are of IA origin; instead they again establish traces of other languages spoken in the northern part of the subcontinent in Vedic times. Among the personal and place names found in the older texts we can distinguish traces of the major languages discussed above. In addition to Vedic, there are:

\*- Dravidian, in the river name *Sadānīrā* (ŚB) from Proto-Drav. \**nīr* 'water' (DED 3690, EWA II 50)

\*- Munda, in the river name Epic *Gaṇḍa-kī* and probably in that of the *Gaṇḍā*,

\*- Tibeto-Burmese in the river name *Kausi-kī* and the Vedic country of *Kosala*,

\*- but also other languages with names such as *Śirimbiṭha* RV 10.155.1 (cf. *Irimbiṭhi*, RV Anukramaṇī, cf. *Ilībiśa* RV 1.33.12) or as the Ṛgvedic *Balbūtha*, *Bṛbu* and the post-Ṛgvedic *Mūtiba/Mūcīpa*, *Puṇḍra*, etc. Many of Kuiper's non-Aryan names may belong here, especially with the suffixes *-voc.+śa*, *-śa* / *-īśa* / *-iśa*.<sup>65</sup> They include: the Ṛṣi *Kavaśa*, the Aśvin protégé *Jāhuśa*, the demon *Ilībiśa*, the mythical being *Emuśa*, the occupational designations *kīnāśa*/ *kīnāra*, the river *Kuliśī*, and *tūrṇāśa* (perhaps a designation for mountain streams, mod. *Tosi*).

Turning now, in a more detailed fashion, to the evidence for non-IA languages in the Vedic period, one has to establish not only their attestation in the five layers of Vedic

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<sup>63</sup> For general reflections on name giving in Skt., see Pinnow 1953: 226 sqq. Note especially: assimilation to Indian sounds, and further (popular) interpretation of such names in Skt. or Pkt., or complete translation of foreign names; further the tendency to use compound nouns with varying first or second members. For an overview of the etymological problems involved, see Gonda 1971:208 sqq., Emeneau 1978, Nachimuthu 1987.

<sup>64</sup> The matter is more complicated with regard to personal names and loanwords (such as animal or plant names); in this case, one has to depend on the first occurrences of the word and on knowledge about the homeland of certain Vedic texts (Witzel 1986, 1989) in order to locate their origin and spread.

<sup>65</sup> The list includes: *kalaśa*, *Turva(śa)*; *Kavaśa*; *palāśa*, *kīnāśa*/ *kīnāra*; *tūrṇāśa*; *cāśa*, *jalaśa*; *kilāsa*, *kīkaśa*; *paḍbiśa*; *Ilībiśa*, *kuliśa*, *Kuliśī*; *ambarīśa*; *kilbiśa*; *ṛbiśa*; *Emuśa*, *Jāhuśa*; *aṅgūśa*, *pīyūśa* *vinamṛśa*.

texts, arranged according to linguistic development (Witzel 1989), but especially also according to their attestation in a particular geographical and cultural area.

The layering and the substrates of the various languages that were successively introduced into South Asia, can, however, be better ascertained in studying the spread of certain names, such as personal, clan and tribal names, place names, and especially that of designations of rivers (hydronymy). Each one of these types of names has its particular problems in South Asia.

The first category, that of personal and tribal names, is quite a large one even in the oldest text, the RV, and only a section can be taken up here. Recently, F.B.J. Kuiper (1991: 6 sqq.) has provided us with a list of 'suspicious' names. Some of them, such as the non-IA looking *Bṛbu* or *Balbūtha*,<sup>66</sup> have long been suspected as being non-IA. Indeed, most of the following list is classified by the recent etymological dictionary of Mayrhofer (EWA, 1986-1996) as "unclear, uncertain explanation, foreign name," etc. In Kuiper's list of 36 names only about one third are deemed explainable in IE, or a (vague) IE etymology has been provided by Mayrhofer.

It must be added that many names, just as non-onomastic words, can be determined as IA (or IE) by a fairly simple set of procedures:

- (1) IA word formation with known IA suffixes or prefixes,
- (2) admissibility of the root of the word as IA/IE, after having separated the suffixes and prefixes. (Szemerényi 1970: 90 sqq.)

This means that words such as *Balbūtha*, *Gaṇḍakī*, *Puṇḍra*, *bisa*, *ṛbisa*, *kuśida*, *Kosala* are of non-IA origin (see below).

## § 4.1. Personal names

Kuiper's list, which could easily be extended with names that clearly belong to demons (*Cumuri*, *Śambara*, *Kulitara*, *Pipru*, etc.), runs as follows:

1. *Ambariṣa*, 2. *Bṛbu*,<sup>67</sup> 3. *Kuruṅga*,<sup>68</sup> 4. *Maśarśāra*, 5. *Tirindira*,<sup>69</sup> 6. *Śirimbiṭha*,<sup>70</sup> 7. *Puraya*,<sup>71</sup> 8. *Śaṇḍa*,<sup>72</sup> 9. *dāsa Balbūtha Tarukṣa*,<sup>73</sup> noblemen and poets: 10. *Ikṣvāku*, 11. *Kavaṣa*; favorites of Indra: 12. *Iṭant*, 13. *Piṭhīnas*,<sup>74</sup> 14. *Pramaganda*,<sup>15</sup> 15. *Turvīti*,<sup>75</sup> 16. *Ruma*, 17. *Ruśama*,<sup>76</sup> chieftains and sages: 18. *Kutsa*,<sup>77</sup> 19.

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<sup>66</sup> The sound *b* is rare in IE; *Balbūtha* cannot be etymologized, even when trying various possible dissections (*bal-būtha*, *balb-ūtha*, *bal-bū-tha*, etc.)

<sup>67</sup> Cf. *Bṛbuka* RV 10.237.23.

<sup>68</sup> EWA: cf. *kuluṅga* 'antelope'?

<sup>69</sup> EWA, KEWA: only with vague Iranian connections

<sup>70</sup> Cf. *Irimbiṭhi* RV Anukr., and perhaps *ilībiśa*

<sup>71</sup> EWA: 'unclear', cf. *pura*-

<sup>72</sup> EWA: II 629, name of a demon.

<sup>73</sup> EWA: "not certain", "stutterer"? (Lat. *balbus*)

<sup>74</sup> EWA perhaps < \**pr̥thi* + \**Hnas* 'broad-nosed'

<sup>75</sup> EWA: ~ YAv. *tauruuaēiti*.

<sup>76</sup> EWA: 'not clear'; of IA impression: *ruśa* 'white'

<sup>77</sup> EWA: "denigrator"

*Mudgala*,<sup>78</sup> 20. *Agastya*, 21. *Māndarya*,<sup>79</sup> *Śigru*,<sup>80</sup> *Ikṣvāku*; family names: 22. *Kaṇva/Kāṇva*, *Praskaṇva*,<sup>81</sup> 23. *Kali*,<sup>82</sup> 24. *Kuśika*, 25. *Śiṣṭa/Śirṣṭa/Śirṣṭra*; tribes and peoples: 26. *Gandhāri*, 27. *Cedi*,<sup>83</sup> 28. *Pūru*,<sup>84</sup> 29. *Turvaśa*,<sup>85</sup> 30. *Sṛñjaya*,<sup>86</sup> 31. *Yadu*,<sup>87</sup> 32. *Tṛtsu*, 33. *Uśīnarāṇī*,<sup>88</sup> 34. *Bhalānas*,<sup>89</sup> 35. *Piṭhīnas*,<sup>90</sup> 36. *Alina*,<sup>91</sup> *Anu*.

Mayrhofer deliberates an IA or IE etymology only for numbers 7, 9, 13, 15, 17, 22, 28, 29, 30(?), 33, 34(?), 35, 36, thus, for only one third of this list. Even in a dictionary which has the specific aim to explain RV words in IE or IA terms, some 26 names, or more than two thirds, remain as unexplained.

All of these names belong to the greater Panjab, that is the area including parts of Afghanistan and the plains up to the Ganges. Their great variety is enough to indicate some typical non-IA features, such as retroflex sounds that are not to be traceable to pre-IA clusters with *-r-* (*Iṭant*, *Śirimbiṭha*, *Piṭhīnas*), the cumulative occurrence of non-IE *b* (*Bṛbu*, *Balbūtha*), strange suffixes (e.g. *Ambar-iṣa?*, *Kuru-ṅga?*, *Ikṣv-āku?*, *Pra-mag-anda?*), and definitely non-IE roots, if indeed properly analyzed, e.g. *balb*, *bṛb*, *mag*,<sup>92</sup> *iṭ*, *piṭh*.

We can take these names as direct take-overs or IA adaptations of non-IA local names in the NW of the subcontinent.<sup>93</sup> It is not clear, of course, whether such names belong to one or more languages and whether they are to be connected with, e.g. Dravidian or Munda etyma. We will be on more secure ground only if we can establish certain patterns, especially recurrent suffixes or prefixes (Kuiper 1991), and can reconstruct, in this fashion, an underlying substrate or correspondences with Munda, Dravidian, etc. (Examples are: the preponderance of *ś : k/k'*, the suffix *-ta : -ṭa*, or, with Kuiper 1991, Munda-like prefixes such as *\*pər > Ved. pra*, in certain geographical areas such as the Ṛgvedic South Kurukṣetra, with *Pra-Maganda*, see below).

Even this initial list is important, as to indicate that many of the tribal designations and the names of important persons of the Ṛgvedic Aryan society are of non-IA character (cf. Witzel 1985: 104 sqq., 113sq., 325). This is due to the long Ṛgvedic period of

<sup>78</sup> EWA 'not clear' ; ~*mudgara* 'hammer'? Kuiper 1991: 67: *\*muggala*; ~ *muṅga*.

<sup>79</sup> EWA: Kuiper 1991: 20, < *\*mandāra*; ~ m.-tree? like the 'Agastya' tree?

<sup>80</sup> EWA: ~ the plant, *śigru*; ~ N.P. *sīr* 'garlic'.

<sup>81</sup> EWA: *\*(s)kṛṇva*, with K. Hoffmann 1975; but note Kuiper's (1991) counter-charge that *skr* is preserved only in connection with *sam-* etc. and that *Kaṇva* thus is non-IA.

<sup>82</sup> EWA: ~ *kali* "Verlierer-Nuss", the worst throw in dicing.

<sup>83</sup> RV *Caidya*, and Pāli *Ceti*.

<sup>84</sup> EWA: 'not clear'; ~ *pū-ru* 'purifying', cf. *\*ku-ru?*

<sup>85</sup> EWA: ~ *turva-*, *\*turva(n)* 'victorious'; for *-śa* cf. *yuva-śa*, but note diff. accent.

<sup>86</sup> EWA 743, s.v. *sṛjaya* 'a bird' ??

<sup>87</sup> *yadvā* RV.

<sup>88</sup> EWA: 'probably IA'; *-nara*; *uśī-* : cf. Avest. name: *usi-nəmah*, Bartholomae 406.

<sup>89</sup> EWA: 'not clear'; IA? ; *-Hnas* 'nose'?

<sup>90</sup> EWA: < *pr̥thi-Hnas* 'broad-nosed'

<sup>91</sup> EWA I 127

<sup>92</sup> For the non-existence of such roots in IE, see Szemerényi 1970: 90 sqq.

<sup>93</sup> For details on phonetical shifts in adapting non-IA sounds to IA patterns, see Kuiper 1991.

acculturation and amalgamation, after the initial trickling in and immigration of the Indo-Aryans.

It is well known that local names are frequently taken over by later immigrants or are given to newly established tribal units, for example the ancient *Veneti* survive in the German names for the Slavs (*Wenden, Winden*). A typical Indian case is that of the old name of the Greeks, *Yavana* (Gaut., Mbh. Manu; cf. O.P. Yona) > 'western foreigner, Muslim, European.' Therefore, local names such as the unexplained *Gandhāri, Cedi* or even the famous *Anu* and *Yadu* can well have been assigned, secondarily, to the several IA clans that have settled in their area. Furthermore, names such as the RV *Śūdra* (a tribe in Sindh, Mbh; cf. Gr. *Súdroi* :: *Oxudrakai*) or *Mleccha* (ŚB, cf. Pāli *Milakkha/u*, Pkt. *Maleccha, Miliccha, Meccha, Miccha*, CDIAL 10389, Mesopotamian *Meluḥḥa*, the name of an eastern country beyond Bahrain; but cf. EWA 2, 389), point to the preservation of ancient tribal names.

The large array of personal names in the post-Ṛgvedic period cannot be discussed here. The various *Vaṃśas*<sup>94</sup> and the Gotra and Pravara lists are a mine of information on such names<sup>95</sup> that have only partially been explored for the present purpose. They should be closely compared with Iranian names, especially those preserved in Yašt 13. Names such as *Uṣij* (Avest. *Usij*) or *Uśānā/Uśanas* (Avest. *Usan*) are already of IIr heritage.

The geographical location of the persons bearing such names is not easily determined;<sup>96</sup> they can span the whole of the IA or even IIr area, and persons are very much on the move during the Ṛgvedic period; to somewhat a lesser degree this applies to names of clans and tribes.

## § 4.2. Clans and Tribes

A list of Vedic tribes, subtribes, and clans follows below; by necessity it cannot be complete, as it is not always easy to distinguish a person from a clan name or from an epithet. Further, due to shifting alliances and to regroupings of clans into tribes or supertribes, such names are unstable.<sup>97</sup> Indeed, many RV names have not survived even in the AV and the YV Mantras. Further, such tribal designations also are shifted 'outside' to other groups, especially to areas progressively further away from the perceived center as time progresses.<sup>98</sup> Typical cases are those of *Kamboja* in SE Afghanistan > SE Asia; *Triliṅga* in Andhra > Talaing in Burma, *Kaliṅga* in Orissa > Karen in Burma, *Śyāma* in Bengal > Siam, *Campā* > Cham in S. Vietnam).

A fairly comprehensive list of tribal and (some) clan names in the Veda includes the following data.

*Aṅga* AV+; *Aja* RV; *Anu* RV, *Ānava*; *Andhra* AB; *Arāṭṭa* BŚS; *Alina* RV; *Āmbaṣṭhya* AB; *Āyu* RV; *Ikṣvāku* RV+, *Aikṣvāka* PS+; *Uttara-Kuru* AB, JB; *Udanta* JB; *Udanyu* JB;

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<sup>94</sup> At the end of ŚB, BĀU, JUB, etc. and in the Pravara chapters of the Śrautasūtras.

<sup>95</sup> For personal names in Vedic and in Skt. see van Velze 1938. For Gotra and Pravara, see Brough 1953; for names in general MacDonell-Keith, Vedic Index, cf. Gonda 1971: 220 sq.

<sup>96</sup> For example, Vasiṣṭha moves from west of the Indus eastwards into the Kurukṣetra area, see Witzel 1995.

<sup>97</sup> Tacitus, *Germania* 28 sqq.: many of his northwestern Germanic tribes become the Franks only about a hundred years later.

<sup>98</sup> Cf. the similar case in China, clearly visible in the travels of Zhang Qian to E. Iran, c. 150 B.C., see Hulsewé 1979.

*Udīcyā; Uśīnara* Br., *Uśīnarāṇī* RV; *Aiśikapāva*? JB; *Kaliṅga* BŚS; *Kalinda* JB; *Kamboja* AV, PS+; *Karaskara*, *Kāraskara* BŚS (= ĀpŚS *Pāraskara*); *Kāśi* PS+, *Kāśya* PS; *Kīkaṭa* RV; *Kīsta* RV; *Kṛtvān* RV; *Kuntī* KS+; *Kuru* MS+; *Kuru-Paṅcāla* KS, VSK+; *Kuruṅga* RV; *Kuru-*(*śravaṇa*) RV; *Kauśambeya*; *Kausalya* ŚB, JB; *Krivi* RV+, *Kraivya* ŚB; *Gandhāri* RV, AV, PS+; *Gāndhāra* Br.; *Guṅgu* RV, *Gauṅgava* Br.; *Guṅgū* RV; *Cedi*, *Caidya* RV+; *Jaimaya*? JB; *Turvaśa* RV; *Turva* RV; *Tṛtsu* RV; *Traikarta* JB = *Trigarta*; *Druhyu* RV+; *Dhṛbhika* RV; *Nahuṣa* RV+, *Nāhuṣa*; *Nārkavinda*, *Nārvidāla*? PS 12.2.3; *Niṣāda* KS, MS+, \**Niṣidha* (ŚB *Naḍa Naisidha*); *Naicaśākha* RV; *Naimiṣīya* Br., *Naimiśa* JB, *Naimiṣya* KS; *Paktha* RV; *pañca jana* / *pañca kṛṣṭi*, etc.; *Paṅcāla* KS+; *Pāraskara* ĀpŚS; *Parśu* RV, BŚS; *Pārāvata* RV; *Pārthava* RV; *Puṇḍra* AB; *Pulinda* AB; *Pūru* RV+; *Prṛthu* RV; *Prśnigu* RV; *Prācyā*; *Balhika* PS, AV; *Bābari*? JB; *Bāhika* ŚB; *Bekanāṭa* RV; *Bhajeratha*? RV; *Bhalāna*(s) RV; *Bharata* RV+; *Bhṛgu* RV; *Magadha* PS+; *Matsya* RV, *Mātsya* PS; *Madra* Br+; *Marāṭa*(?) PS; *Mahāvṛṣa* AV/PS+; *Mahīna* RV, *Māhena* JB; *Mitravat* JB; *Mūcīpa* ŚŚS / *Mūtība* (*Mūvīpa*) AB; *Mūjavant* PS/AV, *Maujavant* RV; *Yadu* (= *Yakṣu*); *Yādva* RV; *Rajaśaś ca Rajīyāṃsaś ca* JB; *Ruśama* RVKh+, *Ruśamā* PB; *Raumanvata*? JB; *Vaṅga* (*Vaṅgāvagadhāḥ* AĀ); *Varaśikha*? RV; *Vaśa* AB, (*Sa-*)*Vaśa-Uśīnara* GB; *Vasāti* JB; *Vidarbha* JB; *Vibindhū*? RV, *Vibhindukīya* JB 203; *Videha* ŚB, *Vaideha* KS, TS+; *Viśānin* RV; *Vaikarṇa* RV; *Vaitahavya* JB; *Vailūni*? JB; *Vṛcivānt* RV; *Śakala* AB, JB; *Śakalya* ŚB; *Śakambhara* AV, PS; *Śaphāla* BŚS; *Śabara* AB; *Śālva*/ *Salva* ŚB+; *Śāvasa* PS; *Śibi* BŚS, *Śaibya* AB, JB; *Śigru* RV; *Śimyu* RV; *Śiva* RV; *Śī(r)ṣṭ(r)a* RV; *Śūrasena* AVPar, Pāṇ.; *Śvitna* RV; *Śvikna* JB, *Śvaikna* JB; *Sauvīra* BŚS; *Satvant* AB, ŚB+, *Satvan* RV; *Sārasvata*, see *Sarasvatī*; *Salva* / *Śālva* JB; (*Sindhu-kṣit* JB); *Sthūra* JB; *Snāvanya*? BŚS; *Sṛñjaya* RV; (*Sparśu*? BŚS).

Just as was the case with Kuiper's list of names; about half of them do not have a clear IA, IIr or IE etymology. The following entries have a (possible) IA, IIr etymology (indicated by question mark) or have been given one by contemporary popular etymology.<sup>99</sup>

*Aja* (loan translation, totem designation?); *Anu*, *Ānava*, IA?; *Kuru* IA?; *Turvaśa*, *Turva* IA?; *Druhyu*; *Paktha*; *Pañca jana* / *pañca kṛṣṭi*, etc.; *Paṅcāla* IA?; *Parśu*; *Pārāvata*; *Pārthava*; *Pūru* IA?; *Prṛthu*; *Prśnigu*; *Balhika* < Avestan dial. *Bāxδī*; *Bābari* IA?; *Bāhika*; *Bhajeratha*; *Bhalānas* IA?; *Bharata*; *Bhṛgu*; *Matsya*, *Mātsya* (loan transl.); *Madra* IA?; *Mahāvṛṣa*; *Mahīna*, *Māhena*, *Māhīna* IA?; *Mitravat*; *Rajaśaś ca Rajīyāṃsaś ca* 'dusty ones, (from the Maru desert)'; *Ruśama*, *Ruśamā* IA?; *Raumanvata*; *Vara-śikha* IA?; *Vasāti* IA?; *Vi-darbha* with pop. ety. > IA; *Vi-bhindu* with pop. ety. > IA (cf. *bainda*, *Kusu(u)-vinda*); *Videha*, *Vaideha*; *Viśānin* IA?; *Vaikarṇa* (cf. Avest. *Vaēkərəta* V. 1.19); *Vaitahavya*; *Śakambhara*; *Salva* IA?; *Śāvasa* IA?; *Śiva*; *Śūrasenaka*; *Śvitna*, *Śvikna*, *Śvaikna*; *Satvant*; *Sārasvata*; *Salva* IA?; *Sauvīra*; *Sthūra*; *Snāvanya* > c. 52 names.

Non-IA or of doubtful etymology are the following: *Aṅga* AV+, cf. *Vaṅga*; *Andhra*; *Arāṭa*; *Alina*?; *Āmbaṣṭhya*?; *Ikṣvāku*; *Uśīnara*; *Aiśikapāva*?; *Kaliṅga*, cf. *Teliṅga*; *Kalinda*, cf. *Kuninda*; *Kamboja* cf. Gr. *Ambautai*; *Kāraskara* (cf. *Pārasakara*); *Kāśi*, cf. *Kauśambeya*, *Kosala* etc.; *Kīkaṭa*; *Kīsta*, cf. *Śiṣṭa*; *Kuntī*, cf. *Kaunta*, *śa-kunta* etc.; *Kuruṅga*; *Kauśambeya*,

<sup>99</sup>For some additional late names, see Witzel 1986 (*Yaugandhara*, *Vaṅga*, *Kaikeya*, *Śūrasena*, *Audumbara*, *Gādha*, *Gavasa*; *Mahendra*, *Pariyātra*; Pāṇini adds: *Kāraskara* (a tree) and *Pāraskara*, 6.1.156-7, *Ambhaṣṭha* 8.3.97, and *Carmanvatī* 8.2.12; the lists in V.S. Agrawala 1953 are misleading as they tacitly include data from Patañjali's *Mahābhāṣya*.

cf. *Kāśi*, *Kosala*, etc.; *Kosala*; *Krivi*; *Gandhāri*, *Gāndhāra*; *Guṅgu*, *Gauṅgava*, *Guṅgū*; *Cedi*, *Caidya*; *Trtsu*; *Traikarta*, *Trigarta*; *Dhṛbhika*; *Nahuṣa*, *Nāhuṣa*; *Nārkavinda*, *Nārvidāla*; *Niṣāda*, *Naiśidha*; *Naimiṣīya*, *Naimiśa*, *Naimiṣya*; *Pāraskara*; *Puṇḍra*; *Pulinda*; *Balhika* < Iran.; *Bābari*; *Bekanāta*; *Bhalānas*; *Magadha*; *Marāṭa*; *Mūcīpa*/ *Mūtība*/ *Mūvīpa*; *Mūja-vant*, *Mauja-vant*; *Yadu*, *Yādva*; *Ruśama*, *Ruśamā*; *Vaṅga*, cf. *Aṅga*; *Varaśikha*; *Vaśa*, *Savaśa*; *Vasāti*; *Vi-darbha* popular ety.; *Vṛcī-vant*?; *Śakala*, *Śākalya*; *Śaphāla*; *Śabara*; *Śālva*/ *Salva*; *Śāvasa* ~ *Savaśa*; *Śibi*, *Śaibya*; *Śigru*; *Śimyu*; *Śī(r)ṣṭ(r)a* ~ *Kīsta*; *Salva* / *Śalva*; *Sṛñjaya* > c. 60 names.

If R̥gvedic names are taken alone we get a roughly similar distribution, c. 28 IA : 22 non-IA names. This would indicate that right from the time of the first RV collection, there was a thorough mix of IA and non-IA speakers. This agrees with the claim made elsewhere (Witzel, 1995), for a relatively long period of acculturation (max., 1900-1200 B.C.) before the first RV collection. The distribution changes significantly if single, old books of the RV are investigated.<sup>100</sup> The older books have, from the above list, only the following tribal and semi-tribal names (note, for statistical purpose, the increasing length of books from 43 hymns in b. 2 to 75 in b. 6):

RV 2: *Turvaśa*, *Yadu*, *Krivi*, *Bharata*, *Āyu*, *Dṛbhīka*; *Nārmara*, (*Dāsa Śambara*, *Dāsa*, *Dasyu*);

RV 4: *Yadu*, *Turvaśa*, *Pūru*, *Sṛñjaya*, *Bhārata* (= *Agni*), *Āyu*; (*Dāsa Śambara*, *Dāsa* *Varcin*);

RV 5: *Anu*, *Yadu*, *Turvaśa*, *Pūru*, *Bharata*, *Ruśama*; (*Dāsa* *Namuci*)

RV 6: *Nahuṣa*, *Druhyu*, *Pūru*, *Sṛñjaya*, *Yadu*, *Turvaśa*, *Āyu*, *Bhārata*, *Pārthava*; *Vṛcīvant*, (*Dāsa Śambara*, *Dāsa* *Namuci*), and in a late hymn: king *Bṛbu* and *Paṇi* (on the *Gaṅgā*);

The bulk of the non-IA (tribal) names, thus, is found in the comparatively late (*Bharata*) books 3 and 7 (Witzel 1995), and especially in the composite, partly 'foreign' (F.B.J. Kuiper), partly 'Iranian' book 8 (K. Hoffmann) as well as in the additional books 1 and 10.<sup>101</sup> This agrees with the scenario suggested elsewhere (Witzel 1995).

In passing, it should be noted that a number of these tribal or Clan names seem to have been taken from those that indicate animals (*Matsya*, *Kunti*, *Aja*, *Parāvata*?) including some typical IA names derived from cattle designations (*Mahāvṛṣa*, *Prśnigu*). The tribes with other than cattle names are found in the area south of the *Yamunā* area: *Matsya* 'fish', *Kunti* 'bird'. This would have been, at the time, the area of Munda speaking tribes (see below); and it is the Mundas and other Central Indian tribes (Trautmann 1981) whose society is divided into, e.g. four clans whose totems are certain animals.

Some of the tribal names may be non-IA in origin but have received a popular etymology: *Vi-darbha* 'without *darbha* grass', *Vaikarṇa* 'wide-eared?', and *Vibindhū*, *Vibhindukīya*. This name is derived by popular etymology from *vi-bhid* 'to split open' from the context of the story (JB 3.234: § 203); but cf. Kuiper 1991, 40-43: *Sṛ-binda* RV 8.32.2 'name of a demon', as inimical tribe, *Kusuru-binda* TS, PB, ŚB, *Kusur-binda* JB,<sup>102</sup> *Bainda* YV, and the mod. *Bind* tribe in the *Vindhya* mountains (cf. below; note also *Nārka-vinda*

<sup>100</sup> Excluded are old, pre-RV demonic names such as *Śambara*, *Suṣṇa*, *Pipru*, and other semi-demons, *Paṇi*, *Dāsa*, *Dasyu*. Local names such as *Arbuda* (EWA I 119), however, are in need of study.

<sup>101</sup> For details see Witzel 1995.

<sup>102</sup> Note the interchange of prefixes *sṛ*, *ku-sur(u)*, and cf. above, *kar-koṭa*, *śar-koṭa*.

PS).<sup>103</sup> Perhaps *Videha* may be added here as well as 'the smeared out' country, full of marshy, muddy places (ŚB 1.4.1).

Among the clearly non-IA names several groups can be distinguished. One of them has suffixes in *-ta* (with some variants in *-ta*; cf. below): *Kikaṭa* (RV, south of Kurukṣetra), *Marāṭa* (PS 5.21.3, 12.2.1, probably south of the Yamunā), *Kirāta* (AV+), *Arāṭta* (*Ārāṭta*, etc. BŚS, in Panjab); *Kulūṭa* (ViṣṇuPur), *Kulūta* Mbh, *Ulūṭa* (ViPur), *Uluta* (Mbh); we will have to return to this list below.

Another group as initial components in *nār-*: *Nār-ka-vinda*, *Nār-vidāla* (?) PS 12.2.3/PSK 13.1.13, of unclear meaning and etymology; cf. the RV names in *nār-*: *Nārmara* RV 'a demon', *Nārmiṇī* 'a fort?', (cf. also *Nārśada*), AVPar 1.8.2; note also *nāraka* 'hell', Pāli *nāraka* 'abyss, cleft', *Nārada* (ChU) 'semidivine being'; and cf. *Narma-dā* river, if from Munda *da* 'k' 'water' (see below).

*Kalinda*, *Kalindī* (Mbh, as tributary, with pop. etym.? cf. *Nandā* (Devī)), *Pulinda*, cf. Pāli *Bulī* in U.P., *Kusunda* (modern tribe in Central Nepal), and unclear designations such as *Mugundyā* (a demon, PS), *Śīsundhā* (a demon, PS), *kakundha* PS, later plant names such as *mucu/muca/mucilinda*, *mucukunda*, *milinda*, (also *dundu-bhi* 'drum', *galunta* AV, and *Kuṣaṇḍa*, a name in Br., a people, ViPur), etc.

These may be northern variants of the more common Indian names in *-ṇḍa*: *Muruṇḍa* (*Maroundai*, Ptol., cf. *Maru* desert?), *Muṇḍa*, *Puṇḍra*, *Gaṇḍa-kī*, *Khāṇḍava*; *Goṇḍa*, *Goraṇḍa*, etc.<sup>104</sup>

Perhaps of Munda origin are the following tribal names: *Aṅga* (S.E. Bihar), *Vaṅga* (Bengal), cf. *Pra-vaṅga*, Kuiper 1991: 43; or *Kaliṅga* (Orissa), cf. *Teliṅga/Triliṅga/Telugu* ~ *Triliṅga* (BhagPur.); but note similar formations already in the RV: *Kuruṅga*.<sup>105</sup>

The eastern and south-eastern tribes usually have no IA etymology: *Aṅga*, *Vaṅga*; *Andhra*; *Ikṣvāku* (RV+, Panjab, moved to eastern U.P.); *Kāśi* (cf. Br. *Kuśāmba*, cf. Ep., personal name *Kuśāmba*, river name *Kosi/Kauśikī* etc., see below); *Cedi*; *Niṣāda*, \**Niśadha*; *Puṇḍra* (cf. *Muṇḍa*, Mbh.); *Mucīpa* / *Mutība* / *Muvīpa*; *Magadha*; *Śabara*; *Śaphāla* (for their location see Witzel 1986, 1997). Some of these names may be attempts at Sanskritization, e.g. *Śaphāla* (but cf. *Śāvasa*, *Vasa*) ~ *phala*?; *Niṣāda*, *Naiśadha* ~ *niśad* 'born here, aboriginee', perhaps also *Andhra* ~ *andha* 'blind' for \**and-ra*.<sup>106</sup>

Obviously, the NW and the clearly non-IA tribes limited to the RV should be regarded separately. Here we find *Kamboja* (AV, PS+), cf. OP. *Ka<sup>m</sup>bujīya* 'Cambyes' (as satrap of Kamboja, like 'Prince of Wales, Dauphin': Dauphinée?); however, cf. Gr. *Ambautai*, a tribe in the Hindukush area, with the typical Saka suffix *-tai* (*Sauroma-tai*, etc.).<sup>107</sup> An interchange *k* : *zero* "points in the direction of Munda" (Kuiper 1991: 38; cf.

<sup>103</sup> PS 12.2.3; cf. also Munda *bid* 'insert, plant, sow' Pinnow 1959 §285 p. 143 (also Santali *kir-bid* 'pierce, put in', *re-bed* 'put in, insert', *kubed*); is this a loan translation: 'planters'? However, see EWA II 274 *vibhindu* + *ratha* RV 1.116.20, cf. 8.2.41.

<sup>104</sup> Cf. further words with their variants, such as *maṇḍū-ka*, *bhuruṇḍa*, snake names such as *Spaṇḍaka*, *Pucchaṇḍaka*; further *puṇḍarī-ka*, *kuṇḍala*, *piṇḍa*, *maṇḍala*, *khaṇḍa*, *aṇḍa*, *daṇḍa*, *bhuśuṇḍa*, etc. Cf. in general K. Hoffmann 1941.

<sup>105</sup> Cf. *kuluṅga* KS, VS +, *Guṅgu/ū* RV.

<sup>106</sup> Cf. DED 2328 (*c*)*ant/d* 'beauty'; or perhaps even Munda: Kharia *a'n-iñ* 'we' (inclusive)?

<sup>107</sup> Cf. Kuiper 1991: 38 sq.: *Kulūta* Mbh, *Kulūṭa* (ViṣṇuPur.) : *Ulūṭa* (ViṣṇuPur.), *Uluta* (Mbh).

S. Lévy, JA 203, 1923, 52 sqq.), which would be rather surprising at this extreme western location, in E. Afghanistan (Witzel 1980). Nevertheless, as all pre-RV ethnography is uncertain, the case remains open.

*Gandhāri* (RV, *Gāndhāra* Br.+ , O.P. *Ga<sup>n</sup>dāra*, Herodotos *Gandārioi*, etc., EWA I 462) is entirely unclear. A fitting etymology for the *Gandhāra* plain would be 'wheat country'; this is possible only if the older designation Iir \**gant-uma* is applied (see above, for 'wheat'); *gandhāra* : *gandha* 'smell' would then be due to popular etymology, as is probable in the name of the semi-divine *Gandharva*, when compared with Gr. *kéntauros* (EWA I 462).<sup>108</sup> The later, typical S. Asian form of the Near Eastern word for 'wheat' has initial *go-* (Ved. *go-dhūma*, with a further popular etymology 'cow-smoke', cf. Burušaski *guriñ*, *gureñ* (pl.) < \**yorum*, and Dravidian: Brahui *xōlum* which, like Bur., preserves the 'Iir' suffix \*-*u-ma*, other than Telugu *gōdi*, Tamil *kōti*. -- If the interchange between *Kamboja/Ambautai* and *Karkoṭa/Śarkoṭa* should indeed point in the direction of Munda, an etymology based on the Munda word for 'water, river' is possible as well: \**gand* 'river land' with the common suffix *-āra*, *-āla* (Witzel 1993). Mundas this far west have been denied by some, but may not be excluded altogether (Kuiper 1991). Finally, *Gandhāra* can go back to Proto-Burušaski (see n. 34), or to an unknown, lost language as well. A decision is not possible at this stage.

*Traikarta* JB / *Trigarta* MBh.+ shows the typical exchange between *garta/karta* (RV+), (EWA 472, EWA 317, Turner CDIAL 2851, Kuiper 1991). This, taken alone, indicates unsure or non-IA origin; for names in *tri-* see *tri-pura*, *tri-plakṣa*. The eastern example of *tri-līṅga* (Telinga, Telugu) shows that Sanskritization, based on a Munda word, may be involved.

*Dṛbhika* RV, which Mayrhofer, EWA 741 takes as a non-IA name, cf. Gr. *Dérbikes*? However, an IA formation \**dṛbh-Hka-* ('deceit-like', cf. also *Dabhīti*, *Druh-yu*) remain possible.

*Mūja-vant* AV, PS; *Mauja-vant* RV 'having Mūja people?' has been compared to Avest. *Muža* (see above); if Burušaski *burušo* 'Hunza man, Burušo' < \**mruš-*, early Tib. *Bruža*, a combination with Ved. *mūja-*, Avest. *muža* (also, Sak. *muys* 'to confuse?') could be attempted.

*Vṛcī-vant* RV has the same formation, with possessive suffix *-vant*. The eastern Afghani area around *Hariyūpīyā* (mod. *Hali-āb*, if reinterpretation as Iran. *-āb* 'water, river') and *Yavyāvātī* (= mod. R. *žob?*) is said to 'have *Vṛcī*';<sup>109</sup> they might be (with EWA) 'female wolves', if not taken literally (not generic 'wolves') but metaphorically a tribe 'having sorceresses, witches' (cf. Falk 1986, on sodalities). Note that Indra hands over the prominent (IA) *Turvaśa* to *Abhyāvartin* or *Daivavāta*, the (non-IA) *Śṛṇjaya*, who nevertheless is called a *Pārthava*. The hymn shows the typical mixture of IA and non-IA names for leaders, and this even in the Iranian border lands!

*Śī(r)ṣṭ(r)a* RV 8.53.4, cf. *Kīsta*, remains problematic. The readings are not clear. The Kashmir MS. (RVKh 3.5.4) *śīrṣṭeṣu*, Max Müller has *śīrṣṭreṣa*, the Poona ed., Aufrecht,

<sup>108</sup> Note the slightly deviant Iranian forms: Avest. *gaṇḍərəβa*, O.Ir. \**gandarba* > Shughni *žindurv* 'werewolf' (same development in Shughni *žindam* < \**gantuma*); confusion also in Hesiod: "*Gándaros* = *taurokératos par' Indoīs*".

<sup>109</sup> The form may be Sanskritization, cf. the person *Varcin* in the same context (RV 6.47.21 etc.); otherwise \**varc-i-vant*, *vṛcayā* (a name), Wackernagel-Debrunner II,2: 402 from \**vṛc* in *varcas*)

Vishva Bandhu have *śiṣṭeṣu* (cf. Kuiper 1991:71), and the two words may not even be connected. If so, they would show, in addition to the interchange *k/ś* noted above, the same kind of variation of *-ṭa/-ta* that is also seen in other tribal names. This deserves special attention. Cases in point are: *Kīkaṭa*, RV; *Marāṭa*(?) PS; *Arāṭṭa/Āraṭ(ṭ)a*, BŚS; and the Epic+ *Kulūṭa* (ViṣṇuPur), *Kulūta* Mbh, *Ulūṭa* (ViṣṇuPur), *Uluta* (Mbh, Kuiper 1991); *Virāṭa* (Ep.); *Kirāta* PS, AV+ ; cf. also *markaṭa* 'monkey' (KS+, EWA II 322, KEWA II 592, with pop. ety. Ved. *marka* 'destruction?'), *kulaṭā* (Sūtras + ) 'unfaithful woman'.

The *Kīkaṭa* RV 3.53, are a tribe to the south of Kurukṣetra, EWA 355 'Fremdname unbekannter Zuweisung', but they are mentioned together with their equally non-IA-looking leader *Pra-maganda* (Kuiper 1991). *Kīkaṭa* seems to be connected, or to be at least similar to the well-known non-IA RV words of similar structure RV *kīnā-śa* : *kīnā-ra* 'plow-man' and cf. RV *kīka-ṭa* : *kīka-sā* RV 'Wirbel, Brustbein' (note, in later times, the interchange *ṭ/ś*, see EWA s.v. *Ṭakkibuddha*).

*Marāṭa* PS 5.21.3, 12.2.1, apparently a tribe south of the Yamunā, in opposition to the *Kirāta* of the Himalayan region to whom fever is banished (just as to the *Balhika* and *Kāśi*, *Aṅga*).

*Arāṭṭa/Āraṭṭa* BŚS, in the general area of the Panjab, next to *Parśu* and *Gandhāri*. The word is interesting as a possible reflex of Sumerian *Aratta*, (east of the Zagros mountains, apparently the land of lapis lazuli, i.e. Badakhshān, north of the Hindukush, see above)

*Bekanāṭa* 8.88.10, certainly a non-IA name (*b-*, *-ṭ-*), perhaps is a tribal name (cf. EWA s.v.); cf. also, probably corrupt, AV 6.69.1 *aragarāṭeṣu*. (PS 2.35 reads, instead: *giriṣu parvateṣu*). The Epic *Virāṭa* also belongs here; *Virāṭa* is a king of the Matsya; *Virāṭa* as country in BrSamh., Pkt. *Virāḍa*, mod. Berar?

The paradise-like Kulu valley in the lower Himalayas (H.P.) apparently has been known from early on. AB probably refers to it by the name of the *Uttara-Kuru* tribe, just as AB calls the Kashmir Valley the land of the *Uttara-Madra* 'beyond the Himalaya,' see Witzel 1986, 1994, 280 n. 27.

The forms of the valley vary a great deal across texts: *Kulū-ta* (MBh., Kādambārī), *Kulū-ta(ka)*, BrSamh.; see Kuiper p. 38; *Kolūta* (v.l., Rām.), *Kaulūta* (Mudrār.), *Kuluṭa* (v.l. ViṣṇuPur), but also: *Ulūṭa* (v.l. ViṣṇuPur), *Ulūta* (v.l. ViṣṇuPur), and even: *utūla* 'servant' PārGS, finally *Kulu* in W. Pahari, CDIAL 3348, *Kulu* in Hindi, CDIAL 3348. For the loss of *k-* see Kuiper 1991, p. 38 ('points in the direction of Munda'), and cf. further *Kamboja* : (Gr.) *Ambautai*. For the suffix *-ṭa*, see Kuiper 1991, p. 45 where mostly Dravidian cases are given. Obviously the two explanations contradict each other in the case of *Kulū-ṭa* and also do not fit the interchange *Kīkaṭa/kīnāśa* (for *-śa* suffix cf. Kuiper 1991: 46). Thus, certain words in *-ṭa* may not be of Dravidian origin (cf. Kuiper's *krpi-ṭa*, *keva-ṭa*, *ava-ṭa*, 1991: 46.) If the word goes back, as is likely, to *\*Kuru*, it is a popular dialect form, but ultimately based on a non-IA name.

However, just as in *Kulu-ṭa/-ta*, names with the non-retroflex suffix *-ta* (or *-ti*) are attested from the RV onwards: *Śimbāta* RV, EWA II 538; *Śaryāta*, s. EWA II 615; the patronym *Śaryāta* RV from *śara* 'reed' (cf. *naḍa* 'reed' : ŚB *Nala*) seems IA. Ultimately Iranian, however, may be: *Kānīta* = Pṛthuśravas (K. Hoffmann 1975-91: 'fremdartig', in RV 8), cf. *Kanītēs*, a Scythian prince). *Turvīti* EWA II 658 ~ Avest. *Tauruuāēiti*.<sup>110</sup>

<sup>110</sup> Cf. also suffixes in *-ti*: *Palasti(-Jamadagni-)* RV 3.53.16, EWA II 102: ~ *palita* 'gray?'; *Yayāti* RV 10.63.1 EWA 'unclear'; further: *Śakunti* RV : *śakunti-kā*, *śakuni* RV, *Śakuntalā* ŚB+, only *śakuni* is difficult to explain (cf. EWA II

That the interchange *-ta/-ṭa* is not accidental may also be seen in *śī(r)ṣṭ(r)a : kīsta*, if the two words indeed are to be identified (with various degrees of Sanskritization). However, there are problems with regard to the correct form of RV 8.53.4 *śīṣṭa-*: *śīṣṭa*-Kashmir Ms, *śīṣṭra*- Max Müller ed., see Kuiper p. 71; *kīsta*-, traditionally translated 'poet', RV 1.127.7. 6.67.10 where *kīstāsah* is metrically four-syllabic (Kuiper 1991 p. 23); this naturally brings it closer to *śīṣṭra*- [*śīṣṭra*-, *śīṣṭra*-?], but it is metrically only tri-syllabic.

The word for 'hole' *kevaṭa* RV : *avata* RV : *avaṭa* 'hole' PS, SV, VS+ is one of the better known cases where the Ṛgvedic form is hyper-correct with IA *-t-* instead of non-IA *-ṭ-*. Note that both forms also interchange in *kīsta* (Āṅgīrasa, Bhāradvāja books) : *śīṣṭa/śīṣṭra* (Kāṇva, Vāḷakhilya book). Kuiper points out that *ke-/ki-/kṛ-*, (i.e., one should add, Sanskritized *kṛ-*<sup>111</sup>) is a non-IA prefix, and thus can link *ke-vaṭa* with *avaṭa* PS+, Kuiper 1991: 46.

Finally, the name of a Vedic mountain tribe, the *Kirāta* (see above). *Kirāta* VS 30.16, VSK 34.3.3, *Kilāta* PB 13.12.5, JB 3.167, ŚB 1.1.4.14 *Kilāta-ākulī*, the two priests of the Asuras; *Kailāta* (PS 8.2.5); note the *Kirāta* as herb collectors: *kirāta-tikṭa(ka)* 'plant Agathotes chirayta' (CDIAL 3174),<sup>112</sup> *Kairātika* PS 16.16.4 *Kairātikā kumārikā*, AV 10.4.14; an outcome of this is: Epic and Class: *kirāṭa* 'merchant' Rājatar.; *kirīṭa* BhPur, *kirāta*, *kilāta* 'dwarf' (class., joker of kings, etc.), *Cilātī* f. 'Kirātī woman' H.Yog.; Pāli *Kirāṭa*, *Kirāta* 'a jungle tribe, attendant to a chief'; *kirāṭa* 'fraudulent merchant', *kirāsa* 'fraudulent', *kerāṭika*, *kerāṭiya* 'false'; Pkt. *Kirāḍa*, *Kirāya*, *Cilāa* 'non-Aryan tribe' (EWA I 211: Dravid., but cf. Newārī, frequent *ky > c*); Hindi *kirār* 'merchant' (similarly in Sindhi, Lahnda). Nep. *Kirāt* 'eastern Nepal, land of the Kirāta'.<sup>113</sup>

The (admittedly late) tradition of a *Kīra* tribe, (BṛSaṃh, Mudr., Kṣemendra, cf. also *kīreṣṭa* 'walnut tree' Lex., typical for Kashmir) points to a form with the suffix *-ta*, thus: *Kīra-ta < Kīra*?

The Kathmandu valley of Nepal has an old tradition of previous *Kirāta* occupation and of a long domination by *Kirāta* kings, preceding the Licchavi dynasty which began to reign in 300 AD. Licchavi inscriptions have *Kirāta* names of offices, such as the *śolla/śulli/śūli-adhikaraṇa* -- however, note that *śulka* 'taxes' AV+ (CDIAL *śulka ~ cuṅga < Dravid.*) cf. Witzel 1980, -- and they contain many local names (Witzel 1993). The so-called Gopālarājavāṃśāvalī (c. 1389 AD) has a long list of *Kirāta* kings, with non-IA, Tib.-Burmese names: *Elam*, *Pelaṃ*, *Melaṃ*, *Caṃmim*, *Dhaskem*, *Valuṃca*, *Humṭim*, *Huramā*, *Tuske*, *Prasaphuṃ*, *Pavaḥ*, *Dāstī*, *Camba*, *Kaṃkaṃ*, *Svananda*, *Phukoṃ*, *Śimṅhu*, *Julam*, *Lukaṃ*,

603, Kuiper 1991: 44), the rest fits Munda structure (Kharia *konthe'd* 'bird' etc.), with the common *sa*-prefix (Pinnow 1959: 11). In addition note also the similar suffixes in *-tha/ṭha*: *Śirimbiṭha* RV 10.155.1 / *Irimbiṭhi* RV Anukram., *Jarūtha* RV, *Balbūtha* RV.

<sup>111</sup> See also *kar-/sar-* (below, and above); note that transposition/adaptation of foreign sounds are also found in transcribing Tibeto-Burmese sounds, see Witzel 1993, e.g. 'O. Newari' *khvap-*, *khṛp-* etc. (probably similar to the mod. pronunciation *khɔp-*).

<sup>112</sup> Used medicinally: > Sindhi *ciryāto*, Panj. *caraitā* 'Ophelia chiretta, used for purifying blood, Nep. *ciraito* 'swertia purpurascens', etc.

<sup>113</sup> For details see CDIAL 3173, 3182, Kuiper 1948: 136, 162; Shafer 1974: 124. -- Cf. also *Kailāsa*, a mountain, KathB, Caland 1920: 486, *kilāsa* 'spotted, skin disease', which has its origin in the mountains, cf. above, Pāli *kirāsa*, and CDIAL 3183: Beng., Mar.; cf. also CDIAL 3181 *kilāṭa* 'inspissated milk' Suśruta; *kilāla* AV 'sweet beverage for the gods', *kilāla-pā* RV; > Pkt. *kilāḍa* 'thickened milk', but surviving only in Gipsy, Nuristāni, Dardic and in Burušaski *kilāy* 'curds made from biestings', Tikkanen 1988.

*Thoram, Thuko, Varmma, Gumjam, Puska, Tyapami, Mugamam, Sasaru, Gumnam, Khimbum, Girijam, Khuramja, Khigu.*

The distribution of *-ta/ta* indicates that names in *-ta* (and *-nda*) are restricted to the Himalayan mountains while those with *-ṭa* (and *-ṇḍa*) occur all over the northern Indian plains. This agrees well with the distribution of *ṭ/t* in IA and non-IA languages of the area. While certain of the present Indian languages (including Pashto and Baluchi, cf. K. Hoffmann 1941) have acquired retroflexes during the past few thousand years, Tib.-Burm. still does not have *-ṭ-*, and some northern IA languages in the Himalayas avoid *-ṇ-*.

As for the origin of the suffix *-ṭa*, it may never be recovered; one may, however, compare the plural suffix *-ṭo* in Nahali (Berger 1959, cf. Kuiper, 1991, p. 45 on 'Dravidian' *-ṭa* ).

### § 4.3. Place Names<sup>114</sup>

The same type of investigation can be carried out with regard to place names. In South Asia, there are few ancient, pre-Indo-Aryan place names that survive in N. India, but some more in C. and S. India. Indo-Aryan place names generally are not very old as towns are relatively late (c. 5th c. BC+). Ved. *Rohitaka-kula* > Rohitaka > Rohtek; \**Kapiṣṭhala* > Kavithal > Kaiṭhal, *Śakala-* > Greek *Saggala* > Sial-[koṭ] (all in Kurukṣetra; cf. below); note also: *Himavant*, *Himālaya* > Nepali *Himal*, *Pañcāla* > Kashm. *Pantsāl*?

From the epic onwards, place names have been better retained: Epic *Indraprastha* > Indrapat (Delhi); *Pāṭaliputra* (Pat., Mahabhāṣya) > Patna; *Kauśambi* (Rām.) > Kosam; etc.

A list of Vedic place names would include (some may be clan/ tribal designations): *Acatnuka* (in Aṅga?) AB, *Aśmārma* Pāṇ., *Indrakrośa* JB, PB (*armaka* on Indus), *Āsandivant* AB, ŚB, *Ūrjayantī* RV 2.13.8, *Kāmpīla* JB (not a place name, K. Hoffmann 1975-92: 109), *Kapivana* (probably a person, JB 1.349), *Kārotī* (place or river, ŚB), *Kosala* JB, ŚB, *Kauśambeya*(?) ŚB, *Khāṇḍava* JB 190, *Tūrghna* TĀ, *Dvaitavana* (pond, in Matsya land?) ŚB, *Nāḍapit* ŚB, *Nārmara* (a fortress? RV 2.13.8), *Naimiṣa* JB, *Parivakrā* (in Pāñcāla) ŚB, *Parisāraka* AB, *Parisrāvati* VādhB, *Parīṇah* PB, JB, *Plakṣa prāsravaṇa*, *Prākṣa* p. PB, JB; *Balhika* AV, PS, *Bhajeratha* RV,<sup>115</sup> *Bhūtārma* Pāṇ., *Madrārma* Pāṇ., *Maru*, *Maṣṇāra* (in Bharata land) AB, *Munimarāṇa* PB, *Raikva-parṇa* (in Mahāvṛṣa land),<sup>116</sup> *Rohitaka-kūla* PB,<sup>117</sup> *Vārṣiṣṭhīya(-prastha)* AB, BŚS, *Vinaśana* PB, JUB, *Vibhinduka* JB, *Vetasvant* PB, *Vailasthānaka armaka*, *Mahāvailastha armaka* RV, *Śaryañāvant* RV, JB, *Sarvacaru* (name of a man or place) AB, KB, *Sācīguṇa* AB.

<sup>114</sup> See A. Forbiger 1844, Ch. Lassen 1847-62, H.F. Tozer 1897, 1975, McCrindle repr. 1979, Macdonell and Keith 1912; Cunningham 1924; N. L. Dey 1927, W. Kirfel 1927, 1931; L. Hilgenberg 1933, B.C. Law 1935, G. P. Malalasekara 1938, Sankalia 1947, Shaffer 1954, R.C. Majumdar 1960, D.C. Sircar 1960, 1966, P. Gupta 1973, 1977, K.P. Śreṣṭha VS 2044, K. M. George 1986, K. Nachimuthu 1987.

<sup>115</sup> Either a place name or a person's name, RV 10.60.2 cf. Bhagīratha Aikṣvāka JUB 4.6.1.2; cf. Pāli *Bhagīratī* river (= Ganges) between N. and S. Pāñcāla.

<sup>116</sup> ChU 4.2.5 *Raikva*, a person; however, note Kuiper 1997: 9 *parṇa* in RV~ Munda: *Pārṇaya*, *Pārṇaka*.

<sup>117</sup> *Rohitaka* (also a tree name) = mod. *Rohtek* in Haryana, cf. Shaffer 1954: 94.

Names are clustered in Kurukṣetra, the mythical, religious and political center of early post-Ṛgvedic civilization. These include the following.<sup>118</sup>

*Anyataḥ-plakṣa* pond, ŚB

*Āsandīvant* home of Kuru lineage, AB, ŚB

*Upamajjana*, place of disappearance of the Sarasvatī JB

*Kārapacava*, place on Yamunā, east of Kurukṣetra, PB (*kāra* 'victory', or 'army', O.P. *kāra*?, + *pac* 'to cook', with reference to the post-RV *Dāśarājña*?)

*Khāṇḍava* forest south of Kurukṣetra, TĀ

*Tūrghna* area north of Kurukṣetra, TĀ

*Tri-plakṣa* place high up on the Dṛśadvatī, LŚS (cf. Mbh.3.129.13 *plakṣāvatarāṇaṃ yamunā-tīrtham*).

*Dṛśadvatī* river RV+

*Nāḍapit* birth place of Bharata, ŚB

*Naitandhava* place low on the Sarasvatī, a series of *arma*, PB<sup>119</sup>

*Parīṇah* place low on the Sarasvatī, JB, PB, TĀ (in W. Kurukṣetra), LŚS, KŚS, etc.

*Parisāraka* ditto, AB 2.19

*Parīśrāvati* ditto, surrounded by its water, VādhB 4.75

*Prakṣa prāsravaṇa* source of Sarasvatī, JB, JUB

*Plakṣa prāsravaṇa* source of Sarasvatī

*Bīsavant/-tī* (*puṣkara*), pond ŚB, BŚS

*Mānuṣa* place in west of Kurukṣetra (in *Dāśarājña* battle), RV 7.18.9, RVKh 5.14.1, JB, cf.

Avest. *Manuša*;

*Śaryaṇāvant*, a pond in W. Kurukṣetra, JB

*Sarasvatī* main river of Kurukṣetra

*Vinaśana* place of disappearance of Sarasvatī, PB

*Vyarṇa Naitandhava*, place (*arma*) low on Sarasvatī, PB (cf. Avest. *gairi us.haṇḍava*),

*Śaiśava* an arm of the Sarasvatī, JB

*Sthulārma* place and pond near to *Plakṣa prāsravaṇa*, PB

As can easily be seen, most of the names are IA or at least superficially Sanskritized (*kāra-pacava*?, *khāṇḍava*, *tūrghna* EWA I 661, *naitandhava*, see Falk 1981). The rest of the names are clearly IA, and most of the forms are easily analysable new formations, so typical of settlement in a new territory (cf. however, below, on the river names of the area!)

In passing, the mountain names of the Vedic period may be mentioned. Only a few survive, no doubt due to the distance from the Himalayas and the *Vindhya* (Mbh., *Manu*+). This very name is of interest, though, as it might be linked to an aboriginal tribe in the area, see Kuiper 1991, 40: *\*Binda* (mod. *Bind* tribe : *Bainda* YV (victim in *Aśvamedha*), *Ṛ-binda* RV, *Kusuru(u)-binda*, etc., see above). Is *Vindhya* a Sanskritization of *\*bind(-ya)*?

The known mountains are: *Kāṣṭha* a mythical mountain, JB; *Kailāsa* (late) KāṭhB; *Krauñca*; *Trikakud*; *Nāvaḥ prabhramśana*, PS 7.10.8 (*yatra himavataḥ śiraḥ*; cf. *naubandhana-śikhara*, NīlamataPur. 163-164); *Pāriyātra* BaudhDhS, VāsDhS, Mbh, Suśr.; *Manor Avasarpaṇa* ŚB; *Mūjavant*; *Maināka*; *Yauṣita* JB; *Himavant*.

<sup>118</sup> Many of them have been discussed by K. Hoffmann, 1975-92: 120 sqq.; cf. Falk 1981

<sup>119</sup> Falk 1981: 170 "probably Aryan, because of spirants hardly Dravidian"; EWA II 57 'not clear'.

We now turn to the most stable type of names, the river names. Everywhere, such names seem to be retained even from a series of previous populations or languages (e.g. the rivers Rhine, Danube, Nile, Tigris).

## § 5. Hydronomy

In contrast to personal names and names of localities and tribes which are not always easy to locate<sup>120</sup> geographically, the designations and locations of rivers have changed comparatively less since Vedic times. They offer the chance to create a grid of locations and their designations over time. Thus, the early linguistic (and ethnic) history of S. Asia can be clarified to a large degree by investigating the names of rivers and lakes.<sup>121</sup> Such names tend to be very archaic in many parts of the world and they often reflect<sup>122</sup> the languages spoken before the influx of later populations. It seems essential to gain such a unique vantage point for the prehistory of S. Asia. However, a sustained study has not been made, except for some incidental proposals<sup>123</sup> and the mainly unpublished, inaccessible work of H.-J. Pinnow<sup>124</sup> which covers, by and large, the post-Vedic period.

A few general remarks may be in place here. Designations of rivers may be due to a number of processes, especially in a situation of overlay by a new language or civilization; in addition, in IA and IIR languages, river names are, for mythological reasons, nearly always of feminine gender.<sup>125</sup> Pinnow (1953) has underlined that the types of formation of Sanskrit river names are found throughout the subcontinent, and that they differ very little from each other, whatever the local substrate language or non-IA language still spoken may be.<sup>126</sup> In a situation of language intrusion, bilingualism, and substitution the following

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<sup>120</sup> It should be noted that Schwartzberg's Atlas is not very reliable for the Vedic period: partly outdated information from McDonnell-Keith is taken over as such, and data attributed to Pāṇini, however, reflect those of V.S. Agrawala 1953, i.e. data from Pāṇini, Kātyāyana and Patañjali, and thus down to 150 B.C.; by that time even the South was better known; cf. Asoka's inscriptions.

<sup>121</sup> Pinnow 1953: 228 underlines that in Skt., river names usually are of feminine gender, but oceans and also lakes, ponds and wells are masculine or neuter. (The reason is that the ocean, similar to Mesopotamian mythology, has salty waters while the rivers, as 'best mothers' have sweet water. For the underlying IIR mythology, cf. *Sarasvatī/Arəduuī Sūrā Anāhitā*, Witzel 1984).

<sup>122</sup> For early Europe see the work of H. Krahe 1962, 1964; cf. however, W.P. Schmid 1968. -- For the Amerindian substrate in North America note related river names such as: Mississippi, Missouri, Connecticut, Penobscot; Chatahoochee, Choctawhatchee, etc. Old names such as those of the Euphrates, Tigris and Nile are reflected in modern Arabic as: *Nahr al Furāt*, *Nahr al Dijla*, *Baḥr en Nīl*, or the Azerbaijani rivers *Araks*, *Kura* < (Greek form) *Kyros*, *Araxes*.

<sup>123</sup> See Pinnow 1953; for Nepal see Witzel 1993. R. Shafer 1954 goes too far with his Tibeto-Burmese identifications. -- Note also the complaints of Nachimuthu et al. (1987) about lack of progress in Indian onomastic research.

<sup>124</sup> H.J. Pinnow 1951, 1953.

<sup>125</sup> The Sindu is an exception, probably due to its identification with the world ocean (*Sindhu*, Avest. *həṇdu*), see below.

<sup>126</sup> Pinnow 1954: 1; for example, *Irāvātī* (Ravi) in the Panjab or *Vega-vatī* (*Vaigai*) in Tamil Nadu, or *Bhagī-rathī* (headwater of the Ganges, or estuary branch of the Ganges in Bengal) and *Bhīma-rathī* (tributary of the Kṛṣṇā/Kistnā).

situations may occur.<sup>127</sup> (The same mechanisms are in place also elsewhere, e.g. in Nepal<sup>128</sup> or in Finland.)<sup>129</sup>

- \* direct loan from the local language (*Kauśi-kī*, *Kośi*)
- \* transformation of a local name, often with popular etymology (*Gaṅgā*), or names with no obvious meaning (*Kubhā*, *Śutudrī*)<sup>130</sup>
- \* translation (*Sadānīrā*)<sup>131</sup>
- \* new, etymologically transparent name with loss of the old name (*Vitastā*)
- \* transfer of names during migration (*Sarasvatī*) or the subsequent 'colonization' of the East (*Gomatī*, *Sarayu/Sarayū*).

Further, it should be noted that rivers often have different names along their courses; especially the headwaters often have different names, e.g. the *Bhāgīrathī* and *Alaknandā* become the *Gaṅgā*.<sup>132</sup> This increases the probability for multiple names from various languages for one and the same river, of which only one may have survived in our sources (*Mandā-ki-nī*, *-nandā*, *Gāndhinī*, *Gaṅgā*, , see below, s.v. *Gaṅgā*).

Many of the typical designations of rivers are (local) words for 'river' or 'water', e.g. in Nepal (*-khola/gāḍ*,<sup>133</sup> etc.), cf. *River Nile*, *River Thames*, *Rio Tinto*, cf. the Croatian town of *Rijeka* 'river' (= Ital. *Fiume* 'river'), etc. A particular cluster of such 'suffixes' or 'prefixes' generally agrees with the region of a particular tribe or linguistic group.<sup>134</sup>

A list of Vedic river names includes the following.

*Anitabhā*, *Ārjikīyā*, *Ūrṇāvatī*, *Kārotī?*, *Karatoyā?*, *Kubhā*, *Kulīśī*, *Krumu*, *Gaṅgā*, *Gomatī*, *Triṣṭāmā*, *Paruṣṇī*, *Marudvṛdhā*, *Mehatnū*, *Yamunā*, *Yavyāvatī*, *Rathaspā/Rathasyā*, *Rasā*, *Varaṇāvatī*, *Vitastā*, *Vipāś*, *Vibalī*, *Vaiśambhalyā*, *Śīphā*, *Śutudrī*, *Śvetyā*, *Sadānīrā*, *Sarayu*, *Sarasvatī*, *Sindhu*, *Sīlamāvatī*, *Sudāman*, *Suvāstu*, *Suṣomā*, *Susartu*, *Hariyupīyā??*, *H(v)ṛṇinī*.

Even a brief look at this list indicates that in Northern India, by and large, only Sanskritic river names seem to survive.<sup>135</sup> This includes early Sanskrit ones from the Vedic period and names derived from the daughter languages of Sanskrit later on. This trend is quite clear already in our earliest surviving list, the 'praise of the rivers' in the RV 10.75,

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<sup>127</sup> Cf. for India in general, Pinnow 1953: 233; Witzel 1993.

<sup>128</sup> See Witzel 1993.

<sup>129</sup> S. Embleton 1990 for the same kind transformations as detailed above.

<sup>130</sup> *Bāhūdā* 'giving an arm' < Munda \**da(k)* 'water' (Pinnow).

<sup>131</sup> Skt. *Vāgmatī* 'the one with voice' < Newari *Nwa-khu* 'murmuring river'; Pinnow 1953: 233: Skt. *Kṣīranadī* < Tamil *Pālāru* 'milk river'; or *Citrānadī* 'variegated river' < *Cittāru* 'small river' (*cittu* 'small', *āru* 'river') with popular etymology > *citra* 'variegated' and translation of *āru* > *nadī*.

<sup>132</sup> Cf. also *Kalindī*, the name of a tributary of the *Gaṅgā*, Rām. 2.55.4,12,13, and *Mandakinī*, see below.

<sup>133</sup> See Witzel 1993; for *gāḍ* see Pinnow 1953.

<sup>134</sup> Cf. Pinnow 1954: 1, cf. M. Vasmer 1941.

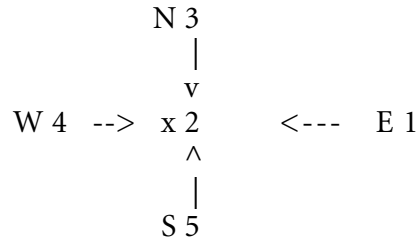
<sup>135</sup> Pinnow 1953, maintains that names for rivers, lakes etc. are etymologically clear and generally have a meaning in Skt., except for a remnant group of c. 5 %. This is due to the ever-increasing process of changing older names by popular etymology.

where most of the names look IA. Arranged from east to west, this hymn<sup>136</sup> begins with, the eastern rivers Ganges and Jamnā followed by the eastern tributaries of the Indus.

10.75.5. *Gaṅgā, Yamunā, Sarasvatī, Śutudrī, Paruṣṇī;  
Asiknī, Marudvṛdhā, Vitastā, Ārjikiyā, Suṣomā.*

These are by and large, identified: *Gaṅgā* = mod. Gaṅgā /Ganges; *Yamunā* = Jamnā, *Sarasvatī* = Sarsuti/Gagghar-Hakra; *Śutudrī* = Satlaj/Sutlej; *Paruṣṇī* = Rāvī; *Asiknī* = Chanāb/Chenab; *Marudvṛdhā* = ?; *Vitastā* = Bihet/Jihlam/Jhelum; *Ārjikiyā* = Tauṣī/Tohi/Tawi?, *Suṣomā* = Sohān/Suwan);

They are followed, in the Himalayas and from north to south, by the northern section of the western tributaries of the *Sindhu*; then the *Kubhā* (Kabul River) is mentioned, followed by the southern section of western tributaries of the *Sindhu* in the Suleiman range, this time from south to north. In short, the Vedic territory is briefly circumscribed in this hymn in a series of movements: E -> W, N -> S; *Sindhu* with *Kubhā*, S -> N. In other words: E-W-N-S-W-S-N, a rather unusual pattern, but an effective one to circumscribe the Vedic territory and to indicate the center:



The center of this hymn seems to be at the confluence of the Kabul river with the Indus, Pāṇini's home.

The second part of the list begins and end with the exact (south-)eastern and (north-)western extremities, the *Rasā* and the *Mehatnū* (near the Kabul river).

10.75.6. *Tr̥ṣṭāmā, Susartu, Rasā, Śvetī  
Sindhu, Kubhā, Gomatī, Krumu, Mehatnū*

These correspond to the modern rivers *Sindhu* = Sindh, Indus, *Kubhā* = Kābul, *Gomatī* = Gomāl, *Krumu* = Kurram. The rivers in the Pamir/Himalaya (*Tr̥ṣṭāmā, Susartu, Rasā, Śvetī*) cannot be traced with certainty. The *Mehatnū* must be a river between the Kurram and the Kabul.

A problem is that of the *Marudvṛdhā* 'growing because of the (rains of) the Maruts'; it is perhaps the name of the combined Panjab rivers before flowing into the Indus. It is surprising that the *Vipāś* (Beās) is missing in this list. The Beās, however, is mentioned in the somewhat older hymn 3.33, together with the confluence of Sutlej and Beās. This will

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136 Cf. treatment by A. Stein 1917.

provide, incidentally, a date *ad quem* for this part of the RV, once the relevant geological and geographical data have been confirmed (and it speaks against the current revisionist fashion of assigning a pre-Harappan date to the RV). The older Sutlej did not join the Beās but flowed into the Ghaggar-Sarasvatī river, supplying much of its water that accounted for its much praised magnitude. It may be that the combined Sutlej-Beās are referred to as *Vibalī*, which would agree with the typical renaming after the confluence of two important rivers. Note that *Vi-balī* reflects the first element of the *Vi-pāś*, and that it also sounds similar to the late Vedic name of the neighboring Sarasvatī, locally called *Vaiśambhalya/-phalyā*. This conglomerate allows the tentative reconstruction of a non-IA local name for the (older, combined?) Beās-Sutlej-Sarasvatī complex as *\*vip/bal*, or of the Beās as *\*vipāl/vipāś/vipāž*, and of the Sarasvatī as *\*višambal/viśampal*.<sup>137</sup>

A closer look at the grid of river names in RV 10.75 reveals, however, some details that do not sustain a 'pure' IA picture of name giving.

To begin in the north-west: the tributaries of the Indus, *Trṣṭāmā*, *Susartu*, *Rasā*, *Śvetyā* all have clear IA etymologies: *Trṣṭāmā* < *trṣ* 'the rough, (or) the dried up (river)' (EWA I 667), *Susartu* < *sar* 'to jump, run' (EWA 708 s.v. *sarayú*, cf. KEWA III 471); *Rasā*, well known as mythical river at the end of the world, here high in the Himalayas, < *rasa* 'juice', = Avest. *Raṇhā* and Scyth. *\*Rahā* in Gr. *Rhā* (EWA I 442); *Śvetyā* 'the white one' (EWA II 679). The same applies to the name of the *Sindhu* = O.P. *Ha<sup>n</sup>du*, Avest. *Həṇdu*, if with P. Thieme, from *sidh* 'to divide'. Note that the *Sindhu/Həṇdu* divides not only the Vedic and Iranian territories, it also is the boundary (*zaraiiah vourukaša*, Witzel 1984)<sup>138</sup> between the settled world and the beyond; however in many languages (incl. Burušaski *sinda*, Werchikwar dial. *sende*; < Shina : *sin*? Pinnow 1953: 12-13) it simply seems to indicate 'river' (EWA II 729 : 'unklar') which nevertheless can be secondary. The decision depends on a clear comparable Iranian or IE word, which seems difficult to establish now that A. Hintze (1998) has shown early take-over of IA geographical terms into Iranian (cf. also below, on *Gomatī*). However, the mythical central mountain, *us.həṇdauua* 'emerging from the river/ocean [*Vourukaša*]' presupposes an IIR word *\*sindhu* 'boundary of the inhabited world, ocean, big stream', and comparison with the *Sindes*, a people on the Kuban R., north of the Caucasus mountains<sup>139</sup> becomes interesting again (as well as the name of the Irish R. Shannon, EWA II 729).

If the name of the river *Sindhu* is not absolutely securely etymologizable as IA or IE and may even be a Sanskritization of a local word, based on the old IIR concept of a boundary river/ocean *\*sindhu*, the same is certainly true for the main contributory in the NW, the Kabul River: Ved. *Kubhā*, Gr. *Kophēs*, *Kophēn*, can only vaguely be connected with Ved. *kubja* 'bent, crooked', *kubhra* 'humped bull' (KEWA I 232; EWA I 368, CDIAL 3300, 3261) EWA I 368 thus states: "kann autochthon sein".<sup>140</sup>

<sup>137</sup> A Drav. etymon might be: 5434 Tam. *viḷampu* 'to distribute food'; note the variant *vaiśambhalyā*; cf. also DED 5503 (Tam. *vellam* 'flood'), etc.; cf. also below on *parṇā* DED 3972, Tam. *par* 'swell' etc., 4016 Tam. *paḷlam* 'low land, valley.'

<sup>138</sup> Cf. *us.hiṇdauua* 'beyond the natural frontier' (Thieme), that is: the (mountain) 'coming out of the ocean (Milky Way) / or 'beyond the Milky Way', cf. Witzel 1984.

<sup>139</sup> Mayrhofer 1979.

<sup>140</sup> Pinnow 1959: 340 § 483, Kharia: *kubja* 'crooked', *kaṛ'ba* 'plough handle', *kabai'j*, *kubui'j*, Muṇḍari *kaka-kobo*, etc.; the -ṛ- is an infix; see also Kuiper 1948: 42 sqq.

In passing it may be mentioned that there is only one larger river in Kashmir that has escaped Sanskritization (Witzel 1994), the *Ledarī*. It has been attested since the *Nilamata Purāṇa* (c. 7th c. AD) and the *Rājatarāṅgiṇī* (1150 AD).<sup>141</sup>

The rest of the NW and W. rivers, however, is IA: *Gomatī*, *Krumu*, *Mehatnū*. This also applies to other rivers in the area not mentioned in this hymn: *Suvāstu* RV, EWA 549, 'good (dwelling) place' is from *vāstu* = mod. *Swat*; however, Pinnow adduces a later name, *Śubhavāstu*. A branch of the *Gomatī*, the *Yavyāvati*, RV 6.27.6 = mod. *Zhob*?, belongs to *yavyā* 'stream, canal', O.P. *yauviyā*, Parachi *žī* 'rivulet' (EWA II, 405). The much discussed *Hariyūpiyā* RV 6.27.5 EWA 807) 'having yellowish poles' (> mod. *Hali-[āb]*?), is from this area and certainly cannot be linked, also for reasons of historical phonology, to mod. *Harappā*. Finally, the IIr or rather the Vedic ancestors of the Avest. *Harōiiu* = mod. *Harē* river of Herat, and the Avest. *Harax'aitī* ~ Class. Arachosia, etc., appear in the RV as *Sarayu* and *Sarasvatī*. Some of the passages still reflect the older Afghani location (Witzel 1986) while they also have been exported to Vedic India as the *Sarasvatī* of the Kurukṣetra area and as the post-Vedic *Sarayū* (mod. Sarju, Gogra etc.) of Eastern U.P.

The *Gomatī* 'having cows' = mod. *Gomal* (cf. EWA I 478 sqq.)<sup>142</sup> must stem from the Vedic form (*gomant*, *gomatī* = Avest. *gaomañt*, *gomaitī*) as the present Pashto name cannot go back to this language: Pashto *ywā* 'cow'; for the E. Iran. development *-d- > l* cf. *dipi/lipi* in Pāṇini, etc., Witzel 1980b. This underlines the easy fashion in which such names have been transposed from one IIr dialect into another, see A. Hintze 1998.

The *Krumu* is the modern *Kurram*, north of the *Gomal*. Its etymology is not very clear; perhaps it is to be connected with *kṛmi* 'worm', thus 'the winding, crooked one'? (KEWA I 280, cf. also EWA II 395 'unklar'.) It may as well reflect a superficial Sanskritization of a non-IA name.

The last Indus tributary, the *Mehatnū*, however, is derived from *mih*, *mehati* 'to urinate, rain', and thus is the 'one flowing copiously' (K. Hoffmann 1975-76: 411, KEWA II, 690; EWA 381).

In sum, it is very important to note that the northwest has a clear majority of IA river names -- with the possible exception of the Sanskritized *Kubhā* and perhaps the *Sindhu*. This situation should not surprise as it is in this area that the IA clans and tribes must have stayed for quite some time before trickling down into the plains of the Panjab (Witzel 1995).

The situation is essentially the same as that presented by the historically attested eastward spread of the Nepali speaking *Khaśa* through the lower Himalayas, from *Khaśalī* (*Rājatarāṅgiṇī* 7.399) south-east of Kashmir (1150 AD), to H.P. and the W. Nepali Malla kingdom (13th c.), to the gradual infiltration as soldiers (17th c.) and the final Gorkha conquest of the Kathmandu Valley (1768-9) and beyond, to Sikkim, Bhutan and Assam (Witzel 1994, 281 n. 44). Nepali river names (with IA etymology and with the 'suffix' *-gāḍ*, *-kholā*, Witzel 1993) are well attested in the area of their Malla kingdom but become scarcer further east, to peter out at the eastern border of Nepal. We witness the same range of new designations ('deep river'), loan translations ('washermen's river', from Newari, in

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<sup>141</sup>However, the *Māhurī* in N. Kashmir < Pkt. \**madhurī*, CDIAL 9793, there is no continuant in Kashmiri: Kash. *mas* < NW Pkt?, cf. CDIAL 9794 and Nuristani, Kalasha *mahura*.

<sup>142</sup>The *Gomatī* rivers (three or four rivers forming the upper course of the *Gomal* in E. Afghanistan), RV 5.61.19 might be the modern *Gumti* in U.P., see Ved Ind. I, 238; but the connection with *parvata* speaks against it; *Varaṇāvati* AV 4.7.1 (but PS 5.8.8 *vār idam vārayātai varuṇāvata ābhṛtam*) is not clear; the Benares rivers *Varaṇā* and *Asī* are attested much later; *Sarayū* is post-Vedic, see Ved. Index II, 434.

Kathmandu) to adaption to IA patterns, with the Nepali suffix *-kholā* 'river' (similar to: *Gaṅgā*, *Sadā-nīrā*) that we can see in Vedic times.

The picture changes, however, substantially the moment one steps down to the Indus and beyond. From west to east, the hymn RV 10.75 has the following streams: The *Suṣomā* 'the one having good Soma' must be the river closest to the Indus, and therefore is the modern Sohān/Suwan<sup>143</sup> (v. Hinüber 1985:1100). Arrianos, *Indikē* 4.12 has *Sóanos*, v.l. *Sóamos*, = *Suvana*?, perhaps Gr. *Saranges* (v. Hinüber 1985, 1099, cf. Ved. Index II 460 sq.) The name is important in the light of the search for good Soma, for example on the Mūjavant mountain, which appears in Mbh, with popular etymology, as *Muñjavant*.

The next river further east, the *Ārjikīyā*, is difficult to locate (details in Ved. Ind. I 62, v. Hinüber 1985: 1097). Importantly, Alexander's Greeks came across a prince Arsaces, brother of Abisares, in this area. This locates an *\*Arsaka* (= *\*Ārjaka*?) territory close to *Abhisāra* which is well-known, even in the Rājatarāṅgiṇī, as the foothill area of Kashmir, south of the Pīr Pantsāl range. Etymologically the name is connected with *ṛjīka-* 'radiant, foam' (KEWA I 120, EWA 251). The river may now be represented by one of the many *Tawī*, *Tohī*, *Tosī*, *Tauṣī* (Greek *Toutapos*, Lat. *Tutapus*, cf. v. Hinüber 1985: 1099) rivers in the *Abhisāra* (Rājapura, Rājaurī, Punch) area; cf. already Bühler 1877: 3.

The next larger river eastwards is the *Vitastā*, mod. Jhelam/Bihet/Vēhat/Veth, CDIAL 11720, Gr. *Hudāspēs*, *Hūdaspis*, *Bidāspēs* (see v. Hinüber 1985: 1097). The etymology is straight-forward: *vi-taṃs*, *vi-tas* 'expanse', EWA II 553, KEWA III 208; comparable is *\*vi-tas-vatī* > Avest. *Vītaṇhuua<sup>i</sup>tī* (K. Hoffmann 1992: 799 n. 32).

The same is true of the next two rivers east, first the *Asiknī* (Gr. *Akesines*), the Epic (Mbh 6.10.14) *Candrabhāgā* > mod. Chen-āb, Gr. *Sandurophagus*, *Sandabagis*. *Asiknī* is fem. of *asita-* (KEWA I.64 < *\*asitnī*; EWA II, 146). The *Paruṣṇī* = MIA: *\*paruṇhī* in Gr. *\*Páronnos* > *Páren(n)os*, see v. Hinüber 1985: 1099; it was renamed already by the time of Yāska, Nir. 9.26 and the Epic as *Irāvati* = mod. *Ravī*. The etymology is from *paruṣa-* 'spotted, gray-brown' (KEWA; EWA II 95).

The *Satlej*, Ved. *Śutudrī*, however, is of difficult etymology. The Epic (Mbh 6.10.14) has a popular etymology of the word: *Śatadru*, *-drū*, *-drukā* 'running in a hundred (courses) / like a hundred (horses)'; however, there are several other forms, due to popular etymology, of the name, such as *Śitadru*, *Succhatrī*, *Chutudrī*, which point to different realizations of a local non-IA name, with popular etymology: Vedic *Śutudrī* > *\*Śutudru* > *Śatadru* 'having a hundred pieces of wood', or > *Śitadru* 'running sharply', or even *Succhatrī* 'having beautiful mushrooms' (cf. KEWA, Pinnow 1953: 233, EWA II 464 "ein autochthoner Name?").

This fact is of great importance, as we now enter one of the areas of the Indus civilization which became increasingly important in the late and post-Indus period. In the Vedic period it became the north-western boundary of Kurukṣetra, called *Tūrghna* in TĀ 5.1 (which in itself is without clear etymology, though superficially IA, Sanskritized(?) as 'racer's death', EWA II 661).

Further, the *Vipāś*, the modern *Beās*, which joined the *Sutlej* by the time of RV 3.33, and its lower course, the *Vibalī*,<sup>144</sup> as well as the next river east of it, the *Vaiśambhalyā* /-

<sup>143</sup> See already M.A. Stein, 1917. -- Not the *Soan* = *Sudāman*, PB 22.18.7 --> *Sutlej*.

<sup>144</sup> EWA II 558 (Lüders on RV 4.30.12) from early MIA *\*vi-bāla* < *-pāra* 'dessen Ufer weit auseinanderstehen', cf. Khovar *biyār* 'opposite bank'.

*phalyā* (= *Sarasvatī*), all have names that smack of the Sanskritization of local non-IA names (see above on \**vipāl*!/š/ž, \**višamb*/pal).

In the later RV period, the area just south (cf. RV 10.61.8) of the *Sarasvatī* is clearly labeled as non-IA: RV 3.53.14 ridicules the *Kīkaṭa*: they do not use their cows properly as well as ritually (i.e. for the *gharma* milk offering); the chief of the *Kīkaṭa* is a *Pramaganda* (clearly without IA etymology, see above); he is also called *Naicaśākha* 'coming from/having low branches'. This area south of Kurukṣetra is known, from TĀ 5.1.1 (cf. PB 25.3,6, JB §190) onwards, as the *Khāṇḍava* forest, again a clearly non-IA name.

We have, thus, in Kurukṣetra, that is right in the heartland of Ṛgvedic (books 3, 7) and post-Ṛgvedic culture (e.g. PŚ, KS/MS, AB), an accumulation of non-IA-looking names. This raises the important issue of early interaction and amalgamation of the immigrant Aryan civilization (with IA speech, Vedic religion and mythology, Agni and Soma cult, IE poetical tradition) and the preceding Indus civilization and its local, village level continuants (Witzel 1995). While the amalgamation must have been going on during the whole of the Ṛgvedic period and all over the Panjab, the later Bharata chieftains, such as Sudās, established their center of power precisely in this relatively small area (RV 3.53). It was to become the 'Sacred Land' of the Vedic period where even the gods came to sacrifice (Witzel 1995, 1997). One possible reason for this move has recently been discussed by archaeologists: the shift of an agricultural population of (post-)Indus type (with rice and millet) into the area and beyond, into Haryana/W.Uttar Pradesh. AB 3.45, though somewhat later, but composed in the Kurukṣetra area and just west of it, actually confirms this view by stating that there are long wildernesses in the west, but populous settlements in the east (Witzel 1986). In other words, the establishment of Bharata and Kuru power exactly at this location may have been intentional. The semi-nomadic, pastoralist Aryans depended also on local grain production which, from the RV onwards, must have been supplied by the local population. The many non-IA terms for agriculture (Kuiper 1991, Masica 1979) clearly indicate this, and the post-RV texts bluntly say so (raids into the east for grain, TB 1.8.4.1, cf. ŚB 5.5.2.3-5).

A few Ṛgvedic river names may be added which do not appear in the Hymn to the Rivers (10.75) or whose location is not very clear. They include the clearly IA names (some of them clearly new formations (and maybe epithets only): *Pastyā* 8.27.5 etc., EWA II 111, *Yavyā* 8.98.8, *Aṃśumatī* 8.96.13, *Suyamā* 10.44.2, *Vīrapatnī* 1.104.4, *Añjasī* 1.104.4, EWA 54 sq., *Kuṣavā* 4.18.8?, *Śiphā* 1.104.3, EWA II 637, and the etymologically unclear words: *Kulīṣī* 1.104.4, EWA 374.

To return to the Kurukṣetra area. Its main river, the *Sarasvatī* (the modern Sarsuti/Ghagghar-Hakra) has an old, traditional IA name, also found in Iran: *Sarasvatī* < \**saras-vatī*; taken over into Iranian as local (Arachosian) Avest. *Haraxaitī* (for general Avestan \**haraṇhuuaitī*), OP. *Hara<sup>h</sup>uvatī*. Rather than 'mit Gewässern versehen' (Hoffmann-Narten 1989: 79) the river name must have meant 'provided with (many) ponds'. This describes the Iranian and Panjabi *Sarasvatī* much better: both rivers end in the desert, in a series of meandering branches (note *Parisāraka*, *Parisrāvatī*, *Parīṇah*), with lakes and ponds (Witzel 1984, Falk 1997). The etymology is clear (*sāras*, IE \**sélos* EWA II 706, no connection with *sar* 'run, move speedily' < IE \**sar*); yet, the question remains whether the formation is already Ir or whether the Iranian forms have been taken over from an earlier IA population in Arachosia. A. Hintze (1998) has shown that this is possible. Some IA elements may actually have remained in the *Haraxaitī* area, as Vīdēvdāḥ 1.12 expressively mentions that people of this area continued to bury their dead. The mechanism of transfer is similar to the constant automatic substitution of sounds between two closely related

languages or dialects such as Dutch/German by speakers of both languages (Caland, in his German translations, slips to Dutch *Kracht* for German *Kraft*, or, while living in Holland, I once automatically substituted *Luchthansa* because of the interchange of Dutch *ch* / German *f* in German *Luft*.) Other names taken over by the Iranians are \**Sarayu* for the Herat river (see above), and *Gomatī* for the modern Gomāl.

What is of great importance, however, is to note that the Ilr and IA speakers were apt to take their river names with them and applied them to the rivers of their respective new homelands: They brought the *Sarasvatī* from Arachosia, the *Rasā* from the Volga (Gr. *Rhā* = N. Iran. \**Rahā*, Avest. *Raṇhā*), and perhaps the *Sindhu* from the Kuban area north of the Caucasus. The IA continued to apply such river names in their new territories east of Kurukṣetra: there are the *Gomatī* (mod. Gumtī), and the *Sarayū* (mod. Sarju, Gogra) in U.P., transferred from their NW. and E. Afghani locations (RV *Sarayu* > Avest. *Harōiiu*, mod. Harē, RV *Gomatī* > mod. Gomāl). Note that they did not do so, except for the *Sarasvatī*, in the Panjab and the Kurukṣetra area.

### § 5.1. Kurukṣetra

In this area, all names are unique and new formations, mostly of IA coinage. The main rivers are, apart from the *Sarasvatī*, the *Dṛṣadvatī* and the *Āpayā* (RV 3.23.4 where all three are mentioned together, Mbh 3. 83.68 vulg.).

The river *Dṛṣadvatī* has a clear IA etymology, the 'stony one', see EWA I 742, and *Āpayā* looks IA (perhaps *vṛddhi* derivative of *apa-yā* 'to move away (into the desert?)', or of \**a-payas* 'without water' (typical for seasonal rivers),<sup>145</sup> at any rate, both with a superficial, popular etymology and resemblance to *āpaḥ* 'waters').

Just like the place names of the area, most of the river names are easily analysable as new formations, so typical of settlement in a new territory. The only exceptions are the *Śutudrī*, and perhaps the *Vaiśambhalyā/phalyā* (see above).

Kurukṣetra is, in the Brāhmaṇa texts, one of the best known areas of N. India. Most of the names in this area (see above) are, by the time of the Brāhmaṇas, of clear IA type, and many are clearly new formations taken from the appearance of certain land marks (*triplakṣa*, *vinaśana/upamajjana* and *parisravaka*, etc. of the disappearing *Sarasvatī*; *vy-arṇa* of an island hill; *anyataḥ-plakṣa*- or *bīsa-vat puṣkara*- of a pond).

Returning to the Ṛgvedic period, and turning further east from the *Sarasvatī*-*Dṛṣadvatī* area, the next larger stream encountered is the *Yamunā*, the modern Jamnā (Gr. *Diāmoúnas*, *Iomanes*, OvH 1110). The name is clearly IA (EWA II 401, connected with *yama*- 'twin'), though with a rare suffix *-una/unā* found only in a few words such as *Var-una*, *tar-una*. Why should the *Yamunā* be a 'sister' stream in the RV? Its confluence with the *Gaṅgā* is not yet in view of Ṛgvedic poets. The sister stream might be the (great) *Sarasvatī*. A mythological possibility, however, also exists, with the two branches of the Milky Way (Witzel 1984).

Finally, the last river in the Ṛgvedic list, the *Gaṅgā*. This is also the most difficult one. In the RV, the name occurs only in 10.75 and its derivative *gāṅgya*- at 6.45.31. along with

<sup>145</sup> Monier Williams, very unlikely, acc. to Mallinātha's comm. s.v. *Āpagā*, from *āpa*- 'amount of water' + *yā*.

the non-IA name *Bṛbu* and the *Paṇi*. The designation of the Ganges, too, seems to be non-IA. It only looks IA superficially, with clear marks of a popular etymology: a reduplicated form of *gam* 'to go'?

## § 5.2. Munda names

However, various MIA languages (Singh. *ganga*, pl. *gañ*; Assam., Beng. *gāñ*, cf. KEWA I 313, III 692, EWA I 457) indicate that the original meaning of the word was simply 'river'. Therefore, the Munda etymology of S.K. Chatterji 1929 and Pinnow 1959: 351, 424 is the most likely one. There are Munda words such as *\*gada* 'river'<sup>146</sup> (and *\*dak* 'water').<sup>147</sup> The two words may actually be connected, due to a Munda prefix *ga-* and the common additional *-n-* in the prefix, cf. Pinnow 1959: 10 sqq., Pinnow 1954: 4.

However, the matter is further complicated by similar words in IA and Dravidian: CDIAL 2851 compares *gārta*, *\*gaḍḍa*, *\*gaḍḍ*, *\*gaḍa*, *\*gallī*, *\*gālī*, *\*galī*, *\*khaḍḍā*, *\*khāda*, *khalla*, *\*khāla*, *\*khala*. Among these note especially: CDIAL no. 3981 *\*gaḍḍa* 'hole, pit', W. Pahārī *gaḍḍ*, *gaḍḍrī*, *gaḍḍor* 'river', Nep. *gar-tir* 'bank of a river', Hindī *gārā* 'hole, pit', Singh. *gaḍaya* 'ditch', etc.; 3967 *\*gaḍa* 'ditch', lex., Pkt. *gaḍa* 'hole', Pashai *garu* 'dike', Khowar *gōl* 'hole, small ravine', Beng. *gar* 'ditch' etc.<sup>148</sup> A Dravidian connection can be seen in CDIAL 2851 (Burrow 1947-48: 370), Kan. *kaḍḍa* 'pitfall', Brah. *karak* 'hole'.<sup>149</sup> All these variants point, however, in the direction of an old loan from an unattested language (e.g., from 'X', *\*gaḍ*), with hyper-Sanskritism *gārta/kārta* in Vedic.

Nevertheless, a Munda word *\*gand* is also attested in the name of a river slightly further east, the modern *Gaṇḍak* (in Nepal, *Gaṇḍaki*, Tamang *Gèṇḍi*; for details, see Witzel 1993). It is therefore likely that the name of the Ganges goes back, with popular etymology, to the same word; for a discussion see Pinnow 1959, 1953/54 and KEWA III 692.

Beyond the *Gaṅgā*, there is little evidence for river names during the Vedic period and it will become necessary to compare the Epic, Pāli and Greek evidence more closely. The Pāli texts speak of the five great rivers of *Jambudīpa*: *Gaṅgā*, *Yamunā*, *Aciravatī* (-> *Sarabhū*, mod. *Raptī*); *Sarabhū* (Kosala),<sup>150</sup> *Mahī* (or *Mahāmahī*, north of the Ganges, probably the

<sup>146</sup> For 'river' see Pinnow 1959: 351 §K498, cf. p. 424: *Kh ga'ṛha* 'river'; *MuN gaḍa* MuH *gaṛa* 'pit', trench, grave, water course, stream, river; Santali *gaḍa* 'hollow, pit, excavation, trench, river'; Bh *gaṛa* 'river, stream', Ho, Nhj *garra*, Ku *gada* 'river, stream'; So *jodān*, *jōlān* 'river', cf. Kh *jot* 'river'; note also Pinnow 1959: 351 § 497 Kh *doṛha* 'stream', in *gaṛha-ḍhoṛha*; My *ḍhoṛha* 'rivulet, streamlet'. - Pinnow deliberates whether two words, one for 'river', and one for 'pit' have coalesced.-- Cf. also Dhātupāṭha 19.15 *gādati* 'to flow', *gaḍa* 'ditch', Śabdar. in Śabdakalpādruma, 'name of an area', Rājan. *sub: gaḍalavaṇa*. These may reflect a loan from a Munda word *gaḍ/d* 'to flow/river'

<sup>147</sup> *\*dak* 'water' see Pinnow 1959: 69 § 2: 'water': *ḍa* 'water', Kharia: p. 69 Mon *ḍa* (*dait*); Pegu [*'dāt*], Khm *duk* (*tuk*), Nik *dāk*, etc.; cf. Pinnow 1959: 233; --note names with no obvious meaning such as *Bāhūdā* 'giving an arm' < Munda *\*da(k)* 'water'.

<sup>148</sup> Cf. further 3968 *gaḍa* 'cultivated field', *\*gaḍa*: Kum. *garo* 'field', Nep. *garo* 'terraced field' ('something dug'); 3979 *\*gaḍḍ* 'dig, bury': cf. *kārta*!'. -- Vedic *gārta* appears next to *kārta* 'hole, pit'; note that Turner derives Guj. *garad*, *garado* 'pit, ditch' < *\*gaḍḍa* < *\*garda*?; cf. 4050 *gārta*, 4052 *gārda*; 2851 *kārta* 'hole', *kāṭa*.

<sup>149</sup> As opposed to the words for 'seat', 'throne': Burrow BSOAS xii 377, cf. Kan. *garduge*, *gaddige* 'throne, seat', Tel. *gadde*.

<sup>150</sup> Ved. *Sarayu*; Ep. *Sarayū*, but mod. *Sarau*, Pāli *Sarabhū* (with hyper-Pālism) < MIA *\*Sarahū* < *\*Saravū*; cf. also Skt. *Śarāvātī* = Solomatis? (S.K. Chatterji, 1926: I, 50, v. Hinüber 1985: 1094).

*Burhī Gaṇḍakī*); a late and western text, *Milindapañhō* 114, has ten rivers. Further, there are: *Sundarikā* (in Kosala, perhaps the mod. *Saī* -> *Gomatī* -> *Gaṅgā*); *Anomā* (east of Kapilavāstu, mod. Aumi); *Bāhukā*; *Rohiṇī* (dividing the *Sakya* and *Koliya*, mod. Rowai/Rohwaini); *Kosikī*. South of the Ganges: *Campā* (between *Aṅga* and *Magadha*), *Sappinī/-kā* (in *Rājagaha*, mod. Pancanā); *Nerañjarā* (mod. *Nilājanā*, --> Phalgu); *Vettavatī* (Mil., probably *Vetravatī*, mod. Betuwa); *Nammadā* (*Narmadā*, between *Uttara/Dakkhiṇapatha*); further: *Sindhu*, *Sarassatī*. Note that the Pāli texts know little of the Panjab and of India south of the Vindhya. In the present context it is important to note that all Pāli rivers north of the Ganges have names derived from Vedic or other IA designations, and that only a few south of it do not (*Campā*, *Nerañjarā*? if not < *nai-rañja-*, *Vetta-vatī*, *Nammadā*).

The early river names of the eastern area are virtually unknown in the Vedic texts: Two river names in JB which may well be located South of the *Yamunā* and *Gaṅgā*.<sup>151</sup> Attested are the *Hvṛṇinī* (JB), *Rathaspā/Rathasyā* (JB), and the *Sadānīrā* (ŚB) north of the Ganges. The location of all is not exactly known. As the *Hṛṇinī*, correct *\*Hvṛṇinī* 'the crooked one',<sup>152</sup> and the *Rathaspā/Rathasyā* are attested in the JB, they should be located south of the *Yamunā*. No Epic or modern descendent, however, is known of them. Possibly, the *Hvṛṇinī* reflects the later Chambal river, but any *Yamunā* /*Gaṅgā* tributary (*Vetravatī* > *Betvā*, *Tamaśā* > *Ṭons*, etc.) is possible. Interestingly, both names are clearly IA. The *Rathaspā/syā* is equally untraced (unless it is to be identified with the *Syandikā* or the Pāli *Sundarikā*, mod. *Saī* --> *Gomatī*).

The *Sadānīrā* (ŚB 1.4.1.14 sqq.) is worth special attention. Its location has been established by R. Salomon (1978) as forming the boundary between the *Kosala* and the *Videha*, i.e. Uttar Pradesh and Bihar. As such, it must correspond to the modern *Gaṇḍak* (in Nepal, the *Gaṇḍakī*), a river indeed 'always having water', as it 'flows down from the northern mountain', i.e. the glaciers of the Himalayas. However, it is also found in ŚBK where it is the boundary between the *Kosala-Paṇḍala* and the *Kosala-Videha*, and thus should correspond to the *Sarayū* > modern *Sarju* (*Ghāgar*, *Gogra*)<sup>153</sup> or the *Gomatī* (mod. *Gumti*, Witzel 1987). *Sadānīrā* 'always having water' can easily be explained as a new IA formation similar to RV *Go-matī*, *Marud-vṛdhā*, *Vi-tastā*, etc. However, the name and its area are of interest for several reasons.

First, *Sadā-nīra-* 'always having water' can also be a loan translation. Interestingly, the Skt. word *nīra* 'water' is first attested in this ŚB passage and it has been given a Dravidian etymology (DED 3690, EWA II 50). That *Sadānīrā* is based on a (popular) etymology is clear from the story it appears in: Agni could not burn over the river, as its water is very cold even in the hottest period before the monsoon. So why not *\*sadā-jalā*, *-toyā*, *-vārī*, (or even some form of *-āp-*, *-arṇas-*, *-payas-*)?

<sup>151</sup> *Rathasyā/spā* JB §204, *H(v)ṛṇinī* JB §190, *Subandhu-nāvatantumant*, ford JB §190.

<sup>152</sup> K.Hoffmann 1975-92: 756 restores *\*Hvṛṇinī* 'the crooked one', EWA 825; cf. the name of the *Kubhā*.

<sup>153</sup> Note that a river a little further west, a tributary of the *Sarayū* (Pāli *Sarabhū*), is Pāli *Acira-vatī* 'the one not having perennial (water)'. It does indeed not flow, like the *Sadānīrā*, 'from the northern mountain' (Himalayan glaciers), but it still is in the country of Kosala 'burnt over by Agni' (ŚB).

It is also surprising that the name is not found in later sources, except in traditional ones, such as the Mbh.<sup>154</sup> It could be the *Mahānadī* of the Pāli canon but this *Mahānadī* seem to be the *Kosi*.<sup>155</sup> The *Sadānīrā* itself is not found in Pāli (Schwartzberg's atlas is misleading). It probably is identical with the *Mahī*.

As stated in the programmatic ŚB story, a tale of Sanskritization made up by Brahmins,<sup>156</sup> the country east of the *Sadānīrā* was 'too marshy' to be used as agricultural land and it was only Agni Vaiśvānara and the Brahmins who 'sweetened' it.

The Epic name of this river is *Gaṇḍakī* which is not found in Pāli; it probably is replaced by the name of another of the 'five great rivers', the *Mahī*. Its modern names are Hindi *Gaṇḍak*, Nep. *Gaṇḍi*, *Gaṇḍaki*, Tamang *Gəṇḍi*.<sup>157</sup>

Thus, hiding behind the Vedic *Sadānīrā* and the Epic *Gaṇḍakī* (and the Pāli *Mahī*) must be a local word either sounding similar to *sadā-* (or *-nīrā*), or its meaning must be 'x-water/ x-river'. The latter seems to be the case as *Gaṇḍakī* can be derived (Pinnow 1953-4) from Munda \**gad*, *gada*, *ganda*, *gandak* 'water, river', e.g., cf. Ho *gaḍa* 'river', Santali *gāḍa*<sup>158</sup> (cf. also above), Skt. *Gaṅgā*.<sup>159</sup> Note that retroflexes are comparatively late in Munda (Pinnow 1959).

In short, the river name *Gaṇḍakī* may go back to a Munda word for 'water, river' (perhaps including an overlap with the Skt. suffix *-kī*, as the modern Munda languages do not show *ganda-k*'). The Dravidian name, if Dravidian had indeed been spoken in the area, (note the modern town *Gonḍ*, and cf. the E. Nepal river name *Kankai*, Witzel 1993) may have been \**nīr* (DED 3690, EWA II 50), which was explained by the Brahmanical tale as 'always having water', *sadā-nīra-*. It is surprising that the Dravidian word *nīr* is first attested in this particular (eastern!) area and only in a late Brāhmaṇa text, ŚB.

In the East, thus, the situation is quite intriguing. As has been pointed out by Pinnow (1954), quite a number of Skt. river names have the element *dā*, *dak*, *gaḍa*, *gaṇḍa*, *gaḍak*, *gaṇḍak*, *mada*, *manda*, *mandak*, *gara*, *gallak* which he reconstructed as Munda

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<sup>154</sup> Mbh. (Vulgate) 2.20.794; 6.9.332; S.-*mayā* 6.9.340; Poona ed. 6.10.23 *sadānīrām adhr̥ṣyām ca kuśadhārām mahānadīm*.

<sup>155</sup> It appears, however, at Mbh 6.10.28 *kauśikīm nimnagām*; cf. also 6.10.31 *sadānīrāmāyām vṛtyām mandagām mandavāhinīm*.

<sup>156</sup> See Witzel 1997.

<sup>157</sup> The *Gaṇḍakī* is attested in the Epic: Mbh. 2.1062 calls the Videha people in N. Bihar *Gaṇḍakāḥ*, in the first inscription of Nepal by Mānadeva (467 A.D.) and in Kalhaṇa's *Rājatarāṅgiṇī* (1150 AD) 4.546 as *Kālā-Gaṇḍikā*, the modern *Kālī Gaṇḍakī* in Central Nepal. The word *Gaṇḍakī*, Nep. *Gaṇḍi*, *Gaṇḍaki* can be connected with the Munda word for water: *gad* etc., see below.

<sup>158</sup> See KEWA I, 317, cf. III, 692 for *Gāṅgā*; Turner, CDIAL 17a, 211a. Cf. *Gandhāra*, which may be due to a popular etymology, Skt. *gandha-* 'smell'? The original word may have been closer to Skt. *gadha* 'ford' -- or to a quite different, aboriginal word. Note, again, the similarity of some Skt., Muṇḍa and Tib.-Burm. words (see above on *gāḍ* and on *kholā*).

<sup>159</sup> KEWA I 313, CDIAL, 17a, 211a. -- Cf. also the Eastern Nepal river name *Kankai*, which superficially looks like the Tamil form of the name *Gaṅgā*. There are, however, no Dravidians in the area and there are no traces of an earlier Drav. occupation. The Kurukh living there now have been imported as laborers from Central India, where they are also known as Oraon. For a different view of early Dravidian settlements in N. India, see R. Shafer 1974, and for (W.) Bengal, S.K.Chatterji 1926, 1929.

words *dā(k')*, *gaṇḍak'*, etc. 'water, river'.<sup>160</sup> Well known examples are *Go-dā-varī* (or *Godā-varī*), *Narma-dā* (or *Nar-madā*)<sup>161</sup>, *Alaka-nandā* (a headwater of the Ganges), *Mandā-kinī* (Milky Way, Ganges, see Kuiper 1997: 173 sqq.), *Gaṇḍakī*.

The matter is important even for the Vedic period. Though the name of the *Gaṇḍakī* occurs first in the Epic, it may be the word underlying the name of the *Gaṅgā*. Pinnow has pointed out that *Gaṇ-gā* may be a popular etymology, bringing a word such as *\*Gaṇḍa/Gaṇḍa(k')* closer to a Skt. form.

Note that the headwaters of the *Gaṅgā* may have another form of the Munda word as well: *Alaka-nandā* < *\*-nanda(k')*, next to *Alakā-nandā*, *Apara-nandā*; further, *Mandākinī*<sup>162</sup> (< *\*mandak'*) is the name of the 'heavenly *Gaṅgā*', the Milky Way;<sup>163</sup> note also *Gāndhinī* 'Ganges' < *\*gānd-i-nī*.<sup>164</sup>

Such Munda names are found in the Ganges area up to the foothills of the Himalayas, along the *Parṇāśā* (*Banās*)<sup>165</sup> rivers in E. and S. Rajasthan, in the Vindhya mountains (modern Nihal), along the *Narmadā*, around the headwaters of the *Godāvarī* and in the modern habitat of the Mundas in Eastern India (S. Bihar, W. Bengal, Orissa)

### § 5.3 Tibeto-Burmese names

The western boundary of the *Pañcāla* region (*Gaṅgā*) and its eastern boundary (*Gaṇḍa-kī*), in short rivers across all of modern U.P., thus may have a Munda names. Further east, Tibeto-Burmese designations appear. The name of the country east of *Pañcāla*, *Kosala*, is one of them, just as that of the *Kosi*, the boundary river of the adjacent *Videha* area, still further east. Modern eastern U.P. (Oudh) is called *Kosala* in the late Vedic text, ŚB, but *Gaṇḍakāḥ* ('the river people') in the Epic. It must therefore be explored what might lie behind the clearly non-IA designation *Kosala*. As is well known, the sequences *is*, *us*, *es*, *os*, *ais*, *aus* are not allowed in Sanskrit as well as in Iranian and, to a large degree, also in Slavic and Baltic; after the sounds *i u r k*, retroflex *ṣ* replaces previous E. IE *š*. There are only a few exceptions in Vedic, and all bear the hallmarks of non-IA origin (*busa* RV, *ṛbīsa* RV, *Bṛsaya* RV, *musala* AV+, *kusīda* TS, *Kusurubinda* TS, *Kosala* ŚB, *bisa-khā* AV, *bisa-vatī*

<sup>160</sup> Pinnow 1959: 69: Muṇḍārī, Mahle *dāk'*, Santālī, Khaṛiā *dak'*, Korava *da, dak'*, Juāṅg, Kūrkū *dā*, Savara *dā, dāṇ*, Gadada *dā*; Eastern Austro-As.: Nikobar *dak, rāk*, Talaing *dak*, Mon *dak, dā'* (*dait*); Pegu [*'dat*], Stieng *d-ak*, Bahnar *dak*, Seddang *diak*, Khmer *dīk, tōk, duk* (*tu'k*), Bersisi *dōh*. For 'river' note: Muṇḍ. (Hasada) *gāra*, (Naguri) *gaḍa*, Sant. *gāḍa, sakaḍa*, Ho *garra, gaḍa*, Kol (Singhbum), Bhumij *garra*. Note further Kuiper 1997: 173, against Munda *dak'* in Skt. *daka* (n.), Phetkārīṇī-Tantra 17; cf. also *daka-rakṣasa*, a water Rakṣasa, Divyāvadāna 8.162 sqq., *daka-lāvaṇika* 'prepared with salt and water', *dakodara* 'a dropsical belle' Suśruta 1.25.8; 2.7; 3.8; 5.2.36, *dagārgala* 'water key', examining soil when searching for wells, BṛSamh.; *udag-argala* ditto. Dravidian (Kurukh) *khāra, khād* < Munda. Note also Nep. *gāḍ*, etc. (see above); for the overlap between IA, Muṇḍa, Drav. and a likely substrate in such words such as *gāḍ, kholā* etc., see above and Witzel 1993.

<sup>161</sup> Cf. some unclear words: PS 13.2.2 *nār-vidāla*, *nār-kavinda* and RV 1.149.3 *nār-miṇī*, the epithet of a fort; RV 2.13.8 *nār-mara*, of unclear meaning: apparently the area/or chieftain of *Ūrjayantī*; cf. IA(?) *Nār-śada*, son of *Nṛṣad*, RV 4.19.2, 10.31.11, 1.117.8, 10.61.13.

<sup>162</sup> For the etymology of Munda *\*man-* see Kuiper, AO 17, 1939, 17 sqq.

<sup>163</sup> See Witzel 1984.

<sup>164</sup> For details on the word *Gaṅgā* see Pinnow 1953: 4 sq.; cf. above on *Gandhāra*.

<sup>165</sup> Note Kuiper, 1997: 9 on *parṇa* in RV, ~ Muṇḍa: RV *Pārṇaya*, *Pārṇaka*.

ŚB, *bṛsī* AĀ, ŚrS, *musta*, *mausta*, Sū., etc.) The attestation of *-os-* in ŚB *Kosala* thus has to be taken seriously<sup>166</sup> and we have to regard *Kosala* as a non-IA word in Vedic Sanskrit.

A possible etymology can be sought in the languages of the neighboring Himalayan tribes (Nep. *Kirāt*) speaking Tibeto-Burmese languages. As has been shown elsewhere,<sup>167</sup> the first element of *Kosala* corresponds to Eastern Himalayish *ko*, *ku*, Newari *khu*, and the suffix *-is* is also found with such words, as in the names of the rivers Kosi, Rosi, New. *khusi* 'rivulet'. One can thus suppose a Tib.-Burm. designation *\*kosi*, Sanskritized as *Kosa-la*, for the region, and via MIA (Pāli *Kosikī*) with hyper-Sanskritism to Skt. (Epic) *Kauśikī*.<sup>168</sup> T.-B. influence (seen already in PS, AV *Kirāta*) is clearly increasing in the East, as can also be seen by the import of T.-B. words for rice (Southworth 1988: 660, 665): *\*cāmala/cāvala*.

The reason for the substitution of *-i-la* by *-ala* seems to be due to names of tribes or countries ending in *-la/-ra*<sup>169</sup> while the suffix *-ila* is rare and late in Vedic. The territorial name *Kosala* thus is derived from the name of a large stream, such as the *Sarayu/Gogra*, or the *Gaṇḍakī*. (Note, again, that in the Mahābhārata the Kosala people are called *Gaṇḍakāḥ*.) Interestingly, the great river *Kosikī* is hardly found in Pāli (Jāt. 5.2.5,6). This eastern river seems out of the view of Pāli authors, just as the *Sarasvatī*, *Sindhu*, and *Narmadā* which occur equally rarely.

Eastern Uttar Pradesh and Bihar stand out with a conglomeration of names derived for the word for 'river' (*Kosala*, *Sadānīrā/Gaṇḍakī*, *Kosi*) derived from three distinct language families: *-nīrā* from Dravidian, *Gaṇḍakī* (and probably *Gaṅgā*) from Munda, and *Kosa-la*, *Kosi(-kī)* from Tibeto-Burmese. Sanskrit is not among them, but it has supplied a re-interpretation with *Sadā-nīrā* 'always having water'.<sup>170</sup>

Indeed, the distribution of people in the areas is surprising (Witzel 1997): they include speakers belonging to the following language groups: early OIA immigrants (*Ikṣvāku*, *Paurava*, etc.), IA late comers (*Videha*, *Malla*, *Vṛji/Vajji*, Vedic Brahmins from the *Kuru-Pāñcāla* area), Munda (probably *Koliya*, *Moriya*, *Bulī*, etc.), Dravidians (in names such as *-nīrā*, *Varaṇā*, Pāli *Varuṇā* near Benares, see below), Tibeto-Burmese (*Kirāta*), and perhaps even some N. Iranians (*Śākya*; note v. Hinüber, *forthc.*, on some Iran. words in E. India of the MIA period). In such a diverse area a loan translation such as *Sadānīrā* is to be expected.

All of this provides an inkling of the variety of the early populations in the eastern parts of North India in the late Vedic, early 'Pāli' and 'Epic' periods, that is well before the begin of our era, and earlier than the (rather maximizing) lists extracted by Shafer (1954) from the Mahābhārata (the final redaction of which is too late for the present purpose, as it has such late-comers as the Huns, 5th c. AD!).

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166 As is well known, the transmission of Vedic texts has been so extra-ordinarily faithful that words, sounds, and even the tonal accents went unchanged for more than 2000 years.

167 Witzel 1993.

168 In a local history, the Gopālarājavarṇaśāvalī of c. 1389 A.D., the river is called *Kośakī*.

169 *Śakala* (AB), *Śakalya* (ŚB), *Kosala* (ŚB), *-Tosala* (AV-Par., Hariv.), *Valkala* (Mbh.), *Kuntala* (Mbh.), *Kauśala*, *Kerala* (*Patañjali*), *Utkala*, *Mithilā*, *Prasthala*, *Mek(h)ala*, *Kayaṅgalā*; cf. also: *Pañcāla* (KS, MS+), *Nepālā* (AV-Par.).

170 Cf. above, on the *Acira-vatī* 'the one not having perennial (water).'

While we can establish a mixed area in eastern North India where Munda and Tibeto-Burmese names are intermixed (see the map), Pinnow (1953/54) has sought to establish an area with Dravidian names in central India.

## § 5.4. Dravidian names

Central India seems to have Dravidian river names. They include (Pinnow 1954) river names as Skt. *\*perṇā* /-*parṇā* etc. and mod. *peṇṇai*;<sup>171</sup> they appear in Skt. river names as -*parṇā*/*pūrṇā*, *praṇī*, *phenā*, -*varṇā*, *veṇṇā*, *veṇa*, *venī*. If they should not, as Pinnow supposes, belong to an original Dravidian level,<sup>172</sup> but rather to a pre-Dravidian one, they must have been taken over early on, as they continue in names such as mod. *Peṇṇai*.

These names reach from the *Parṇāṣā*/*Parṇāsā*/*Varṇāsā* = Banās (-> Chambal) in E. Rajasthan to Benares (*Varaṇā*)<sup>173</sup> and to the South, via the *Veṇā* (Wain-gaṅgā), to Sri Lanka: *Tāmraparṇī*). They are centered around the rivers *Veṇā* and *Phenā* (Pain-gaṅgā) in the Nagpur area. The original meaning of the elements -*parṇa*, *varṇā* etc. must have been 'river'; the word is found, just like Munda -*da*' or Himalayan -*kholā/gāḍ/ri/ḍi/khu/ku/gu* in compounds designating particular rivers. (For further details on Southern India, see George 1986, Nachimuthu 1987).

Interestingly, in a few cases, a Munda designation is found compounded with a Dravidian one: *Varadā* (with a perfect Skt. popular etymology 'wish-granting') shows Munda -*dā(k')* 'water'; the first member can be reconstructed via *\*varṇa* < *\*parṇā*; there are other designations of the river supporting this development: *Veṇā*, *Veṇṇā* (Pinnow 1954, 9). The same development is not unusual in Nepal (*Mod-khyuñ-kholā* 'river-river-river' from three different languages, Witzel 1993).

It should be noted that the Bengal river *Kara-toyā* seems to have a Drav. name, probably the furthest east (not found in Pāli, but in Mbh.), see EWA I s.v. *toya* 671, DED 312.<sup>174</sup> In the same area we have, probably fortuitously, a *Kankai* (Witzel 1993) which looks like modern Tamil for *Gaṅgā*. Chatterji (1926) adds more (W.) Bengal Dravidian names.

However, Pinnow has underlined that Northwest of the subcontinent was but a way station for the Dravidians who moved into Central and South India (Pinnow 1954,15).

Southworth's (1988: 662, 1995:268) evidence from agricultural plants supports this: His oldest Proto-Drav. (level 0), possibly still spoken in Iran, has only a general word for fodder (> sorghum) and a general word for food/grain but ptherwise words for pastoralism (sheep, goat; buffalo?). This is also close to what Fairservis wanted to reconstruct even for a large section of the Indus civilization (Fairservis 1997).

We may add now that Southworth (1995:269, 1998) and Prabhu 1987 have discovered a layer of Dravidian place names in Maharashtra (-*vli* < *\*pallī*); Southworth has extended this also to Sindh (-*wārī*, -*wari*) and Panjab (-*walī*). It can be added that Gujarat and Maharastra already fall within the area of an unmixed IA kinship system (Southworth 1988: 654, 663, Trautmann 1981).

<sup>171</sup> Cf. entries in DED such as *porunai* DED 4550 *poru* 'dash like waves'; DED 4551 unite??

<sup>172</sup> Cf. DED 5496? -- Contrast Kuiper 1997: 9 on *Parṇa* in RV.

<sup>173</sup> Not as such in AV, PS, see above, cf. Pinnow 1954: 9 sq.; but note Kuiper1997: 9 on RV *parṇa*- and its Munda connections.

<sup>174</sup> Differently understood, as Tib.Burm. (Tiprā *tai*, *tui* 'water') by N. Sen, 1957

All of this speaks for a limited stay of speakers of (Proto-)Dravidian in the NW and a quick spread<sup>175</sup> towards Gujarat, Maharashtra (Southworth 1995:272), South and Central India (including, it seems, some settlements in the Ganges valley: *nīra*, *Varaṇā-vatī*) and in W. Bengal. (Chatterji 1929).

### § 5.5. The Ṛgvedic period in the Northwest

Returning to the (Ṛg-)Vedic period, it must be noted that we find some of the Ṛgvedic river names also in the more eastern regions of N. India: especially the *Sarayū*, *Gomatī*.

It is interesting to note, however, that some of these names are also found, with Iranian forms, closer to the older, (pre-)Ṛgvedic home of the Vedic tribes: The *Rasā* as *Raṇhā*, the mythical river of the Avesta, *Sarayu* as *Harōiiu* in the Herat area, *Sarasvatī* as *Haraxʾaiti* 'the one with [many] ponds' in Sīstān / Helmand < \**Setumant*, 'the one with [natural] dams' (a feature typical of rivers in their lower courses), *Gomatī* as *Gomal* 'the one with cows' in eastern Afghanistan, *Hindu/Həṇḍu* < *Sindhu* 'the border [river]', etc. It seems that the Iranians simply changed the old Indo-Iranian names into their respective Iranian forms (see now Hintze 1998) when they moved into the area, while the Vedic Indo-Aryans took some of these names with them eastwards, up to Bihar, in the typical fashion of people on the move.<sup>176</sup>

Finally, a brief look at the 'homeland' of the Ṛgvedic Indians, the Northwest. Most Ṛgvedic river names in the NW are Indo-Aryan, with the notable exception of the *Kubhā*, *Śutrudrī*, and perhaps the *Sindhu*. These, incidentally prove a local non-IA substrate. Pinnow, indeed, connected the apparent Indo-Iranian river name *Sindhu* (Avest. *Həṇḍu*, O.Pers. *Handu* [Hindu]) with a word from the Burušaski language as he could not find a cogent IE etymology and as he rejected Near Eastern ones (Pinnow, BzN4, 12-13<sup>177</sup>). Burušaski *sinda*, Werchikwar *sende*, unless they are loans from NIA Shina *sin*, should then be connected with the Bur. word for 'water', *sil*, *tshil*, *tsil*, Werk./Yasin *tshel*.

The question is complicated by the fact of the early loans from Pre-Vedic IA in Iranian, for which see now Almut Hintze (1998). She argues that certain Iranian words have been taken over from IA when Iranian still had *s* (later > *h*): note the Assyrian loan word *As-sa-ra ma-za-aš* = *Assara Mazaš*, *Ahuramazdā*. If this was the case, Ir. *Hindu-* could indeed be a loan from an older IA substrate. While this may be true for several other names, the usage of *hindu-* in Iranian point in another direction. The mentioning of the eastern and western *həṇḍu* 'oceans' Y. 57.29, and the name of the mythical central mountain, *us.həṇḍauua* 'emerging from the river/ocean [*Vourukaša*]' indicate that *həṇḍu* is understood as 'ocean' also in Avestan (Witzel 1984). This points to Ir coinage with the meaning 'border river, ocean' and fits P. Thieme's etymology (1967-91) from the IE root \**sidh* 'to divide'. (Based on this, we may again connect the N. Caucasian *Sindes*).

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<sup>175</sup> Note that Southworth's Proto-Drav. level 1 has words for 'rice, dates, plough, winnowing, jujube'; the word for 'wheat' is uncertain still. Southworth thus puts the speakers of PDrav 1 in the periphery of the Indus civilization. In PDrav 2, sorghum appears.

<sup>176</sup> Cf. in North America: New York, New London; however, untypically hardly any British river names.

<sup>177</sup> Cf. also Mayrhofer 1979, on the Kuban (north of the Caucasus) *Sindes*.

In view of the contested etymology of Sindhu and a number of river names in the area which have the same suffix *-u*, but are clearly IA, Pinnow's theory (1954, 14 sqq) of a NW area of non-IA names in *-u* must be reinvestigated.

## § 5.6. River names in *-u*

Pinnow (1953-4) has tried to establish an area of river names ending in *-u*<sup>178</sup> in the northwest that should go back to a local, in part proto-Burušaski substrate. Pinnow's list includes

*Sindhu* (cf. Burušaski *sinda*, dial. *sende*, Shina *sin*)

*Kuhu/ū* (Viṣṇu, BhāgPur, =Kabul R. = Vedic *Kubhā*, Greek *Kophēn*, cf. *Kobhi*)

*Suvāstu* (Swat, Śubhavāstu)

*Vakṣu* (Vaxš, Oxos)

Of these, *Vakṣu* is a late adaptation of Iran. \**Vaxšu* (= mod. Vaxš = Amu Dārya, Greek *Oxos*) > Skt. *Vakṣu* BrSamh, *Vaṅkṣu* Mbh., *Cakṣu* by paleographical mistake<sup>179</sup>, or *Ikṣu* 'the sugar cane [river]' by popular etymology, cf. KEWA III 123, Pinnow 1953: 233. However, Iran. \**Vaxšu* ~ Ved. *vakṣ* 'to grow', Avest. *uxšieiti* 'grows' (EWA II 485 sq), means 'river' in other Iran. languages : Khot. *baṣṣa* 'river', Yidga *baḥšiyo* 'stream'; the IE root is \**h<sub>2</sub>eg-s*.

All the other river names in *-u/ū* of the NW area, however, are of IA origin (*Sarayu* > Avest. *Harōiiu*, *Sindhu* > Avest. *Həṇdu*, *Mehatnū*, *Krumu*, *Susartu*, *Suvāstu*),<sup>180</sup> with the possible exception of the *Krumu* and *Sindhu* only (see discussion above).

This means that one of the starting points of Pinnow's thesis for a NW area with non-IA names in *-u* does not hold. On the other hand, the tribal and clan names of the northwest show a predilection for *u*-stems as well. We find: *Anu*, *Āyu*, *Ikṣvāku*, *Kuru*-, *Guṅgu*, *Tṛtsu*, *Druhyu*, *Parśu*, *Pūru*, *Pṛthu*, *Bhṛgu*, *Yadu*, *Vibindhu*, *Śigru*, *Śimyu*.

Again, only a few have none or no good IA, IIr or IE etymology, namely: *Guṅgu*, *Gauṅgava/Guṅgū*, *Tṛtsu*, *Yadu*, *Yādva*, *Śimyu* (see discussion above). It seems, thus, that the Indo-Aryans added the common *u*-suffix to some local names.<sup>181</sup> The river name *Krumu*, and less likely, *Sindhu*, must be regarded as remnant of the pre-IA substrate, which is not necessarily identical with proto-Burušaski or with the language of the Indus inscriptions.<sup>182</sup>

In sum, the Northwest shows the strongest concentration of IA (or IIr, even IE) names, and this is a situation entirely expected in a scenario which sees the Indo-Aryans

<sup>178</sup> A list of R̥gvedic *-u* stems includes: *kakardu*, *kaṭu-ka*, *kamadyū*, *karkandhu*, *kāṇu-ka*, *kiyambu*, *kuṇāru*, *kuru*-, *kṛkādāśū*, *krumu*, *khalu*, *guṅgu*, *guṅgū*, *chubu-ka*, *jaḍhu*, *jatru*, *jabāru*, *jarāyu*, *tṛtsu*, *pipru*, *pūru*, *prḍaku*, *bṛbu*, *bṛbū-ka*, *maṇḍū-ka*, *yakṣu*, *yadu*, *yāśu*, *ruru*, *viṇaṣpū*, *veṇu*, *vetasu*, *śigru*, *śimyu*, *saktu*, *sarayu*, *salalū-ka*, *su-kiṃśu-ka*; further: *jarū-tha*, *balbū-tha*.

<sup>179</sup> See also Pinnow 1953: 231, 233.

<sup>180</sup> Add the name of the Great Indian desert, *Maru* TĀ+ ~ Lat. *mare?*, EWA II 321.

<sup>181</sup> This would hold even for the *Sindhu* if it indeed, with Pinnow, should go back to a local, Proto-Burušaski substrate; however, see above.

<sup>182</sup> Note the opinions about the language of the Indus seals: Emeneau (Dravidian), *contra* Thieme (non-Drav.), etc.

trickling in from the Bactria-Margiana-Arachosia area (Parpola 1987, Hiebert 1995, Witzel 1995, Falk 1997).

It is quite another matter that IA, as soon as it made contact with the local population(s) of the northwest, started to change, both in its phonetical appearance (K. Hoffmann 1941, Emeneau 1956, Kuiper 1967, 1991) as well as in formantia (Kuiper 1967, 1991), and in vocabulary (Kuiper 1948, 1955, 1991).

The tracing of these developments, first outlined in detail by the said authors, must be left aside here. It is important, however, to remember the result of Kuiper's early investigation into the South Asian linguistic area: 'between the arrival of the Aryans .... and the formation of the oldest hymns of the RV a much longer period must have elapsed than normally thought.' (Kuiper 1967, 1997: XXIV).

### § 5.7. Summary

In sum, what does the evidence of hydronymy tell? During the Vedic period, there has been an almost complete Indo-Aryanization of the North Indian hydronymy, -- more thorough, incidentally, than the process of changing the hydronymy of North America into an Anglophone (as well as into a Dutch, French and Hispanic) one. The result of Aryanization is steadily increasing in the texts of northern India: the Vedas, the early Pāli texts and the Epics. Sanskritization has progressed much less in many parts of South India and in the often inaccessible areas of Central India. However, in the northwestern section of the subcontinent, the starting point of IA infiltration, there are but a few exceptions from this trend, such as the names of the rivers *Śutudrī*, *Krumu*, and maybe the *Kubhā*, and, attested only later on, the *Ledarī* (Nīlamata, Rājatarāṅgiṇī) in Kashmir.

In the eastern part of northern India, the situation is similar: apart from the *Gaṅgā*, a folk etymology for Munda \**gand*, and the transient Vedic innovation *Sadānīrā*, Sanskritic names or adaptations have overlaid the medieval and modern continuants of local names, e.g., the *Gaṇḍakī* and the *Kauśikī* (*Kośī*).

Indo-Aryan influence, whether due to actual settlement, cultural expansion, or, in still more neutral terms, through the substitution of indigenous names by Sanskritic ones, was from early on powerful enough to replace the local names, in spite of the well-known conservatism of river names. The development is especially surprising in the area of the Indus civilization. One would expect, just as in the Near East or in Europe, a survival of older river names and adaptation of them by the IA newcomers upon entering the territories of the people(s) of the Indus civilization and its successor cultures.

However, in the northern part of the subcontinent the few surviving local names have been Sanskritized superficially. If the local population had been socially important or politically powerful enough it would have insured the survival of their old nomenclature (as is found in the eastern Himalayas and in the south). Their failure to do so must have been due to social and political factors that become visible in the R̥gvedic process of acculturation and take-over of IA material culture, religion and ritual by some local chieftains, possible adoption of local shamans and priests (Kuiper),<sup>183</sup> all of which resulted in the establishment of the four classes (*varṇa*) by the time of the Puruṣa hymn (RV 10.90).

It is useful to remember Kuiper's definition (1991: 6 sq.) of the R̥gvedic Ārya: "[In the RV] 'Aryans' were in general those who maintained the world order by means of

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<sup>183</sup> Whether these also became IA poets - such as, according to Kuiper, Agastya - remains to be investigated; note, however the handy adoption scheme found in the RV, Witzel 1995, Deshpande 1995.

sacrifices and gifts..." They were not isolated from the rest of the population: "those who believed that a definite ethnic barrier separated the 'Aryans' from the surrounding non-Aryan peoples disregarded some well known facts. ..."

In light of the present discussion about the arrival of the Aryans in India and in some circles of Anglophone archaeology,<sup>184</sup> that is, the growing denial of any immigration or even trickling in of people speaking Indo-Iranian or Indo-Aryan dialects, it is important to note that not only the Vedic language but their *whole* complex material and spiritual culture has somehow been taken over and absorbed in the northwest of the subcontinent. This includes chariot making technology and horse training as well as Indo-Iranian poetry and its complicated conventions that are still visible and functioning in the R̥gveda. It also includes the old Indo-Iranian religion centering around the opposition of *Devas* and *Asuras*, ancestor worship which is carried out along old Indo-European lines, and of course, the naming or renaming of places and rivers treated in this contribution.<sup>185</sup>

In any scenario, we must distinguish between the initial import and the process of (gradually) taking over, by the indigenous populations, of the Indo-Aryan language (including poetry, etc.), of Indo-Aryan technology (horse drawn chariots, etc.), and thirdly, that of the *whole complex* of Indo-Iranian culture including language, customs, beliefs, religion, ritual, family structure, pastoralist economy, material culture and technology. All of these features may have progressed at a different rate and with varying impact in the various areas of the northwest and beyond.

The preceding discussion may have indicated sufficiently that we should regard the 'importation' of Indo-Aryan into the subcontinent as the outcome of an influx of a group of clans, tribes, or a people who spoke early Vedic and had an Indo-Iranian or rather, an early Indo-Aryan civilization, with exogamous groups of patrilinear descent, pastoralism, horse-drawn chariots, etc. Emerging from the Turkmenian-Bactrian area, (the Bactria-Margiana Archaeological Complex) after a complete acculturation in the area,<sup>186</sup> they probably had mainly West/Central Asian somatic characteristics.<sup>187</sup> Their genetic impact may have been fairly negligible<sup>188</sup> due to acculturation and the quick adaptation of their culture by the Panjab populations.

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<sup>184</sup> It is useful to heed the warning of S. Embleton (1990) expressed in quite a different context, that of the present nationalistic discussion of Swedish place names in Finland: 'When academics enter a field and particularly when non-academics also get involved, progress is often slowed down and the field as a whole suffers, sometimes with all work in the field being unjustly tainted. Or to quote [Margaret] Gelling [in: J.C. Boulanger, *Le nom propre...* Québec 1990, 85-103] who is writing in the context of similar problems in the study of British place names, 'constant difficulty is occasioned by the 'anyone can do it' attitude, which leads scholars who have no philological expertise to propound impossible etymologies.'

<sup>185</sup> Three ancestors only out of the many generations still remembered are worshipped, three *piṇḍas* are offered, cf. the Greek *tripatores*, the Russian custom of offering three *klyochki* to the ancestors, etc.

<sup>186</sup> Note that Bactria has always been a staging place for immigration to and invasions of India; it also has been an area where a relatively quick acculturation has taken place, e.g. of the Central Asian Yue Ji, the Kuṣāṇa, the Turks of the Turkī Śāhi dynasty, the Turks and Mongols of Babur and Akbar, etc.

<sup>187</sup> A few European strains might have been included, such as one 'goldhaired' (*hiranyakeśin*) person that is not a god, the author of HSS. See now L. Cavalli-Sforza 1994.

<sup>188</sup> A model such as that of Renfrew 1987 based on economical exchange certainly does not explain this kind of complete take-over. His dominance model, however, might have applied in *some* strictly localized cases. But both

The reasons for the initial trickling in and immigration of the Indo-Aryans may include the following: the breakdown of the city-centered Indus civilization and its reverting to rural settlements without the use of script, and the explosive spread of the resulting localized culture eastwards into Haryana and Western U.P. (as well as into Gujarat), accompanied by a large scale abandonment of the earlier settlements in the Indus and Sarasvatī areas.<sup>189</sup> This expansion was probably due to the possibility to grow the new summer grains rice and millet there.

On the other hand, this movement left large sections of the Panjab open to the (mainly) pastoral IA tribes who could now exploit not only the area formerly marginal for agriculture but also the newly abandoned lands. Since they had practised only limited agriculture<sup>190</sup> (*yava* 'barley') in an area not affected by this change, i.e. their older home in Afghanistan, they did neither take over, at first, rice or millet, and they also did not do so at first in the Panjab. The RV does not mention either (*vr̥hi* AV, *aṇu* VS 18.12, *priyaṅgu* MS, KS, TS, VS), and also not the staple of the Indus civilization, wheat (*godhūma* MS, VS). Only when the Indo-Aryans definitely expanded into U.P., that is in the Mantra period (AV, PS, YV Mantras), rice, millet and wheat make their appearance.

In other words, the (up to 700 year) *long* RV period may have seen increasing pastoralism in the Panjab, with substitution of IA river names, but with some post-Indus villagers hanging on to agriculture in those areas that had periodic flooding or could have artificial irrigation. These people are clearly distinct: most of the agricultural terminology is non-IA (Kuiper 1991).<sup>191</sup> Note that even in the later RV, Viśvāmitra and his sons can speak of the autochthonous people, the Kikāṭa, as being inept with cattle: 'what is the use of cows with the Kikāṭa?' (RV 3.53).

According to this scenario, we can expect linguistic interaction between the newly arrived Indo-Aryans and the indigenous population since the end of the Indus civilization at c. 1900 B.C., even if IA infiltration had already started somewhat earlier (or, conversely, later) than that. In all scenarios, there were several hundred years (c. 1900-1200 B.C.) when interaction (such as changes in hydronymy) and convergence could take place. Indeed, the language, the names as well as the data for civilization and religion in the RV indicate a long period of acculturation. As Kuiper has shown (1967, 1991) even the hieratic and highly poetical language of the Ṛgveda has been influenced by acculturation and, therefore, by substrates, in the form of loan words, calques or in syntax. The emergence of the South Asian linguistic area (*Sprachbund*) can be witnessed in the Ṛgveda itself.

Kuiper (1991, 20) has recently stressed that Southworth's conclusion (1974, 218, 222, 14) that "the social integration took place "at the highest social level" is contradicted by the evidence. [Grammatical innovations].... were only gradually gaining access among the

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neglect the increasing evidence for a voluntary adaptation of IA culture by some of the leading classes of the indigenous population in certain areas of the northwest. See below.

<sup>189</sup> One should not, however, take TB 2.4.6.8 as indication of this (*yeṣam ime pūrve armāsa āsan / ayūpā* (text: *ayūpāḥ*) *sadma vibhṛta purūṇi / vaiśvānara tvayā te nuttāḥ / pṛthivīm anyām abhi tasthur janāsaḥ* ). The mentioning of *a-yūpa* dwellings rather seems to refer to the IA *grāma* and offering grounds. -- But cf. AB 3.45 with long wildernesses in the west and more populous settlements in the east; this describes the post-Indus, post-RV situation perfectly.

<sup>190</sup> Some Indo-European words relating to agriculture have survived in Vedic, such as *sā* 'to sow', *sītā* 'furrow', *kṛṣ* 'to plow', *kṛṣṭi* 'furrow', *yava* 'barley' (also Ilr *bhaṅga* 'cannabis'). But cf. EWA on *sā*.

<sup>191</sup> See Kuiper 1991: 8, 96.

poets of the Rigveda. This would allow but one conclusion, viz. that they had arisen among lower social circles of bilinguals, who were in a steady contact with speakers of Dravidian and other non-Aryan languages (Kuiper 1967, 96)."

On the other hand, Southworth (1979: 204) has recently underlined that "the nature of borrowings [between IA and Drav.] shows no dominance pattern" and that it works both ways as it includes general vocabulary such as body parts and social structure (*kula*, but cf. EWA I 373, where a Drav. etymology is rejected). While it is true with regard to agriculture (influence of an unknown language in the RV, Kuiper 1991, Southworth 1979, 1995),<sup>192</sup> on the other hand, IA influence on Dravidian is evident with regard to the innovative chariot technology (*akṣa* RV > Ta. *accu* 'axle', *āṇi* RV > Ta. *āṇi* 'nail', Southworth 1979).<sup>193</sup>

In sum, mutual influence exerted on each other in Northern South Asia must have included, according to the discussion above, Munda, Dravidian, Indo-Iranian, Tibeto-Burmese, and some unknown languages (Proto-Burušaski?, the language "X", and others such as Proto-Nahali). All of which indicates that the linguistic (and ethnic) situation in S. Asia of the Vedic period was much more complicated and varied than usually admitted.

## § 6. Conclusion.

S. Asia, thus, was not isolated at all from developments in other parts of Asia but took part in the transmission of languages and cultures as well as new techniques and economies along with the words designating them. We have noted connections with the east and the west -- and even with Africa (introduction of millet during the Indus period).

In fact, why should South Asia, differently from any other region of the world (except for Renfrew's imagined Britain) be isolated from an influx of other populations? Such gradual trickling in, or even larger scale immigration, has been attested from times immemorial: The Veddoid and Australian/Andaman type inhabitants largely gave way to those who spoke the N. Indian language "X", Burušaski, Proto-Nahali, -Vedda, and -Kusunda. If the linguistic Central Asian connections of Dravidian (relationship with Uralic and perhaps beyond, or a proposed one with Elamian) bear out, the original speakers of Proto-Dravidian must have entered the subcontinent, just like so many tribes and armies later on, via the same (north)western passes. The Bolān, Khyber, etc. always have been the easiest and therefore typical routes of immigration and invasion (differently from the seasonally difficult Baltistan-Gilgit crossing north of Kashmir). The connections of IA with Iranian, Slavic, Greek, etc., and archaeological ones with the Ural (chariots) area make the IA language and culture the next candidate, after Dravidian, for immigration from across the Hindukush and Suleiman ranges.

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<sup>192</sup> The words for 'plow' and 'threshing' are of uncertain origin : language "X"? They have no certain etymologies in either Drav. or Munda \**khala* 'threshing floor' VS, *khalya* :: Ta. *kaḷam*, *kaḷaṇ* 'place, open space', threshing floor, battlefield, DED 1160; \**lāṅgala* 'plow' Dravidian: DED 2368 Ta. *ṇāncil*, *nāncil* 'plow', Kan. *nēgal*, Ga. *nāngal* (\**nān-kel/kil/kal* 'earth stone'!) in Dravidian lgs.; (note Kuiper, 1997: 307sq.: *laṅgula* 'tail'); Munda: *lāṅgala* 'plough' (N. Munda, Korku); Khasi *lynkor* [*lānkor*] < \**lēnkol*; cf. also continuants in Austronesian. Another word, *kāṭa* 'part of plow, share', DED 1785 Ta. *koz.u* 'bar of metal, plowshare' < IA lgs.; but cf. Munda Pinnow 1959; finally, Southworth also points to Drav. *sira* 'plow' from IA.

<sup>193</sup> Southworth even sees an earlier contact between the Dravidians and the Aryans: 1979: 203, 228 sq., 1990:222-3, 1995.

Nor were they the last ones to enter. We know, from historical records, of a never ending sleigh of peaceful and not so peaceful immigrants: Mede and Persian generals, Alexander's and the Bactrian Greeks, the Saka, Tukhāra/Kuṣāṇa, Huns, Gurjara, etc. Among the peoples from the north and east, we know of the central Asian Saka (via Baltistan), Tibetans, Ahom-Thais from S.E. Asia, Turks from Hsinking, Sherpas from Tibet; the close linguistic links of the Khasi with Mon-Khmer as well as those of the Mundas with them and with the rest of the Austro-Asiatic languages indicate some immigration of speakers of these languages from the East. Needless to say, introduction of a language does not mean mass-immigration of a population. A whole set of models of transfer are possible (Witzel 1995).

In short, Northern South Asia always has been part of a web of interrelations both inside the subcontinent and with the outside world: It was not so isolated as often imagined. And certainly, it was not altogether self-sufficient as imagined now by some revisionist historians and, increasingly, by the general public in India.

It is therefore necessary to underline, in the present social and academic climate, that at least the IA immigration cannot simply have been a language take-over such as that of Swahili in East Africa. A whole pattern of civilization from poetry to chariot building was taken over as well. Of course, the whole scenario is open to debate: the individual patterns are subject for ongoing and future research, best carried out by a collaboration of linguists, philologists, palaeo-zoologists and -botanists and archaeologists, and with some healthy input of some anthropologists, geneticists, sociologists and broad-ranging historians. Their combined evidence must agree in any scenario still under development (cf. Erdosy 1995) or still to be discovered. The time for individual linguistic or archaeological research, carried out in splendid isolation, has long passed.

In sum, the multitude of non-IA animal and plant names, as well as terms of agriculture point to the importance of the speakers of these languages in the social structure and in the economy of early India. These groups, however, must have had a fairly low social position as they were not even able to maintain their local place and river names, almost all of which were supplanted by new Sanskrit ones. Their elite or their upper classes, however, joined, especially in the Panjab and in Kurukṣetra, the new 'Aryan' elite early on, as their personal and tribal names and those of places and rivers clearly indicate. The pattern then established is visible in the late RV (Puruṣa hymn).

The increasing influence of IA language and culture, albeit in a new acculturated form, culminates in the evolution of the template of all later Indian civilization, during the Kuru realm (Witzel 1995, 1997), with its particular reformed but archaizing style of IA ritual, religion, social set-up and political style, that is a decentralized early state with a Great Chieftain or 'king', surrounded by allied chieftains. This cultural pattern served as template for the spread of Vedic and 'Hindu' culture all over South Asia and, to some degree --note the case of Bali-- even over S.E. Asia.

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