

**Prehistoric Implications of the Dravidian element in the NIA lexicon,  
with special attention to Marathi<sup>1</sup>**

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**1. Introduction.** In his article “Substrate languages in old Indo-Aryan” (Witzel 1999), Michael Witzel has shown us that the analysis of foreign words in the oldest Indo-Aryan can tell us a great deal about the times and places of prehistoric contact between speakers of Indo-Aryan and other linguistic groups speaking Austro-Asiatic, Dravidian, Sino-Tibetan, and other unknown languages. (See Southworth, in press, Chapter 3, for further discussion of this issue.)

A preliminary investigation indicates that there is a wealth of similar information to be obtained from analysing the NIA languages from this point of view, allowing us to formulate some more precise ideas of when and where prehistoric language contact occurred, and even to identify some of the specific branches of language families involved. And though NIA languages are only attested since the beginning of the second millennium CE, they provide evidence for contact situations which may well go back to the early first millennium BCE, if not earlier. The present paper presents some initial findings of an ongoing study of Dravidian and other elements in the NIA lexicon.

**2. Marathi words of Dravidian origin.**<sup>2</sup> Table 1 shows examples of words of Dravidian origin in Marathi core vocabulary.<sup>3</sup> For this paper I have chosen to focus on basic or core vocabulary, i. e. non-cultural vocabulary, as these words have a greater chance of being old. The third column of the table indicates the approximate year of attestation of the word in Old Marathi; while this does

not prove great antiquity, it at least eliminates the possibility of recent borrowing. In addition, there are phonological grounds for eliminating certain late borrowings.<sup>4</sup>

This list is not exhaustive. About five percent of Marathi basic vocabulary is of Dravidian origin. Perhaps the most telling of these Dravidian words is the word *āi* ‘mother’, which is found in all the major dialects of Marathi – and, in contrast to other IA languages which have some form of this word, in most varieties of Marathi this is *the* word for mother which children learn as infants. Additional words of Dravidian origin include numerous words for parts of the body, as well as words of common everyday parlance such as the words for ‘left’, ‘vomit’, ‘side’, and verbs for common activities such as ‘scorch’, ‘pinch’, ‘sprinkle’. The list of borrowings also includes the postposition **kaḍa** ‘toward’, whose source is a PD verb meaning ‘pass (through)’, with a derived noun meaning ‘end, direction, side’ (etc.). The word **kaḍe** is commonly used throughout Marathi-Konkani, most commonly as a locative postposition with the meaning ‘toward, in the direction of’ (as in **gāvā-kaḍe** ‘toward the village’) and as a marker of possession (**tujhyā-kaḍe kiti payse āhet** “Thou-with how-much money is” = ‘How much money do you have?’); note also **ikḍe** ‘hither’ (cf. Te **ik-kaḍa**, **ī-kaḍa** ‘this place, here’), **tikḍe** ‘thither’.

Most of the words of Dravidian origin in Marathi appear to come from the languages immediately to the south, i.e. Kannada-Kodagu-Tulu (belonging to the Kannada-dominated branch of South Dravidian-1, as opposed to the Tamil-dominated branch further south), or possibly from an extinct sister language of this group. Borrowing from this source has continued up to modern times, but as noted above, words which show evidence of recent borrowing have not been included here. On the other hand, there are phonological clues indicating that some of these words came to Marathi from other branches: for example the words for ‘head’ and ‘left’

both show a change characteristic of South Dravidian-2, the Telugu-dominated branch of South Dravidian, a change which Krishnamurti (2003:157 ff.) calls “apical displacement”, in which an initial vowel metathesizes with a following apical consonant and then merges with the following vowel. This is one of the sources of initial retroflex consonants in Dravidian languages, which did not occur in Proto-Dravidian.

In addition to the words discussed above, which are of probable Dravidian origin, Marathi basic vocabulary contains the following words of unknown or uncertain origin: 8. **sāl** ‘bark’, 20. **por(gā/gi)** ‘child’, 20. **mul** ‘child’, 21. **dhag** ‘cloud’, 30. **kuṭrā** ‘dog’, 33. **bothaṭ** ‘dull’, 35. **kān** ‘ear’, 37. **jevṇe** ‘eat a meal’, 38. **aṇḍə** ‘egg’, 39. **ḍolā** ‘eye’, 45. **pis** ‘feather’, 47. **ladhṇe** ‘to fight’, 61. **cāṅgl@** ‘good’, 62. **gavat** ‘grass’, 71. **jad** ‘heavy’, 84. **talə** ‘lake’, 93. **u** ‘louse’, 98. **ḍoṅgar** ‘hill, mountain’, 121. **mul** ‘root’, 126. **vāḷu** ‘sand’, 150. **bhosakṇe** ‘stab’, 154. **dagad** ‘stone’, 155. **saraḷ** ‘straight’, 174. **jhād** ‘tree, shrub’, 189. **rund** ‘wide’, 197. **kiḍā** ‘worm’. As in the case of Dravidian, there are many additional non-cultural words of unknown origin, including **vālṇe** ‘to dry’, **(o)raḍṇe** ‘to weep, shout’, and others which will be discussed in future publications. Munda or Austro-Asiatic origin has been suggested for some of these items, e.g. nos. 30, 37, 38, 84, 174; and Dravidian origin for some others, including nos. 35, 61, 154.

Taken all together, it is clear from these lists that numerous words of non-IE origin, including a sizeable segment of Dravidian words, are deeply embedded in the Marathi language, and are not the result of recent border contact. Some, in fact, are shared with other NIA languages, a matter to be discussed below. Examining the non-core borrowings, we find words referring to numerous branches of basic technology, including agriculture, cooking and food processing, sailing and shipbuilding, carpentry, weaving and stitching cloth, metal tools and

utensils, musical instruments, as well as flora and fauna and other features of the environment. Many of these words may also be very early borrowings in Marathi; at least, there is nothing in their meanings or their phonology to prove them to be recent borrowings.<sup>5</sup>

The evidence of place names<sup>6</sup> and river names (see Ramachandran & Nachimuthu 1987, Witzel 1999:53, Southworth in press ch. 9) tells us that one or more Dravidian languages were spoken earlier in the area now known as Maharashtra, and it is likely that words of Dravidian, Austro-Asiatic, and other origin began to enter pre-Marathi from the time when speakers of Indo-Aryan first moved into the Deccan, if not earlier. While borrowing of words takes place in any contact situation, borrowing of core vocabulary tends to be very slow except under special circumstances. Extensive borrowing of core vocabulary is more likely to take place when small groups of immigrants enter an area under circumstances that bring them into daily interaction with members of other groups, a situation which usually leads to widespread bilingualism. It is reasonable to assume that the early speakers of Indo-Aryan in the Deccan found themselves in a situation comparable to that of speakers of isolated languages like Kasargod Marathi (the language of an isolated group of farmers surrounded by Malayalam speakers in northern Kerala) or speakers of Saurashtri (a form of Gujarati spoken in Tamilnadu). Apart from the extensive borrowing of core vocabulary, the presence of words of various grammatical categories, such as verbs and postpositions, among the loanwords, is also suggestive of a more intimate form of contact (see Southworth in press, ch. 4).

**3. Distribution of non-IE words in the NIA languages.** As noted above, some of the words discussed in the previous section are found in other NIA languages, and indeed some are attested

in older stages of Indo-Aryan, viz. OIA or MIA. Table 2(A) shows the distribution within NIA of some of the words from Table 1, plus some other words for which Dravidian origin has been claimed. Within this group of words it is useful to distinguish at least four patterns of distribution. Starting at the bottom with no.11, the Marathi word **dāṭ** ‘thick’ appears only in Marathi and not in any other NIA language. There are a number of words of this type, indicating that Marathi has borrowed words from Dravidian languages that do not appear in other NIA languages: e.g. the words for ‘knee’, ‘finger/toe’, ‘thigh’, ‘approve’, ‘sprinkle’, ‘scorch’, and others listed in Table 1. This should not surprise us, given that Marathi-Konkani is even now more in contact with Dravidian languages than other NIA language except for Oriya.<sup>7</sup>

On the next level, lines 9 and 10 show cases where words occur in Marathi and other neighboring languages, pointing to the possibility that Marathi may have served as an intermediary for Dravidian words to enter adjacent languages. Again, this would not be surprising, given Marathi’s geographical location.<sup>8</sup> The preceding three cases (lines 6-8) show a similar but wider distribution, with words represented in Marathi and other languages of the “southern tier” including Sindhi, Gujarati, Hindi, and Oriya, plus languages adjacent to these, but not represented in the northernmost languages such as those of the so-called “Dardic” group. These examples might represent further spread of words of the previous type, or might represent an earlier stage of contact – for example, those who believe in the “outer” group of Indo-Aryan might posit that words with this kind of distribution were acquired by the branch of Indo-Aryan from which the languages of the southern tier are descended, possibly reflecting contact which took place as speakers of this language were passing through Sindh on the way from the Upper Indus Valley to the region south of the Vindhya. (For discussion of the “outer group” hypothesis, see

Southworth in press, chs. 5-6.)

Finally, there is a group of words (lines 1-5) which are very widely represented in NIA languages – including, significantly, the languages of the Kafir or Nuristani group, which are located in the far northwest and are generally thought to be historically intermediate between Indo-Aryan and Iranian. In fact, the distribution of these words is approximately identical to that of solid Indo-European words like the words for ‘brother’, ‘father’, ‘foot’, the numbers 1-10, and the like, providing a strong suggestion that these words were either brought into South Asia with the earliest speakers of Indo-Aryan, or were acquired at a very early period thereafter. It may be noted that the words in Table 2(B), those of Munda/AA and uncertain/unknown origins, show similar distributional groupings, suggesting that in these cases also, some words entered spoken Old Indo-Aryan at a very early period, while other words may have been transmitted over limited areas after the partial dispersal of Indo-Aryan speakers. Further study of the distributional patterns of these classes of words will be needed to establish an understanding of the times and places at which they appeared in Indo-Aryan.

**4. Conclusions.** Marathi is descended from the speech of groups of early speakers of Indo-Aryan, who entered the territory corresponding to the modern Marathi-speaking state of Maharashtra at a time when it was occupied by speakers of several other languages. The primary contact between pre-Marathi and Dravidian was probably with a language, or group of languages/dialects, which might be designated loosely as “Proto-Kannada” (possibly a stage that preceded the differentiation of Kannada, Koraga, and Tulu), along with possible lost sister languages of these. In addition, there was probably some contact with Dravidian languages of other branches, including SD2 and

CD, perhaps mainly in eastern Maharashtra, as well as with Munda/AA languages, and with some as yet unknown language(s). Languages of both SD1 and SD2 still abut the borders of Maharashtra, and CD languages are spoken in eastern Maharashtra. The Munda language Korku and the isolated language Nahali/Nihali are still spoken in Maharashtra. The nature of the borrowed words suggests that, at least in the early stages, this was a case of intimate contact involving daily interaction among speakers of different languages.

Bridget and Raymond Allchin, speaking of the chalcolithic Jorve culture, which flourished in Maharashtra between the mid-second millennium and the early first millennium BCE<sup>9</sup>, make the following statement:

We may...postulate that the original population of agricultural settlers was Dravidian speaking, and that the changes associated with the Jorve period coincided with the arrival of immigrants from the north, speaking an Indo-Aryan language. This language must have been the ancestor of modern Marathi (1982:352).

The sites of the Jorve culture are located on the upper reaches of the Godavari river system. The earlier culture phase at these sites, known as the Malva Culture, was characterized by “pre-Chalcolithic Neolithic elements” which can be linked to the Neolithic cultures of the Andhra-Karnatak region which flourished between about 2300 and 1400 BCE, represented on this map by the sites on the Krishna River.<sup>10</sup> If it is true, as I have suggested (Southworth in press, ch. 8) on linguistic grounds, that Proto-Dravidian was spoken in the lower Godavari basin in the early-to-mid third millennium BCE (though there is as yet no independent confirmation of this), then Dravidian-speaking groups may also have travelled up the Godavari into Maharashtra. (The rivers

mentioned above with Dravidian names are upper tributaries of the Godavari system.)

The Jorve sites are located in the eastern part of the Maharashtra plateau known as the “Desh”, in the districts of Pune, Aurangabad, Ahmadnagar, and Solapur. This is the area where, according to the locations of place names, one would expect to find the earliest Marathi speakers. It is also the area where the earliest dynasty of the region, the Satavahanas, originated in the first century BCE. Of course, the connection between Marathi and the Jorve culture is not proven; though suggested by reputable archaeologists, it can only be considered a working hypothesis.

The language of the Rigveda, the oldest known form of Indo-Aryan, is dateable to about 1500 BCE at the earliest.<sup>11</sup> The proposed identification of Marathi speakers with the Jorve culture would imply that speakers of Indo-Aryan had already entered the Deccan at a time when the composers of the Rigvedic hymns were still located in the Panjab. If this were the case, then the assumed passage of the “outer group” languages through Sindh would have had to begin at least several centuries earlier, say by 1800-1700 BCE, and the earliest stage, represented by the more widely shared words discussed in section 2 above, would need to be placed in the neighborhood of 2100-2000 BCE, implying that “outer group” Indo-Aryan speakers entered the Indus Valley before the end of the Indus Civilization. While this is not impossible, there is no evidence to support such an assumption at present. Further work on reconstructing the earliest forms of the Indo-Aryan lexicon on the basis of the spoken language may help to provide light on this subject.

TABLE 1. WORDS OF DRAVIDIAN ORIGIN IN MARATHI CORE VOCABULARY

<u>SOURCE</u>	<u>MARATHI WORD</u>	<u>OM Att.</u>	<u>IMMEDIATE SOURCE</u>	<u>PROTO-FORM</u>	
1. Drav. (unspec.)	10. <b>poṭ</b> ‘belly’	1330		PD * <b>poṭṭ-</b> DEDR4494	
	59. (?) <b>phal</b> ‘fruit’	1290		†PD * <b>paz-V-</b> DEDR4004	
	134. <b>butṭ@</b> ‘short’	----		PD * <b>puṭṭ-</b> DEDR4529	
	<b>cin(u)k(l)@</b> ‘tiny’	----		PD * <b>cinn-</b> DEDR2594	
	<b>meṭ</b> ‘knee-joint’	----		PD * <b>maṇṭ-</b> DEDR4677	
	<b>toṇḍ</b> ‘mouth, face’	1278		PD * <b>toṇṭ-</b> DEDR3311	
	2. Drav. (SD)	14. <b>kāl@</b> ‘black’	<b>kāḷa-</b> 1288	Ka <b>kāz-</b> Tu <b>kāl-</b>	PSD * <b>kāz-</b> DEDR1494
164. <b>dāṭ</b> ‘thick’		1278	Ka <b>daṭṭa</b>	PD * <b>taṭṭ-</b> DEDR3020	
177. <b>okṇe</b> ‘vomit’		<b>oka</b> 1300	Ka Tu <b>ōkk-</b> Tu <b>ōmk-</b>	PSD * <b>ōṅkk-</b> DEDR1029	
<b>kaḍe</b> ‘side, direction’		1290	Ka Tu Te <b>kaḍa</b>	PD * <b>kaṭ-ai</b> DEDR1109	
<b>matsya</b> ‘mole on skin’		----	Ka Te <b>macca</b>	PD * <b>maccu</b> DEDR4632	
<b>bāḷant(in)</b> ‘lying-in woman’		1278	Te <b>bāl-inta/enta</b>	PSD* <b>val-ant-</b> DEDR5347	
<b>boṭ</b> ‘finger, toe’		1290	Ka <b>boṭṭu</b> Go <b>boṭ(t)a</b>	PSD * <b>poṭṭ-</b> DEDR4493	
<b>mangaṭ</b> ‘wrist, ankle’		----	Ka Te <b>maṇi-kaṭṭu</b>	PD * <b>maṇi-ka(n)ṭṭu</b> DEDR4673	
<b>māṇḍi</b> ‘thigh’		1278	Ka <b>maṇḍi</b>	PSD * <b>maṇṭi</b> DEDR4677	
<b>cimuṭṇe</b> ‘squeeze, pinch’		1290	Ka <b>cimuṭu</b>	PSD1 * <b>cim-i(n)t(u)n)t-</b> DEDR2540	
<b>niṭ</b> ‘neat, proper’		1290	Ka Tu <b>nīṭa</b>	P(S)D * <b>niṭṭa</b> DEDR3739	
3. Drav. (SD1)		97. <b>āi</b> ‘mother’	1353	Ka <b>āyi</b>	†PD * <b>āy</b> DEDR364
		<b>mecṇe</b> ‘approve’	<b>mecu</b> 1290	Ka <b>meccu</b> Tu <b>meccuni</b>	PD * <b>meccu-</b> DEDR4722
	<b>śimpṇe</b> ‘sprinkle’	1290	Ka <b>simp-</b>	PSD * <b>cim(p)-</b> DEDR2548	
	<b>gidd(@)</b> ‘short & thick’	----	Ka <b>giḍḍu</b>	PSD1 * <b>kiṭṭ-</b> DEDR1670	
4. Drav. (SD2)	68. <b>ḍokə</b> ‘head’	<b>ḍoi</b> 1278	Ki <b>ḍōka</b> ‘pot’ (< * <b>kdōka</b> )	PD * <b>kuṭak(k)a-</b> DEDR1651	
	87. <b>ḍāv@</b> ‘left’	<b>ḍāv</b> 1290	Te <b>ḍā</b>	PD * <b>iṭai</b> DEDR449	
5. Drav. (SD2/CD)	<b>lek</b> ‘child’	1290	Te <b>lēka</b> Nk <b>lēṅga</b>	PSD2 * <b>lenk-</b> < PD <b>ila(ṅ)(k)-</b> DEDR513	
	<b>karapṇe</b> ‘scorch’	1278	Pa <b>karup-</b>	PD * <b>karu-</b> DEDR1278	

† Denotes reconstructions from Krishnamurti 2003:523-33.

**TABLE 2. DISTRIBUTION OF SELECTED NON-IE WORDS IN NIA**

**A. DRAVIDIAN**

Source	Item	Dist:	OIA	Pa	Pk	Gy	Ḍ	Kf	Dr	K	S	PL	Ph	N	A	B	O	Bi	Av	H	R	G	M	Ko	Si
1	PD	OIA <i>kāla</i> ‘black’ 3083 <sup>†</sup>	Mbh	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2		OIA <i>phala</i> ‘fruit’ 9051	RV	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+		+
3		OIA <i>daṇḍa</i> ‘stick, handle’ 6128	RV	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+		+	+		+
4		OIA <i>gaṇḍa</i> ‘joint of plant’ 3998	lex	+	+			+	+	+	+	+	+	+		+		+		+		+	+		
5		OIA <i>kuṇḍa</i> ‘bowl, pot’ 3264	Mbh	+	+			+	+	+	+	+	+			+	+	+		+		+	+		+
6	SD2	* <i>ḍavva</i> etc. ‘left’ 5539	-		+						+	+	+	+		+	+	+		+		+	+		
7	PD	* <i>āi</i> ‘mother, aunt’ 997	-						?		+			+	+	+	+					+	+		
8		OIA <i>kaṭi</i> ‘hip, side’ 2639	Mn	+	+										+		+			+		+	+		
9	SD	* <i>maṇigaṇṭhi</i> ‘wrist’ 9734	-																	+			+		
10	SD2	* <i>ḍok(k)a</i> ‘head’ 5566	-						?				?	?						+		+	+		
11	SD1	Marathi <i>dāṭ</i> ‘thick’	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-

**B. OTHER**

12		OIA <i>āṇḍa</i> ‘egg’ 1111 <sup>†</sup>	RV	+	+	+		+	+	+	+	+	+	+		+	+	+	+	+		+	+	+	+
13		OIA <i>karṇa</i> ‘ear’ 2830	RV	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
14		OIA <i>yūkā</i> ‘louse’ 10512	Mn	+	+	+		+	+	+	+	+	+	+		+		+	+		+	+	+		+
15		OIA <i>mūla</i> ‘root’ 10250	RV	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+
16		* <i>buṭṭa</i> etc. ‘defective’ 9268	-	-	+			+	+		+	+	+	+	+		+		+		+	+	+		+
17		* <i>kutt(ir/ūr)a</i> ‘dog’ 3276-8	-		+			+		+	+	+	+		+	+		+	+	+	+	+			
18		OIA <i>jēmati</i> ‘eats’ 5267-9	Dhāt.		+							+	+	+				+	+	+	+	+	+	+	+
19		OIA <i>jhāṭa</i> ‘forest’ 5362	lex		+						+	+	+	+	+	+	+		+		+	+	+	+	+
20		OIA <i>taḍāga</i> ‘pool’ 5634	ŚāGr	+	+						+	+	+	+		+	+	+		+	+	+	+		+
21		OIA <i>lāṃgala</i> ‘plough’ 11006	RV	+	+								+			+	+	+		+			+		+
22		* <i>ḍuṅga(ra)/ḍo-</i> ‘hill’ 5423(12/13)	-	-	+							+	+	+			+		+		+	+			
23		OIA <i>rundra</i> ‘rich in’ 10781	Lex	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
Source	Item	Dist:	OIA	Pa	Pk	Gy	Ḍ	Kf	Dr	K	S	PL	Ph	N	A	B	O	Bi	Av	H	R	G	M	Ko	Si

<sup>†</sup> Reference numbers refer to Turner’s *Comparative dictionary of the Indo-Aryan languages*.

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## NOTES

1. This is a revised version of a paper presented at the VIth Harvard Round Table Conference on South Asian Ethnogenesis, Cambridge, MA (USA), on 8 May 2004. Comments by Michael Witzel and other attendees at the conference have been incorporated into the paper, and are gratefully acknowledged.

2. Though the criteria for inferring linguistic borrowing are well known, it may be worth while to say a few words about the criteria used here. Apart from the requirement that a putative loan must sufficiently resemble its presumed source phonologically and semantically to make the assumption of borrowing plausible, evidence must also be adduced for (1) *contiguity* of the languages in question, and (2) the *direction* of borrowing. Though in some cases loanword evidence may lead to an inference of prior contiguity (as in the case of the presumed Dravidian borrowings in OIA, where there is no other evidence for contiguity), such arguments are not used in connection with the words in Table 1: in all cases we are dealing with branches of Dravidian which are contemporarily contiguous with the area of Marathi-Konkani speech. In the case of words of *unknown* origin, such an inference must of course be made, though we cannot (as yet) name or describe these languages.

The direction of borrowing is generally established by showing the greater age of a word in the source language than in the borrowing language. In the cases listed in Table 1, the source word is more widely attested in Dravidian than in Indo-Aryan, with the exception of **phal** ‘fruit’, a controversial word.

3. Abbreviations and symbols used in tables:

DEDR = *Dravidian Etymological Dictionary* (Rev. Ed.)

CDIAL = Turner 1966

PD = Proto-Dravidian

SD = South Dravidian

CD = Central Dravidian

AA = Austro-Asiatic

(?) = origin controversial

@ = variable vowel ending (adjectives)

ə = [ə: ~ e:]

**i u** are long in final syl./monosyl. followed by single consonant or  $\emptyset$ , otherwise short.

(Items from the Swadesh 200-word list are preceded by numbers indicating their position in the list.)

Abbreviations of OIA source documents are those used in Turner’s CDIAL.

Abbreviations for Dravidian languages: Ta = Tamil, Ma = Malayalam, Ko = Kota, To = Toda, Kg = Kodagu, Tu = Tulu, Te = Telugu, Kl = Kolami, Nk = Naiki, Pa = Parji, Ga = Gadaba, Go = Gondi, Kd = Konda, Pe = Pengo, Md = Manda, Ki = Kui, Kv = Kuvi, Ku = Kudux, Mt = Malto, Br = Brahui.

4. Certain changes which took place in pre-Marathi, some of which also affected other NIA languages, have also affected the Dravidian loans, implying that they must have been borrowed before the earliest Marathi texts of the 13<sup>th</sup> century CE. The change  $C_1C_1 > C_1$  (simplification of geminate consonants) with lengthening of the preceding vowel, as in MIA **satta** ‘7’ > M **sāt**,

probably took place sometime in or before the 10<sup>th</sup> century CE, and affected most of the NIA languages, Panjabi-Lahnda being the main exception (Masica 1991:187-8, 197). Thus words like M **dāt** ‘thick’, **tāt** ‘dining plate’, **māg** ‘loom’, **sutki** ‘stone-splitting tool’, **mud** ‘lump of boiled rice’, **pāl** ‘lizard’, when compared with their probable sources (respectively Ka **daṭṭa taṭṭe magga suttige mudde palli**), can be presumed to have been borrowed before this change, i.e. before 1000 CE. Conversely, M borrowings from Ka which do not undergo this change, such as **palli** ‘lizard’ (doublet of **pāl** cited earlier, both from Ka **palli**), **pucci** ‘vulva’ < Ka **pucci**, presumably were borrowed later, at a time when double consonants had been reinstated in the language. (The words **butṭ@** ‘short’ and **gidd@** ‘short and thick’ should perhaps have been excluded here for this reason. On the other hand, expressive words of this type are often found with geminate consonants in Marathi, as well as other NIA languages: e.g. **pakk@** ‘definite’, **kacc@** ‘raw’, **khaṭ(t)@** ‘saltish, sour’.)

5. It is likely that there was substantial borrowing in the other direction, i.e. from Marathi into the adjacent Dravidian languages, though it is sometimes difficult to identify the exact source of Indo-Aryan loanwords in Dravidian languages. A few possible examples (from Emeneau & Burrow 1962) are: 37. Ka **ārōgana** ‘eating, a meal’: Old Marathi **ārōgana**, 43. Ka-Tu **ugrāṇi** ‘storekeeper’: M **ugrāṇi**, 109. Ka **kumbāra** ‘potter’, Tu **kumbāre**: M **kumbhār**. However, no words of Marathi origin have been pointed out in the core vocabularies of these languages.

6. Marathi place names show a number of suffixes which are most probably derived from Dravidian languages (Southworth in press, ch. 9). The Dravidian suffixes for the most part point to South Dravidian languages as their sources, though there are a few cases which might indicate other sources within Dravidian, e.g. two cases of the village name **ciroli** in eastern Maharashtra: the suffix **oli** is from **vali** < PD **\*palli** DEDR4018, while the initial element **cir** may represent a Dravidian form **\*cīr(e)** ‘chironji nut tree’, a word found in this form only in Central Dravidian languages.

7. This more intensive contact between Marathi and Dravidian is reflected in the relative sizes of the indexes for Indo-Aryan languages in the DEDR: those for Marathi and Old Marathi contain over 200 items, while Hindi-Urdu accounts for 67 items, Oriya for 26, Halbi for 16, Sinhala for 14, Bangla and Nepali for 14 each, Panjabi for 7, Gujarati and Sindhi for 6 each.

8. It is not clear what variety of “Hindi” is represented by these words in the CDIAL entries; it is possible that in some cases they belong to southern Hindi, e.g. the Bandeli of Madhya Pradesh which is adjacent to Marathi. The Hindi words for ‘head’ in CDIAL5566 are not listed in the Platts or MacGregor dictionaries; both dictionaries list the word for ‘wrist’ of CDIAL9734, but Platts designates it as dialectal.

9. S. B. Deo’s dating: 1400-700 BCE; V. N. Misra: Early Jorve 1500-1200, Late Jorve 1200-900 BCE; Allchins: 1500-1050 BCE.

10. In a discussion of the Chalcolithic cultures of the Deccan, S. B. Deo points out that the Malwa Culture of the northern and central Deccan (dated in the range of 2300 (±70) BCE at Navdatoli on the Narmada, down to 1025 (±170) BCE at Inamgaon on the Ghod, a tributary of

the Bhima) shows the presence of "pre-Chalcolithic Neolithic elements" which are presumably to be traced to Neolithic cultures of the Andhra-Karnatak region which flourished between 2295 ( $\pm 155$ ) and 1360 ( $\pm 210$ ) BCE. There are no purely Neolithic sites in the region of these Chalcolithic cultures (Deo 1982:17-8). Deo also notes that the Malwa Culture itself seems to have flourished first in central India (the present Madhya Pradesh) and "descended in the Deccan at a later period, i.e., in about the 16th century" [BCE] (1982:23). The subsequent Jorwe Culture as a whole ranged between 1400 and 700 BCE (1982:17). The sites of both cultures are found primarily in the western part of the plateau in the river systems of the Godavari and the Bhima (a tributary of the Krishna). Some sites show evidence of contact with a Megalithic Culture, which flourished during the 6th and 7th centuries BCE, largely in the area of Vidarbha (**varhād**) (1982:35-44).

11. The Mitanni treaty of 1380 BCE mentions major Rigvedic gods, and shows a linguistic stage slightly older than the RV; the end of the Indus Civilization around 1900 BCE is presumed to have preceded the oldest RV hymns. Since the Sarasvati, which dried progressively after the mid-second millennium BCE, is described as a mighty stream in the Rigveda, the earliest RV hymns must have been composed by about 1500 BCE (Witzel 1995:97-8).