GEORGE THOMPSON

THE PURSUIT OF HIDDEN TRACKS IN VEDIC

The semantic range of the Vedic term $pad\acute{a}$ is astonishingly wide, even by Vedic standards. Primarily, of course, it means "footprint, footstep, track," and like its etymological equivalents, Avestan pada, Greek $p\acute{e}don$, Hittite pedan, it also frequently has the sense "place, ground." A brief account of this semantic range was given by Renou (1958, pp. 21–22), who observed that, in contrast to the root noun $p\acute{a}d$ / $p\acute{a}d$ -, "foot", from which it is derived, "les sens figurés ou dérivés ont été dévolus à $pad\acute{a}$." It has seemed to me that previous explanations of this fact have been incomplete.

The first striking fact about the term $pad\acute{a}$ is that certainly by the late Vedic period (perhaps 750 BCE?) it came to have the sense "word," i.e. an isolable unit of speech. This linguistic sense is evident at KB 26.5 where pada appears in a sequence of metrical terms: rc, ardharca, $p\~ada$, pada, and varna. This sequence shows rather nicely that pada as a unit of speech stood somewhere between a $p\~ada$, a quarter-verse, and a varna, a syllable. Thus Keith's translation "word" seems highly probable, if not certain. The sense "word, segment of speech" would seem certain also when the term pada is used in the compound $padap\~atha$, in contrast with $samhit\~ap\~atha$: "word for word recitation" vs. "continuous recitation." This same distinction is known to the Pr $\~atis\~akhyas$, and has led Allen to translate pada there as "word-isolate" (Allen 1953, p. 10 et passim). Of course, later among the grammarians pada has come to have an even more technical sense, "inflected word," as is clear from the $\~atis$ paninian s $\~atis$ suptinantam padam.

The traditional explanation for this development has been essentially a metrical one. Liebich in 1919 briefly but elegantly proposed that the linguistic analysis implied by the technical sense "word" is derived from the poetic or metrical analysis performed by the Vedic poets upon their own compositions. Liebich began his explanation with the observation that there is a well-attested metaphorical equation in Vedic between the hymn and the cow. Of course, the cow was in Vedic India a prime representative of wealth and abundance for entirely material, economic reasons. But it is well known that the cow also had an important role to play in the sacrificial economy in which the priests were centrally involved. In this role, the cow functioned as a kind of ritual, symbolic currency circulating between the priests, their human patrons, and the gods, within a cycle of reciprocity.

Patrons donated cows to priests while sacrificing a variety of animal victims.¹ Acting as intermediaries (like the quintessentially priestly god Agni), the priests consecrated these victims by means of oblations of milk and clarified butter, on the one hand, and by means of hymns on the other. The gods in turn, in receiving the duly anointed sacrificial victims, in effect recycled them, by assuring that the generous patron would win yet more cows in future cattle raids. Whereas the role of the patron, the *yajamāna*, in this cycle is represented by the sacrificial victim, the crucial role of the priests is represented both by the hymns and by the oblation of milk products: these are the basic tools of the priestly trade — ritual speech and oblations of milk (i.e. "cows"). As a result of this very important role of the "cow" as currency within the ritual economy that governs so much of Vedic priestly life, the metaphorical equation, cow = hymn, was easily and widely absorbed into the poetic language of the priests.

Thus there is frequent reference to hymns as cows. At the same time, the goddess Vāc, the personification of the Vedic oral tradition, was also characterized as a cow, as RV 8.100.10—11 clearly show:

(10) yád vấg vádanty avicetanắni rấstrī devắnām nisasắda mandrắ cátasra úrjam duduhe páyāmsi kúa svid asyāh paramám jagāma When uttering inscrutable things, Vāc, the stimulating queen of the gods, settled down. She let flow milk fourfold, nourishment, streams of milk! where has the supreme (part) of Her gone?

(11) devím vácam ajanayanta devás tám visvárūpāh pasávo vadanti sā no mandrésam úrjam dúhānā dhenúr vág asmán úpa sústutaítu The gods have given birth to goddess Vāc. Beasts of all forms utter Her. This stimulating milk-cow, letting flow nourishment and strength — highly praised may Vāc come to us!

Here the flow of speech, especially the speech of the skillful, ritually potent priest, is explicitly equated with the nourishing "fourfold" streams of milk of the goddess Vāc. The network of associations between the cow and the hymn and ritual speech can thus be seen to develop from their common function. As we've seen, the priest who receives a cow as payment or donation (dákṣiṇā) is obliged to convert the sacrificial victim into a product worthy of the gods. This conversion is accomplished both by the use of milk and clarified butter as material for oblation, and also by the mental or spiritual (mānasā) conversion of the cow into sacred speech, the essence, that is, of hymns. Both materials are "fluid" and are used to anoint the sacrificial victim, i.e. to mark it as acceptable to the priests and through them to the gods. Because it is a medium of exchange that converts a sacrificial victim into an object worthy of the gods, the "cow", both as milk

as well as speech or hymn, becomes a divine source of abundance and nourishment for mankind, as 8.100 rather excitedly shows.²

Liebich suggested that this fundamental metaphor was further developed in such a way that the rhythmic measures of a stanza were compared to the footprints or steps of the goddess Vāc, who, again, is represented as a four-footed cow. By means of this elaborate metaphorical association, which extended down not only to Vāc's four feet but also to her four udders (cf. e.g. BAU 5.8), the Vedic poets, according to Liebich, were able to express their first groping attempts at segmenting speech, particularly their own elevated or poetic speech. Since the typical stanza consisted of our lines (tristubh, jagatī, anuṣṭubh), stanzas of verse in general were characterized as four-footed, or four-stepped. It is from this typical fourness of stanzas that a single line of a stanza came to be characterized as a "step" (padá).

Then, in the Brāhmaṇas, so the theory goes, the segmentation of stanzas and verse in general led to the more advanced analysis of "prosaic" — i.e. non-metrical — speech into single units, or words. The term adopted for this supposedly new notion "word-isolate" was our term pada, while the sense "verse-portion" was taken over by the related but distinct term pada, which went on of course to become the standard term for "line of verse" in classical Sanskrit. Thus the evolution from "footstep" or "word" was accomplished by means of an intermediate stage involving metrical analysis.

It is easy to see why this explanation of the semantic development of the term $pad\acute{a}$ has been accepted virtually unanimously.³ The metaphor from which it starts, hymn = cow, is undeniably a central Vedic metaphor. Also undeniably, there are a handful of RV passages where the term $pad\acute{a}$ is clearly intended as a metrical term, although it isn't always quite clear how large or small is the "verse-portion" to which the term refers. Consider the following stanzas from RV 1.164:

(23) yád gāyatré ádhi gāyatrám áhitam traístubhād vā traístubham nirátaksata yád vā jágaj jágaty áhitam padám yá ít tád vidús té amrtatvám ānasuh That the gāyatra was based on the gāyatra, or that the tristubh was fashioned from the tristubh, or that the jagat line was based on the jagat — only those who know this attain to immortality!

(24) gāyatréṇa práti mimīte arkám arkéna sắma traistubhena vākám vākéna vākám dvipádā cátuspadā 'kṣáreṇa mimate saptá vāṇīḥ Upon the gāyatra one models the hymn, upon the hymn the chant, upon the trisṭubh the vāka, upon the two-footed, the four-footed, vāka a vāka, upon the syllable they model the seven tones.

This is an interesting and important passage for a number of reasons. First, stanza 24 presents the formulaic pair *dvipád* and *cátuspad*, which derives

from an old IE formulaic "merism" referring to moveable wealth — i.e. the "two-footed" and the "four-footed" are "useful men" (slaves) and "cattle." This inherited formula has been converted to metrical use in this passage, where the pair modifies $v\bar{a}k\dot{a}$, an utterance or recitation of uncertain length. If Sāyaṇa's gloss $s\bar{u}ktam$ is correct, then we would appear to have an instance of an entire hymn characterized as two- or four-footed. Presumably a two-footed $v\bar{a}k\dot{a}$ would amount to a hymn or recitation consisting of two-lined stanzas (very unusual, but such stanzas occur), and a four-footed $v\bar{a}k\dot{a}$ would refer to a hymn or recitation consisting of four-lined stanzas. This would seem to be consistent which the fact that stanza 23 offers a series of stanza-names: $g\bar{a}yatr\dot{a}$, traistubha, and $j\dot{a}gat$. In this context, the term $pad\dot{a}$ would seem more or less sure as a reference to a line of a stanza.

But the over-all sense of this pair of stanzas is not entirely clear. That it expresses a paradox (as Geldner suggested) seems likely in light of the fact that 23d offers immortality to those who understand the cryptic assertions that precede it. Geldner assumed that the metrical pairs (gāyatré... gāyatrám; traistubhāt . . . traistubham; jágaj jágati . . .) presented each term in two different senses. Thus he translated "der Gayatrī(fuss) auf dem Gāyatrī(lied) beruht" (etc.), suggesting that the paradox consisted in the assertion that the individual line depends on the hymn rather than the other way around. Haug on the other hand assumed that the term padá was to be supplied not only for the nominative series (gāyatrám, traistubham, jágat) but also for the remaining locatives and ablative. The sense of the passage would thus be that each of these standard metrical forms (stanza-lines) is based on a previous line, upon which it is modelled. Haug's view is based on the interpretation of 1.164.23 which is found at AB 3.13 and 23. There the three meters are identified with the three pressings of the soma sacrifice: eight lines (the gavatri) at the morning pressing; eleven (tristubh) at the midday; twelve (jagatī) at the third pressing, and the obligation to observe conventional form is stressed.⁵ In either case, the passage offers a tantalizing glimpse of the Vedic poet as prosodist, analyzing poetic speech (Vac) into numerous units of varying size and function, and attributing the greatest importance to the skillful handling of these units.

That the term *padá* refers, at least on occasion, to lines of verse is also suggested more or less clearly by AV 9.10.19:

rcáh padám mátrayā kalpáyanto rdharcéna cāklpur vísvam éjat tripád bráhma pururúpam ví tasthe téna jīvanti pradísas cátasrah Fashioning by measure the step of a stanza, with a half-stanza they fashioned all that stirs. The three-footed formula of many forms spread out. By means of it the directions live.

If Edgerton's interpretation of this passage is correct (1962, p. 57), then we have reference here to the "three-footed" gāyatrī stanza. Not to that stanza in general, but to the specific stanza known by that name, RV 3.62.10, which of course continues to be known and recited today. In any case, this AV passage shows clearly that a $pad\acute{a}$ can be a subset of a stanza (a $\acute{r}k$). That this sub-set is a line of verse is indicated by the numerical sequence: first we have one step of a stanza (= one line), then a half-stanza (= two lines), and then a full formula (a $br\acute{a}hman$) consisting of three feet (= three lines). Of course, the presence of $m\acute{a}tr\~{a}$ "measure" strengthens the argument for a metrical sense.

However, even where $pad\acute{a}/-p\acute{a}d$ - seems to have a clearly metrical sense, it does not always seem to refer to a *line* of verse. Another passage drawn from RV 1.164 would seem to show that $p\acute{a}d$ - in numerical compounds can also refer to *syllables*:

1.164.41:

gauri mimāya salilāni tākṣaty ékapadī dvipádī sā cātuṣpadī astāpadī návapadī babhūvúsī sahásrāksarā paramé víoman The buffalo cow (Vāc) bellowed, fashioning seas. She the one-footed, the two-footed, the four-footed, She who has become eight-footed, nine-footed, She of a thousand syllables in highest heaven!

Here $V\bar{a}c$, as the thunderous primordial cow (gauri) is measured once again in terms of feet $(-p\acute{a}d$ -). In light of stanzas 23–24, one might assume that these feet are lines of verse again. But both Brown (p. 72) and van Buitenen (1959, p. 180) were persuaded by the interpretation of this passage by the JUB (1.1 and 1.10). $\acute{e}kapad\bar{i}$ is understood there to refer to the syllable par excellence, the sacred syllable OM (this view is accepted also by Parpola, p. 206). This is an attractive suggestion, but beyond $\acute{e}kapad\bar{i}$. the JUB interpretation of RV 1.164.41 is clearly anachronistic (as both Brown and van Buitenen seem to concede, though without offering alternative solutions). For interpretation of the rest of the sequence, then, we are on our own.

As we have seen above, the sequence, one-, two-, and four-footedness, can be explained easily as the counting of lines. But when we shift to eight- and nine-footedness, we move beyond the boundaries of individual stanzas. At this point suggestions of syllable-counting take over. Consider RV 8.76.12ab:

vácam astápadīm ahám návasraktim rtaspŕsam

I myself (have measured out) a hymn ($v\hat{a}c$) of eight feet, of nine corners, (a hymn) that touches Rta...

Oldenberg (Noten, ad loc.) has argued persuasively for the view that this eight-footed speech (= $vac{d}c$) is to be understood as a hymn composed in the

eight-syllable gāyatrī meter. RV 8.76.12 is in fact the concluding stanza of just such a hymn in the gāyatrī meter, so that the reference here is to the very hymn which the poet has just composed. Oldenberg also showed that the phrase "nine-cornered" is likely to refer to the 3×3 lines of a tṛca-sequence of gāyatrī stanzas: again, this hymn itself consists of such tṛcas. The stanza is another remarkable instance of poetic self-reference in the RV. The case for $-p\acute{a}d$ - as "syllable" thus seems strong.

In light of RV 8.76.12, astápadī in 1.164.41 has a good chance of referring to the counting of syllables instead of lines. návapadī, which is a hapax in the RV, is more problematic, since nine-syllable lines are very rare, non-standard, and therefore not very likely to be named. If Oldenberg's interpretation of návasrakti is right, then by analogy návapadī may be a reference to line-counting. However, there is reference in the SB to the counting of nine-syllabled units (navāksara), just as there is (more frequently) to the counting of eight aksara (cf. Jamison, 1986). Of course, at 1.164.41 we do not have a gayatrī hymn (it is essentially a tristubh-jagatī hymn), nor is there any trace of treas, so self-reference could not be a motivating factor here. Jamison⁶ has suggested that this stanza "imposes a pad-=aksara" equation." In light of the fact that the term aksára is the main theme (i.e. the theme-word) of stanzas 39, as well as st. 41-42, she would seem to be right. In Jamison's view st. 41 expresses a contrast between "the rather limited shape vāc has on earth (only reaching 1-9) vs. the unlimited (1000fold) shape she has in heaven." In this sense, the stanza offers "a more extravagant version of the 3 hidden vs. 1 known divisions of speech in vs. 45." It would seem useful therefore to quote this stanza in full:

1.164.45:

catvári vák párimitā padáni táni vidur brāhmanā yé manīsínah gúhā tríni níhitā néngayanti turiyam vācó manusíā vadanti Speech was measured out into four tracks. Brahmins who have insight know these. The three that are hidden people do not set in motion. They speak (only) the fourth track of Speech.

This much-discussed stanza offers an early example of the IE metalinguistic distinction between the "language of the gods," the elevated poetic language, and the ordinary "language of men." The language of the gods is here characterized as the language of Brahmins, and as Watkins has shown, this elevated language is often subdivided into three parts $(pad\acute{a}ni)$ not only in Vedic, but, e.g. in Old Irish as well. The participle $p\acute{a}rimit\ddot{a}$ "measured out" (recall that we have encountered the verb $m\ddot{a}$ - over and over again in the preceding passages) perhaps suggests the influence of metrical considerations here, though in this context $pad\acute{a}$ does not appear to have a specifically

metrical sense. It is usually taken to mean "portion, part" or "quarter" here — an interpretation that of course relies on $catv\acute{a}ri$ and $tur\acute{t}yam$. The important point, however, as Jamison observes, is that this passage (and perhaps 1.164.41 as well) explicitly shows $pad\acute{a}$ as a subdivision of speech, whether metrical or otherwise.

However, in spite of such clearly metrical uses of the term padá, an exclusively metrical explanation of its semantic development, from "footstep" to "word," is inadequate. Even if the metrical sense is inherited (since the cognate Avestan pada, though rare, may also be attested with a metrical sense⁷), this does not provide an explanation for the remarkable semantic developments in India, where the term padá becomes a technical term of linguistics and probably the first word for "word" not only in Sanskrit but possibly in any IE language. No cognate term comes close to such a technical sense. The metrical sense which we find in Avestan, and in classical Greek and Latin, suggests a common inheritance. But the classical "foot" (Grk. poús, Lat. pes) is not precisely the same thing, either formally or semantically as the Vedic padá, "footprint, track, line of verse, part of speech, etc." What in fact seems to be inherited is the association of "foot" and meter, NOT "footstep" and meter. In Avestan, the one instance where we are likely to have a metrical sense, "line of verse" (Visprat 14.1 — cited by Bartholomae 842) does not attest pada, but rather the root noun pad-(vaγžibiiāca paδəbiiasca = "with a pair of recitations and a pair of lines"8). The corresponding Vedic root noun, pád, does not appear in a metrical sense, but certainly in compounds it does, as we have seen several times already. So while the semantics of this set of terms, pád, -pád-, pāda, padá, will be governed by a core of footedness, padá should be singled out from the rest insofar as it alone came to have a specifically metalinguistic sense.

A further complication in the assumption of an inherited metrical sense is that, while the range of metrical units to which the Vedic term $pad\acute{a}$ refers appears to fluctuate — from syllable to line of verse — it nowhere refers to a sequence of long and short syllables as a metrical unit, as of course the classical foot does. So, while the gāyatrī, the tristubh, and jagatī lines which we've discussed are descendents of IE meters, and while the notion of "metrical foot" may likewise be inherited, it isn't clear that the notion had a specific reference to a particular metrical form. And it certainly isn't clear that $pad\acute{a}$ and its immediate cognates (Grk. $p\acute{e}don$, Hitt. pedan, Av. pada) reflect an inherited metrical sense (the cognates clearly don't).

Furthermore, accepting a metrical sense for the term *padá*, which of course I do in the passages cited, does not require that the linguistic sense

"word" necessarily follows from the metrical sense, as Liebich and it would seem most others assume. Of course, not only in IE but in general, words for "word" are typically derived from verbs of speaking (for IE, see Buck's article under "word" in his dictionary, 1261-62). padá is thus an anomaly. In my view it is the first and only word for "word" in Vedic. śabda is later, and the term vácas, which is of course quite old, does not mean "word" in spite of the long accepted view that it does. vácas means "utterance, discourse, speech" in general, and also, as we've seen "hymn" (in this it seems similar to its cognate Grk, épos: "poetic speech"). Of course, it may overlap with the sense "word" when the utterance to which it refers consists of an isolated word, i.e. a one-word utterance. The notion "word" requires the analysis of the flow of speech into isolable segments. We have seen such analysis already in many passages (starting from the RV). In each case, we have seen that speech ($vac{d}c = vacas$, though often personified) has been segmented into padáni or into -pád's, NOT into vácāmsi. This quite evident fact has been recognized by Liebich, et al., and is one of the foundations of his metrical interpretation. But an additional factor must be involved in the semantic development of the term padá, since it alone among all its metrical cognates has gone all the way toward a clearly technical or metalinguistic sense, perhaps already in the Vedic period (it is worth remembering that, in contrast, vác and vácas have no significant history as technical terms among the Sanskrit grammarians). In my view this additional factor has nothing to do with metrics.

Finally, the metrical interpretation is based textually on very small foundations, and it is surprising that this has not been pointed out. In the RV alone, the term $pad\acute{a}$ occurs over 100 times, but in only a handful of passages does it have a metrical sense. With perhaps one exception (RV 8.76.12 cited above) all of the RV and AV passages which show $pad\acute{a}$ in a metrical sense can be shown to be derived from just one hymn of the RV: again RV 1.164, the notoriously difficult and idiosyncratic riddle hymn of the poet Dīrghatamas. This suggests that $pad\acute{a}$'s metrical sense may not have been in wide or general circulation at all. It may in fact have been restricted to a small circle of priests, perhaps even to one school (though, again, there does not appear to be any special relationship between 1.164 and 8.76). In any case, the overwhelming majority of early attestations (RV and AV) in fact indicate no metrical value whatsoever.

Given the extreme rareness of the metrical sense, Liebich's reconstruction of the semantic development of the term $pad\acute{a}$ amounts to no more than an unsupported assumption. We do not know that $pad\acute{a}$ was the going word for "metrical foot or line" in Vedic, as opposed to $p\acute{a}da$, or even to

pád (at least when it occurs in compounds). Therefore there is no reason to assume that padá was replaced in the Brāhmana period by the term pāda, which later became canonical as "line of verse." Though $p\dot{a}da$ is not attested with any metrical sense whatsoever in early Vedic, it is clearly attested as a unit of measure, e.g. at RV 10.90.3-4, where together with tripad, it adds up to the four "quarters" or "portions" of the primordial Purusa (these stanzas are frequently compared to RV 1.164.45, with its "four portions" padáni — of Vāc).

It would seem much more likely that $pad\acute{a}$ and $p\acute{a}da$, etymologically related but distinct forms, each had a semantic range that overlapped to some extent with the other. Overlapping clearly occurred insofar as both terms are attested as units of measure as well as "foot" (whether metrical or otherwise). The same overlapping occurs with the root noun pád, particularly when it is used in numerical compounds to indicate varying units of measure.

With regard to specifically metrical units of measure, this sort of semantic overlapping existed more or less clearly in late Vedic texts. We know from KB 26.5 (above, p. 00) that by the time of this Brāhmana pada has a sense approximately "word," whereas pāda has, apparently for the first time, the sense "line of verse." But in the very same text, e.g. at KB 22.1, pada persists as "line of verse," just as it does in the parallel series of metrical terms cited by Renou (in Staal, p. 453) at ŚB 10.2.6.13, where pāda is absent. Elsewhere in the SB (11.5.6.19) it is recommended that in lieu of studying (adhi-i) a complete text, one is permitted to study an ekam devapadam. As Renou points out, this phrase refers not so much to a "divine word" (thus Eggeling), but rather to a passage, of indeterminate length, in which a relevant divine name occurs.

This type of semantic variation would seem to have involved not only pada, but also the root noun pad, and the word-play attested in the BĀU (K) suggests that this variation was a matter of significant interest. BĀU 5.14 is a panegyric to the Gāyatrī meter. At BĀU 5.14.1 the formulaic sequence bhūmir antariksam d(i)yaus is said to consist of eight syllables (dyaus is thus disyllabic, and, as Jamison, 1986, has shown, represents an archaic pronunciation). Together these eight syllables form one pada of the Gāyatrī (astāksaram ha vā ekam gāyatryai padam). Clearly this pada is a line of verse. At BAU 5.14.7 the divinized Gayatrī is addressed directly:

gāyatri asy ekapadī dvipadī tripadī catuspadī O Gāyatrī, you are one-footed, two-footed, apad asi na hi padyase namas te turīyāya darśatāya padāya parorajase

three-footed, four-footed. You are also footless since you do not go about (on foot). Homage to you, the fourth, the beautiful (visible) footprint that is above space.

Unlike RV 1.164.41 (to which, however, this passage may allude), there is no question of syllable-counting here. Rather, we have the counting of the lines of the Gāyatrī. But the counting does not stop at the expected three lines which go to make up the Gāyatrī stanza. The goddess Gāyatrī has a fourth foot, while she also appears to be footless. Then homage is offered to her, and she is directly identified with that fourth, not a fourth foot but a footstep (turīya pada). The first three "feet" of the goddess are clearly the three verse lines of the Gāyatrī stanza. But what about this fourth foot? And why is the goddess footless?

In spite of its irregular accentuation (ápad vs. expected apád; cf. Sommer, p. 40, rejecting the traditional interpretation "footless," in favor of derivation from the verb pad- and the sense "nicht fallend"), ápad cannot be separated from the preceding sequence of "feet." The passage clearly proposes a folk etymology linking -pad-, the verbal root pad-, and pada. I think it also uses double sense to suggest paradox. Given the metrical context of this Brāhmaṇa, the numerical sequence ekapadī, etc., clearly indicates not literal "feet" but "lines of verse" (pada's). But ápad, with the following etymology from padyase, brings us back to literal "feet" (or at least to the lack of them). The goddess's fourth "foot" can no longer simply be a verse line.

The Gayatri meter, as goddess, is directly addressed here as a fourth pada that rises up above space, beautiful (and visible) up there. Since this turīya pada is said to "burn" (tapatī) at BĀU 5.14.3, it is traditionally assumed that the expression refers to the sun. 10 So the fourth "foot, or metrical line" of the Gayatrī is "no foot" at all. It is rather a beautiful "footstep or trace" that goes up to the heavens, a "trace" that is visible only to "the one who knows that trace" (yo'syā etad evam padam veda: BĀU 5.14.1—3). The author of this passage seems to be suggesting that the paradoxical fourth "foot or line" of the three-footed (i.e. three-lined) Gāyatrī is the esoteric doctrine, the hidden meaning, that completes it. The passage in any case shows that the semantics of this set of terms is highly complex, and by no means confined to metrics. It may be well to note that again at ChU 3.12 the Gayatri stanza is said, paradoxically, to consist of four lines (catuspada), but that this assertion is complicated by the immediately following, and baffling, claim that the Gayatri is also sixfold (sadvidha). Similarly, the MandU equates the sacred syllable OM, typically three-fold A-U-M (starting with AB 5.32.2; cf. Parpola, p. 202f.; 207f.), with "fourfooted Brahman" (catuspād). At BĀU 5.14 also, the mystic Gāyatrī stanza is understood to have an esoteric pada that transcends its three manifest lines.

Clearly, what is needed, then, instead of Liebich's impressionistic account

of the development of padá to mean "word" (which cites no passages at all!) is a closer look at the non-metrical passages, in fact the vast majority of passages in the RV. What one finds is striking. First of all, it is rather rare to find passages that are unambiguously literal. That is, the footstep, track, or place referred to the RV is usually a god's, or is obscured by figurative, or ritual, or mythological language. Considering the genre, this in itself is not surprising. But after sorting out these complicating factors, at least in the beginning, a significant pattern emerges. The padá referred to in the more or less literal passages is frequently said to be, on the one hand hidden or concealed, and on the other found or recognized. Thus, for example, in an incidental comparison that is valuable precisely because it is incidental - i.e. it is not the priest's primary focus, and thus can be taken at face value — we encounter the concern of a cattle-thief to conceal his tracks: padám ná tāyúr gúhā dádhānah ("Like a thief concealing his track [Agni has rescued Atri . . .]") (RV 5.15.5c). Obviously the business of a cattle-thief requires that he conceal his tracks in order to prevent detection, and the pursuit of his outraged victims. This theme of the hidden track, whether literal or otherwise, is one of the most conspicuous features of all RV attestations of the term padá. Collocations of padá with a variety of forms derived from the verbal root guh- are well known, and bring us directly into the sphere of Vedic esoterica. But this theme of the hidden track (which is also frequently expressed in collocations with adjectives like priyá, cáru, paramá, gambhīrá, apīcía) is rooted in the literal, daily affairs of the world. Similarly, we frequently encounter reference to the protecting, guarding, and concealing of tracks (cf. the verbal roots raks-, pā-, pr-, cat-), which highlights a feature not only of esoteric collocations, but clearly of literal ones as well. All such collocations reflect a preoccupation with tracks as signs.

But just as one might conceal one's tracks, guarding them from the view of thieves and enemies, so also an ambitious cattle-raider needs to know the tracks, if he wants to find the cows to which they belong. Thus at RV 1.62.2—3 we find reference to the Angirases as "knowers of the track" (padajñá), as a result of which, their divine advocate Bṛhaspati is able to "find the cows" (vidád gắḥ). When a valued animal is lost it is "pursued by means of its tracks" (paśum ná naṣṭám padaír ánu gman: RV 10.46.2). At RV 8.2.39 it is said that only in the case of a powerful and skillful god like Indra can cows be found without the aid of the tracks which they have left behind. At RV 3.31.8 Indra receives the pair of epithets "track-seeker of heaven, seeker of cows" (diváḥ padavír gavyúḥ). So clearly it is by means of their tracks that one finds the cows. And, while it is again difficult to

extricate collocations of *padá* and verbs like *vid-*, *jña-*, *cit-*, etc., from the dominant preoccupation of Vedic poets with esoterica, we can still be sure that the theme of finding, knowing, noticing the track is one that concerned non-poets as well.

The point is that a much more general and widely observed phenomenon than meter has played a key role in the semantic development of the term padá. We can see in various incidental references to cattle-seeking and cattle-guarding the significance of tracks in everyday life. Similar evidence is available from the vocabulary of hunting in general. A passage like 5.74.4 is complicated by the metaphysical connotations of the term drúh, but the context of 5.74.4 would seem to show that padá refers there to a trap or ambush of some sort: "like a lion in a padá of deceit . . ." (simhám iva druhás padé). The suggestion of a trap is strengthened by the adjacent grbhītátāti, "captivity." One would suppose that this padá is a covered pit into which the lion has fallen. 11 In my view the sense "pit" derives from two sources. On the one hand a footprint leaves in varying degrees a depression in the ground. In the case of particularly "heavy" creatures like cows (and, as we will see, gods) such depressions would be deep enough to form measurable holes in the ground. We know that in Vedic such holes were deep enough so as to receive the oblations of priests. We will see below that a well of honey could be found in Visnu's highest padá (e.g. at 1.154.5), and in fact this is a very ancient IE motif. But at RV 5.74,4 suggestions of hunting or trapping seem present. Lions, like the thieves of 2.23.16, are drawn to such traps, just as hunters are drawn to tracks as clues leading to much-desired prey.

We know that hunters were and still are astute observers of signs. Obviously the tracks of the animals which they hunted were signs that conveyed highly significant information to them. Those who are hunted are likewise attentive to tracks, at times taking care to conceal or erase them. Ethologists and zoosemioticians have observed the incredibly complex interactions between hunters and the hunted, both human and non-human. Clearly, tracks play a fundamental role in such interactions. Thus, in turning to the remaining attestations of the term $pad\acute{a}$, we should keep in mind the fact that the surprisingly frequent reference to the concealing and protecting of tracks, on the one hand, and to the finding of them on the other is simply a reflection of a surely daily preoccupation with tracks as signs. But this preoccupation with tracks goes well beyond the sphere of hunting.

In another set of passages, in both the RV and the AV, the term *padá* can be seen to be an important element in the vocabulary of divinatory practices. There is one passage where the phrase "the track of the birds"

seems to allude to the practice of interpreting the flight of birds (recall the etymology of Latin *auspicium: avis* "bird" + *specio* "observe, examine"). This expression has to be distinguished from the more frequent formula *padáṃ véḥ*, which in the Vedic esoteric lexicon is both a kenning for the sun's course across the sky and a self-reference to esoteric doctrines. The passage is RV 1.25.7:

védā yó vīnām padám antárikṣeṇa pátatām véda nāvāh samudríyah The one who knows the track of the birds that fly in the air, the (god) of the sea who knows the (track) of the ship.

This is a clear reference to Varuna, who is characterized throughout this hymn (and elsewhere) as an omniscient god whom it is impossible to deceive. There is debate about the last line: nāvás may be acc. pl. (thus Grassmann, Oldenberg, Renou), instead of gen. sg.; samudríyas may be acc. pl. from samudrá (thus Grassmann, Oldenberg, Renou), instead of nom. sg. modifying Varuna (thus Geldner, Brereton). Geldner follows Sayana and interprets nāvás as gen. sg., supplying padám. Thus his translation of the line = "er weiss die (Spur) des Schiffes als Meeres (gott)." It seems to me that for the same reason that Oldenberg (Noten, ad. loc.) rejects Geldner's interpretation, we might do well to accept it. Oldenberg suggests that "die Parallelität der Vögel in der Luft scheint mir deutlich auf die Schiff im Meer (Akk. pl.) zu führen." This parallelism would seem assured by the marked repetition of the line-initial verb véda in stanzas 7-9 (6 x). But if that is the case, then it would seem reasonable to include padám in the parallelism and to assume that Varuna knows both the track of the birds flying in the air and the track of ship(s) at sea.

Similarly when it is said in st. 8 that Varuna knows the twelve months and their offspring, it can be assumed that it is the procession or circuit (i.e. the padá) of the months that is understood. Compare st. 9, where Varuna is said to know "the course of the wind" (vátasya vartaním). The range of Varuna's knowledge in this passage is striking. Knowledge of the flight of birds is especially indicative of insight, because the path or trail which they leave across the sky is invisible. Similarly, the trail of a ship across the waters of the sea is a transient phenomenon, the trace which it leaves behind being much more impermanent than the tracks which terrestrial creatures leave behind. Knowledge of the procession of the months and the other units by means of which time is measured was surely considered a special knowledge — a science of intangible or fleeting things, just like the course of the winds. We can readily see why a god, or a priest for that matter, who has mastered such esoteric sciences would seem to be omni-

scient: these sciences require the interpretation of the signs of invisible, or at least transient, things.

Other Vedic divinatory practices are attested that show that the footprint (or clawmark) of certain birds was considered especially significant. In RV 10.165 (distributed over AV 6.27–29), the pigeon (kapóta) is called a "messenger of destruction" (dūtó nírṛtyāḥ), and the owl (úlūka, a term which is onomatopoeic) is said to utter (vad-) things which the priest/magician hopes will lead to no harm. At RV 10.165.3–4 the clawmark (padá) which the pigeon leaves behind in the ashes of an extinguished fire is feared as ominous, dangerous, signifying death. The parallelism between the cry of the owl and the clawmark of the pigeon is clear: they both may be said to "speak" of death.

"Speech" would seem to have been the distinguishing feature of such divinatory birds. RV 2.42 and 43 are a pair of hymns dedicated to the śakúna, a not clearly identified bird which is especially auspicious (sumanġála). The focus of 2.42 is on this message-bearing bird's cries. Thus, as Renou pointed out (EVP 16.101) the theme-word of the hymn is the verbal root krand-. Similarly 2.43 is dominated by the verbal root vad-. The auspicious śakúna is repeatedly implored to utter auspicious things: bhadrám á vada; also púnyam á vada. In fact in both hymns a wide variety of verbs of speaking and singing is used to describe the manner in which this bird communicates. Besides krand- and vad-, we find prá-brū-, gā-, śaṃs-, and gṛ. The bird is repeatedly compared to the udgātár and the sāmagá, which would suggest that like these priests the śakúna is a singer.

If we turn back to RV 10.165 we can see how the pigeon's clawmark also communicates a message, and how that inauspicious message is dealt with. In st. 5 we are told that one can drive out (nud-, 2x) this messenger of Yama by reciting a rc. Even more, one can lead about a cow so as to obliterate all the evils left behind by the bird (samyopáyanto duritáni víśvā). The corresponding AV passage (6.28.1) would seem to make it clear that the evils referred to at RV 10.165.5 are the pigeon's tracks: samlobháyanto duritá padáni. The accompanying ritual commentary (KauśSū 46.7) shows that the intention here is to obliterate the inauspicious tracks of the pigeon by means of the auspicious tracks of the cow. Here we can see a train of thought that is characteristic of the magician. The footprint, of the cow on the one hand and of the bird on the other, is first recognized as an index, of the auspicious cow and the inauspicious pigeon. It is then manipulated as a symbol in the ritual. The magical properties of both creatures are transferred to their marks (their padani). This is a clear example of what Frazer called contagious magic.

Similarly metonymic is the expressive magic used in an apotropaic practice attested in a funeral hymn, RV 10.18. In st. 2 the relatives of the deceased are required to "erase the footprints of death" [mrtyóh padám yopáyantah), as they leave the funeral pyre to return to everyday life. The hope is expressed in st. 3 that death will thereby not follow them as they return home, to dancing and laughter (nrtáye hásāya) and to a very long life (drághīya áyuh). It can be shown that these relatives are afraid that the deceased's spirit will not be satisfied with his leave-taking, that he will trouble his family unless he is adequately appeased, that death may thus pursue the living. Among other precautions that are taken, the ritual of erasing the footprints is a means of preventing death's pursuit, and no doubt it relieved a good amount of anxiety.

The value of passages in which the term *padá* is attested referring to the use of tracks in a variety of divinatory and magical practices ¹² is that they show clearly the recognition of the literal footprint as an indexical sign that refers to its maker. They show recognition of the literal footprint as a message-bearing mark of its maker, a mark that is capable, like the cry of an owl or of a śakúna, of speaking or singing to us. The parallelism between the footprint as a non-verbal index and the cry as a "verbal" one is unmistakable in such passages.

Besides such divinatory and magical footprints, there is the well-known mythological motif involving the footsteps of the god Visnu. The central theme of the mythological career of this god is, of course, his "measuring out," thereby "defining" the three regions of the world — precisely by means of the three strides that he takes that span all three realms. 13 These strides of course result in three footprints, which are said to be filled with honey (1.154.4). They are places, that is, of sweetness and abundance. We have seen already that in certain contexts a padá can be a pit, a deep depression in the ground, dug for example, to catch a lion or thieves. In the same way, the imprint left behind by Visnu's step is deep indeed. At 1.154.5 it is said that a well of honey can be found in Visnu's highest step (vísnoh padé paramé mádhva útsah), which also radiates light, intoxicating both gods and men (1.154.5-6). This imagery is paradoxical in typically Vedic fashion. On the one hand, there is clear emphasis on height. Besides the parallelism between paramám padám (st. 6) and úttaram sadástham (st. 1), it is emphasized that Visnu is a mountain-dweller (giristhá in st. 2, and giriksit in st. 3). But the well of honey in st. 5 and the three padá's in st. 4 that are filled with honey also suggest depth. This height-depth opposition is a transposition of an esoteric — exoteric opposition, in which the term padá is essentially involved, e.g. at RV 4.5, a well-known hymn

treating of esoteric doctrines. There, among many such paradoxical oppositions a padá, which is also called a mánman, is simultaneously bṛhát and gabhīrám (RV 4.5.5—6). While the term gabhīrá (gambhīrá) connotes esoteric doctrines (its association with poetic activities is clear), it also connotes seas, rivers, and wells. It would seem that the term padá, alone by itself but certainly when modified by a term like gabhīrá, suggests a deep hole rather than a simple "place." It also comes close at times to being a synonym of a term like nidhí, a treasury or store-house.

All of this relates to a remarkable fact about Visnu's footprints. They have become in India to this very day places of worship. Temples have been built up around them, just as around the celebrated footprints of the Buddha, who after all is claimed to be no less than an avatar of Visnu. The notion of a god's footprint as a place of worship brings us to a formulaic expression that is attested in both Vedic and Avestan, the puzzling "footstep(s) of milk": besides Vedic ilás padé and ílāyās padé (with padá always in the locative), consider Avestan (Y. 50.8) padāiš tā frasrūtā ižaiiå. The formula refers to the practice of pouring oblations of milk and butter into the footprints of cows (cf. also Avestan āzuiti, e.g. at Y. 29.7 and 49.5, and the Vedic compound padāhuti14). From this practice derives the use of the Indo-Iranian term *pada to refer metaphorically, it would appear, to an altar, i.e. to a place of worship onto which oblations are poured. The frequently suggested etymology of Vedic védi as *(a)va-zd-i (i.e. from avasad-) would seem to support the view that the phrase "footprint of milk" refers to an "altar." There is also the interesting parallel between Visnu's three strides and the fact that in later Zoroastrian ritual the priest, the $z\bar{o}t$ (= Avestan zaotar, Ved. hotár) is supposed to take three strides while reciting Y. 50.8, cited above. This act is given a cosmological interpretation in the Pahlavi commentaries which is reminiscent of the cosmological role attributed to Visnu's three strides.¹⁵ All of this would suggest that the archaic Indo-Iranian priest poured libations of milk and butter (i.e. cow products) into something called a *pada, the footprint of a sacred or sacrificial cow perhaps, or perhaps rather an altar or oblation-place conceived as the footprint of a god. We should recall that the védi was not a raised altar, but was a shallow depression in the ground, to which the gods were expected to come and sit. In the Brāhmanas the vedi is frequently called a yoni, a term which would seem to share a range of associations with our term padá: they are both places, like the vedi, where one is likely to find the gods.

The worship, as well as the dread, of the footprints of divine or spiritual beings is in fact a very old and widespread phenomenon. Magical and cult

practices have grown up around the footprints of such invisible, immaterial, legendary or departed beings in many cultures. An example from pre-Christian Lithuanian folklore is especially relevant, because Lithuanian, very conservative linguistically, is a related IE tradition, which in this example preserves both a phrase and a cult practice which may well be cognate with our Vedic examples. Gimbutas and Jakobson have noted the footprints of the pre-Christian god (demonized after Christianity) Velinas. He is said to wander in the woods, such a powerful and grave god that "if he steps on a stone his footprints remain; these called Velnio pedos 'footprints of Velinas', are associated with miraculous occurrences; rainwater falling into the footprints acquires magic properties, and women come to the rock seeking fertility" (thus Gimbutas, p. 90). This god possessed many other qualities which have invited comparison with other IE gods, including his reputation as a skillful hunter and protector of cattle, as well as his being a patron of poets (cf. the possibly cognate Old Irish term fili, "poet, seer"; Jakobson, p. 588). There is even a possible etymological kinship between his name and that of the Vedic god Varuna mentioned above. In this comparative light, the phrase velnio pedos has a striking similarity with the Vedic phrase vísnoh padá, "Visnu's footprint," which, again was characterized as a well of sweetness and abundance, and into which oblations of milk and ghee were poured, etc. It is interesting that, though the cognate term Greek pédon has lost its primitive sense "footprint" — it is attested in Greek only as "place, site, ground" — it nevertheless is frequently attested in the identical syntactic construction, with the genitive of a god's name:

e.g. Zēnós euthalès pédon = the flourishing (sacred) ground of Zeus

Loxíou pédon = the (sacred) ground of Apollo

Palládos pédon = the (sacred) ground of Athena

In these and similar passages, Greek *pédon* has the sense "sacred site or place, i.e. the ground of a sanctuary of the named god." Likewise, there is the formulaic expression *chthonòs pédon* or *gēs pédon* + a genitive of place, which is usually characterized as a periphrasis for the place-name itself (e.g. *Eurōpēs pédon* = "Europe" and *hagnòn es Thēbēs pédon* = "into holy Thebes"). Here we seem to have vestiges of *pédon*'s etymological sense, ¹⁶ and vestiges also of an IE notion of the divine footstep as a SIGN of the god. ¹⁷

At this point it should be clear that in this wide range of contexts the term $pad\acute{a}$, in its literal sense "footprint," has brought us directly into the realm of signs. And it would seem clear that we have gotten to this realm without the aid of a transitional metrical sense. In the vast majority of its

attestations, the term $pad\acute{a}$, "footprint," functions more or less clearly as a term of inference. In fact, a footprint is an indexical sign by means of which we are able to know that this or that being has passed our way. What unites all of the passages which we have discussed is the fact that it is by means of footprints that departed, or absent, or immaterial beings may be detected, identified, and/or influenced.

In the scholarly literature discussing the semantic history of the term padá no one has noted the fact that a footprint is a prime example of an indexical sign. On the other hand, students of semiotics know that fact very well, since the footstep was Peirce's preferred example illustrating what he meant by the term index. Sebeok has repeatedly reminded us of Peirce's reference to Robinson Crusoe's dramatic discovery of a footprint in the sands, and ALL that the footprint meant to him. Another early father of Western semiotics was St. Augustine who, in discussing signs in general, observed that "a sign (signum) is in fact a thing which, besides the outward appearance which it presents to the senses, by itself makes something else come to mind. When we see a foot-track (vestigium pedis18), we think that the animal to which the foot-track belongs, has passed. And when we see smoke, we know that there is fire underneath . . ." (On Christian Doctrine, 2.1.1, quoted by Hovdhaugen, p. 107). This juxtaposition of the footprint, as an index of the creature who left it behind, and smoke, as an index of fire, will remind the Sanskritist that the fire-and-smoke relationship was the preferred example of inference not only in the West but also among the classical Sanskrit logicians, 19 and on the other hand that the smoke of cowdung in early Vedic was an especially significant means of divination.

A suggestive illustration of the recognition of the footprint as a means of inference is provided by the Buddhist Pali text, The Milindapañha. This text records the dialogues between a Greco-Bactrian king Milinda (= Greek Menander) and the legendary Buddhist sage Nāgasena. In a chapter of the text called the "Anumānapañha" ("Interrogation Concerning Inference") the shrewd king Milinda challenges the Buddhist sage, "Tell me, have you ever seen the Buddha yourself?" When Nāgasena admits that neither he nor any of his teachers had ever seen the Buddha directly for themselves, Milinda presses him, suggesting that in the absence of such direct experience perhaps it should be concluded that the Buddha never existed at all. Nāgasena then launches into a long discourse on the possibility of indirect knowledge, particularly by means of inference. Nāgasena's defense consists, as we are told, of "examples, reasons, arguments, and metaphors." Among these, Nāgasena's opening suggestion is that, just as a king's power and presence can be inferred from his royal insignia, so the Buddha's power and

presence can be inferred from HIS royal insignia: i.e. the very qualities that make him the Buddha, and upon which dedicated Buddhists are supposed to meditate. Finally, Nāgasena concludes his argument in favor of inference with the following stanza [MP 5.24.4, Trenckner p. 346]:

As men seeing the footprint of an elephant-king, can judge by inference: 'How great his size must be!' So when they see the footprint of the elephant of men, the Buddha, the wise one, upon the path that men have trod, they know by inference: 'How glorious the Buddha was!'²¹

I have found no better example illustrating the fact that a footprint is a means of inference, and was clearly recognized as such in classical India.

It is clear that, like the Buddhist author of the MP, the Vedic poets hundreds of years earlier, recognized that the footprint is a sign, a means whereby the invisible could be made visible. They recognized a functional similarity between a footprint as an index and a name as an index. This is reflected in the Viṣṇu-cycle, where the theme of Viṣṇu's three strides progresses to that of his three footprints, which in turn proceeds to the theme of Viṣnu's three names. Cf. RV 1.155.3:

tắ īm vardhanti máhy asya paúṃsyaṃ ní mātárā nayati rétase bhujé dádhāti putró' varam páram pitúr nāma trtīyam ádhi rocané diváh These (chants) increase his great manliness. He leads his parents for enjoyment of seed. The son fixes the father's lower, then his higher, then his third name, in the light-realm of heaven.

As Geldner and Renou have pointed out, the three names in this stanza replace Viṣṇu's three steps. Similarly, in the final stanza of the hymn (st. 6) the 360 days and nights of the year which Viṣṇu traverses in completing the solar year are referred to as 360 names.

There are other instances where this association of footprint and name occurs. Perhaps most striking is RV 7.87.4, which has been frequently discussed because of its expressed interest in esoteric doctrines.

uvắca me váruṇo médhirāya tríḥ saptá nắma ághnyā bibharti vidvắn padásya gúhyā ná vocad yugắya vípra úparāya śíkṣan Varuna told me, the wise one: the cow bears thrice seven names. The knower of the track will tell them like secrets if he wishes to serve as poet to the later generations.

Renou in particular (in Staal, p. 454) has emphasized the basic synonymy in such passages between $n\acute{a}man$ and $pad\acute{a}$, suggesting that the factor which linked them together was the fact that they both served to characterize the divine personality to which they belonged. This can be seen more clearly when we consider that a footprint is a non-verbal designator, whereas a name is a verbal one. That is, the approximate synonymy of $n\acute{a}man$ and

padá is based on their perceived function as signs. This synonymy is well known (e.g. by Geldner and Renou), but I don't think that it has been adequately addressed. A god's names (for as Renou has pointed out, names in Vedic are largely a matter of the gods), just like the god's footprints, are signs by means of which we may infer that god's presence.

The role of names in Vedic is crucial for a number of reasons, among which is the role they played in brahmodyas. As I have argued elsewhere,²² one type of brahmodya is a conventional form of code-testing (like the riddle) that in essence involves the use of "secret names" in an interrogation-sequence designed to solicit from the respondent a corresponding sequence of ordinary unmarked names as answers. These brahmodyas clearly exhibit the metalinguistic distinction known from IE antiquity, i.e. between the marked, esoteric language of gods and the ordinary language of men.23

The secret names which are frequently referred to in the RV therefore have a specific reference to an esoteric poetic lexicon. The same would seem to be true of the similarly frequent formula gúhyā padāni (with its variations). When this pair of formulae is expanded to "the secret names/ tracks of the cow," the reference to the esoteric lexicon remains the same, the cow of course being speech. This well-known use of the terms naman and padá to refer to the secret names or messages of poetic speech in particular is the key factor that has led to the sense "word" for padá without any need whatsoever of an intermediate metrical sense.

The point here is that the Vedic poets were, self-consciously, cryptanalvsts. The highly competitive and esoteric environment in which they performed compelled them to be self-conscious seekers after signs. Thus they were inclined to call themselves and their predecessors "knowers of the track (padajñá) or "track seekers" (padaví). That they possessed a rudimentary but nevertheless self-conscious doctrine of signs can be seen in the following passages, where the term padá refers to an instrument used specifically by poets. In these passages, the function of the literal footprint was perceived to be a model for the activity in which the poets themselves were engaged. Just as birds and cows and especially the gods communicate to mortals by means of signs — their footprints — so the poets perceived themselves to be communicating to their audience by means of signs their footprints.

Consider the "footprints" of Agni in the following stanza, 1.72.6:

tríh saptá yád gúhyāni tvé ít padávidan níhita yajñíyasah tébhī raksante amŕtam sajósāh

When the (gods) we worthy of sacrifice found the thrice seven tracks that were kept hidden within you (Agni), acting together they protected the immortal by means of paśun ca sthatin carátham ca pāhi them. Guard both the cattle that stand and the mobile one.

Much remains uncertain here, including how to understand padā. Geldner and Renou take it to mean "words," largely because of the parallel collocations (cited by Geldner) of gúhvā with nāmāni (cf. e.g. st. 3). Oldenberg's skepticism (SBE, p. 85) about the gloss "word" is reasonable, but it would seem undeniable that pada can refer only to figurative tracks of some sort. since these "tracks" are said to be hidden within Agni. The suggestion that these 21 padá's refer to 21 pieces of kindling wood, because of 10.90.15, is not terribly convincing, nor are Oldenberg's other tentative suggestions. It is not simply the association of name and track that suggests "word" here. There is also the presence of other themes which all together suggest that padá may have the sense "sign," possibly a verbal sign.

The themes of hiddenness and recognition are clearly present in this stanza, as they are in fact throughout the entire hymn. As we will see, the fact that these themes allude to the mythological theme of Agni's flight from the gods does not exclude the suggestions of esoteric doctrines which Geldner and Renou, I think rightly, detected. While the phrase padé paramé, repeated in stanzas 2 and 4, suggests the altar upon which Agni may be found, paramá suggests that this "altar" is a special one, perhaps esoteric.24 The epithets which the "immortals" receive in st. 2, padavío dhivamdhās . . . , call attention to the gods' preoccupation with poetry, as does kávyā in st. 1. Similarly the reference to vayúnāni in st. 7 invites the suggestion that the 21 "tracks" in the previous stanza refer somehow to Vedic esoterica. The hymn deserves fuller treatment than is possible here, but it would seem clear in any case that the opposition between the mortal and the immortal is a central theme of the hymn (cf. Bergaigne I. 132), a theme which is reinforced on several occasions by ellipses which allow us to understand the text in it at least two senses. It would seem to me that RV 1.72.6 is, inevitably, as much about priests in pursuit of insight (illumination) as it is about the gods in pursuit of Agni.

At RV 10.67.2, it is tempting to translate padá as "word," as in fact most translators do:

rtám sámsanta rjú dĺdhyānā divás putráso ásurasya vīráh vípram padám ángiraso dádhānā

Reciting Truth, perceiving the correct, the sons of heaven, heroes of the Asura, the Angirases have established the inspired one, the track, (and thereby) yajñásya dhẩma prathamám mananta have given thought to the prime foundation of sacrifice.

That padá has a linguistic sense here is suggested by the adjacent term vípra which may modify it: thus "inspired word." Even if we reject an adjectival vípra here, the association of padá with a noun vípra, "inspired sage," as well as rtám śams-, dhī-, and man-, would suggest that this padá is a verbal or at least a mental track. That this is a track established by the primordial Angirases suggests that it may be a verbal precedent left behind by them. Compare RV 1.139.9:

priyámedhah kánvo átrir mánur vidus té me pūrve mánur viduh tésām devésv áyatir asmākam tésu nābhayah tésām padéna máhy a name giré 'ndrāgnī ā name girā

dadhyán ha me janúsam púrvo ángirāh Dadhyanc, the primordial Angiras, Priyamedha, Kanva Atri, Manu — they knew my birth. These my primordial ones, Manu and the rest, knew. Their continuity (is) with the gods. Our birth-connections (are) with them. By means of this track of theirs do I pay great homage, with song! O Indra-Agni, I pay homage with song!

The relationship, the means of contact, between the contemporary poet and the gods is mediated by the poet's ancestors, who are invoked in this stanza. Here again it seems likely that the track by means of which (or perhaps along which) the poet pays homage is the verbal precedent, the tradition, which the ancestors have left behind for him.

A formula like padavíh kavinám, attested 3x in the RV, is noteworthy because it indicates that kaví-s, whether divine or human, have a particular preoccupation with tracks. At RV 3.5.1 Agni is addressed as an "inspired one, track-seeker of the poets" (víprah padavíh kavinám). But the use made of this formula in 9.96 is especially revealing. It occurs at st. 6 and 18:

- rsir vípranam mahisó mrgánam syenó grdhrānām svádhitir vanānām sómah pavítram áty ety rébhan
- (6) brahmá devánam padavíh kavinám A Brahmin among the gods, a track-seeker among poets, A Rsi among the inspired, a buffalo among wild beasts, An eagle among birds of prey, a hatchet among trees, Soma goes beyond the filter singing.
- (18) ŕsimanā yá rsikŕt svarsáh sahásranīthah padavīh kavīnām trtīyam dhāma mahisáh sísāsan sómo virájam ánu rajati stúp

He who has the mind of a Rsi, maker of Rsis, sun-winner, He of a thousand paths, track-seeker among poets, The buffalo seeking to win the third foundation, Soma, praise-singer, shines after Virāj.

Stanza 6 offers a catalogue of some of Soma's virtues, by asserting that he is the best among each of the classes cited. This is clear in the two animal classes: "among wild beasts Soma is a buffalo, among birds of prey he is an eagle." Similarly, among the gods Soma is a Brahmin, and among the inspired ones, Soma is a Rsi. What is interesting for our purposes is that among poets, Soma is a padavi, a "pursuer of the track." Given the context, this epithet would seem to qualify not just any poet, but only the best among them, just as the title of Rsi would seem to mark one as a particularly potent type of inspired sage. Similarly in st. 18, the sequence of epithets which Soma receives marks him not only as a Rsi-maker with the mind of a Rsi, etc., but also as a kind of "trail-blazer" for poets, one who inspires them by setting precedents.

The image of a poet pursuing the track of his predecessors would seem to be reflected also in the myth of the gods pursuing the track of the elusive Agni. In numerous hymns, of course, Agni is depicted as fleeing from his responsibilities as a priest, and as a result is pursued by the gods. It is striking that in many passages which present this motif, the gods are not only represented as pursuing Agni's tracks; they are also characterized as poets (kaví). Consider RV 1.146.4:

dhīrāsah padám kaváyo nayanti nānā hrdā ráksamānā ajuryám sísāsantah páry apasyanta síndhum āvír ebhyo abhavat súryo nrn Insightful poets follow (Agni's) track, protecting variously the unaging in their hearts. Wishing to win him, they have searched the river. He, the sun has become visible to them, (illuminating) heroes!²⁵

In light of 1.72.6 above and many similar passages, we may assume that these "poets" are the gods searching for Agni in the waters of the river. However, the final word of the stanza, $n\dot{r}n$, suggests that these poets may also be human (thus Geldner), or specifically priests (thus Oldenberg, SBE, p. 168). The "unaging one" in line 2 is either Agni himself or perhaps his track (the ellipsis of a substantive, I think, is meant to suggest the identity of the god and his track).

A similar ambiguity is evident at RV 10.53.10:

sató nűnám kavayah sám sisīta vásībhir yábhir amŕtāya táksatha vidvámsah padá gúhyāni kartana yéna devāso amrtatvám ānasúh Now, you poets, sharpen all together the hatchets,²⁶ by means of which you have fashioned (this) for immortality. You who know, make the secret tracks whereby the gods have attained immortality.

The *kavi*-s who are directly addressed here would seem at first glance to be the poets (priests) who are present at the performance of this hymn (thus, Geldner). But the concluding line at least suggests a connection between poets and gods here. As Jamison has noted (personal communication), an interesting problem is presented by the absence of a referent for the relative *yéna* in line d. The consensus links it with the preceding *padá gúhyāni*, in spite of the difference in number, and such an interpretation may well be correct. But it is tempting to link *yéna* with the object of the verb *takṣ*-, in line b, an object which in fact is absent. Renou (EVP 14.17) supplies "parole" without comment. Schmidt (p. 126), emphasizing the concrete sense of the verb *takṣ*- as well as the theme of the hatchets both in this and in the preceding stanza, suggested "den Baum = das Gedicht." This is a valuable suggestion which calls attention to the implicit analogy between the ritual activities of the priest (e.g. feeding the fire with wood) and those of the poet (i.e. feeding the fire with poems).

In fact, just as at RV 1.146.4, the suppression of the object here is intentional, the intention being to create ambiguity, or double sense. The

tracks referred to here may well be literal, i.e. they may be the "tracks" by means of which the gods gained, or found, Agni. These tracks may be altars, both terrestrial and celestial, by means of which Agni may be found. But there is good reason to think that these tracks are also intended to be verbal, and that the verb kr- here should be understood (as Renou suggested) in the sense "to perform (hymns), to utter," besides the more literal sense "to make tracks or places," or "to make visible." Without going into detail, I would point to two features in this hymn that support the assumption of double sense. First, in st. 3 and 11 there is reference to "the secret tongue of sacrifice" (yajñásya jihvám . . . gúhyām: st. 3) and to "esoteric mind and tongue" (apīciena mánasotá jihváyā: st. 11). It is clear that, here as elsewhere, this "secret tongue" is ambiguously the tongue of flame of the sacrificial fires, as well as the esoteric language of the poets. Second, in st. 5 it is said that the gods are "born of the cow" (gójātāh). The gods (and only the gods) are said to be "born of the cow" because they are born from sacrifice on the one hand and sacrificial speech on the other. The term gó, we know, is a "secret name" of Vāc, "sacred speech."

There is, then, a kind of mysticism, a language mysticism, which forms a major part of the Agni hymns of the RV, and which has influenced, in my view, the semantics of the term padá. At RV 10.5, this mysticism is more or less clearly expressed, as is often the case in such late hymns of overtly "speculative" bent. Here are the two opening stanzas of the hymn:

asmád dhrdó bhűrijanmā ví caste sísakty údhar ninyór upástha

(1) ékah samudró dharúno rayīnām The one sea of many births, the foundation of wealth, looks out from our heart. He clings to the udder in the lap of the secret pair. Placed útsasya mádhye níhitam padám véh down in the midst of the well (is) the track of the bird.

sám jagmire mahisá árvatībhih rtásva padám kavávo ní pānti gúhā nāmāni dadhire párāni

(2) samānám nīlám vŕsano vásānāh Rutting bulls veiling themselves have united with the mares in the same nest.27 Poets guard the track of Rta. They have kept the secret names highest.

Agni seems to be identified directly with this "ocean of many births that looks out from our heart," and he is, as often, the young calf clinging to the udder, although this udder is a secret one. Finally, he seems to be identified, not with the solar bird, but with its track, which is hidden in the well. The track of the bird and the track of Rta must surely be related, if not identical, and what the poets — divine or human, it doesn't matter — guard, must surely be the esoteric lexicon which we have mentioned above.²⁸

It is in this light that the strange language of RV 3.5.5-6 must be understood:

pấti yahvás cáranam sūryasya pấti nấbhā saptáśīrsānam agníh pấti devấnām upamādam rsváh

rbhúś cakra idyam cáru náma vísvāni devó vayúnāni vidvān sasásya cárma ghrtávat padám vés tád íd agni raksaty áprayucchan

pắti priyám ripó ágram padám véh He (Agni) guards the private summit of the earth, the track of the bird. The youth guards the course of the sun. Agni guards the seven-headed in the navel (of earth). Immense, he guards the intoxication of the gods!

> Rbhu has fashioned a precious name worthy of praise, this god who knows all the markers. The skin of food that is rich in ghee, the track of the bird, Agni protects that, unceasing!

Here it is not the poets but Agni himself who guards "the track of the bird" (= "the course of the sun"). It is not poets — again, whether divine or human — who have fashioned "the secret padá-s," as, for example, in 10.53.10 above, but rather Agni himself, the artisan $(rbh\hat{u})$, who here has fashioned a "precious name." It is not the poets or gods who are "knowing ones" (again, as at 10.53.10), but rather Agni is the knowing one here, and what he knows are signs of some sort (vayúnāni). Agni behaves here, as in so many other passages in the RV, as the quintessential poet and priest. It is clear that one of his major preoccupations, as poet and priest, is the pursuit, the tracking, the knowledge, the protection, etc. of padá-s.

One could dwell at length on notorious hymns like RV 4.5 and 6.9 which offer further glimpses of this esoteric Agni "who stands in darkness" (cf. e.g. 6.9.7: támasi tasthivámsam), and whom therefore all the gods adore and fear (víśve devá anamasyan bhiyanáh).29 But for brevity's sake, I will conclude by reviewing a few more passages which establish, it would seem to me beyond dispute, that the term padá already in the RV refers to a verbal track or message.

Consider RV 3.55.1—2, a crucial passage:

(1) usásah pűrvā ádha yád vyūsúr mahád ví jajñe aksáram padé góh vratá devánam úpa nú prabhúsan mahád devånām asuratvám ékam When the first dawns dawned the great syllable was born in the track of the cow. Giving nourishment to the vows of the gods, then, (I say:) Great is the Asuric power of the gods! It is one!

(2) mó sú no átra juhuranta devá må půrve agne pitárah padajñáh purānyóh sádmanoh ketúr antár mahád devánām asuratvám ékam

May the gods not be led astray there, o Agni, nor the primordial fathers, who were knowers of the track! The signal is within the two seats of the two ancient ones. (I say:) Great is the Asuric power of the gods! It is one!

Much has been made of the esoteric significances of these two stanzas, which are clearly composed in traditional esoteric style. I would only add that in my view the passage is self-referential. That is, while displaying his own mastery of that esoteric style, this poet (who according to the Anukramanī is named Prajāpati, son of Viśvāmitra, or of Vāc) refers obliquely to

that style. It is likely, though no one as far as I know has explicitly said so, that aksára here refers to the syllable OM.30 Renou (1941, in Staal, p. 462, and again EVP 4.51) has suggested a "modern transcription" of 3.55.1b as: "le grande syllabe est née dans le domaine de la parole." What this transcription implies, of course, is Renou's recognition that the line is composed in a code, the key elements of which, in this case, can be glossed: the imperishable = the syllable; track = domain; cow = speech. But perhaps it is possible to refine Renou's transcription a bit. This syllable is a specific syllable, OM. This track is not simply a "domain"; it is the message that is unexpressed but implied (i.e. it is hidden). And this "speech" is not any old speech; it is recitation of ritual speech. As for the forefathers of st. 2: not only do they know this message ($padaj\tilde{n}\dot{a}$); it is through them that the rest of us have gotten it. In fact, it is with the aid of the gods and the forefathers (poetic predecessors) that signals (ketú-s) are transmitted from heaven down to earth.

Finally, consider the short hymn RV 10.177, where the formulaic reference to the track of the bird, i.e. the track of Rta, is followed by an equally formulaic assertion of self: "I have seen ...", a boast which is typically followed by obscure phrases drawn from the esoteric lexicon.³¹

- (1) patamgám aktám ásurasya māyáyā The inspired ones with their heart, with their hrdá pasyanti mánasa vipascítah samudré antáh kaváyo ví caksate márīcīnām padám icchanti vedhásah
 - mind, see the bird anointed with the Asura's maya. From within the ocean the poets look out. The priests seek the track of his rays.
- (2) patamgó vácam mánasá bibharti tam gandharvo' vadad garbhe antah tắm dyótamānām svaríam manīsām rtásya padé kaváyo ní pānti
- The bird bears in his mind Speech. That (speech) the Gandharva uttered within the womb. That product of insight that shines like the sun the poets guard in the track of Rta.
- (3) ápasyam gopām ánipadyamānam a ca pára ca pathíbhis cárantam sá sadhrícih sá vísücir vásàna å varīvarti bhúvanesv antáh

I have seen the untiring cow-herd moving back and forth along his paths. Dressed as those that come together and those that go apart, he turns and turns within the creatures of the world.

In this short hymn many of the themes that we have discussed come together, in the relatively accessible style of the tenth book of the RV. Poets are said to seek the track of the rays of this solar bird, and, after finding the product of insight, they conceal it in the track of Rta. The relationship between the track referred to here (I assume that the track of the sun's rays and the track of Rta are the same) and the speech which this bird carries in mind is obvious. This poet claims to have sought the esoteric message of the mystical bird, and, looking out from within the ocean, to have found it.

The bird has spoken to him, and he now guards its message. The poet has seen, and he therefore knows, and wishes that his audience will recognize the authority of his vision. What distinguishes a powerful from a mediocre hymn is the message which it guards, the meaning behind its words: in fact, its $pad\acute{a}$.

There would seem to be good reason, then, to explore further the notion of a Vedic semiotics, a doctrine of signs in Vedic, in which the term *padá* clearly played a significant role. The linguistic sophistication for which Pāṇini and the grammarians are justly renowned begins here, in the Vedic poet's pursuit of hidden tracks.

NOTES

- ¹ The canonical classification of sacrificial victims in the Brāhmaṇas (the pañca paśu-) arranges them in a hierarchical order, from most to least valuable: puruṣa, aśva, go, avi, and aja, with the least expensive goat being the most frequently sacrificed. They all represent the yajamāna, in decreasing degree (cf. Lévi, pp. 77f). The term go, which stands at the center of the list, is "androgynous," as Gonda (1975, p. 491) nicely pointed out. Insofar as it is a ritual substitute for the yajamāna, the sacrificial go is typically male, an ox or bull. But in spite of (or perhaps because of?) their material and symbolic value, cows were also sacrificed occasionally, as passages like RV 2.7.5 suggest. There Agni is said to be "oblated with vaśā cows, bulls, and pregnant cows" (vaśābhir ukṣābhih/aṣṭāpadībhir āhutaḥ). This would seem to be a (perhaps euphemistic) reference to the offering of these sacrificial victims into Agni, the fire. On the vaśā, see H. Falk, III 24, 169—180.
- ² A similar conception is evident in the Soma hymns, which unendingly characterize the Soma juice, after it is mixed with milk, as a bellowing bull mingling in its vat with eager cows. Just as the hymns and oblations of the priests make the sacrificial victim more worthy, so the milk makes the juice of the soma plant more palatable.
- ³ Cf. for example Scharfe, Seyfort-Ruegg, among others.
- ⁴ Cf. Schmitt 1967, p. 210f. On the term "merism," see Watkins 1982, p. 117.
- ⁵ Without going into details, Haug's view in general seems closer to the truth than Geldner's, and should be resurrected.
- ⁶ Personal communication, in response to an earlier version of this paper. I would like to acknowledge her many helpful detailed comments and suggestions for improvement.
- ⁷ As will be evident below, I don't think that a metrical sense for Avestan *pada* or *pad* is particularly sure. The attribution of such a sense in Bartholomae seems influenced by the Vedic material.
- ⁸ The function of the duals is unclear: cf. Darmesteter, I.477; paða at Y. 50.8 is not "Verszeil," but probably a literal footprint, with suggestions of an altar or oblation pit, pace Darmesteter, I. 401 (the Indo-Iranian formula "footprint of milk" will be discussed below).
- ⁹ The association of *pad-/pada* with the verbal root *pad-* is by no means new. It appears already in the RV, at 1.152.3—4; cf. also 1.185.2.
- ¹⁰ Thus, e.g., Sankara's commentary ad loc.; contemporary scholars likewise: cf., e.g., Heesterman 1957, p. 34.
- 11 Cf. Keith and Macdonell, Vedic Index II, p. 273.
- ¹² The wide range of magical uses of the footprint, or the dust that can be collected from it, cannot be discussed here.

- ¹³ The verb $m\bar{a}$ suggests, in my view, much more than "measuring." Gonda (1959; 1970) has emphasized the creative aspect of this verb. I would add that there is also a semiotic aspect to it.
- ¹⁴ Cf. Renou, Vocab. rit. véd., p. 90.
- ¹⁵ Cf. Darmesteter, I. 400-1; Molé, p. 333f.
- ¹⁶ Compare Chantraine's understanding of the primitive sense of *pédon*: "ce sur quoi repose le pied, 'sol', dit aussi d'un sanctuaire." Perhaps even more striking is Sommer's gloss: "Abdruck des Fusses auf dem Boden."
- ¹⁷ The notion of the footprint as sign is expressed in Greek much more frequently, of course, by means of the phrase *îkhnia podōn*, "traces of the feet," as e.g. at Iliad 13.70—72:

oud' hó ge Kálkhas estí, theoprópos oiōnistés íkhnia gàr metópisthe podôn ēdè knēmáōn rheî' égnōn apióntos arígnōtoi dè theoí per

"No, that is not Calchas the divine seer, for I easily recognized, from behind, the tracks of his feet and his legs as he was going away. The gods are recognizable."

In a richly suggestive article, J.-P. Vernant cites this Homeric passage, with the following observation: "One detects a god by his trace, just as a hunter recognizes the marks of the game he pursues. In spite of his disguise, the imprint left by the god (i.e. Poseidon) as he walks on the ground undoubtedly reveals the disorienting, paradoxical and prodigious character of a body that is 'other' . . ." ("Dim Body, Dazzling Body," in the collection, *Fragments for History of the Human Body*, volume I, p. 36. Edited by M. Feher, with R. Nordoff and N. Tazzi; Cambridge, MA and London, 1987).

- ¹⁸ On the phrase *vestigium pedis* and the Christian doctrine of "examplarism" see e.g. Copleston, p. 167. Weinberg, p. 165, interprets the phrase more concretely as the "footprint of God." This doctrine is especially developed in the theology of St. Bonaventure, who identifies three means by which the faithful might know of God's presence: *vestigium, imago*, and *umbra* (= "trace, image, shadow"). Here as in India we are flirting with a doctrine of signs. It is worth noting that this medieval doctrine is likely to have derived directly from Augustine (cf. Armstrong, p. 396).
- 19 Cf. Potter on the term anumāna, pp. 180—81.
- ²⁰ Pali: kārana, hetu, naya, opamma.
- yathā'pi gajarājassa padam disvāna mānusā/ anumānena jānanti: mahā eso gajo iti// tath' eva Buddhanāgassa padam disvā vibhāvino/ anumānena jānanti: ulāro so bhavissati
- ²² Cf. "Brahmodyas: Riddles and Enigmas," a paper delivered at the annual AOS conference, 1992, in Cambridge, MA.
- ²³ Cf. Watkins, 1970, and Bader.
- In 2c padé paramé is followed by an apparently isolated $c\hat{a}ru$, which is usually understood to be a locative modifying padé. This would strengthen the suggestions of esoterica, since $c\hat{a}ru$ is frequently collocated not only with padá, as noted above, but also with $n\hat{a}man$.

 In translating $n\hat{r}n$ Lam simply following Repow (EVP 12.37) who passes over without
- ²⁵ In translating $n\dot{\tilde{r}n}$, I am simply following Renou (EVP 12.37) who passes over without comment the suggestion that it may be gen. pl. (thus Geldner) or dat. pl. (thus Oldenberg, SBE XLVI, p. 169 and ZDMG 55, p. 287). Oldenberg's interpretation, which links it with the preceding *ebhyaḥ* may be preferable, but I suspect that the difficulty is intended.
- ²⁶ Pace Geldner, I take satáh as acc. pl. of the participle, probably referring simultaneously back to the preceding paráśum in st. 9 (in spite of the lack of agreement), as well as referring forward to vaśibhih (in spite of the difference in gender). Messy though this interpretation is,

Geldner's adverbial interpretation seems no stronger (cf. EVP 14.82 and Oldenberg's Noten ad loc.).

- ²⁷ Jamison (personal communication) has suggested that a pun may be involved in the phrase samānám nīlám . . . vásānāh: both "wearing the same nest" and "dwelling" in it. Such an interpretation, she points out, would be "no weirder than the rest."
- ²⁸ In discussing this passage, Lüders (p. 621) attempts to identify Agni with Vāc. In light of the parallel with RV 1.164.37, this suggestion is tempting. At EVP 14.65, however, Renou argues against taking *vi-caks* as a verb of speaking here.
- 29 Actually, I am saving a discussion of RV 4.5 for another paper, in which I examine $pad\acute{a}$ as the hymn's theme-word.
- van Buitenen, 1959, p. 178, seems to imply this, but is not explicit.
- ³¹ Self assertion in the RV is an important topic that needs examination. I have in preparation a pair of essays on the Vedic *satyakriyā* and on the RV *ātmastutis*, which explore aspects of the problem.
- ³² In response to an oral version of this paper delivered in 1990 at UCLA's second annual Conference on Indo-European Studies, Stanley Insler suggested that, instead of "word," padá meant "meaning." I hope to have shown here how this might be so. For this and other observations I would like to thank not only Insler and Jamison, cited above, but also Martin Schwartz, Bart van Nooten, and Gary Holland.

REFERENCES

Allen, W. S.: 1953, Phonetics in Ancient India, London Oriental Series 1, London. Bader, Françoise: 1989, La langue des dieux, ou l'hermétisme des poètes indo-européens, Pisa.

Brown, W. N.: 1978, India and Indology, Selected Articles, edited by R. Rocher, Delhi. Buck, C. D.: 1949, A Dictionary of Selected Synonyms in the Principal Indo-European Languages, Chicago.

Chantraine, Pierre: 1968—80, Dictionnaire Étymologique de la langue grecque, Paris. Darmesteter, J.: 1892—93, Zend-Avesta, Paris.

Edgerton, F.: 1962, Atharva-Veda 13.1.10, in Indological Studies in Honor of W. Norman Brown, AOS vol. 47, New Haven.

Gimbutas, Marija: 1974, The Lithuanian God Velnias, Myth in Indo-European Antiquity, Ed. G. Larson, Berkeley.

Gonda, Jan: 1959, Four Studies in the Language of the Veda, The Hague.

Gonda, Jan: 1970, Visnuism and Sivaism: A Comparison, London.

Gonda, Jan.: 1975, Mensch und Tier im alten Indien, in Selected studies IV. Leiden [originally published in 1967, Studium Generale 20, Heidelberg, 1967].

Haug, Martin: 1875, Vedische Rätselfragen und Rätselsprüche. Sitzungsberichte der phil. und historischen Classe der K.B. Akad. d. Wissenschaften zu München.

Hovdhaugen, Even: 1982, Foundations of Western Linguistics, Oslo.

Jakobson, Roman: 1969, The Slavic God Veles and his Indo-European Cognates, in Studi Linguistici in onore di Pisani, vol. II.

Jamison, Stephanie: 1986, Brāhmaṇa Syllable Counting, Vedic *tvác* 'skin', and the Sanskrit Expression for the Canonical Creature, IIJ 29.

Lévi, Sylvain: 1966, La doctrine du sacrifice dans les Brāhmanas [deux. édition], Paris. Liebich, Bruno: 1919, Anfänge der grammatischen Spekulation, Sitzungsberichte der Heidelberger Akad. d. Wissenschaften, Phil. Hist. Klasse, 15 Abh.

Molé, Marijan: 1963, Culte, mythe et cosmologie dans l'Iran ancien, Paris.

Parpola, Asko: 1980, On the Primary Meaning and Etymology of the Sacred Syllable *OM*, Studia Orientalia, Finnish Oriental Society, vol. 50.

Renou, Louis: 1941, Les connexions entre le rituel et la grammaire en sanskrit, JA 233 [reprinted in Staal, 1972].

Renou, Louis: 1955, Études védiques et paninéennes, Tome I, Paris.

Renou, Louis: 1958, Études sur le vocabulaire du Rgveda, Pondichéry.

Scharfe, Hartmut: 1977, A History of Indian Literature, Volume 5, Part II, Fascicle 2: Grammatical Literature, Wiesbaden.

Schmidt, H.-P.: 1968, Brhaspati und Indra, Wiesbaden.

Schmitt, R.: 1967, Dichtung und Dichtersprache in Indogermanischer Zeit, Wiesbaden.

Seyfort-Ruegg, David: 1959, Contributions á l'histoire de la philosophie linguistique indienne, Paris.

Sommer, Ferdinand: 1948, Zur Geschichte der griechischen Nominalkomposita, Abh. Bayerischen Akad. d. Wissenschaften, Phil. Hist. Klasse, Neue Folge, Heft 27.

Staal, J. F.: 1972, A Reader on the Sanskrit Grammarians, Cambridge, MA.

Trenckner, V.: 1880, The Milandapañho. Reprinted 1928 by the Royal Asiatic Society, London.

van Buitenen, J. A. B.: 1959, Aksara, JAOS 79, #3.

Watkins, Calvert: 1970, Language of Gods and Language of Men, in Myth and Law Among the Indo-Europeans, edited by J. Puhvel, Berkeley.

Watkins, Calvert: 1982, Aspects of Indo-European Poetics, in Indo-Europeans in the Fourth and Third Millenia, edited by E. Polomé, Ann Arbor.

Weinberg, Julius R.: 1964, A Short History of Medieval Philosophy, Princeton.

Clark University, Worcester, Mass.