

## **On Middle Minoan Sites and Sight Lines: Communication Strategies in the Bronze Age Mediterranean**

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The fact that so many views from hill-top Middle Minoan sites interlock in multiple directions suggests that these sites were picked deliberately not only for their views but also for intercommunication among sites. The uniqueness of some of these multiple vistas suggests the same. Analysis (on the basis of communication theory and practical experiments) of the possibilities for sending message signals shows that the Minoans would have been restricted to fire signals at night, and that such a system would be highly limited in content but effective within those limits. The analysis also makes predictions about the existence of a small number of additional, connecting sites — predictions that have been and can be used to test the hypothesis.

### **Sight-Lines**

Balancing in the wind atop the oval walls of the isolated Minoan building “of uncertain use” at Khamaízi in East Crete, one bright May morning, we found ourselves astounded at the view. Not only could we see the eastern panorama of the Siteía valley and the great ridge beyond, crowned by peak sanctuaries on Módi and Priniás and stretching out to the northeast tip of the island at Cape Síderos, but with a turn of the head to the west we could also see straight through a small notch in the hills to the peak sanctuary on Thýlakas, just above Agios Nikólaos more than 30 km away along the north shore of Crete.

Might the key purpose of placing a lone building up on this isolated hillock, then, be for communication — to provide a permanently tended lookout for relaying signals quickly along the island from one area to the next? Recall the opening of Aeschylus’ *Agamemnon*, where the tired watchman on the roof recounts the passing of many seasons of stars and finally hails with joyous relief the beacon that announces the fall of Troy. Clytemnestra answers explicitly the chorus’s

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demand to know what messenger could possibly come in a single night from Troy to Mycenae:

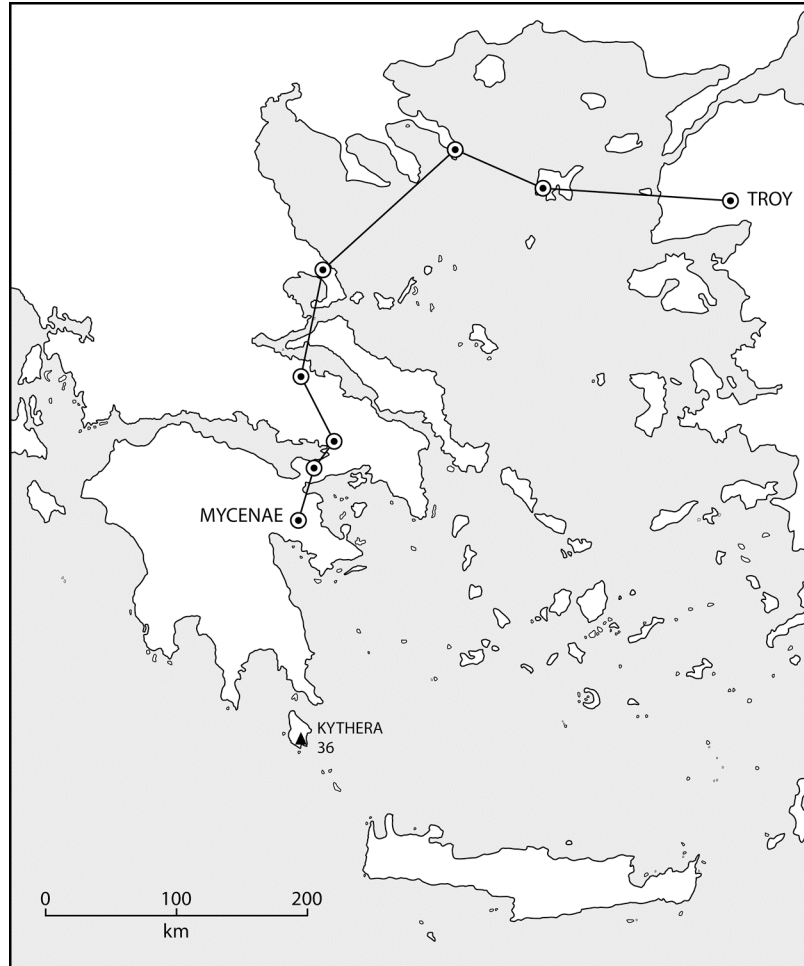
“Hephaistos, sending forth a bright blaze from [Trojan] Ida!  
 And beacon sent it to beacon from the courier flame  
 hither: Ida first to the Hermaean crag  
 of Lemnos; and the precipice of Zeus on Athos  
 took up the great torch from the island third:  
 the power of the traveling flare o’erleaping,  
 in joy to cross the back of the sea,  
 the gold-flamed pine log like some sun  
 transmitting the sign to the lookouts of Makistos;  
 which, not delaying nor senseless in sleep,  
 victorious passed onward the role of messenger;  
 afar the beacon’s light across the streams of Euripos,  
 moving on, signaled to the watchmen of Messapion.  
 These lit up in answer and passed the relay onwards,  
 touching fire to a mound of withered brush.” [lines 281-295]

And on and on the signal flies through the night, till it reaches the lookout above Mycenae.

I take no stand as to whether this signal ever *actually* announced the fall of Troy. But I would point out that the inhabitants of Greece millennia ago were quite capable of both thinking up and producing such a system. Hence it seems reasonable to explore the possibilities on Minoan Crete. For the record, Aeschylus’ stages vary enormously in length: Trojan Ida to Lemnos 150 km, Lemnos to Athos 75 km, Athos (which is over 2000 m high) to Makistos 135 km (if it is indeed to be identified as lofty Pelion), 85 km more to Messapion in Opuntian Locris, Messapion to Kithairon 50 km, Kithairon to Aigyplanktos (now Geraneia) 25 km, and a final 40 km to Arakhnos above Mycenae (Map 1). All but one of these stages is longer than the distance from Khamaizi to Thylakas.

The excavators of Khamaizi — Xanthoudídes in 1903 and Daváras in 1971 — had found the rooms and their MM I furnishings sufficient for the living needs of one or two families — all that maintaining a signal tower would require. Perhaps the rather heavy substructure and nearly unique ovoid shape once supported an upper platform for the requisite flare, much as in a lighthouse today. A bit of added height would only improve the double view, as well as the visibility from the next post. Indeed, the ancient Anasazi at Chaco Canyon, New

Mexico, when erecting signal-relay towers to enhance communication among their shrines, had to choose the emplacements very carefully, and occasionally even add extra height to the tower to make intervisibility possible (Hayes and Windes 1975: 153-155).



MAP 1: Greece and the Aegean, showing stages Aeschylus claimed for fire-signal sent from Troy to Mycenae (also position of peak sanctuary at Agios Georgios, Kythera).

We had noticed the views at Khamaizi because we had got in the habit of looking up (instead of always down at the excavated soil), while checking sight-lines from sites in the

Mesará to the “horns” of Psiloríti — Cretan Mt. Ida. That the central courts at Phaistós and Knossós are aligned on Psiloriti and Ioúkhtas, respectively, is well known. But we had found that other kinds of sites, too, were referenced to the sacred horns of Ida and the Kamáres Cave just below:<sup>1</sup> certain sightlines were clearly important to and carefully noted by the Minoans.

### Intervisibility

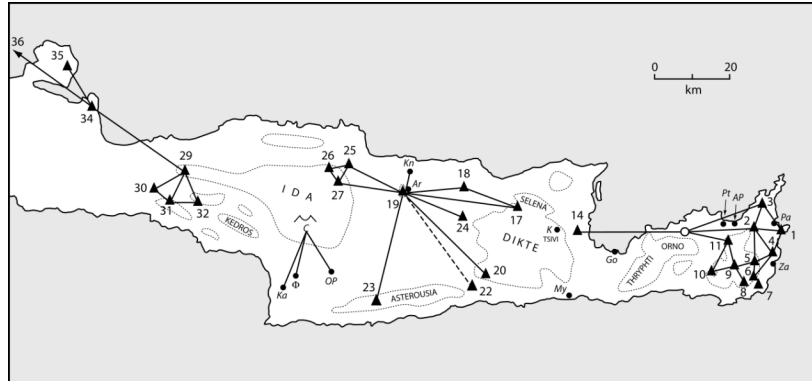
It has long been established that the known peak sanctuaries are always prominently visible from the surrounding agricultural land (observations summarized, e.g., by Peatfield 1983: 274-276). What we found in addition, with much map work and hiking, was that from these known and agreed-upon peak sanctuaries one could also see at least one and usually several other peak sanctuaries and peak sites (see Maps 2-4).<sup>2</sup> For example, from the sanctuary atop Módi you can see the peak sanctuaries of Petsophás (6.5 km E), Traóstalos (8.5 km SE), Vígla Zákrou (9.5 km S), and Kalamáki (8.5 km N), as well as Khamaizi (18 km W), not to mention the important Minoan coastal sites of Palaíastro, Petrás, and Agia Photiá, and the next islands to the east (see also Map 1).<sup>3</sup>

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<sup>1</sup>At Kamilari, for example, we could not see Psiloriti and its horns as we approached, but only when actually standing on the site. If the round charnel house of Kamilari had been moved even a few meters in any direction except up the hill — and who wants to drag the dead any farther uphill than absolutely necessary? — the apparently sacred view would not have been achieved.

<sup>2</sup>In the term “peak sites” I will include those sites that were clearly frequented by Minoans and resemble peak sanctuaries in their prominently visible placement, but that are not yet proved or agreed upon as cultic. Cult and ritual are not the central issues of this paper. In Map 2, note how the intervisible sites fall into three primary networks. (Cf. Soetens *et al.*, 2008, 155.)

<sup>3</sup>At 539 meters, Modi is not so much high — rising pyramidally only 90 meters from the high ridge sloping out to Cape Sideros — as conveniently visible from many sites on either side of the ridge. The knoll at Agia Photia with Minoan house foundations is the only shoreline spot in the area from which you can see Modi — and that includes the largish Hellenistic site of Tripytos two ridges farther west. (Hellenistic Greek concerns in picking a site apparently did *not* include being able to see the best lookout around.) Similarly at Petras, where large Minoan buildings are being excavated on a hillock just east of Siteia: Petras is easily identifiable from Khamaizi, but Modi is not visible from Petras until one gets right up on the knoll where the most monumental edifice sits. These experiences suggest that being able to see



MAP 2: Sight lines between various Minoan sites on Crete (solid and dashed lines). Contours of tallest mountain massifs indicated with dotted lines. See Map Key for symbols and names of sites.

KEY TO MAPS 2, 3, and 4

- ▲ Peak sanctuary previously known **and** identifiable on contour maps
- △ Suggested peak site, or known sanctuary whose location had to be surmised
- Confirmable sight lines
- Highly probable sight lines
- ... Contour lines (above roughly 600 m within the circles)

PEAK SITES (listed as peak sanctuary — by Peatfield \*, by Kyriakidis +):

1. Petsophás* +	(215 m)
2. Módi* +	(539 m)
3. Kalamáki* +	(150+? m)
4. Tragóstalos* +	(515 m)
5. Vígla Zákrou* +	(714 m)
6. Korphí tou Máre*	(750+ m)
7. Ampelos* +	(500+? m)
8. Plagiá* +	(819 m)
9. Xyképhalo* +	(810 m)
10. Etianí Kephála* +	(615 m)
11. Priniás* +	(725 m)
12. Aphéntis Stavroménos, S spur	(~1000 m)
13. Xylogournes	(824 m)
13'. Katalímmata	(802 m)
14. Thýlakas* +	(521 m)

Modi had indeed been important somehow — perhaps just as a view of a sacred place, but perhaps also to hook into an informational pipeline.

My thanks to Philip Betancourt for arranging entry to the site of Agia Photia, to Sarah Rudofsky for pointing out the need, and to Paul Barber for trekking with me in 1994.

15. Stavroménos Anatolí	(951 m)
16. Táppes*	(750+ m)
17. Karpí* +	(1158 m)
18. Mazá* +	(456 m)
19. Ioukhtas* +	(811 m)
20. Roussos Détis*	(1160 m)
20'. Koupa	(1187m)
21. Sykológos	(698 m)
22. Demáti* +	(180 m)
23. Kóphinas* +	(927 m)
24. Lilianó +	(~400 m)
25. Pýrgos* +	(685 m)
26. Philiórimos/Goniés* +	(797 m)
27. Keriá* +	(1160 m)
28. Kopída	(973 m)
29. Vrýsinas* +	(858 m)
30. Karavéllas	(560 m)
31. Atsipádes* +	(736 m)
32. Spíli at Voritzi* +	(878 m)
33. Akoúmia	(853 m)
34. Drapanokephála	(528 m)
35. Sklókhas	(528 m)
36. Agios Geórgios, Kythera +	(350 m)

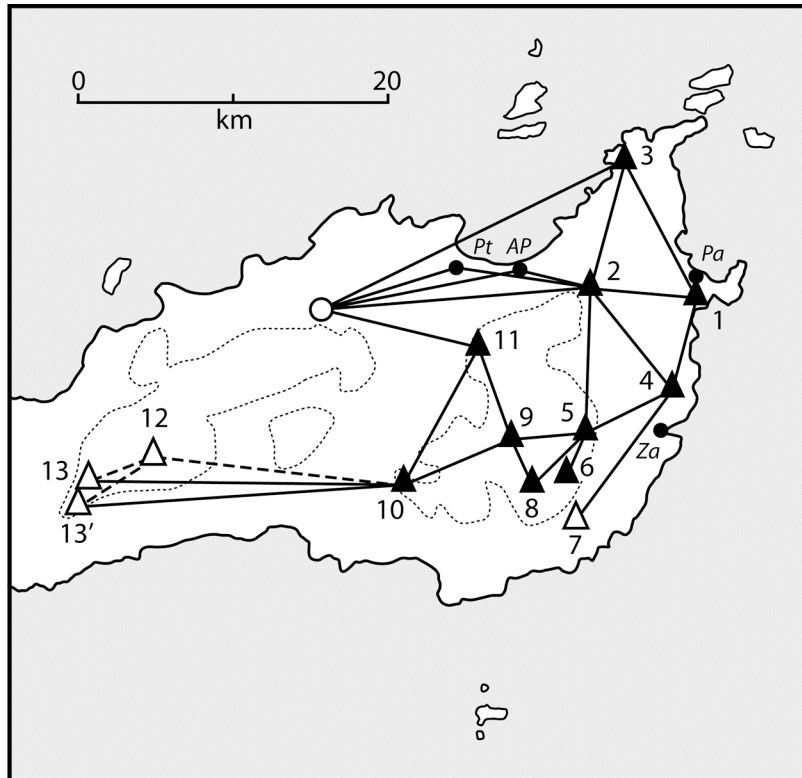
## OTHER SITES:

O	Khamaízi (520 m)
C	Kamáres Cave (~1550 m)
∩	“Horns of Psiloríti” (Ida) (1981 m)

AP	Agia Photiá	OP	Orthí Péttra
Ar	Arkhánes	Pa	Palaíkastro
Go	Gourniá	Pt	Petrás
Ka	Kamilári	Φ	Phaistós
Kn	Knossós	Za	Zákros
My	Myrtós		

From Traostalos, according to Peatfield, “at least six other peaks can be seen: Petsophas to the north, Modhi to the northwest, Vigla Zakrou, the tip of Plagia, and Korphí tou Máre, all to the southwest, and Ambelos to the south” (Peatfield 1983: 276), and to this list one can now add Korakomouri (Chryssoulaki 2001, pl. XII), making seven. From Ioukhtas one can see the peak sites of Mazá (19 km ENE), Karpí (30 km ESE), Liliano (above Galatas to the east: Kyriakidis 2005, 20), Roussos Détis (29 km SE), Kóphinas (30 km SSW), Pýrgos and Keriá (15.5 km NW), and possibly Demáti (26.5 km SSE), as well as the major Minoan remains at Arkhánes and Knossos; while from Vrýsinas one can see,

among others, Atsipádes, Karavéllas, and Spíli/Voritzi to the south and all the way to the Minoan colonial peak sanctuary at Agios Geórgios on the island of Kýthera far to the northwest (Kyriakidis 2005: 19; see Map 1).

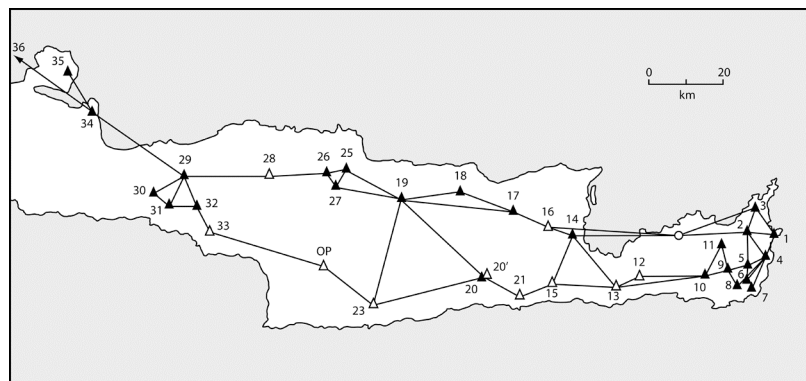


MAP 3: Enlargement of East Crete, where peak sites (see Map Key) are densest.

The available contour maps alone, however, proved insufficient to determine some of the actual sight lines from peak to peak.<sup>4</sup> Again and again, as we scrambled the last few meters up a “Minoan peak” we found that additional peaks that

<sup>4</sup>I used the excellent hiking maps published by Harms Verlag, at scales of 1:100,000 and 1:80,000, with 50-meter contour lines. The exceedingly slim margins of error for intervisibility and the remarkable personal experience of seeing some of these vistas appear make me wonder whether even the new GPS systems are entirely adequate unto the task of discovering intervisibility. One need not think to calculate every unlikely angle: one has only to turn around and look.

we had not expected to see were rising majestically into view through some convenient little gap in the surroundings, just as at Khamaizi (cf. Kamilari: note 1). This happened, for instance, on Thylakas, above Agios Nikolaos.<sup>5</sup> Just visible through a convenient notch loomed the peak of Stavroménos Anatolí (951 m), 13 km SSW of us near the south coast, on the far side of Crete's long, central, mountainous spine. As at Khamaizi, we discovered that this *particular* placement of the sanctuary — on this bump rather than on the other one a few hundred feet away — gave a unique view of another peak, although the surrounding lowlands and coast were equally visible from both. Seeing that peaks were of interest, our hiking guide turned and pointed northwest, where above the north shoulder of massive Katharó Tsívi peeped another distant peak: Mákhaira, at 1487 meters the easternmost and second highest pinnacle of the four-peaked Seléna range.



MAP 4: Chains of “peak site” sight lines across Crete. (See Map Key for symbols and site names. For site 36, see Map 1.)

<sup>5</sup>P. Demargne (1901: 286) suggests that the name *Thylakas* is a mutation of *Phylakas*, from *phylak-* “guard”. Several of the relevant peaks have names suggesting lookouts of some sort, such as *Vigla* (from Latin *vigil*), named from the perspective of above. Others have names based on the visual prominence of the site from below: *kephal-* “head”, *koryph-* “head, peak”, etc.

My thanks to Donald Haggis for encouragement, for contour maps, and for climbing Thylakas with me; and to Georgos Aphordakós of the Greek Hiking Club for cheerfully volunteering at a moment's notice to guide us up the steep, rocky, and trackless mountainside, sharing with us his bananas (“For energy!”) and his wide knowledge of every Minoan wall and fragment of Minoan road along the way. My thanks also to Ann Peters, Sharon Touton, and Aleda Winget for trekking with me that season (2001).



Studies of the Minoan peak sanctuaries carried out by Alan Peatfield, Krzysztof Nowicki, Bogdan Rutkowski, and others demonstrate that these prominent sites do not occur above about 1200 meters, the approximate limit to good pasturage on Crete.<sup>6</sup> Since both Makhaira and Katharo Tsivi topped that limit by several hundred meters and hence were very unlikely to belong to a Minoan system, I was led to wonder if there might be another, lower peak site to the north linking Thylakas with the peak sanctuaries farther west.

Peatfield's list from 1992, I found, added a sanctuary above the village of Tápapes — that is, precisely on the north shoulder of Tsivi that blocks the view west from Thylakas. Finding and climbing that promontory indicated that Tápapes indeed completes the chain: not only could we clearly see Thylakas to the east (along with the entire gulf of Mirabéllo, Ornó, the Kha gorge, Thryphtí, and a bit of Gourniá), but the villagers claimed emphatically that Karphi was also visible to the west.<sup>7</sup> Map work also indicated that, like Thylakas and

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<sup>6</sup>Summarized by Peatfield 1983: 276 and 1990: 120. See also Faure 1963: 493-508; Rutkowski 1986: 73ff. The explorations of Faure and Davaras and the syntheses of Rutkowski and Peatfield are what have made much of my analysis possible. Earlier, Nikolas Platon (1951) made a major study of peak sanctuaries. It is interesting, however, that Peatfield rejected almost all the sanctuaries listed by Platon! The 25 known by 1992 that Peatfield found acceptable are marked with \* in the Map Key, while the 22 accepted by Kyriakidis in 2005 are marked with +. This paper, however, considers Minoan peak sites more broadly, not exclusively the sanctuaries. While hiking peak sites, I have taken nearly 200 photos — some film, some digital; some are enhanced digital, some ID'd with GPS location and compass readings to distant features. They do not reproduce well in black and white, but I am happy to share both them and my notes with other researchers.

My thanks to Alan Peatfield, Krzysztof Nowicki, Tim Cunningham, and others for encouragement and for directions on finding several of the known sites.

<sup>7</sup>Tápapes villagers assured us repeatedly that one could see Karphi from the north side of the Kastellos, although I have trouble squaring that with the contour map. (On the other hand, the "excellent" contour map is not infallible: Petsophas, for example, is marked on the wrong peak of the right promontory.) There are actually 3(!) peaks NW of Tápapes that people call Karphi ("nail"), and what one could see was definitely not the northernmost, which is part of the Selena range, its view being blocked by Selena itself. Apparently what *is* visible (through a visible notch not noticeable on the contour map) is the 1117-meter northern spur of 1148-meter "Karphi proper", a few hundred meters north of where the peak sanctuary is thought to have been (although that exact spot, too, seems to be in doubt). What we *can* say is that, once one is up on Karphi and Kastellos, it wouldn't take much

massive Katharo Tsivi, Tappes should be visible directly from Khamaizi.

In that case, one could send a message by light-signal from Petsophas, on the east coast above Palaikastro, all the way to the peak sanctuary on Ioukhtas, near Knossos, in only five hops using six stations: Petsophas-Modi-Khamaizi-Tappes-Karphi-Ioukhtas. To reach the Mesará or the Týlissos area would require only one more leap.

Given how much the shepherds wandered these hills, we can safely surmise that the Minoans would have had little trouble identifying precisely those spots that gave them the optimal views, if they once conceived the idea of intercommunication. “Peak sanctuaries are part of the pastureland,” as Soetens et al. (2008, 159) so succinctly put it, and slowly-grazing sheep leave one much time to contemplate the world. What struck us over and over was that these sites so persistently have the greatest *intervisibility*, when one considers the many surrounding hilltops that don’t qualify quite so well. Granted this was not the only possible chain, but it was one of the very few most efficient chains, and its very efficiency raised interesting possibilities.

### **Predictability**

Plotting the known peak sites and their *intervisibility* on a map suggested that, if the intercommunication theory were correct, it would predict yet other site locations completing the chains, as it had at Tappes (Map 4). Farther west, for example, a relay post connecting Philióremos above Goniés and Pyrgos above Týlissos (both visible from Ioukhtas to the east of them) with Vrysinas to the west of them would allow the signal to continue a very great deal farther, since, as we noted, one can see from Vrysinas (above Réthymnon) all the way to the peak sanctuary of the Minoan colony on the island of Kythera, just off the southern tip of the Greek mainland. Within Crete itself, the signal could continue west to Drapanokephála and Sklokhas beyond Khaniá (disputed as “peak sanctuaries” but certainly classifiable as Minoan “peak sites” well placed for sight-lines<sup>8</sup>), and also south to Atsipades

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jockeying to establish *intervisibility*.

<sup>8</sup>Both were flagged by Faure as peak sanctuaries but not accepted by Peatfield in his careful reassessment of this category of sites (Peatfield 1992: 59-61). Although Minoan locales, they were not well explored and one is now

Korakias, Karavellas, and Spili/Voritzi. A relay between Spili and the Mesara would then connect the west to the south-central group.

Map work suggested that the only possible connector between the Spili area and the Mesara — virtually the only site of appropriate type that would visually turn the corner between the valley running south from Rethymnon past Vrysinas to beyond Spili and the southeast/northwest corridor running from the Mesara to Akoúmia — was the 853-meter promontory above and to the west of Akoumia itself, midway along the east slope of Asideroto (Map 4). So up we went,<sup>9</sup> finding Minoan potsherds like those on Vrysinas strewn liberally across a 50-meter-wide area on the saddle (around a modern dump replete with bed-springs and plastic bottles) and on the rock terraces above it. From there one can see the great bluff above Spili NNW (although Atsipades is apparently hidden behind a hill WNW) and — beyond the south end of massive Kédros — the huge panorama of the Mesara to the southeast, including Kophinas in the Asterousia Mountains and Orthí Pétra overhanging the sacred site of Gortýna.<sup>10</sup>

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destroyed. They may have been only message stations, but their positions suggest they were set down strategically. To boot, Sklokhas is visible from many parts of the next peninsula yet farther west.

There are, of course, additional possible reasons for establishing a peak site on this or that location. As an anonymous reader commented, “those near the sea could have provided beacons for incoming boats at night or have functioned as watches for schools of tunny.” But beacons to offshore boats do not require *inter*visibility. This particular research simply investigates the ramifications of *this* aspect of peak sites.

<sup>9</sup>Easiest from the village of Vryses, whence a paved farm-road starts up to the south from behind the spring in the plateia. After a kilometer, a dirt road goes off sharply uphill to the right: follow this to a two-wheel track leading gently left to the saddle and rocks. My thanks to Alan Knoerr for accompanying me on this and other long, arduous hikes in 2005 (with cameras, GPS, bananas, and *vysino*); to Hrysoula Iliadou and Georgos Hrystides of the Rethymnon branch of the Greek Hiking Club for their very useful information and encouragement; to Georgia Kordatzaki for accompanying us up Vrysinas and to Iris Tzachili for sending her to guide us; and to Georgos Roussakis of Agios Mamas for his help, hospitality, and hiking canes as we tackled Kopida.

<sup>10</sup>The very tip of that bluff, where the Greeks later placed a temple of Athena, is the only spot at the ultra-sacred site of Gortyna from which one can see the horns of Psiloriti and the Kamares Cave; it is also apparently the only spot in the area with Minoan sherds. The many later accretions at Gortyna mean we will probably never see the Minoan sanctuary there — which is doubly too bad, since it is the most likely site for the myth-mentioned *Minoan* stone law

Maps also showed that the only reasonable candidate to link up the chain *east* from Vrysinas was a 973-meter rockpile called Kopída, above Agios Mamás (Map 4). Up we went again: not only can you see Vrysinas due west, but due east you can see both Gonies and Pyrgos. We spotted Minoan sherds on the slightly lower terraces to the east and north of the summit, while in a pleasant saddle to the west lay the ruins of a relatively recent stone summer hut and threshing floor.<sup>11</sup>

With these connecting sites confirmed as visited by Minoans, we wondered whether the Mesara might also be linked to the east end of the island via the south coast. The most likely post to investigate, according to the map contours, seemed to be Sykológos. There we found a few sherds and a tremendous view: northeast to Stavromenos Anatoli (the peak just behind/above Myrtos that we had seen from Thylakas), eastward 28 km to Xylogournes and Katalímmata on the south spur of Thryphti just beyond Ierápetra, and far westward along the south coast and coastal range.<sup>12</sup>

So, tackling the chain from the other end, we hiked up Etianí Kephála, a 615-m promontory in the eastern highlands known to have a peak sanctuary and having views to the knolls of Plagiá and Xyképhalo (both of whose sanctuaries are now destroyed), and to Prinias. One could also easily pick out Xylogournes (820 m) and Katalimmata (802 m) 23 km WSW, as well as the 1470-meter peak of Ephéndis Stavroménos due

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code, if it existed. Given the slot-in-frame syntactic construction of laws, such a document or even a piece of it would be our best shot at deciphering Minoan (cf. Barber 1974: 24-25, 223).

<sup>11</sup>Not permitted to excavate, of course, we can vouch only for potsherds, not figurines, both above Akoumia and on Kopida; so we will label these merely “peak sites”. Both, however, have the typical topography of appearing prominent from the valley below, having a steep front side and a much gentler approach from the back (including some rather flattish pastureland close by), having some of the best panoramic views to be found, and being rather windy.

<sup>12</sup>Unfortunately, the visual determination of sightlines from Sykologos to the west was hampered by haze and by insufficient clarity in the then available literature of the precise location of Roussos Detis. One can, however, see Koupa (the 1187m promontory directly between Martha and Viannos) and its WSW flank from the southern end of the Sykologos heights; and Koupa in turn is intervisible with many sites N and W, including Ioukhtas, Kophinas, and Orthi Petra (above Gortyna).

My thanks to Teresa Perez, Kellyn Adams, Connie Law, and Erin Bassie for climbing peaks with me in 2005.

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west (Map 3).<sup>13</sup> Links here could complete a southern chain, tied in several places to the chain across the north (see Map 4).

### Uses of Peaks

Note that we are not claiming that peak sanctuaries were used *only* as signal stations, or even that this was their primary use, merely that their exact placement suggests such a use. Intervisibility was clearly very important for *some* reason. The little clay models of people, animals, dung-beetles, limbs, and so on, found among the rocks at some of the peak sites, attest to some strong religious or cultic associations up there, as do the few Minoan representations of steep, rocky sanctuaries that have come down to us (all discussed by Peatfield 1983: 273-274). These ties clearly have to do with the health and fertility of the agricultural and pastoral communities of both people and livestock (cf. Haggis 1999: 77-78). But just as medieval cathedrals had multiple functions as markets, museums, and meeting places as well as locations for religious rituals, so might the peak sanctuaries have served their communities in several, including secular, ways.

Furthermore, apparent alignments with key celestial events, observed at several peak sanctuaries,<sup>14</sup> raise the possibility that peak sites had a third important use, as observatories. As Macrobius put it so long ago, “Time is a fixed measure obtained from the turning of the heavens” — that is,

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<sup>13</sup>Unfortunately, we did not have time to check for Minoan sherds on Katalimmata and Xylogournes, although we saw some on the saddle between. Vance Watrous has noticed evidence of a peak sanctuary somewhere on Ephendi Stavromenos (pers. com. 2005). My thanks to Steven Soetens via Tim Cunningham for information on how to approach Etiani Kephala.

<sup>14</sup>Paul Faure repeatedly noted special features apparently aligned on the summer solstice sunrise — e.g., at Traostalos (Faure 1963: 495), Prinias (Faure 1967: 119), and at Keria and Gonies (Faure 1969: 184). Some of the highest sites would be nearly impossible to reach at the winter solstice because of snow; yet Faure says of Vrysinas (at 858 m, not the highest): “quand on se place dans l’espèce de corridor supérieur plein de tessons de vases, on aperçoit les deux cornes de l’Ida.....à 27 km au Sud-Est, selon un angle de 21° 30’ par rapport au parallèle (35° 18’38”) du mont Vrysinas. On voit le soleil se lever dans ce croissant lunaire deux jours par an avant et après le solstice d’hiver.” (Faure 1963: 506.) Thus one could easily calculate the winter solstice from these twin observations atop Vrysinas. Is this the sort of “calculation” that large *kernoi* were for? (*Calculate* comes from Lat. *calculus* “pebble” for a practical reason.)

before modern clocks and wall-calendars, the heavenly bodies marked the passage of time, and somebody needed to keep an eye on their motions.<sup>15</sup> In addition, some of these peaks with their cycloramic views and low horizons could well have served as ideal school grounds for teaching at night the star knowledge useful for navigation, exactly as in Polynesia (Kyselka 1987; see also Ovenden 1966).

On the other hand, signal-sending itself does not require sanctuaries, merely appropriate viewsheds: a few sites like Khamaizi and Sykologos could have served simply to link up the system. The peak sanctuaries, for their part, *could* be so used when placed where they had views of several other key sites (as they almost always were). So it will be useful to explore both the possibilities and the problems of employing peak sites for this practical purpose.

### Signal Systems in Theory and Practice

If, as the sight-lines show, a signal relay was *physically* possible, then two further questions need exploration, and they are interconnected. What kind of information might Minoans have wished to send each other over such distances, and what kinds of systems, within the world of signals, could they have used to achieve that mission from these stations?

The simplest information system is binary — yes or no, blip or no blip. This is the easiest possible signal to send with fire, and Aeschylus represents Clytemnestra's mechanism as of this type. But this also means that the *question* to be answered — all the complex information — *must be known in advance*. If the Minoan system involved merely lighting a flare, what question would be both simple and perennial enough for the Minoans that they would bother to set up such a relay for it? Sighting enemies? The arrival of a trading fleet safely from the East Mediterranean? Heliacal star-risings marking the start of a key festival or of a new calendrical cycle?

Or had their system reached greater linguistic sophistication?

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<sup>15</sup>Macrobius, *Saturnalia* 1.8.7. For prehistoric Mediterranean knowledge of the skies for both time and navigation, see Barber and Barber 2005, chapter 16. For a comparison to the Anasazi intervisibility system in Chaco Canyon: "The clear view of distant eastern and western horizons would make the [shrine] usable for a sun-watcher's observations of the equinox, and the results could be quickly signaled for miles in all directions." (Hayes and Windes 1975: 149)

If all you have to work with is a bonfire, it is hard to proliferate symbols. But Paul Revere, according to Longfellow's well-memorized lore, entered the next stage of complexity by requesting *patterns* of lantern flashes in the distant belfry: one if by land and two if by sea, if and when the enemy invaded. Thus, as in human language, he made use not only of a meaningful element but also of a meaningful pattern of arrangement. Such a system can expand easily: three if by helicopter, four if by space shuttle, and so on. But the brain loses track of counting pretty soon, and you still have to know what initial question is being answered: have the British arrived, has Troy fallen.

So Samuel Morse took his famous code in another direction by introducing the variables *long* vs. *short*. Arranging anywhere from one to four long and/or short elements together into arbitrary symbols gave him enough higher-order elements to send any message, in any language, in any of a variety of media (light, sound, electricity, visible marks, tangible bumps, and so on) — but only because he equated each of his symbols with a letter of an alphabet.

The Minoans did not have an alphabet. Undeciphered though they may be, Minoan Linear A, Cretan hieroglyphics, and even the Phaistos Disc script can be demonstrated mathematico-linguistically to be at base simple-syllabic scripts like Linear B, containing on the order of 60-100 syllabic signs (Mackay 1965: 14-25; Barber 1974: 93-96; Duhoux 1998: 4).<sup>16</sup> Could the Minoans have assigned a unique flash-pattern to each sign of such a script? A theoretically possible system — but so unwieldy as to be unlikely in the extreme. Alternatively they would have to have used, at best, one flash-pattern (or smoke-pattern) *per assigned message*, as in, for example, telegraph codes: say, three short flashes for “the fleet is coming” and two long ones for “the king is dead” or whatever else might be of moment. And that is assuming that they used an occludable light source to be able to produce all these differences, and differences that were distinguishable at the necessary distances.

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<sup>16</sup>Archaeological data show that the northeast Mediterranean cultures began developing their own family of scripts somewhat before 2000 BC (jump-started by ideas demonstrably from Egypt), so the *possibility* of a script-based signal system is systematically explored here, even though I think such a system can be totally ruled out on the basis of the logic given below.

Practical experiments carried out in 1991 and 1993 by Richard Lange in the Arizona desert give us a better fix on the relation of signal sources to distances:

“Various types of signals and environmental variables were tested with multiple listeners and observers to average out differences in hearing or visual acuity. In the experiments, the participants creating the messages yelled, blew whistles and a shell trumpet; waved dark and white flags against dark backgrounds and skylighted them against the horizon; flashed mirrors, small flashlights, and cigarette lighters; and made small bonfires.” (Lange 2001: 72)<sup>17</sup>

Sound carried the least far. To hear voices or a shell trumpet blast from more than half a kilometer required that the producers use a cliff as a backboard to direct the sound and that the observers know exactly when the sounds would be made, in which case one could detect their existence from 3.2 km (2 miles) but not distinguish modulations like words (Lange 2001: 73). On Crete, Kyriakidis (2005: 19) reports: “Weather permitting, the bells of Arkhanes can be clearly heard at Youkhtas, and voices from Youkhtas can easily be heard at Arkhanes” directly below. But that is a barely a kilometer as the crow flies, or rather, plummet.

Visual signals in daylight included “flags” (swatches of fabric “the size of a small bath towel”) and mirrors:

“A waving flag, held at one corner, is visible to about 1.6 km (1 mile), but the viewer’s ability to distinguish motion, such as moving it in a circle, side-to-side, or up-and-down, is largely lost by this point. If the flag is stretched as a banner, increasing the visible surface area, it can be seen at nearly 3.2 km (2 miles), but again, distinguishing motions is not possible.” (Lange 2001: 73)

Flashing a bright piece of metal as a mirror “was not effective over 2.4 km (1.5 miles),” but a better mirror could be seen as far as 6.4 km (4 mi). “Beyond this point, aiming the flash at the observers became a problem” (Lange 2001: 74). Another experimenter in New Mexico obtained results of the same order of magnitude (max 7.6 km) using slabs of selenite and

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<sup>17</sup>My thanks to Alan Ferg for acquainting me with the Southwest literature.



lenses.<sup>18</sup> (Historical information — cited by Lange — exists on the use of smoke as a daytime signal on the Great Plains, but the conditions of extreme windiness and frequent haze that we find in Crete make smoke signals an unlikely candidate there.)

Light signals at night, on the other hand, carry much farther, and Lange's team concluded that "the size of the fire ultimately determines the distance it can be seen" (Lange 2001: 75). Even

"a very small light, such as from a cigarette lighter, is readily visible at 2.4 to 2.8 km (1.5 to 1.75 miles), and is visible at 3.2 km (2 miles) if you know exactly when and where to look. The modern military's concern with soldiers' lighting cigarettes at night is well known..." (Lange 2001, 74)

Indeed, Billy the Kid was caught that way, and the danger of advertising one's position to snipers may be the origin of the belief that three on a match is bad luck.

Larger fires, such as a burning rag or "a small, dry Christmas tree" set alight, were "easily visible" at 11 to 12 km. Lange continues:

"We could not test greater distances due to insufficient radio capabilities, but...our observers told us that the small fires we used were as bright or brighter than the headlights on our vehicles... Measuring on a highway one night, we were able to see headlights easily at 24.1 km (15 miles)."

He also reports anecdotally that "an observer in New England was able to see a...burning barn from 48.3 km (30 miles)

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<sup>18</sup>Ellis 1991: 63, cited by Lange. Mica was tested to 4 miles: the diffuseness of its reflection actually made its beam much easier to control than that of a modern glass mirror (Riddle 2001).

The Mongols waved flags by day and torches by night, in the manner of semaphores, to send simple messages quickly across vast tracts of Eurasia, but the signalers must have been quite close together to perceive the motions. For more detailed messages than this channel would carry, they sent relays of horse-riders (well organized into a system called *yam*). See Chambers 1979: 61. My thanks to C. Scott Littleton for acquainting me with this tradition.

The Persians also used signal systems in Classical times, according to Xenophon, while the legend of Theseus and some of the Pylos tablets suggest lookouts as a technology used in the Aegean Bronze Age.

away.” (Lange 2001, 75)

On Crete, the distances between the suggested relays fall mostly in the range of 5-18 km, and seldom more than 32 km (20 mi.): see Table 1. These data show that sound would not work, but a small burning bush or rag would suffice for all but the longest jumps, such as those between Khamaizi and Thylakas or Tappes, and from Ioukhtas to Kophinas. For those leaps, a good-sized bonfire — an Aeschylean “mound of withered brush” or pile of “gold-flamed pine logs” (as in the film of Tolkien’s “Return of the King”) — would do the trick; no barns are needed. (Some sort of fire-pit, enclosing the fuel and designed to shoot the flame upward, would of course improve control and visibility — and guard from starting a wild-fire.)

Reports from many of the peak sanctuaries mention ash layers, which are generally interpreted as the remains of “sacrificial bonfires” (cf. Peatfield 1983: 275-276; although the deduction that the soil actually contained ash has been disputed in some cases<sup>19</sup>). Note two points. The ash, where truly present (as on Ioukhtas), could very well be the remains of fires used simultaneously for sacrifice and signaling, or at times for just one of these purposes. Second, since so little fuel is needed for signaling across the typical short hops, we would not necessarily find the ashy remains of occasional small signal-fires up on these windy summits. Both these points indicate that — unfortunately — we are not going to get *either* real proof or disproof of the signal-fire hypothesis from ash.

Note, too, that Minoan folk were well placed both to send and to receive information, should they wish to, from a wide variety of important coastal and non-coastal living-sites along the way. They had only to beam it up to the nearest high-

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<sup>19</sup>Layers of ash and charcoal, usually thick, are said to have been found, for instance, at Petsophas, Ioukhtas, Modi, Tragostalos, Vigla Zakrou, Plagia, Xykephalo, Prinias, Pyrgos, Roussos Detis, Kophinas, Keria, and Vrysinas. See Rutkowski 1986: 96-98, for numerous references to the peak sanctuaries in the literature, and Kyriakidis 2005: 190-196 for further bibliography site by site.

Peatfield (1992: 66) says that in excavating Atsipades Korakias he was surprised that they found no ash “apart from a small deposit on a rock shelf on the Upper Terrace”. On the other hand, Lange’s experiments show that a small fire the size of a burning rag would be “easily visible” to the neighbors on Spili/Voritzi and even Vrysinas (cf. Peatfield 1992: 63), only 9 and 11.5 km away respectively, so Peatfield’s ash-shelf may have sufficed — depending on the view from where it sat.

station, or observe it from below (from the roof, like Clytemnestra's palace watchman?) as the signals passed by up above, if it occurred to them to do so.

**Table 1:** Distances between some of the key sites; those greater than 24 km—15 miles—are marked with \*. Distances and contours were measured using Harms Verlag's *Kreta 1:100,000 Touristikkarte* (1997) and Section 5 (Sitia) of their 1:80,000 version (1992), both with 50 m contours.

Petsophas to	Modi	6.3 km
	Traostalos	6.5
	Vigla Zakrou	11.3
Modi to	Traostalos	8.5
	Vigla Zakrou	9.5
	Agia Photia	5
	Petras	8.3
Traostalos to	Vigla Zakrou	6.5
	Korphi tou Mare	9.5
	Plagia	12.5
Etiani Kephala to	Plagia	7.5
	Xykephalo	7
	Prinias	9
	Xylogournes	22
Khamaizi to	Modi	17
	Thylakas	30.5 *
	Tappes	35.5 *
	Agia Photia	12.5
	Petras	9.5
Thylakas to	Tappes Kastello	5
	Stavromenos Anatoli	13
Tappes Kastello to	Xylogournes	24.5 *
	Karphi	13.8
Karphi to	Ioukhtas	30.3 *
Joukhtas to	Kophinas	~30 *
	Roussos Detis	~29 *
	Pyrgos	15.5
	Knossos	6.8
Kopida to	Pyrgos	20.5
	Philioremos	13.5
	Vrysinas	25 *
Vrysinas to	Drapanokephala	27.5 *
	Atsipades	11.5
	Spili Voritzi	12
Spili Voritzi to	Atsipades	9
	Akoumia	7.3
Akoumia to	Orthi Petra	34 *
	Kophinas	~50 *
Sykologos to	Koupa	13
	Xylogournes	28 *

### Message Contents

However that may be, *complex* communication this way was still not a reasonable possibility. Even with periodic occlusion to form discrete bursts of light, the system would at best carry only a small number of pre-arranged messages, of the yes/no type, signaling such things as the arrival of boats, danger, prey (such as schools of fish), and/or the moment for some important communal activity. Such, in fact, was the system of signal fires that European explorers found when they first reached the Florida coast. They learned that “the fire might mean the stranding of a whale or the approach of a boatload of strangers, and the watchers in the distant village at once prepared for either emergency, according to their expectation.” (Hodge 1911: 565)<sup>20</sup> This is truly remarkable, since it implies that for one message they should run down to the shore and for the other perhaps run away and hide!

Details of more general sight-line research on Crete have implied not unsimilar simple messages, namely ones concerning a) enemies<sup>21</sup> or other such emergency, b) commerce, c) political jockeying, d) communal rituals, e) astral events, and/or f) some combination thereof. Any effort to link together the three clusters — east, central, and west — would suggest that the messages held a *common* interest for all three areas (ruling out, for example, enmity toward each other). The placement of so many peak sites above coastal habitations suggests connections with boats and boating (see note 3), whether inimical or friendly, as do the placements and viewsheds of several other Bronze Age peak sites elsewhere in the Aegean, such as on the islands of Kythera,

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<sup>20</sup>Cited also by Lange 2001. In the Southwest, where smoke- and fire-signals were more developed, Hodge (1911: 566) says further that “the fire, after having been lighted, was first allowed to burn for some time without hindrance until it was evident or probable that it had attracted the attention of those at a distance for whom it was intended. The signaler then proceeded with the message by throwing his blanket over the smoldering pile” to produce long or short beams or puffs of smoke, and/or a desired number of such.

<sup>21</sup>There is a series of “guard posts” running south from the slopes of Traostalos, but these clearly belong to a completely different system with different intent. Their small, square, stone foundations are set at 1-2 km intervals and at middle height along the valleys, just high enough to overlook the cultivable slopes and see each other, and low enough to be easily accessible, but not perched *agrimi*-like on the tops of the dominant high-points. See Tzedakis et al., 1990.

Kea, Naxos, and Rhodes (Sakellarakis 1996: 91-98). Yet some of the peak sanctuaries are inland. The alignments of Phaistos and Knossos and the placement of Kamilari, on the other hand, suggest that some sight-lines marked religious events, possibly or sometimes relating to the dead (see note 1). The thick cluster of early sites near the *east* coast, for its part, suggests observing and announcing either boats arriving from the east (and/or north, given the early ties of the east end with the Cyclades), or the rise of key celestial bodies above the sea to the east, which would be the earliest possible moment for any of these to be visible from Crete. Heliacal risings have traditionally pegged the major phases of agrarian calendars, which are necessarily sun-based, while celestial bodies have commonly been viewed as connected with religion, and the stars often connected with departed souls (see Barber and Barber 2005: 176-217).

We are not yet in a position to assess astral usage, but we do know that long-distance trade by ship was becoming increasingly important around 2000 BC when the peak sanctuaries were being set up (cf. Watrous 1995: 395). Not only do we see more metal and other imports from the east, but we also see strong evidence of Minoan exports to Egypt in particular, where Middle Kingdom noblemen were becoming fond of ornate Minoan textiles (Barber 1991: 311-357). We can also surmise that building and sending out a ship to far-away places to obtain useful metals was not something an individual did. It required the pooling of resources from a whole community (quite possibly voluntarily for the common good, i.e., from economic incentives, rather than coerced by “elites”) in order both to build and man that ship and also to stock it with food, water, oars, sails, and things to trade. Whether a Minoan trade ship simply sailed to the Levant and back, or whether it whisked over to Egypt on the strong southerly summer tradewinds and returned via the long coastal route, it would first reach Crete at the east end, as the currents carried it past Rhodes, Kápathos, and Kásos straight to Zakro or Palaikastro. It is not hard to imagine both the economic and the emotional importance to the Minoans back home of the safe return of their trade ships — an event that would have been visible from Modi, Traostalos, and the other eastern peaks long before the boats actually touched shore, let alone before they had time to sail west along the Cretan coasts to

other home ports. (Don't forget Aegeus anxiously waiting atop Cape Sounion for a first glimpse of Theseus's returning ship.) The amount of effort required to set up so many intervisible peak sites suggests they were used more than once a year, and also that they were deemed useful enough to spread westward through Crete early in the Middle Bronze Age.<sup>22</sup> Yet the lack of permanent living quarters on virtually all these high places indicates that the communication was not needed 365 days a year. This fact militates against defense as the prime motive.

Which of the various message-questions, then, were of greatest importance to the Minoans? Without readable Minoan texts, we not only don't know how to choose, but don't even know if we *should* choose one. As with the early people of Florida, they may have set themselves up to communicate on more than one issue.

### Obsolescence

As the archaeological evidence now clearly shows, the rise of the new palaces correlates with the demise of Khamaizi and most of the peak sites, only those few peak sanctuaries under the direct control of major power-centers continuing.<sup>23</sup> And as the number of peak sanctuaries declined, those remaining became larger, richer, and enhanced with actual cult-related buildings, as though non-ritual uses had become unimportant. And as Soetens *et al.* remark (2003: 485), "the hierarchy of the sanctuaries (in terms of richness and architecture) ...coincides with a hierarchy in intervisibility" in the New Palace period: one can see many sanctuaries from Ioukhtas, for example, but mostly only Ioukhtas from its satellites. This is also the time of widespread Minoan use of Linear Script A, which could encode much more — and much more exact — information than a simple yes/no system. Is this correlation an accident? As the society rapidly grew more complex, the positioning of literate

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<sup>22</sup>If, as some bits of evidence suggest, matrilineal groups existed in early Crete, peak sanctuaries dominating chunks of land passed down through the matrilines could have served for convenient communication between a man's natal family and his conjugal family, since, as anthropological data show, the men in matrilineal/matrilocal systems had to fulfill duties to *both* families, which involved traveling between them as needed.

<sup>23</sup>Liliano and possibly Kophinas, however, spring up as new peak sanctuaries in the New Palace period, during the time when Ioukhtas — visible from both these sites — outstrips all the remaining peak sanctuaries in richness and influence.

people in numerous locales around the island could have made it more satisfactory to send a runner to the next town or villa with a detailed document than to signal with a crude yes/no flare concerning severely limited questions. And if the greater centralization of power meant much wider control over the surrounding seas, watching for enemies may have been no longer a concern. At that point the remaining use for peak sites — the religious one — could be centralized into those few peak sanctuaries controlled directly by the palaces while the rest dropped out of use.

Some 3500 years later, however, the Venetians set up a beacon system that used some of these same peak sites and that “entirely encircled the coast of Crete” (Chryssoulaki 2001: 63, with references). As the geologists say, what did happen, can happen (Smith’s Law): what the Venetians did, the Minoans can have done too, if they wished.

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## About the Mitanni-Aryan Gods

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*La Garenne Colombes*

A number of Indo-Aryan sounding words have been identified in the cuneiform documents of the Mitanni kingdom (1500-1200 BCE). In addition to nouns and adjectives with parallels in Sanskrit this Hurrian-speaking kingdom had kings with Indo-Aryan names and two documents even list the main gods of the Indian pantheon. The article analyzes and tries to explain the phonetic differences between the Indian and the Mitanni Aryan gods. The ending *-ššil* which has not received a satisfactory explanation so far is accounted for as a Hurrian attempt at rendering the Indo-Aryan dual with Hurrian lexical material: *-šini-lla* 'the two of them'. An Indo-Aryan etymology is proposed for the word *Mitanni* itself on the basis of Sanskrit *mith* 'to unite'.

As Thieme (1960:301a) once assessed:

"The discovery of [Indo-]<sup>1</sup> 'Aryan' looking names of Mitanni<sup>2</sup> princes on cuneiform documents in Akkadian from the second half of the second millenium B.C. (Chiefly tablets from Boğazköy and El-Amarna), several doubtlessly [Indo-] Aryan words in Kikkuli's treatise in Hittite on horse training<sup>3</sup> (numerals: *aika*<sup>4</sup> 'one', *tera*<sup>5</sup>

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<sup>1</sup>The first paragraph of this article actually does not mention [Indo]- because Thieme left open the issue of determining whether 'Aryan' refers to 'Proto-Aryan' [Proto-Indo-Iranian] or to 'Indo-Aryan'. Cf. footnote 7 in Thieme (1960:302a).

<sup>2</sup>These Indo-Aryan-sounding person names can be found outside the Mitanni Kingdom as well, in Palestine for example.

<sup>3</sup>This manual, written ca. 1345 BC by a Mitanni horse-trainer named *Kikkuli*, contains 1080 lines on four tablets. It begins with the words: 'Thus speaks Kikkuli, master horse-trainer of the land of Mitanni'. This name bears a striking and intriguing similarity with English *colt* 'a one-to-four-year-old foal', Swedish (dialectal) *kult*, *kulter*, *kulting* 'foal, young man', Danish *kuld* 'brood'. The name *Kikkuli* may be a reduplicated form: *\*kul-kul-* or *\*ki-kul-*. This word, also present in Skrt *kiśora* 'foal' < *\*kiḱeul-* is most probably a wanderwort: Germanic *\*kult*, Indo-Aryan *\*kiśora* and Turkic *\*qulun* 'foal'. In all cases, the correspondence : Germanic *\*k* ~ Indo-Aryan *\*ḱ* cannot be inherited. The name *Kikkuli* was once analyzed as Hurrian by Ungnad, an idea that Gelb (1944:54) legitimately rejects.

‘three’, *panza-* ‘five’, *satta*<sup>6</sup> ‘seven’, *na[ua]*<sup>7</sup> ‘nine’ ; appellatives: *uartana*<sup>8</sup> ‘circuit, course [in which horses move when being trained],’ *ašua*<sup>9</sup> ‘horse’), and finally, a series of names of [Indo]-Aryan divinities on a Mitanni-Hatti and a Hatti-Mitanni treaty (14<sup>th</sup> century B.C.) poses a number of problems that have been repeatedly discussed, since the beginning of the [XXth] century.”

It can be added that some other adjectives have been found in a document in Yurgan Tepe, as described in Mayrhofer (1966:17): *babru* and *pabru-nni* (cf. Skrt *babhrú-* ‘brown’), *parita* (cf. Skrt *palitá-* ‘grey’) and *pinkara* (cf. Skrt *piṅgalá-* ‘red’). One of the most fascinating sections of the Mitanni Aryan documentation is the mention of five major Indo-Aryan deities: *Mitra*, *Varuṇa*, *Indra* and the *Nāsatyā*, precisely in that Dumezilian order:

“If asked to cite them in their most common nominative forms, no Vedologist could possibly hesitate to put down the series: *Mitrā-Varuṇā, Indraḥ, Nāsatyā*.  
If further asked to name a Rigvedic verse in which these names appear side by side and in this order, he would have to quote RV 10.125.1bc:

<sup>4</sup>This item is unmistakably Indo-Aryan, as Proto-Iranian is \*aiya. It can be noted that Indo-Aryan \*aika is very different from the “standard” Indo-European \*oinos, found in most other branches, and has an intriguing similarity with Ugric words, like Vogul-Mansi: Middle Losva, Jukonda *äk*, Tavda *ux*, *ük*, Pelymka *äk*, Sosva *akwa*. Cf. the *Uralisches etymologisches Wörterbuch*: 81. It can be noted that Mitanni Aryan had not yet undergone the change *-ai-* > skrt *-e-*: skrt *eka* ‘one’ but Mitanni Aryan *aika*. For that matter, Mitanni Aryan predates the oldest Indo-Aryan attestations.

<sup>5</sup>This word seems to be tainted by the Hittite word as Skrt is *tri-*.

<sup>6</sup>This item has a “Prakritic” outlook but this chance coincidence is most probably the result of the phonotactical impossibility of the sequence \*\*/p-t/ in the Hurrian language itself. The suffix written *-pti-* in Wegner (2007:57) is in our opinion better read *-wti-*: “in *na=i=pti* ‘Weide’ zu *nav-* ‘weiden’ (Wilhelm, Fs Haas, 2001, 452).” The reading *-pt* in cuneiform <na-ib-ti> appears highly dubious when compared to the stem of the verb: <na-wə>. <na-ib-ti> is to be read \*[naiwti].

<sup>7</sup>The actual form “*na-uartanna* ist Haplologie für \**naua-uartanna*” as described by Mayrhofer (1966:16).

<sup>8</sup>Quite curiously written by Thieme with *-tt* and only one *-n*.

<sup>9</sup>The word is actually not directly attested but can be inferred from *aššuššanni* ‘horse-trainer’. Here again, Mitanni Aryan sides with Indo-Aryan \*ašua and not with Iranian \*asp.

*aham mitrā-varuṇā ubhā bibharmi*  
*aham indrāgni aham aśvinā ubhā* <sup>10</sup>

A major discrepancy between the Vedic and the Mitanni Aryan versions is the substitution of *Aśvinā* by their other name *Nāsatyā*. In this article, we will reexamine the quotations of the Mitanni Aryan deities in the Mitanni-Ḫatti treaties and will refine a previous proposal to the Hurrian suffix *-ššil*, which has remained quite unexplained so far.

The Mitanni Aryan deities are listed twice: in the Mitanni-Ḫatti treaty (KBo I 3) and the Ḫatti-Mitanni treaty (KBo I 1 and its duplicates) between Šattiwaza of Mitanni and Šuppiluliuma, the Hittite king. The former will be first dealt with from KBo 3 Vo 23 to Vo 27 (Cf. CTH 52.1 §.11).

KBo I 3 Vo 23  
 [Cuneiform] <sup>D</sup>U AN ù KI <sup>D</sup>XXX [ù] <sup>D</sup>UTU <sup>D</sup>XXX ša  
<sup>URU</sup>KASKAL-ni AN ù KI <sup>D</sup>U EN kùr-ri-in-[ni] [<sup>U</sup>]<sup>URU</sup>Ka-ḫat  
<sup>D</sup>U EN <sup>URU</sup>Û-ḫu-uš-ma-a-ni  
 [Transliteration] <sup>D</sup>U *šamē u eršeti* <sup>D</sup>XXX u <sup>D</sup>UTU <sup>D</sup>XXX *ša*  
<sup>URU</sup>*Harrāni šamū u eršetu* <sup>D</sup>U *bēl kurrinni* <sup>URU</sup>*Kaḫat* <sup>D</sup>U *bēl*  
<sup>URU</sup>*Uḫušmāni*

This section is recognizably Akkadian with a number of sumerograms, especially thanks to the particle *ša*. The translation is rather straightforward:

- <sup>D</sup>U *šamē u eršeti*<sup>11</sup> ‘the God of the sky and of the earth’
- <sup>D</sup>XXX<sup>12</sup> u <sup>D</sup>UTU ‘the Moon-God and the Sun-God’
- <sup>D</sup>XXX *ša*<sup>13</sup> <sup>URU</sup>*Harrāni šamū u eršetu* ‘the Moon-God who [is on] the earth and sky of the land of Harran’
- <sup>D</sup>U *bēl kurrinni* <sup>URU</sup>*Kaḫat* ‘the God Master of the kurrinnu<sup>14</sup> of the land of Kahat’
- <sup>D</sup>U EN <sup>URU</sup>Û-ḫu-uš-ma-a-ni ‘the God King of the land of Uhušmān’

<sup>10</sup> Cf. Thieme (1960:303a) who credits the parallel to Dumézil, although he does not adhere to Dumézil’s theories.

<sup>11</sup> Both nouns with Akkadian Genitive -i.

<sup>12</sup> Unreadable but quite reasonably translatable as ‘Moon-God’ in this context.

<sup>13</sup> Relative pronoun.

<sup>14</sup> A connection with Akkadian *kenū* ‘garden, orchard’ does not seem convincing. In this religious context, it is interesting to note that <kùr-ri-in-[ni]> is phonetically rather close to Hurrian *ḫawurni* <ḫa-wə-ur-ni>, Ugaritic script [ḫ w r n], and to Urartian <qiraanee> ‘sky’.

KBo I 3 Vo 23-24

[Cuneiform] <sup>D</sup>É.A EN *ḥa-sī-sī*<sup>15</sup> // <sup>D</sup>SUMUQAN [ša]<sup>16</sup>

<sup>D</sup>Kūr-dá <sup>D</sup>A-nu ù An-tu<sub>4</sub> <sup>D</sup>EN.LÍL ù <sup>D</sup>NIN.LÍL

[Transliteration] <sup>D</sup>É.A *bēl ḥasīsi* <sup>D</sup>Sumuqan [ša] <sup>D</sup>Kurda

<sup>D</sup>Anu u <sup>(D)</sup>Antu <sup>D</sup>EN.LÍL u <sup>D</sup>NIN.LÍL

This section is grammatically Akkadian but with Sumerian words and gods.

- <sup>D</sup>É.A *bēl*<sup>17</sup> *ḥasīsi* ‘Ea Lord of wisdom’
- <sup>D</sup>Sumuqan [ša] <sup>D</sup>Kurda ‘Sumuqan<sup>18</sup> who is Kurda (?)’
- <sup>D</sup>Anu u <sup>(D)</sup>Antu ‘the Sky-god and Sky-goddess’
- <sup>D</sup>EN.LÍL u <sup>D</sup>NIN.LÍL ‘the King and Queen of the Earth’

It can be noted that the traditional transliteration of EN as being Akkadian *bēl*, as in Bezold (1926) for example, is quite questionable. This transliteration seriously conflicts with some Hurrian words of obvious Akkadian origin:

- EN *ḥa-sī-sī* ~ Akkadian [xx]<sup>2</sup> *ḥasīsi* ~ Hurrian *eni-ḥazizi*<sup>19</sup>  
‘god of intelligence’
- EN *umāši* ~ Akkadian [xx]<sup>2</sup> *umāši*<sup>20</sup> ~ Hurrian *en-umašši*<sup>21</sup>  
‘god of strength’

It seems quite impossible to believe that Hurrian can have Akkadian compounds like *eni-ḥazizi* and *en-umašši*, if Akkadian itself were *\*\*bēl-ḥasīsi* and *\*\*bēl-umāši*. Hurrian clearly indicates that the Sumerogram EN is to be read [en-] not [bēl-] in Akkadian as well. These compounds cannot be Hurrian-made: were it the case, one would expect the Genitive case-marker *-wi* and it can be further added that these compounds display the Akkadian word order: a native Hurrian syntagm would be *ḥazizi-wi eni*. Such compounds as *eni-ḥazizi* and *en-*

<sup>15</sup>The decalque *eni-ḥazizi* also exists in Hurrian as discussed below.

<sup>16</sup>In a variant of the text.

<sup>17</sup>[sic]. See below in the article an analysis of this reading *bēl*.

<sup>18</sup>Or *Laḥar* who is the Sumerian name of the god of herdsmen.

<sup>19</sup>Cf. Laroche (1980:100) “Emprunt à l’akk. *ḥasīsu*” and the analysis of RS 24.261 Vo 5 in Laroche (1968:499-504). This word is written [i n ḥ z z y] in Ugaritic script. The Semitic root is  $\sqrt{h s s}$ , hence Akkadian *hassu* ‘intelligent, wise’, *ḥasāsu* ‘to heed a deity, to be pious; to be intelligent, understanding; to remember; etc.’

<sup>20</sup>Means ‘strength’.

<sup>21</sup>Cf. Laroche (1980:82) who leaves the word untranslated. Written [i n m ṭ y] in Ugaritic script in RS 24.261 Vo 5.

*umašši* are lexically and syntactically Akkadian-made.

The order in the invocations of deities is telling: Akkadian first, Sumerian second, Mitanni Aryan next, Hurrian last. This implicit textual hierarchy actually supports the idea that Mitanni Aryan was in a position of socio-cultural superior prestige when compared to Hurrian in the eyes of Hurrian people themselves, who made up the majority of the inhabitants of the Mitanni Kingdom.

KBo I 3 Vo 24  
 [Cuneiform] <sup>D.MES</sup>Mi-it-ra-aš-ši-il <sup>D.MES</sup>A-ru-na-aš-ši-il <sup>D</sup>In-da-  
 ra <sup>D.MES</sup>Na-ša-at-ti-ya-an-na  
 [Transliteration] <sup>D.MES</sup>*Mitraššil* <sup>D.MES</sup>*Arunaššil* <sup>D</sup>*Indara*  
<sup>D.MES</sup>*Našattiyanna*

This paragraph is the most intriguing and controversial section. As evidenced by the Mitanni Letter and numerous other Hurrian texts, the sumerogram <sup>D.MES</sup> does not have any *lexical* significance and stands for a *semantic* determinative, emphasizing a ‘Plural’ meaning. Quite obviously <-n-na> is the Hurrian ‘Definite Article’ in the ‘Plural’ form. Several remarks can be made on the names of the deities:

- *Našattiya* does not display any trace of the long vowels of *Nāsatyā*, as is the case for *tvešā-rathā* or *ṛta-dhāma* attested as <du-uš-rat-ta-a> or <ar-ta-ta-a-maš> with plene writing in the Mitanni Letter. It can also be noted that the sibilant in *Našattiya* is simple hence normally voiced. The same phenomenon can be found in *ḥazizi* < Akkadian *ḥasīsi*: this word is written [ḥ z z y] in Ugaritic script as mentioned before. This voicing of the original /s/ in \*[nazat(i)ya]<sup>22</sup> is probably Hurrian-made and should most probably not be attributed to a peculiarity of Mitanni Aryan.
- *In-da-ra* could be a way of writing *Indra* but the other spelling *In-tar* in KBo I 1 Vo 56 seems to indicate that this is indeed to be read \*[indar(a)] not *Indra*. This indicates a peculiarity of Mitanni Aryan when it comes to the name of *Indra* in the original language.
- *Mitra* or quite probably \*[midra] is closest to the original name *Mitra*, a personified abstraction, which also means ‘contract’ in both Vedic and Avestic (as

<sup>22</sup>It is unclear whether the -i of *Našattiya* is an artefact of the cuneiform graphic system or a phonetic reality.

*miṭra*), as is well-known since Meillet showed it in 1907.

- *Aruna* has an obvious similarity and dissimilarity to *Varuṇa*, which is the source of a quite rich amount of speculations. As can be expected, the rough pattern of cuneiform script cannot tell /ṇ/ from /n/. But there is no particular reason why Hurrian should have any trouble in saying or writing *Wa-ru-na*. Among the proposed “guesswork” in Thieme (1960:303b-304a) to explain the difference between *Aruna* and the expected *Waruna*: (1) a scribal typo, (2) some interferences with Hittite *aruna* ‘sea’, (3) “the compound *Mitrā-Varuṇā* was divided incorrectly” as \**Mitrāu-Aruna*. Scribal mistakes are not infrequent: for example, <ta-a-ki-ma-a-an> is a misspelling of <ta-a-an-ki-ma-a-an>, with a sign missing, as noted in Speiser (1941:57): “A different problem is posed by instances of amissible *n* before *k* and *t*; e.g., *ta-a-ki-ma-a-an* Mit. IV 58: *ta-a-an-ki-ma-a-an* Ibid. 60 and *ta-a-an-ki* Ibid. 78.” The second explanation requires a knowledge of Indo-Aryan religion, which seems quite extra-ordinary among Hittite and Hurrian scribes or ruling classes, all the more so as the connections of *Varuṇa* with the sea seem to be rather late in the development of Indo-Aryan religion. The third explanation is only half convincing as *Varuna* is written *U-ru-wa-na* in the other document. If the name of *Varuṇa* were indeed *Aruna* in Mitanni Aryan, then one would expect some consistency. In our opinion, it is quite probable that *Aruna* is just a misspelling (or maybe a misreading as cuneiform is seldom straightforward). The other attestation *U-ru-wa-na* is discussed below.

The major issue about this section is the “suffix” <-š-šil>. This is quite obviously not Akkadian nor is there any attestation of this “suffix” in the rest of Hurrian documents. It is not Indo-Aryan nor Indo-Iranian either. One explanation is based on the similarity of -ššil with the Hurrian abstract suffix -šši<sup>23</sup>. In theory, this is structurally possible: *allai* ‘lady, queen’ > *allašši* ‘queenhood, the fact of being or becoming a queen’<sup>24</sup>, *šarri* ‘king’ > *šarraši* ‘kingship, throne’<sup>25</sup>. The major stumbling

<sup>23</sup> Cf. Wegner (2007:57).

<sup>24</sup> Cf. Laroche (1980:44).

<sup>25</sup> Cf. Laroche (1980:216). Cf. *šerše* ‘throne’ as well.

block is semantic: what would \*Mitrahhood and \*Varunahood mean? How come that these abstract derivatives are being deified and used in the very place where the actual gods Mitra and Varuṇa are expected? It can be noted that there is no instance of an abstract derivative *-šši* being either deified or even used in the plural in the other Hurrian documents. This explanation is semantically implausible and, worse, such a construction is completely un-heard-of in Hurrian. Another explanation, first proposed by Friedrich and mentioned by Thieme (1960:305a), is to compare the “suffix” *-ššil* with the Hurrian word ‘two’ *šini*. This explanation is semantically coherent with the Indo-Aryan dual. The objection of Thieme (1960:305a) is that we should expect the same dual for *Našattiya* and we do not have *\*\*Našattiyaššil*. RV 10.125.1bc has indeed *mitrā-varuṇā ubhā* and *aśvinā ubhā* but the fact is KBo I 3 Vo 24 has <sup>D.MES</sup>*Mitraššil* <sup>D.MES</sup>*Arunaššil* but <sup>D.MES</sup>*Našattiyanna*. This minor objection notwithstanding, it remains to be understood how the word *šini* ‘two’ could possibly become *-ššil*. This “suffix” is to be analyzed as being the fusion of *-šini* with the pronoun *-lla* ‘they, them’. The absence of final vowels is not infrequent in Hurrian and is well attested in Person names in Nuzi for example: *Ari-šen* for *\*Ari-šenni*. It is hard to determine what kind of dialectal, formal or historical significance this phenomenon may have. The assimilation of consonants like *-n-*, *-l-* or *-r-* is regular, as is extensively shown by the Definite Article *-ni* ‘the’ in the Absolute case: *\*ḥawuri-ni* > *ḥawurri* ‘the sky’. For that matter, a compound like *\*šini-lla* would regularly become *ši-lla* ‘the(m) two’ or *šil* without the final vowel. That this pronoun *-lla* can be suffixed to numbers is exemplified by *tumni-lla* ‘the(m) four’<sup>26</sup>. It can also be used as a kind of Plural marker, as described in Wegner (2007:76): “Die 3. Pers. Pl. *-lla* kann darüber hinaus auch als ein allgemeiner Pluralanzeiger verwendet werden.” In other words, this “suffix” *-ššil* is actually two words and means ‘the(m) two, both of them’ and is the exact and regular translation of the Indo-Aryan dual. <sup>D.MES</sup>*Mitraššil* <sup>D.MES</sup>*Arunaššil* <sup>D</sup>*Indara* <sup>D.MES</sup>*Našattiyanna* easily and regularly translates as ‘both Mitra and Varuṇa, Indra and the Nasatya’.

KBo I 3 Vo 25-26

<sup>26</sup> Cf. Wegner (2007:77) and Laroche (1980:271).



[Cuneiform] <sup>D</sup>KASKAL.KUR <sup>D</sup>Ša-ma-an-mi-nu-ḫé <sup>D</sup>U  
 EN <sup>URU</sup>Wa-šug-ga-an-ni <sup>D</sup>U EN <sup>URU</sup>ka-ma-ri-bi <sup>URU</sup>Ir-ri-  
 de<sub>4</sub> <sup>D</sup>Na-bar-bi <sup>D</sup>Šu-ru-ḫi <sup>D</sup>IŠTAR <sup>D</sup>IŠTAR MUL // <sup>D</sup>Ša-  
 la <sup>D</sup>NIN.É.GAL <sup>D</sup>NIN a-ia-ak-ki <sup>D</sup>Iš-ḫa-ra <sup>D</sup>Pár-da-a-ḫi  
<sup>URU</sup>Šu-u-da

[Transliteration] <sup>D</sup>KASKAL.KUR <sup>D</sup>Šamanminuḫe <sup>D</sup>U  
 bēl <sup>URU</sup>Waššukkanni <sup>D</sup>U bēl <sup>>URU<</sup>kamaribi <sup>URU</sup>Irride  
<sup>D</sup>Nabarbi <sup>D</sup>Šurūḫi <sup>D</sup>IŠTAR <sup>D</sup>IŠTAR kakkabi <sup>D</sup>Šala  
<sup>D</sup>NIN.É.GAL <sup>D</sup>Bēlet ayakki <sup>D</sup>Išḫara <sup>D</sup>Pardāḫi <sup>URU</sup>Šūda

This sentence seems to contain Hurrian words but the word order is not really natural as many genitival determinatives are postposed in the Akkadian way. The segmentation is:

- <sup>D</sup>KASKAL.KUR<sup>27</sup> <sup>D</sup>Šamanminuḫe<sup>28</sup> <sup>D</sup>U ‘the God of the opulent land of Harrān’
- EN <sup>URU</sup>Waššukkanni ‘lord of Waššukkanni’
- <sup>D</sup>U EN <sup>>URU<</sup>kamaribi <sup>URU</sup>Ir-ri-de<sub>4</sub> ‘the God Lord of the land of Irridu<sup>29</sup> of Kumarbi (?)’
- <sup>D</sup>Nabarbi <sup>D</sup>Šurūḫi<sup>30</sup> <sup>D</sup>IŠTAR ‘Nabarbi the gigantic Šauška<sup>31</sup>
- <sup>D</sup>IŠTAR MUL ‘the Šauška of stars<sup>32</sup>
- <sup>D</sup>Ša-la <sup>D</sup>NIN.É.GAL ‘daughter of the Queen’
- <sup>D</sup>NIN a-ia-ak-ki<sup>33</sup> ‘the Queen of everywhere’
- <sup>D</sup>Iš-ḫa-ra <sup>D</sup>Pár-da-a-ḫi<sup>34</sup> <sup>URU</sup>Šu-u-da ‘Išḫara of the land Šuda Pardahi’

<sup>27</sup> According to line 186 A1 Rs. 23', this refers to the town Harran.

<sup>28</sup> A Hurrian ethnonymic adjective with suffix *-hi*. The stem is Akkadian: *šaman* ‘oil, fat’. It can be noted that the adjectives precede the noun in the regular Hurrian order: <sup>D</sup>Šamanminuḫe <sup>D</sup>U and <sup>D</sup>Pár-da-a-ḫi <sup>URU</sup>Šu-u-da.

<sup>29</sup> A town of the Mitanni Kingdom in Hurrian territory.

<sup>30</sup> Adapted from Akkadian *šurruḫu* ‘gigantic’.

<sup>31</sup> Note that Šauška is already a derivative of the adjective \*šaw- ‘great’.

<sup>32</sup> Note that it has often been claimed that the goddess <sup>D</sup>IŠTAR bears connections with PIE \*H<sub>2</sub>ster ‘star’. <sup>D</sup>IŠTAR MUL is the ‘star-goddess of stars’.

<sup>33</sup> This word is an Akkadian word *ayakku*.

<sup>34</sup> This should be an ethnonymic adjective referring to the land of Šuda.

KBo I 3 Vo 26

[Cuneiform] 𒄩UR.SAG<sup>MES</sup> 𒀭ID<sup>MES</sup> 𒄩PÚ<sup>MES</sup> 𒀭DINGIR<sup>MES</sup> 𒍪ša  
AN 𒄩KI

[Transliteration] *šadū nārātu u būrātu ilānu ša šamē u eṣeti*

This looks like an Akkadian sentence even though all major words are written in sumerograms: ‘Mountains, rivers and sources, the Gods who [are in] the sky and [on] the earth’.

KBo I 3 Vo 27

[Cuneiform] 𒍪šum-ma a-na-ku <sup>m</sup>Šat<sup>35</sup>-ti-ú-a-za  
DUMU.LUGAL 𒄩DUMU<sup>MES</sup> 𒄩Hur-ri a-ma-te<sup>MES</sup> 𒍪ša ri-ik-  
sī, an-ni-i 𒄩ša ma-mi-ti la ni-na-ša-ar

[Transliteration] *šumma anāku<sup>m</sup> Šattiwaza mār šarri u mārū  
Hurri amāte ša riksi annī u ša mamīti lā ninašsar*

‘If I, Šattiwaza, son of a king, and the sons of the Hurrian forbears, were not to respect the words of that treaty, [...]’

The rest of the document is in Akkadian but the words <𒄩Hur-ri a-ma-te<sup>MES</sup>> are Hurrian: ‘the Hurrian forbears’. It can also be noted that:

- The king's name is written *šatti-ú-aza* and not \**šattiwaza*. In theory, <-ú-a-> in <<sup>m</sup>Šat-ti-ú-a-za> contrasts with <wa-> attested in <<sup>URU</sup>Wa-šug-ga-an-ni>. This may be a device to write the long -ā- of *satya-vāc*.
- The Mitannian king refers to his Hurrian subjects as the ‘sons of the Hurrian forbears’ but to himself as ‘son of a king’. It is unclear whether he includes himself within the ‘sons of the Hurrian forbears’. The text actually creates a kind of chiasmus between himself and the ‘sons of the Hurrian forbears’.

<sup>35</sup>This sign actually has three phonetic values: “das erste Zeichen dieses Namens hatte neben *mat* auch die Werte *kur* und *šat*, und *Kurtiyaza* ist die wahrscheinlichste Lautform.” in Mayrhofer (1966:38). Mayrhofer compares this alternative reading with Vedic *gūrta-vacas* ‘speaking agreeably’ and *gūrta* ‘praise’ but this does not seem convincing. The name seems to be *satya-vāc* ‘true speech, who speaks the truth’, attested as a Person name. Cf. Monnier-Williams: 1136b. Thieme (1960) reads it as *Mattiwaza* but does not provide any translation.

The other attestation of the Mitanni Aryan gods is:

KBo I 1 Vo 55-56  
 [Cuneiform] <sup>D.MES</sup>Mi-it-ra-aš-ši-il/-el <sup>D.MES</sup>Ú-ru-wa-na-aš-ši-il  
<sup>D</sup>In-tar <sup>D.MES</sup>Na-ša-a[t-ti-ya-a]n-na  
 [Transliteration] <sup>D.MES</sup>Mitraššil <sup>D.MES</sup>Uruwanaššil <sup>D</sup>Indar  
<sup>D.MES</sup>Našattiyanna

This is not far from being exactly the same list as the preceding one. The most interesting feature is the name of *Varuṇa* who is called here *Uruwana*. There is a significant phonetic gap between *Varuṇa* and *Uruwana*. The first attestation of *Varuṇa* as *Aruna* can be accounted for as a kind of misspelling (or misreading) as explained before, but the second attestation as *Uruwana* definitely sounds like a different word. Hurrian does not accept initial *-l* and *-r* and all the rare words with these sounds as initial are loanwords. For example the Semitic god *Rešep* is attested as in *Iršap* with the addition of a prothetic vowel. If we hypothesize that *Uruwana* derives from a prototype \**Ruwana*, then this name can be further analyzed as \*(s)roṃa-Hno ‘the one in charge of flowing (waters)’ in coherence with the mythological function of *Varuṇa*, creator of the water-blocking monster, *Vṛtra*, that Indra is praised for killing. In that hypothesis *Varuṇa* is a metathesis of an older *Ruwana*.

Much energy has been spent to negate the obvious or to minimize the presence of an Indo-Aryan component in the Mitanni kingdom. It can be noted that the name of this kingdom typically bears a suffix *-nni*<sup>36</sup>, which appears in Hurrian nouns<sup>37</sup> only with borrowed stems:

- *Mašrianni* ‘Egypt’
- *Wašukkanni* ‘the capital of the Mitanni Kingdom’<sup>38</sup>
- *aššuššanni* ‘horse-trainer’ ~ Sanskrit *aśya* ‘horse’
- *aššuwanni*<sup>39</sup> ~ Sanskrit *aśva-ni* ‘horse-riding’
- *kadinni*<sup>40</sup> ~ Sanskrit *khādi* ‘bracelet, bangle’

<sup>36</sup>Sometimes written with the ambiguous sign *-nnu/-nni*.

<sup>37</sup>The suffix *-nni* is also attested in native Hurrian *adjectives*. For that matter, *pabrunni* (and *babru*) ~ Sanskrit *babhrú-* ‘brown’ or *parita-nni* ~ Sanskrit *palita* ‘grey’ cannot be put on the same footing as the nouns.

<sup>38</sup>This place name is a compound that seems to include Sanskrit *vasu* ‘excellent’ and a second unclear element.

<sup>39</sup>Cited in Mayhofer (1966:18) but left untranslated in Laroche (1980:59).

- *maninni* ~ Sanskrit *maṇi* ‘necklace’
- *maryanni*<sup>41</sup> ~ Sanskrit *marya* ‘warrior, soldier’,
- *mištanni*<sup>42</sup> ~ Sanskrit *mīdha* ‘financial compensation’ (< PII \*mizdha- < PIE \*mis-dho-<sup>43</sup>),
- *ušrianni* ‘heir, prince’ ~ Sanskrit *uccair-* ‘high, above’,  
*uccair-gotra* ‘high family or descent’

As regards the word *maganni* ‘gift’, be it from Akkadian or from Indo-Aryan *magha*, it bears the suffix *-nni* and is not native. The point is that there is no native Hurrian noun ending with *-nni*.

The logical consequence is that the word *Mitanni* or (arch.) *Maitanni*<sup>44</sup> itself is most probably a loanword, if not definitely a loanword. It is fascinating to compare this stem *maita* with the Indo-Aryan verb *mith* ‘to unite, pair, couple, meet (as friend or antagonist)’<sup>45</sup>: ‘he unites’ *méthati* < \*máithati. The alternation between *Mitanni* and (arch.) *Maitanni* may originate in Indo-Aryan itself:

We also have the root in an extended version, \*meit- (e.g. Lat *mūtō* ‘change’, Goth *maidjan* ‘exchange’, Latv *mietuôt* ‘exchange’, Skt *méthati* ~ *mitháti* [< \*m(e)itH-] ‘exchanges’), which underlies the name of the Indo-Iranian *Mitra/Mithra*, the god in charge of contractual relationships. (Mallory-Adams 2006:272)

This is indeed a perfectly acceptable etymology<sup>46</sup> for such a political entity as the Mitanni kingdom: the ‘united kingdom’.

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<sup>40</sup> Cited in Mayhofer (1966:18) but left untranslated in Laroche (1980:133).

<sup>41</sup> Attested as <mar-ya-(an)-ni> or <ma-ri-ya-an-ni>. Cf. Laroche (1980:168).

<sup>42</sup> It can be noted that this word is phonetically more archaic than Indo-Aryan as attested in India.

<sup>43</sup> Cf. Mallory-Adams (2006:274): “OE *meord* ‘reward, pay’, OCS *mīžda* ‘reward, wages’, Grk *mīsthós* ‘reward, wages’, Av *mīžda-* ‘reward, gift’, Skt *mīdhá-* ‘competition, contest, prize’.”

<sup>44</sup> <Ma-ite-ni> in Nuzi. Cf. Laroche (1980:171).

<sup>45</sup> Cf. Monnier-Williams: 816, 3.

<sup>46</sup> Previous proposals based on *Mitra* or the *Medes* are phonetically implausible.

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# Towards a Chronological Framework for Significant Dialectal Tendencies in Indo-European<sup>1</sup>

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This study aims to address two main questions: (1) can there be distinguished significant dialectal tendencies in Indo-European, which allow for its division into sub-groupings?, and, if so, (2) can these linguistic developments be dated in terms of absolute chronology? In answering these questions, our focus will be on the north-Mediterranean peninsulas, from east to west: Anatolia, Greece, Italy, and Iberia, where the different layers are most easily distinguishable. Moreover, tackling the second question in effect boils down to an interdisciplinary undertaking, as it forces us to survey the relevant historical, epigraphical, and archaeological data. Therefore, in order to keep the margin of error to a minimum, we work our way back into time, from the most prolifically recorded historical period into the progressively more lacunary proto- and prehistoric ones. Much to my astonishment, in doing so we will stumble upon an Indo-European substrate in Anatolia of “Old European” type which, unlike IE Anatolian, does not render the PIE laryngeal  $*h_2$  by  $h$ : very detrimental to the theory of those who see IE Anatolian as the oldest member of the Indo-European language family and for this reason propose Asia Minor as an alternative to the North Pontic and/or North Caspian steppes for the Indo-European homeland.

## 1. Introduction

The question to be answered in this study is whether dialectal tendencies can be observed among the various members of the Indo-European language family, which would enable us to distinguish developmental phases and, accordingly, subgroupings representative of such phases. If so, the next question to be addressed is whether these phases can

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<sup>1</sup>My thanks are due to professor Wolfgang Meid for his reaction to an earlier draft of this contribution, to an anonymous referee for criticism on contents and style, and to Dr Frits Waanders for helping me to address the referee’s criticism as adequately as possible. Needless to say that I am solely to blame for remaining errors.

be approximately arranged into a chronological order.

In the past, efforts to distinguish subgroupings among the Indo-European languages focussed on the *centum-satem* division, based on the different reflexes of the palatovelars as velars on the one hand and affricates or spirants on the other, which seemed to allow for the distinction of a western branch from an eastern one as primarily represented by Indo-Iranian. After the discovery of Tocharian in the Tarim basin, however, which constitutes the most eastern representative of the Indo-European language family and yet bears testimony of a treatment of palatovelars typical of the westerly *centum* branch, doubts have been raised about the validity of the *centum-satem* division as a criterium for dialectal subgrouping. Another feature which played a role in earlier attempts at dialectal subgrouping, with the noted restriction that it is confined to the presumed western *centum*-branch, entails the different reflexes of the labiovelars as velars on the one hand and labials or dentals on the other, sometimes called the “Cymric division” in Celtic, distinguishing, for example, Goidelic (= *q*-Celtic) from Brittonic (= *p*-Celtic) in the British Isles. In the wake of the discovery of the Indo-European languages of Anatolia (= IE Anatolian), Hittite, Luwian, and Palaic, which, amongst others, are characterized by the preservation of laryngeal  $*h_2$  — a sound reconstructed only for all the other Indo-European languages on the basis of vowel-coloring — in its original consonantal form as *h*, it furthermore has been suggested that this particular group represents an earlier stage in the development of Indo-European, only distantly related to the rest of the family so that it allows for the overarching designation Indo-Hittite. This latter point of view has come into fashion, again, by the adherents of the theory according to which Anatolia constitutes the ultimate homeland from which speakers of an Indo-European tongue disseminated towards the various locations where they become discernable only at a later time — a process projected back in time by some as far as the 7th or 6th millennium BC in order to connect it with the gradual diffusion of the Neolithic farming culture.

Now, it certainly has to be admitted that the earliest documentary evidence for an Indo-European language or languages has a bearing on IE Anatolian, more specifically Hittite and Luwian, which in the form of names of deities and

persons turn up already as distinct linguistic entities during the Middle Bronze Age (c. 2000-1650 BC) in the Old Assyrian cuneiform records from the trading colonies at Kültepe-Kanesh and Acem Höyük (c. 1910-1780 BC) and in Luwian hieroglyphic legends on seals and sealings attested for this early period (Gamkrelidze and Ivanov 1995: 757-759; Woudhuizen 2004a: 112-120). As such it predates Indo-Aryan and Mycenaean Greek by as much as about a half of a millennium. With respect to Indo-Aryan, the earliest documentary evidence consists of technical terms in a treatise on horse training by the Mittannian expert Kikkuli as preserved in Hittite in texts dating from the late 15th or early 14th century BC onwards (Starke 1995) as well as, apart from Mittannian royal names as attested from the late 16th century BC onwards, the names of deities invoked as witnesses on the Mittannian side in the treaty between Suppiluliumas I (1344-1322 BC) and Sattiwaza from the late 14th century BC (Beckman 1996: 38-50; esp. 43; 49). Regarding Greek, the earliest documentary evidence comprises Linear B tablets from the palace of Knossos in Crete as preserved owing to the destruction by fire of the site at the transition from Late Minoan IIIA1 to IIIA2 c. 1350 BC (Olivier 1994: 166; Woudhuizen 2009: 169-184)<sup>2</sup> and inscribed stirrup jars pertaining to the same class of writing from the “House of Kadmos” at Thebes destroyed at about the same time (Symeonoglou 1973: 73-74; Woudhuizen 1989: 199-201).

Nevertheless, continuing work on primarily Hittite and Luwian has shown that IE Anatolian, with the proviso of substrate and adstrate influences from indigenous Anatolian Hattic and Near Eastern Hurrian and Semitic, is not more remotely related to Indo-European in general, as the Indo-Hittite theory maintains, but straightforwardly comparable to the other members of this family, and in particular to the group among them typified by what might reasonably be suggested to be archaic features (see further below) like the *centum* reflex of palatovelar \**k̑*, and the use of reflexes of the morpheme \*-*r*- as a marker of the middle-passive and the pronominal root \**k<sup>w</sup>e-*, \**k<sup>w</sup>i-* for the relative, which it shares

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<sup>2</sup>Note that the deposit from the Room of the Chariot tablets is generally assigned to an earlier destruction level either at the end of Late Minoan II or sometime during Late Minoan IIIA1, but this is not certain and in the present context of little consequence.

notably with Tocharian, Italic, and, apart from the relative, Celtic (Crossland 1971: 857; Woudhuizen 2004a: 97-103). Note especially that the recently fashionable analysis of Luwian as a *satem*-language disregards the following evidence for a *centum* reflex of palatovelar \**k̑*:

- (1) in the form of the onomastic element *Kurunt-* (= stag-god) < Proto-Indo-European (= PIE) \**kerh<sub>1</sub>-* “horn”, which is rendered in Luwian hieroglyphic by the deer sign, or, as a *pars pro toto*, the deer-head or deer-antler sign, L 102-3,<sup>3</sup> and as such already recorded for the name of the original owner of stamp-cylinder seal OA 20.138, *Tarku(ku)runtas*, an 18th or 17th century BC predecessor of the later Arzawan royal house in western Anatolia (Woudhuizen 2006-7);<sup>4</sup>
- (2) in form of the vocabulary word *kutupili-* “fire-offering” as attested for a late 10th or early 9th century BC Luwian hieroglyphic inscription from Karkamis (A11b-c, § 18), the first element of which originates from PIE \**keu-* “to burn, set to fire”; and,
- (3) if we add to these Luwian hieroglyphic examples evidence from cuneiform Luwian, a case in point is formed by the vocabulary word *kattawatnalli-* “vindictive, revengeful” < PIE \**kat-* “strife, fight”.<sup>5</sup>

Taking this evidence at face value, the uncontested instances of a *satem* reflex of the very same palatovelar sound, namely *aśu(wa)-* “horse” < PIE \**ekwo-* and *surna-* “horn” < PIE \**kerh<sub>1</sub>-*, both already recorded in derivations for Late Bronze Age texts from the reign of Tudḫaliyas IV (1239-1209 BC), and *śuwana-* “dog” < PIE \**k̑(u)won-*, the latter only traceable in texts of an Early Iron Age date (Woudhuizen 2004b, indexes,

<sup>3</sup>Numbering according to Laroche 1960.

<sup>4</sup>The validity of this *centum* analysis of *Kurunt-* is unaffected by the fact that the phonetic development *kuru-* > *kru-* > *ru* in view of the MNs (= man’s names) *Ru-wa-ti-a* and *Ru-ti-a* from the Kültepe/Kanesh texts appears to have been accomplished in the given region already at the beginning of the Middle Bronze Age, see Yakubovich 2008: 268-277. It is interesting to note, therefore, that this development, in view of the Hittite personal name *Ku-ru-un-ta* and related 8th-6th century Phoenician forms like the epiklesis of Ba’al KRNTRYŠ or *Kuruntarias* as recorded for the Karatepe text and the composite personal name ’ŠWLKRTY or ’*Ašulkuru(n)ti* as recorded for an Aramaic inscription from Cilicia (IAC 1, see Casabonne 2004: 65; 241), is not rigorously carried through.

<sup>5</sup>Note that this word is a Luwian formation in adjectival *-alli-*, and therefore unlikely to be disposed of, in line with Kloekhorst 2008: 466, as a Hittite loan.

*s.v.*), which all pertain to the style of life of elite warriors as introduced in the Near East by Indo-Aryan *maryannu* during the final stage of the Middle Bronze Age (*c.* 1720-1650 BC), preoccupied as it is with chariotry and hunting, are most plausibly to be explained as Indo-Aryan loans. The more so because the same holds good for Hittite hippological technical terms like *assussanni-* “horse trainer” < PIE *\*ekwo-* and *wasanna-* “driving track (German: Fahrspur)” < PIE *\*wegʰ-* “to drive” — both these instances presumably being loaned through the medium of Ḫurrian<sup>6</sup> and Luwian.<sup>7</sup> These Indo-Aryan loans need to be distinguished from evidence according to which the PIE palatal *\*[k]* became palatalized into the sonorous *[z]*, as in case of cuneiform Luwian *za-* “this” < PIE *\*k̑i-* and *ziya-* “to lie” < PIE *\*k̑ei-* (see Woudhuizen *forthc.* 3). Finally, it deserves our attention that, as hinted at in the above, the IE Anatolians appear to be, in a relative sense, latecomers in a non-Indo-European environment, inhabited by Ḫattians, and bordered to the east by Ḫurrians and Semites, which *a priori* renders the theory of an eastern Anatolian Indo-European homeland with a time-depth of several millennia before the earliest documentary evidence from the beginning of the Middle Bronze Age *c.* 2000 BC (Renfrew 1987; Drews 2001) highly suspect.<sup>8</sup>

For the determination of subgrouping or subgroupings among the Indo-European language family, it is of prime importance to focus on shared innovations as this particular phenomenon, when observed, may indicate that the participating proto-languages were still in a linguistic continuum, whereas the ones not affected were for whatever reasons outside the geographical confines of this linguistic continuum. Preferably, such shared innovations should entail

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<sup>6</sup>Note the suffix *-n(n)i-* for the indication of professions in the first mentioned form, also traceable in the aforesaid *maryannu* < Indo-Aryan *marya-* “young warrior, hero”, see Wegner 2000: 49; Mayrhofer 1966: 17.

<sup>7</sup>On account of the adjectival *-assi-* or *-asa-* in the first mentioned form, again, the presence of which is further emphasized by hieroglyphic *asusa-* “horseman, charioteer”, see Starke 1995: 116; 65. For a similar formation as *assussanni-*, cf. *tarupsani-* “charioteer (i.e. the driver, not the fighter)”, possibly the phonetic rendering of the Luwian hieroglyphic honorific title L 289 *auriga*, < Hittite *tarupp-* “gather, assemble (hippological technical term for a specific forward motion [either trot or gallop] of the horse)”.

<sup>8</sup>For the possible presence of an earlier Indo-European stratum in Anatolia and the Levant, see section 7 below.

features of some consequence, like a realignment in the grammatical structure, rather than more trivial matters such as the sharing of particular items of vocabulary or in a specific phonetic change, which might be subject to incidents or occur independently in various locations at distinct periods of time. Now, an innovation affecting the grammatical structure has indeed been detected in the form of the application of the augment, originating from PIE  $*h_1é$  “once” (Meier-Brügger 2000: 156), in the formation of the past tense, which phenomenon is, as commonly acknowledged, shared by Indo-Iranian, Greek (Mycenaean *a-pe-do-ke*, PYFr 1184;<sup>9</sup> *a-pe-e-ke*, PY An 724) and Armenian (e.g. Watkins 1995: 171). A number of observant scholars rightly add to this group Phrygian on the basis of *edaes* “he dedicated” (M-01a/b, etc.)<sup>10</sup> < PIE  $*d^hē-$  as attested for Old Phrygian dedicatory inscriptions dating from the late 8th century BC onwards (Porzig 1954: 87; Gamkrelidze and Ivanov 1995: 340-341; Fortson 2004: 91). Other members to be included are Thracian, considering the fact that the earliest surviving inscription in this language from Kjölmén, datable to the late 7th or early 6th century BC, is characterized by the verbal form *edakat* “(s)he dedicated”<sup>11</sup> the root of which is obviously related to that of New Phrygian *addaket* (= Greek *ποσπούησει*) and Old Phrygian *dakhet* “(s)he puts” (W-01, variously dated to the 7th or 6th century BC)<sup>12</sup> < PIE  $*d^hek-$  (Woudhuizen 2000-1), and Illyrian as represented by Albanian (*hē-ngra* “I have eaten”, Gamkrelidze and Ivanov 1995: 806) and possibly its southern Italian offshoot Messapic in view of forms like *ebugei* (Ruvo, PID II 368<sup>bis</sup>) and *eipeigraves* (Diso, PID II 556), the latter recalling Greek *ἀπέγραφε* (cf. Krahe 1955: 36; 33).<sup>13</sup>

<sup>9</sup>PY = Pylos; for the system of abbreviation and numbering of the Linear B texts, see Ventris and Chadwick 1973.

<sup>10</sup>M = Midas City; for the system of abbreviation and numbering of Old Phrygian texts, see Brixhe and Lejeune 1984.

<sup>11</sup>Note that the augment is distinguished here as a separate entity by punctuation in the form of three vertical strokes, recalling the similar distinction of reduplication in archaic Latin-Faliscan inscriptions from about the same chronological horizon, cf. *fe:faked*, *pe:parai*.

<sup>12</sup>W = West Phrygia.

<sup>13</sup>In my conversation with Václav Blažek in Leiden sometime during the Summer of 2007, it turned out that he had independently traced the augment in Messapic, which in my opinion enhances the validity of this particular observation.

The distinction between languages characterized by the augment in their verbal conjugation and those lacking this phenomenon is quite sharp, and therefore it may reasonably be inferred that IE Anatolian, Tocharian, Italic, Celtic, Germanic, and Balto-Slavic were *outside* the linguistic continuum in which it developed. Having established this, it subsequently becomes conspicuous that, as duly noted in previous attempts at subgrouping (though mostly, as emanating from the given references — to which should be added Meid 1975 — in various combinations of one or two of the following characteristics, not in their aggregate), the augmenting group of languages is further typified by subsidiarily shared features, like the preference of pronominal \*yo- for the relative, the marking of the middle voice by the “here and now” particle \*-i originating from the conjugation of the active, and the negative adverb \*mē. In these latter cases, however, the division between the group of languages sharing in the development and the ones excluded from it is less sharply defined than in connection with the augment, so that we should rather consider them as tendencies instead of defining criteria. Thus, the preference of the relative \*yo-, which typifies Indo-Aryan, Greek, and Phrygian among the augmenting subgroup (Porzig 1954: 24; 173; Gamkrelidze and Ivanov 1995: 339; 445; Watkins 1998: 66), also affected Celtic (Fortson 2004: 130; for Celtiberian: Meid 1993: 96) and Slavic (Gamkrelidze and Ivanov 1995: 339), though, in the words of Porzig (1954: 173), “offenbar hat die Neuerung [\*yo-] das Baltische nicht mehr erreicht” considering Latvian *kas* and Old Prussian *ka-* “which” (Fortson 2004: 385; 387). Similarly, the preference of marking the middle voice by the particle \*-i, which characterizes the verbal conjugation not only in Indo-Aryan and Greek (Gamkrelidze and Ivanov 1995: 341-342; Fortson 2004: 86), but, in view of the verbal forms *t-edatoy* and *t-anegertoy* recorded for the Old Phrygian inscription W-01 (cf. Woudhuizen 1993a: 5-7), also in Phrygian and Illyrian as represented by Albanian (Fortson 2004: 396-397) among the augmenting group of languages, can outside this subgroup be traced for Germanic and Balto-Slavic (Gamkrelidze and Ivanov 1995: 342; cf. Porzig 1954: 84; 170). Finally, the preference of the negative adverb \*mē, which is a feature shared by Indo-Iranian, Greek, Armenian (Meillet 1984: 23; Watkins 1995: 171) as well as Phrygian (Haas 1966: 236), and Illyrian as

represented by Messapic (Krahe 1955: 31) and Albanian (Gamkrelidze and Ivanov 1995: 806) among the augmenting subgroup, can outside this subgroup be observed in Tocharian (Fortson 2004: 360-361). Obviously, therefore, these subsidiarily shared tendencies traceable among the subgroup of languages characterized by the use of the augment have been radiated to languages situated outside this linguistic continuum, which hence still must be assumed to have maintained some form of contact, but the salient point is that this happened in isolation, one tendency diffusing to some particular member of the out-group and another to yet another member of this out-group, so that it may reasonably be inferred that the radiation of the distinct tendencies *varied per case in direction*. Conversely, it needs to be stipulated that the subsidiary tendencies did not affect all the members of the in-group in the same manner, the preference for the relative \*yo- in particular being deficient in Armenian and Illyrian, which in this respect are rather in line with the members of the out-group for their preference of a reflex of \*k<sup>w</sup>o-, \*k<sup>w</sup>i- as exemplified by Armenian *o-* or *i-* (Schmitt 1981: 124), and Messapic *kos* (Krahe 1955: 32) and Albanian *qi* “who” and *kë* “whom” (Fortson 2004: 397; 393), respectively. For completeness sake, it finally must be frankly admitted that the position of Thracian in connection with the tendencies subsidiarily shared by the other members of the augmenting subgroup cannot be determined for the lack of evidence.

If the foregoing argument in favor of the distinction of a subgroup among the Indo-European languages be considered valid, the subsidiarily shared tendencies, of which the development and distribution are more complex than that of the clearly delineated shared innovation of the augment, are, on the analogy of the latter development, likely to be considered as innovations as well, which were either not productive at all or only incidentally so and then in isolation in languages outside the given linguistic continuum. *Mutatis mutandis*, it naturally follows from this inference that the contrasting features of the languages in a marginal position to the aforesaid linguistic continuum are likely to be identified as archaisms or retentions characteristic of an earlier phase in the development of the Indo-European language family. In the following, the two separate phases distinguished in the development of Proto-Indo-European, the one represented by



a subgroup formed on the basis of a number of shared innovations will for convenience sake be labelled group B, and the other represented by the languages along the margins of the innovatory continuum characterized by the conservation of more ancient traits, will for convenience sake be grouped together under the label of group A. Note that the incidental evidence of retention of traits typifying the conservative group A among the representatives of the innovative group B as exemplified, for instance, by the variant relative *kos* and the originally passive formations *abberetor* and *addaketor* attested for New Phrygian (= NPhr) (Diakonoff and Neroznak 1985: 118; for the passive forms, see *ibid.*, index *s.v.* *\*ber-* and *\*di-*; Gamkrelidze and Ivanov 1995: 343; 345),<sup>14</sup> and the originally passive formations *berēr* “he carried” and *beriw̄r* “he was carried” attested for Armenian (Porzig 1954: 84; cf. Haas 1966: 247) is, though interesting in itself and underlining that Phrygian and Armenian are more conservative than Indo-Aryan and Greek in these respects (or, to put it differently, split off earlier from the remaining core), inconsequential for our present argument.

The foregoing analysis can be summarized as follows:

Conservative features	Innovating tendencies
1. no augment	1. augment
2. relative <i>*k<sup>w</sup>i-</i> , <i>*k<sup>w</sup>o-</i>	2. relative <i>*yo-</i>
3. middle-passive <i>*-r-</i>	3. middle <i>*-i</i>
4. negative <i>*ne</i>	4. negative <i>*mē</i>
Group A	Group B
1. IĒ Anatolian	1. Indo-Iranian
2. Tocharian	2. Greek
3. Celtic	3. Phrygian
4. Italic	4. Thracian
5. Germanic	5. Armenian
6. Balto-Slavic	6. Illyrian

From here, we can even take the analysis one step further if we realize that the innovative group of languages (group B) can be subdivided on the basis of the *centum-satem* division. Thus a *satem* subgroup is formed by Indo-Iranian

<sup>14</sup>To these examples should be added the 3rd person plural forms of the present of the middle-passive *enstarna* (NPhr-48) and *dakaren* (NPhr-98), see Woudhuizen 2008-9.

(Sanskrit *śatám* “hundred” < PIE \**k̑mtóm-*) and Armenian, whereas the remainder, in line with the undisputed case of Greek (*hekatón* “hundred” < PIE \**k̑mtóm-*), should rather be classified as *centum*. Thus Phrygian *-agta-* in *lavagtaei* “leader of the host” (D sg.) < PIE \**h<sub>2</sub>eǵ-* “to lead”, *dekmouta-* “tithe” < PIE \**dék̑mt-*, *Akmonia* (place name) < PIE \**h<sub>2</sub>eǵmen-*, *kuno-* “dog” < PIE \**k̑(u)won-*, \**ki-* “to lie” < PIE \**k̑ei-*, *nekro-* “to kill” < PIE \**nek-ro-*, *meka-* “great” < PIE \**meǵ(h<sub>2</sub>)-*, \**tik-* “to show, accuse” < PIE \**deik-*, *vekro-* “father-in-law” < PIE \**sweǵuro-*, *verktevo-* “work, contraction” < PIE \**werǵ-* (Woudhuizen 2008-9); Thracian *ekoa* “mare” < PIE \**eǵwo-* (Woudhuizen 2000-1), *Goaksis* (personal name) < PIE \**g<sup>w</sup>ow-* “ox” + \**h<sub>2</sub>eǵ-* “to lead” (cf. Best 1989: 137-138), *ka(i)-* “to dedicate” < \**keu-* “to burn, set to fire” (Brixhe 2006); and Messapic *argorian* “silver” < PIE \**h<sub>2</sub>erǵ-* (Krahe 1955: 32, esp. note 70). However, sometimes these languages may have been subject to secondary *satem*-influences: Phrygian \**sei-* “to lie” < PIE \**k̑ei-*, *Semélē* (divine name = “Mother Earth”) and *zemel-* “mortal, earthling” < PIE \**d<sup>h</sup>eǵ<sup>h</sup>óm-* (Woudhuizen 2008-9); and Thracian *Rhēsos* (royal name) < PIE \**rēǵ-*, *esh-* (onomastic element) < PIE \**eǵwo-*, *-zen-* (onomastic element) < PIE \**ǵen-* (Katičić 1976: 143). Note that the secondary nature of these *satem*-influences is particularly clear in the case of Phrygian, where the reflex of PIE \**k̑ei-* “to lie” happens to be of *centum*-type, viz. \**ki-*, in Old Phrygian (G-02)<sup>15</sup> and only shows *satem*-type \**sei-* in the much younger New Phrygian texts (esp. NPhr-99). In like manner *satem*-influences can also be shown to have radiated to some members of the conservative group of languages, like Balto-Slavic, which is substantially affected, and, as we have already noted in the above, IE Anatolian, where the effects are much more superficial or even incidental, the secondary nature of these influences particularly in these latter cases being indicated, again, by the fact that *satem* reflexes of, for example, palatovelar \**k̑* appear alongside the original *centum* ones (for Luwian and Hittite, see above; cf. Lithuanian *ašva* “horse” < PIE \**eǵwo-* alongside *akmuō* “stone” < PIE \**h<sub>2</sub>eǵmen-*, see Fortson 2004: 380; 365).

Accordingly, we arrive at the following subdivision of the innovative group of languages (group B):

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<sup>15</sup>G = Gordion.

Group B1: <i>centum</i>	Group B2: <i>satem</i>
1. Greek	1. Indic
2. Phrygian	2. Iranian
3. Thracian	3. Armenian
4. Illyrian	

As it seems, then, linguistics enables us to establish a relative chronology for the development of the Indo-European language family as follows:

- (1) phase I: characterized by what in the context may be classified as conservative features originally (as we may assume on the basis of fossilized remains traceable among the representatives of the innovatory group B) having a bearing on all members of the family and hence dating back to a period of former unity; which is followed by
- (2) phase II: typified by innovative tendencies primarily affecting only a particular group among the members of the entire family and therefore presumably dating to a period in which some amount of dispersal had already taken place; which in turn is followed by
- (3) phase III: marked by the *satem*-development which appears to be originally restricted to some of the members of the innovatory group B and to have only secondarily radiated to some of the other members of this group as well as some of the members of the conservative group A, and as such may safely be assumed to signal a further stage in the process of breaking-up.

Now, it must be admitted that linguistic reconstruction all by itself is, even with the aid of glottochronology as recently improved by the Czech linguist Václav Blažek (2007: 4), not capable of fixing the relative sequence of phases I-III arrived at in the above into the framework of an absolute chronology: for such purposes it depends entirely on evidence provided by historical sources, actual texts in the languages under consideration which have come to light through archaeological excavations or have otherwise been preserved, and, by relating historical linguistic reconstructions to the material record (= palaeolinguistics), archaeological (including archaeozoological) data more in general. In other words: the translation of a linguistically reconstructed relative sequence

of phases in the development of a language or language group into absolute chronological terms is an interdisciplinary undertaking (cf. Meid 1989: esp. 13, note 12). If, then, we want to establish a dating in terms of absolute chronology for our aforesaid relative sequence of phases in the development of the Indo-European language family, a survey of the relevant historical, epigraphical, and archaeological evidence is expedient, which, in order to generate the most reliable results, preferably should proceed from the more prolifically documented regions and periods to the ones that are progressively lacunary in this respect.

To facilitate such a survey, it might first of all be instructive to very schematically set out the language groups so far distinguished according to their geographical distribution. If allowance be made for the historically related origin of the Phrygians and the Armenians (the latter being stipulated as *ápoikoi* of the former by Herodotos, *Histories* VII, 73) in the southern Balkans, we are confronted with the following pattern:

A	B	A	B	A
Balto-Slavic	Greek	Hittite	Iranian	Tocharian
Germanic	Phrygian	Luwian	Indic	
Celtic	Thracian	Palaic		
Italic	Armenian			
	Illyrian			

This pattern of distribution, characterized by intrusion of members of the innovatory group (group B) in between those of the conservative group (group A), is incompatible with the gradual dispersal by means of demic diffusion or a wave of advance as observed for the Near Eastern and/or Anatolian Neolithic agriculturalists from about the middle of the 7th millennium BC onwards. To a certain extent, this is duly acknowledged by Colin Renfrew, who from the very start integrated the dominant explanatory model, developed by Otto Schrader (1911) and elaborated by, amongst others, Marija Gimbutas (most recently 1992 and 1994 [= translation into German of 1991]), J. P. Mallory (1989), and David Anthony (2007), for the distribution of the Indo-European languages by means of long-distance migrations of North Pontic and/or North Caspian steppe-based pastoralists from

about the late 4th millennium BC onwards into his alternative Neolithic model, so that in fact the majority view goes unchallenged for the eastern side of the problem, the origins of the Indo-Iranians and Tocharians in one way or the other being traced back to the North Pontic and/or North Caspian steppe based pastoralists by all (Renfrew 1987: 178-197; Renfrew 2001).

## **2. Radiation of the labiovelar development, c. 1200-700 BC**

Having reduced the extent of the controversy in this manner to the middle and western sections of the distribution area, it subsequently deserves our attention that of the phonetic developments referred to in the above the varying treatment of the labiovelars as exemplified by the Brittonic division in Celtic can be accurately dated on account of the development of Mycenaean Greek *i-qa* into Homeric ἴππος to the period of the Dark Age (c. 1200-800 BC). Furthermore, the radiation of the labiovelar shift to labials or dentals from Greece and the Aegean to western Anatolia is meticulously traceable in the epichoric texts, Luwian hieroglyphic up to c. 700 BC still preserving original *hw* in, for example, the relative *hwa-*, whereas its western offshoots Lycian and Lydian as mainly attested for the 5th and 4th centuries BC bear testimony of the innovatory shift, Lycian siding with Attic-Ionic for its preference of the dental reflex in the relative *ti-* but Lydian rather with Lesbian for its preference of the labial reflex when before front vowels as in the relative forms *pe-* or *pi-* (Woudhuizen 1984-5; cf. Woudhuizen 2005: 119-147). The *terminus post quem* of c. 700 BC for this labiovelar development in Luwian can be further substantiated by the fact that the related Etruscan, introduced in central Italy by Luwian speaking population groups from western Anatolia from the late 8th century BC onwards, is, in view of relative forms like *cui-* and *cva-* or *χva-*, or, delabialized, *χi-*, still unaffected by it (Woudhuizen 1998: 189-203; cf. Woudhuizen 2006a: 79-87; 135-140; Woudhuizen 2008: 348). The given Greek and Luwian evidence for the shift of the labiovelars into labials and dentals is satisfactorily explicable in terms of the wave model as developed by Johannes Schmidt; at any rate, the possibility of its introduction by invading “*p-* or *t-*Greeks” and “*p-* or *t-*Luwians” can be positively discarded in the face of the evidence for overall linguistic continuity in the regions in

question.

Nevertheless, the idea that the migrations at the end of the Bronze Age which resulted in the collapse of the Mycenaean palatial civilization and the Hittite empire had something to do with the diffusion of this linguistic development might fruitfully be entertained, as among the Sea Peoples there was a group addressed as *Weshesh* who may reasonably be identified as bearers of the central European Urnfield culture in archaeological terms<sup>16</sup> and as *Ausones* or *Osci* (< PIE \**av-* or \**au-* “source, stream”) in linguistic terms.<sup>17</sup> The Ausones or Oscans, namely, together with the Umbrians (and, if rightly distinguished as a separate entity, the intermediary Sabellians) represent the branch of *p*-Italici, which, in view of the distribution pattern, leaving relatively small areas of *q*-Italici that are not in particular set off from their surroundings by geographical barriers in southeastern Tuscany (Faliscan), around the Alban hills (Latin), and at the head of the Adriatic (Venetic), unaffected, in the Italian context is more likely to be explained in terms of a distinct immigration by proto-speakers than diffusion according to the wave model. (Note that Messapic considering the dental reflex in the enclitic conjunction *-θi* < PIE \**-k<sup>w</sup>e* rather sides with Greek.) If this is correct, it necessarily follows that the origins of the labiovelar development may be traced back to the ultimate central Europe homeland, in particular Oltenia and the Banat along the middle Danube, of those groups among the bearers of the proto-Villanovan culture which were ancestral to the later speakers of Oscan and Umbrian, and chronologically situated in the final stage of the Bronze Age (Woudhuizen 2006a; for handmade barbarian ware at North

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<sup>16</sup>Of which a concentration settled down at Hamath in North Syria, as indicated by the simultaneous introduction of three of its diagnostic features in the region, Urnfield cremation cemeteries and Naue type II swords at Hamath itself, and handmade barbarian ware at the coastal sites of Ras al-Bassit/Posidonia, Ras Shamra/Ugarit, and Tell Kazel/Simyra (but see note 18 below).

<sup>17</sup>Note that the suggested penetration by the *Weshesh* into the eastern Mediterranean receives welcome linguistic confirmation by the Osco-Umbrian nature of an Eteo-Cretan inscription from Praisos, a new foundation c. 1200 BC, as determined as such by de Ligt 2008-9. On the various forms of the name of the ethnic group in question, and the fact that Greek *Opici* originates from \**Opisci*, see Woudhuizen 2006a: 115.

Syrian coastal sites, see Badre 2006: 82 ff.; 92).<sup>18</sup>

In line with our findings in the Italian context, the diffusion of *p*-Celtic, which dialectal variant no doubt resulted from contacts of Celtic population groups with speakers of *p*-Italic in their original central European habitat (note that an early source, Herodotos, *Histories* II, 33, locates Celtic population groups in the region of the upper limits of the Danube in southern Germany, see Fischer 1986), across the channel may also be attributed to migrations of in this respect already distinct proto-speakers, especially in view of the geographical distribution according to which the remnants of the previous *q*-Celtic inhabitants are confined to the western margins. For the purposes of dating in absolute chronological terms, it is instructive to turn to the evidence from the Iberian peninsula, where the arrival of *q*-Celtic speaking tribes, *in casu* the Celtiberians (Meid 1996: 16 *\*equeisos* < PIE *\*ekwo-* “horse”; 30-31 indefinite *kuekue-* “whosoever” < PIE *\*k<sup>w</sup>e-*; Meid 2000: 11 enclitic conjunction *-kue* “and” < PIE *\*-k<sup>w</sup>e*; cf. Meid 2000: 3; 12), is convincingly argued to be reflected in the archaeological record by the extension of the European Urnfield culture into this region which process entailed two distinct phases, one restricted to the region of the mouth of the Ebro in Catalonia, dated *c.* 1200-900 BC, and the other penetrating deep into the Spanish heartland, dated *c.* 800-650 BC (Bosch-Gimpera 1939: Maps I-II). The first phase can be linked up with Celtic place-names in *-dunum*, attested for the region of Catalonia only,<sup>19</sup> whereas the second rather ties in with Celtic place-names in *-briga*, a concentration of which is detectable for the Spanish heartland, but which are further distributed over the entire western part of the peninsula and even include the distribution zone of southwestern Iberian inscriptions which in their turn provide us with the earliest epichoric evidence for the Celtiberian language dating from the 6th or 5th century BC (Rix 1954: abb. 1-2; cf. Woudhuizen

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<sup>18</sup>As the excavator of Ras al-Bassit/Posidonia, Lione du Pied, kindly informed me, this ware is in actual fact not found at Ras Shamra/Ugarit and its harbor, Ras Ibn Hani, since the reported finds from these sites have a bearing on a different class of pottery, so-called “céramique à la steatite”.

<sup>19</sup>But note *Arialdunum* in the realm of Tartessos along the lower course of the Guadalquivir as reported by Schulten 1950: 125 and *Esttledunum* in this same area as well as *Caladunum* in northwest Iberia as catalogued by Sims-Williams 2006: 308; 329, Map 12.2.

2004-5; for southwest Iberian, see Woudhuizen 1998-9).<sup>20</sup> If we realize, then, that the distribution of the Celtic place-names in *-dunum* also includes the British isles, whereas that of the ones in *-briga* does not,<sup>21</sup> it may reasonably be deduced that the *q*-Celtic migrations of the first phase distinguished within the Iberian context extended to the regions across the channel, whereas those of the second did not. Evidently, therefore, the presence of *q*-Celtic population groups in Britain dates back to at least *c.* 1200-900 BC. Note, finally, that the influence of *p*-Celtic in Iberia, though recorded, is only of a marginal nature and no doubt to be assigned to a later date (Pokorny 1940: 154-156; Tovar 1973: 165).

### 3. The dispersal of chariot-warfare, *c.* 1720-1650 BC

If we work our way back in time, the next significant linguistic dialectal tendency which can be dated in absolute terms with the help of the interdisciplinary method is the *satem*-development of palatovelars, which in the above we have defined as the latest stage in the development of the Indo-European language family, our phase III. Now, on the basis of the earliest documentary evidence on Indo-Iranian as provided by Mittannian divine names, royal names, and hippological technical terms of Indo-Aryan type dating from the late 15th and 14th century BC, the dissemination of *satem*-phase Indo-European is inextricably linked up with the advance of the chariot and chariot-warfare during the final stage of the Middle Bronze Age (*c.* 1720-1650 BC). This event marked a cultural landslide: rulers and their aristocratic following in the Near East and Egypt became prone to be specialists in hippological affairs where formerly it was considered indecent for them to ride on horseback, and much of the palatial economy became subservient to the purpose of maintaining as large a chariot force as possible.

For a proper understanding of this particular period in

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<sup>20</sup>Note that according to Rix 1954 the introduction of the TNs (= town names) in *-briga* precedes that of the ones in *-dunum*. If so, it necessarily follows that the distribution of the TNs in *-briga* is not linked up with the extension of the Urnfield culture into the Spanish heartland, but has to be attributed to earlier Indo-European incursions, in which case, as we will see below, only those of the "proto-Celtic" Lusitanians presumably sometime during the Iberian Middle Bronze Age come into consideration.

<sup>21</sup>But note the two instances of a toponym in *-briga* in Sims-Williams 2006: 328, Map 12.1.



history, it is of prime importance to observe that the origins of the chariot can be traced back to the North Pontic and/or North Caspian steppe, to be more specific Sintashta and Krivoe Ozero in Kazakhstan, where the earliest evidence for this type of vehicle, distinguished as such by the innovatory spoked wheels, is discovered in burials datable from the late 21st century BC onwards (Anthony and Vinogradov 1995). However, it is not only the development of the spoked-wheeled two-wheeler, facilitating the substitution of the speedy but more fragile horse for the ox as a means of traction, but also the improvement in the manner of control of the horses as evidenced by the bone *cheek-pieces* found in direct association with the remains of a span of horses among the grave gifts in the Krivoe Ozero burial, indicating the use of soft mouthed *bits*, that are really fundamental to the innovatory process (detail neglected by Littauer and Crowel 1996).<sup>22</sup>

This becomes clear if we compare the steppe-evidence for the development of chariotry with that of Anatolia, where a similar technological advance in the realm of wheeled vehicles can be discerned on the basis of pictorial designs on seals or sealings from the Kültepe-Kanesh period (*c.* 1910-1780 BC), with the noted difference that the horses of the chariots happen to be invariably controlled here by a *nose-ring* instead of a bit (even though it must be admitted that the horses are badly drawn, probably owing to the artist's unfamiliarity with this animal, there can, contrary to the opinion of Bley-Jones (2006: 185), be no doubt that horses are intended, especially in the case of Littauer and Crowel (1979: fig. 29), where the traction animals are depicted with hooves and manes). Taking Frank Starke's analysis of the Kikkuli texts on horse training, which is based on his own equestrian experience as a competitor in the military, to heart, one wonders how effective a weapon this type of chariotry could have been, not to mention the amount of slit noses which it no doubt entailed. At any rate, it is absolutely clear that horses controlled by a nose-ring could not possibly have successfully

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<sup>22</sup>Note that, as observed by Jones-Bley (2006: 188), the donkeys drawing the battle car with four solid wheels as depicted on the standard of Ur, dated to *c.* 2500 BC, appear to be bitted, so that the idea of the bit may well be assumed to originate from Mesopotamia, but its adaption to the *horse* in that case still remains a steppe innovation.

been submitted to the sophisticated training program of Kikkuli, with its intricate “Hufschlagfiguren” in the form of “s-bows” and “figures-of-eight”, so that it becomes fully understandable to us why Indo-Aryan expertise in the field as reflected in the technical terms had such a great impact on the cultures to which what we might aptly call the proper way of chariotry was disseminated (cf. Starke 1995).

Furthermore, it is conspicuous that the proper form of chariotry allowed for the use of the composite bow, the lance for thrusting, and javelins as weapons (cf. Anthony 2007: 400; 403), whereas the charioteers of the Kültepe-Kanesh seals or sealings, if armed at all, are only shown brandishing a battle-ax, so that the military significance of the chariot is obviously substantially enhanced by the steppe-based improvement in horse-control (compare Littauer and Crouwel 1979: fig. 36 from North Syria and stamp-cylinder seal Louvre AO 20.138 from western Anatolia, both dating to the late 18th or 17th century BC, to Littauer and Crouwel 1979: fig. 29 from Kültepe-Kanesh, period II).

The reality of the latter inference certainly appealed to the ancients, if we take into consideration the sheer rapidity with which the military innovation is introduced and the mere geographical extension of its diffusion. Moreover, in the majority of the cases it is possible to detect an Indo-European, specifically Indo-Iranian, role in the process of diffusion and transmission of chariot-warfare. This is most evident in the case of the ultimate colonization of the Punjab region in eastern Pakistan and northwestern India by the Indian branch of the Indo-European family. But, to a lesser extent, the same verdict also applies to the case of the Kassite conquest of Babylonia following the Hittite king Mursilis I's successful raid on its capital of 1595 BC, and the, admittedly only temporary, establishment of Hyksos' rule in the southern Levant (*i.e.* the province of Sharuhen)<sup>23</sup> and Egypt (where, although centred in the northeast at Avaris, it even extended as far south as Buhen as indicated by a horse burial bearing testimony of bit wear, dated to *c.* 1675 BC, see Burleigh 1986: esp. 234, table 2,

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<sup>23</sup>Note especially the horse burials discovered at Gaza, dated to *c.* 1650-1550 BC, and the bronze bit from nearby Tel Haror, dated to *c.* 1500 BC, see Burleigh 1986: esp. 234, table 2, and Oren 1997: 269, fig. 8.17 or Drews 2004: 88, fig. 4.7.

and cf. Drews 1988: 103, note 76;)<sup>24</sup> in view of the Indo-Aryan component in Kassite and Levantine onomastics and the fact that chariot warriors in Egypt were still addressed as *maryannu* < Indo-Aryan *marya-* “young warrior, hero” at the end of the Bronze Age (Mayrhofer 1966: 18, note 4; 26-27; 29-30; Kammenhuber 1968: 47-60;<sup>25</sup> Mayrhofer 1974). It must be admitted, though, that in the latter two cases the identification of the Indo-Aryan contribution is much more complicated because the Kassites preferred to adopt the indigenous Akkadian language for their administrative records and the Hyksos, as far as the preserved royal names inform us about their ethnic affiliations, had thoroughly intermingled with the local population of Semitic and Hurrian descent.

It is even possible to attribute the introduction of chariot-warfare in Greece to foreign immigrants of Hyksos background or some similar group coming from Egypt or the Levant, with an ultimately steppe-based Indo-European nucleus as indicated by the funerary practice of the shaft graves at Mycenae (in which were found four [= two pairs according to Hiller 1991: 211] bone cheek-pieces for bridle bits of the Krivoe Ozerotype referred to in the above, see Crouwel 2005: 39 and pl. IVa, correcting Littauer and Crouwel 1973) with its stelai decorated with scenes of chariotry in military action against pedestrian enemies, dating to the transitional period from Middle Helladic to Late Helladic I, *c.* 1600 BC, and the ethnonym of the *Danaoi* after their founding father *Danaos*, a reflex of PIE *\*dānu-* “river” as traceable in Old European and North Pontic river names like *Danube*, *Don*, *Dnieper*, and

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<sup>24</sup>Note that evidence for horse-keeping among the Hyksos is further provided by two horse teeth from Tell el-Dab'a/Avaris and horse remains more in general from Tell el-Maskhuta, both dating from the early phase of Hyksos rule, *c.* 1700-1600 BC, see Wapnish (1997: 355-356). The earliest Egyptian textual references to the chariot and chariotry come from the side of the indigenous opponents of the Hyksos and founders of the 18th dynasty, namely the inscription on the Kamose stele, though admittedly with a bearing on the hostile Hyksos' camp in wording, *ti-nt-htry*, rooted in agricultural ox-traction and, given the absence of the expected ideogram E 6 for horse, unequivocal, and the autobiography of a participant in the siege of Avaris by Ahmose, this time unambiguously by means of the newly devised chariot-sign T 17 *wrrt*, see Schulman 1980: 112-113 and Lichtheim 1976: 12 (numbering of the Egyptian hieroglyphic signs according to Gardiner 1994).

<sup>25</sup>Refers to *Abirattas* as a Kassite royal name of possibly Indo-Aryan background from as early as the late 17th century BC, which, if correctly analyzed as such, would predate the Mittannian material.

*Dniester*. Now, given the fact that Danaos is related in literary tradition to have arrived in Greece from Egypt, it may well be significant in this context that the related form of *Tanayu* is used by the Egyptians (from the reign of Tuthmosis III onwards) as their regular Late Bronze Age form of address of the Greeks (cf. Drews 1988).

At any rate, it so happens that in like manner as it is the case with the Hyksos this Indo-European nucleus of immigrants is obviously augmented by members of other ethnic entities encountered en route during their peregrinations, like Semites from the Levant, again, and Luwians from Crete, the former being memorized in the myth of Kadmos and his Phoenicians settling at Thebes in Boeotia, which event is archaeologically reflected in the foundation of the “House of Kadmos”, and the latter being traditionally staged as Cretan merchants taking possession of Krisa in Phocis and founding the cult of Apollo Delphinios in the region.<sup>26</sup> Both these events likely correlate to the Minoanization discernable in the archaeological record of the sites in question in the chronological horizon from which the Mycenaean shaft graves stem and receiving emphasis from linguistics in the form of traces of respectively Semitic (*Kádmos* < *qdm* “east”,<sup>27</sup> *Eurṓpē* < *ʿrb* “west”, *Kábeiroi* < *kbr* “great”) and Luwian (*Parnāssós* < *parna-* “house, temple”, *Kastalíā* < *ḥasta-* “bone”, cf. Gindin as referred to in Katičić 1976: 93) in the local lore.

With a view to the ethno-linguistic diversity among the Hyksos-like immigrants introducing the chariot and the Near Eastern type of palace-bound economy to sustain it in mainland Greece,<sup>28</sup> however, it seems unlikely that this event,

<sup>26</sup>Note that the earliest evidence for the divine name Apollo comes from a Knossian Linear B text, KN E 842.3 [*a*]-*pe-ro-ne*, as first observed by Ruijgh 1967: 274, § 237 and duly notified by Watkins 1995: 149; cf. also the seal of a priest with the dolphin as his badge from the throne room in the palace of Knossos as depicted in Evans 1935: 414, fig. 343b.

<sup>27</sup>In actual fact, the name *Kádmos* may be a reference to a person originating from the region *Qedem* in the hinterland of Byblos, see Woudhuizen 2007: 726, note 9.

<sup>28</sup>Note in this connection that, as far as the evidence goes, the chariot forces of the individual Mycenaean palatial sites numbered into the hundreds: Mycenae at least 100 as in the Hittite account of the sea-borne expedition of the “man of *Aḥḥiyā*”, or Akhaian, Attarissiyas-Atreus to Alasiya-Cyprus during the first half of the 14th century BC, Knossos more than 400 as recorded in Linear B tablets dating to c. 1350 BC, and Pylos at least about 200 as indicated by the

culturally important as it may be, had significant linguistic consequences in the sense that an entirely new language was introduced and widely dispersed among the local Middle Helladic population. Especially so if we realize that the numbers of the immigrants appear to have been limited and that the indigenous inhabitants are in the main either straightforwardly identified in or at least positively identifiable on the basis of the relevant onomastic and toponymic evidence provided by the literary sources as *Phrygians* and *Thracians* (often grouped together under the blanket-term Pelasgians), who, as we have seen in the above, spoke Indo-European languages of the same, in the relative sense, innovative type as Greek (our group B).

Although in the long run independent Phrygian and Thracian tribes were either subdued or driven out of their original habitat, the latest surviving ones being recorded for the region of Orkhomenos in the hinterland of Thebes (Odrysians, cf. Linear B *o-du-ru-wi-jo* as attested for an inscribed stirrup jar of Cretan manufacture from the “House of Kadmos” in Thebes, viz. TH Z 839) up till the beginning of Late Helladic IIIA2, c. 1350 BC, and for various regions in western and northern Thessaly even after this date, a significant number of them can be shown to have stayed and acculturated to the Near Eastern type of civilization introduced by the newcomers. What is more, they even appear to have contributed substantially to the Mycenaean culture, either

- (1) in the form of the newcomers’ local allies, as represented by the royal houses of Pylos (Neleus) in Triphylia and subsequently Messenia, Athens<sup>29</sup> in Attica, and Iolkos (Kretheus, Pelias) in Thessaly, and, after c. 1350 BC, Orkhomenos (Minyas) in western Boeotia, variously designated as Pelasgian, Minyan, or merely autochthonous, or

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Linear B tablets dating c. 1200 BC. Note also that on the Linear B tablets from Knossos bits of either bone or bronze are in a number of instances explicitly specified as forming part of the equipment of the chariots, viz. *ke-ra-ja-pi o-pi-i-ja-pi* “with horn (*kéras*) bits” and *ka-ke-ja-pi o-pi-i-ja-pi* “with bronze (*khalkós*) bits”, see Littauer and Crouwel 1973: 213.

<sup>29</sup>Note that Erekhtheus or Erikhthonios is being reported by Vergilius, *Georgics* III, 113 to have subdued the Thracians headed by Eumolpos located at nearby Eleusis while driving a quadriga, the doubling of the horses drawing the chariot being said to be his own invention.

- (2) as members of the ruling elite at the centers of the immigrants themselves through intermarriage, like in the case of the Mycenaean king *Atréús*, a son of the Phrygian mythical charioteer *Pélops* and bearer of a Phrygian-type name (Woudhuizen 2006a: 59-67).<sup>30</sup>

Finally, in case the newcomers had indeed introduced their language, we would, in the light of the foregoing evidence on the disseminators of chariot-warfare in the Near East, have expected it to be of Indo-Aryan type (our group B2). However, even though Indo-Aryan influences can be shown on the basis of royal names which, after the Mittannian pattern of Tushratta, are characterized by the onomastic element *ratha-* “chariot”, like *Tarhun(d)aradus*, *Piyamaradus*, and *Rhadámanthus*, or alternatively testify to a reflex of *maryannu*, like *Mēriónēs*, to have radiated to nearby western Anatolia (note also in this connection the later Etruscan *ratu-* “chariot”, see Woudhuizen 1998: 79-80) and Crete,<sup>31</sup> no trace of it can be found in our sources with a bearing on the Greek mainland. Alternatively, the invaders of Greece might have constituted a separate group, linguistically distinct from their Indo-Aryan fellow travelers, branching off to the northwest.

However this may be, it may plausibly be assumed that the linguistic influence of the newcomers at least entailed some sound changes like, for example, the shift of voiced velars (*Bríges* > Φρύγες, *glouros* > χλωρός “gold”), labials (*brater-* > φράτηρ “brother”), and dentals (*edaes* > ἔθηκε “(s)he

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<sup>30</sup>Note that the expected pattern of male descent is already disrupted in the reconstructed genealogies of the royal houses of both Mycenae and Thebes in the first generation after the founding fathers Danaos and Kadmos (the latter being stipulated to have married Harmonia, the daughter of the Thracian war-god Ares), and that particularly in the Mycenaean case diagnostic Thracian- and Phrygian-type names subsequently seep in, as exemplified by *Ábas*, *Proĩtos*, and *Akrísios*, whereas at Thebes the Dionysiac Pentheus appears to be a religiously motivated interloper, cf. Schachermeyr 1983: 98; 102; 120. It seems not farfetched to connect this apparent Phrygianization of the Mycenaean royal house with the shift in ethnonym from Danaoi to *Akhaioi*, derived from an alternative PIE indication of the watery element also traceable in the river name *Akhelōios* as recorded for the northerly province of Phthia and the Phrygian noun *akkalos* “water”, cf. Katičić 1976: 58; see Haas 1966: 66-67; 84-85 for the Phrygian word in question.

<sup>31</sup>For the earliest Cretan pictorial evidence of the chariot on seals or sealings from the transition of Middle Minoan IIIB to Late Minoan IA, c. 1600 BC, onwards, see Hančar 1955: fig. XXVIIId and Crouwel 2005: fig. IVf.

dedicated”) into aspirated ones, which distinguish Greek from its closest cognates Macedonian, Illyrian, and Phrygian (cf. Katičić 1976: 58 ff.).

Note in this connection that the argument of William Wyatt which holds that the Indo-European words relating to chariotry must have been introduced in mainland Greece by the immigrating charioteers in combination with its material aspects, so that by means of deduction these latter may reasonably be held responsible for the introduction of the Greek language, is seriously undermined, as he stipulates himself, by the fact that the indigenous Middle Helladic population happens to be already of Indo-European stock and, for instance, as we will elaborate below, already familiar with the domesticated horse. This might help us to explain the fact that the inherited *centum* designation *i-go* (> ἵππος) is preserved in defiance of the tendency observed in, for example, the IE Anatolian context to substitute it for the innovatory Indo-Aryan *satem*-form *aśva-* (cf. Wyatt 1970). In line with these considerations, Peter Raulwing’s criticism of David Anthony’s thesis that Indo-European words with a bearing on chariotry were disseminated with the new style of warfare based on it is valid, as the technical terms are, as exemplified by, for instance, Mycenaean Greek and Kassite, in the main dialectally distinct (German “Einzelsprachlich”), but, as I hope to have shown in the above, this does not allow for his denial of the crucial role rightly attributed by Anthony to Indo-Aryans from the North Pontic and/or North Caspian steppe in this process altogether as instigated by Mary Littauer and Joost Crouwel’s ill-founded bias in favor of a Near Eastern origin of the chariot and, by implication, the proper way of chariotry (Raulwing 2000; Anthony 1995).<sup>32</sup>

#### **4. Northern immigrants in Greece c. 2300-2000 BC**

When we proceed with our investigation further backwards in time, it should be realized that we transgress the barrier of c. 2000 BC set to Indo-European literacy as well as, with the exception of only the scantiest of reference, to

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<sup>32</sup>For an earlier stage in the development of chariotry, note especially the cart with two *solid* wheels already propelled by horses but of which the means of control is unclear as depicted on a cylinder seal from level IIIB of Tepe Hissar, located near the southeastern edge of the Caspian sea, dated c. 3000-2250 BC, see Ghirshman 1977: 15, fig. 3.

contemporary evidence of Indo-Europeans in the historical record, which necessarily implies an increase in the level of speculation of our reconstruction of the relevant events. If we turn, then, to the final stage of the Early Bronze Age, it first of all deserves our attention that the archaeological record of the Greek mainland is characterized by discontinuity in culture, likely to be explained in terms of the arrival of new population groups from the northern Balkans and/or the North Pontic steppe. The type site for the transition from Early Helladic II to Early Helladic III, *c.* 2300 BC, is Lerna in the Argolid, expertly excavated by the Americans under the leadership of John Caskey. Here the so-called “House of the Tiles” went up in flames and was covered by a tumulus (apparently rather for monumental purposes than funereal ones), new house forms were introduced, characterized by apsidal ends, a new pottery style was developed, first hand-made only, which is baptized Minyan ware, and a new type of burial came into fashion, namely individual burials in cist graves. Furthermore, in the following transition from Early Helladic III to Middle Helladic, *c.* 2000 BC, the new features characteristic of Lerna and some other sites are also introduced at places that remained untouched in the previous transitional period, sometimes, as at Eutresis in Boeotia, after a violent conflagration. Although related cultural traits were introduced at both periods, what distinguishes the transition at *c.* 2000 BC from the previous one at *c.* 2300 BC is the presence at some sites of Matt-painted ware, originating from the Cycladic islands, and a little imported or locally imitated Middle Minoan IA ware. It is worth noting in this connection that at Lerna in a context to be dated after the destruction of the “House of the Tiles” bones have been found, first, in the Early Helladic III period, of a horse-like animal and later, in the Middle Helladic period, of a true horse (Caskey 1973).

Now, the closest parallels for Minyan ware, cist graves with individual burials and apsidal houses are, as convincingly shown by Jan Best, traceable in the northern Balkans, and, what’s more, during a period which is either simultaneous or anterior to that of their introduction into Greece (Best 1973; cf. Hiller 1986: 27, abb. 1, who adds clay anchors and stone hammer-axes to the diagnostic archaeological features of the newly introduced material culture).<sup>33</sup> If new population groups did

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<sup>33</sup>My thanks are due to professor Hiller for kindly sending me a xerox-copy of



indeed arrive, as a majority among the archaeologists is inclined to believe, then they evidently came from the north! The northern affiliations of the bearers of the Minyan culture of Middle Helladic Greece can even be further underlined by the burial tumuli found by Spyridon Marinatos in the western part of the Marathon plain, the most prominent one of which, Tumulus I, consisted of a central stone-built chamber in an inner stone circle, datable on the basis of the pottery found in it to the final stage of the Middle Helladic period, and an, in this particular case, outer stone circle of slightly later date, with secondary burials added in the tumulus heaped up over the entire monument. One of these secondary burials was reserved for a horse of the Przewalski type (Marinatos 1973) — the latter evidence having been subsequently questioned by later archaeologists (Papadimitriou 2001, with reference to the opinion of Themelis) disregarding the fact that the phenomenon of single horse burial is paralleled at Lapithos along the northern coast of Cyprus in about the same period of time (see below).<sup>34</sup> Leaving the question of the horse burial aside for a moment, the salient point for our argument is that this type of elite burial is most closely paralleled for Albania, in particular at Vodhinë and Pazhok, dating from the latest stage of the Early Bronze Age, *c.* 2300 BC onwards (Hammond 1972; Hammond 1973: esp. Pls. 28-30; cf. Čović 1986 on Illyrian prehistory more in general), and can be traced back to the Usatovo culture in eastern Romania of the latter half of the 4th millennium BC (Mallory and Adams 1997: 652 with figs.)<sup>35</sup>

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this contribution.

<sup>34</sup>For the related burial tradition of stone circles under tumulus at Nidhri on Levkas in the northwest of Greece dating to the preceding Early Helladic II (Hammond 1972: 106-107; Gimbutas 1994: 96-97, abb. 37, 1), see below. I am aware of the fact that Forsén 1992 redated the introduction of a number of the given diagnostic features in southern and central Greece (*in casu*: apsidal houses, tumuli, and clay anchors) to Early Helladic II, but, if we broaden our view and place the developments in southern and central Greece in a wider eastern Mediterranean context, it cannot be denied that the transition from Early Bronze II to Early Bronze III of *c.* 2300 BC confronts us with a serious disruption most likely to be attributed to the arrival of a substantial number of immigrants, see our table I below. The earlier infiltration of diagnostic features may accordingly be explained in terms of contacts with the target area preceding actual migration.

<sup>35</sup>Cf. also the tumulus with stone-built central burial chamber from Taŭrna near Vraca in northwest Bulgaria as depicted in Gimbutas 1994: 51, abb. 12, which is dated by Coles and Harding 1979: 136 to the Early Bronze Age, *i.e.*

and that of the North Pontic steppe along its eastern confines, where it is attested for cemeteries near Ternopol and Kherson in the Ukraine (Gimbutas 1965: 460, fig. 301; 486, fig. 322), and at Novyi Arshti in the northeastern Caucasus, the latter assigned to *c.* 2200 BC, *i.e.* the latest stage of the Early Bronze Age (Gimbutas 1973: pl. 24). For an exhaustive overview of the distribution of Early Bronze Age tumuli, see Primas 1996: 126 (= Kilian-Dirlmeier 2005: 8, abb. 79) and Kilian-Dirlmeier 2005: 165 (list); 84, abb. 78.

In attempting to relate these archaeological data to linguistics, it is of relevance to note that, as we have already hinted at in the above, the indigenous Middle Helladic population groups encountered by the invading chariot-gang of Hyksos-like background at the transition from Middle Helladic to Late Helladic I, *c.* 1600 BC, are in the main positively identifiable as southern offshoots of Phrygian and Thracian tribes.

As first observed by Stanley Casson and later elaborated by Best, the memory to a one time Thracian presence in central Greece is preserved in the myth of *Tereús* ruling at Daulis in Phokis and the epiklesis of Apollo *Sitáalkas* at Delphi — two typical Odrysian royal names, whose role in the local history can be dated back to at least the early stage of the Late Bronze Age on account of the fact that the ethnic adjective *o-du-ru-wi-jo* “Odrysian” is attested for a stirrup jar of Cretan manufacture inscribed with a Linear B legend from the destruction layer of the “House of Kadmos” at Thebes, *c.* 1350 BC. This belonged to a larger shipment of some 120 vases presumably, in view of the find of inscribed stirrup jars of similar type at Orkhomenos, Kreusis, and Gla, destined for the Theban hinterland (Farnoux and Driessen 1991: 89). This evidence is supplemented by that for Thracians more in general among the original population groups of central and southern Greece as handed down in the tradition about the war waged by the Athenian Erekhtheus or Erikhthonios against *Eúmolpos* (= Greek translation of a cultic title) and his Thracians at nearby Eleusis, which for the use of the chariot by the aggressor obviously postdates the introduction of this weapon *c.* 1600 BC and in the course of which Eumolpos and his son *Ímaros* or *Immárados* are reported to have taken refuge

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either synchronous with or anterior to the introduction of this type of grave in southern Greece.

to the court of their Thracian kinsman *Tegúrios* at Tegyra near Orkhomenos in Boeotia, as well as in the form of the gens of the *Thrakides* recorded for Delphi. Other Thracian tribes attested for the Greek mainland worth noting here are the *Ábantes* inhabiting Euboia at the time of the Trojan war, c. 1280 BC, according to Homer but probably originating from or also at home in the mainland in view of their association with *Ábai* in Phokis, which name is obviously related to that of *Ábas*, the interloper of indigenous background from the kinglist of Mycenae (see above) and in fact constitutes a southern dialectal variant, characterized by Greek *s* > *h*, of the Thracian tribal name *Sápai* or *Sapaĩoi* as attested for the inhabitants of the Aegean coast of Thrace opposite the island of Thasos, also recorded in shorthand variant *Sáoi* (< heros eponym *Sáos*) for the Thracian population of Samothrace.<sup>36</sup>

However, as rightly stipulated by Casson, there is also evidence of Phrygians among the earliest recorded inhabitants of Greece. Most famous in this respect is, of course, the case of *Pélops*, also associated with the chariot in the Olympian myth of his race against Oinomaos for the hand of the latter's daughter Hippodameia, after whom the *Pelopónnēsos* (= "island of Pelops") is named. But equally revealing appears the fact that Attica according to literary tradition was once called *Mopsopíā* after *Mópsos* or *Mópsopos* (< \**Mopsops*), a name of the same type as Pelops and recalling *Phaĩnops* as reported by Homer amongst the leaders of the Phrygian allies of Troy in its war against the Akhaians of c. 1280 BC. We have from the same source *Mérops* of Perkote, the father of the leaders of the Trojan contingent from the district of Adrèsteia, Pityeia, and Tèreia — place-names of distinct Phrygian (royal name *Ádrāstos*, see below) and Thracian (gloss *πιτύη* "treasure" and Odrysian royal name *Têrēs*) type — in this particular war, not to mention the apparent derivation of *Attikē* itself from the Phrygian divine name *Áttis*.

As we have already observed in the above, a Phrygian presence among the indigenous Middle Helladic population groups of southern Greece can also be detected by means of

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<sup>36</sup>For the *Kaíkōnes*, possibly related to the *Kíkones* (< heros eponym *Kíkōn*) inhabiting the Aegean coast of Thrace between the Bistonian lake and the mouth of the Hebros in the historical period, see further below.

their influence on the Mycenaean ruling families as founded by the leaders of the invading charioteers of Hyksos-like background like Danaos at Mycenae in the Argolid and Kadmos at Thebes in Boeotia, through intermarriage. Thus one of the sons of Pelops who ascended to the throne at Mycenae, *Atreús*, bears an ethnically diagnostic name in this respect for its correspondence to Phrygian *Otreús*, one of the commanders of the Phrygian troops mustered along the banks of the Sangarios in order to fight the Amazons at a time the Trojan king Priamos was still young enough to personally join them in battle as an ally. Another legendary Mycenaean king with a Phrygian type name is *Ádrāstos*, the ruler of Argos who headed the expedition of the Seven against Thebes sometime in the early 14th century BC (note that the destruction of the “House of Kadmos” at Thebes *c.* 1350 BC, reflected in literary tradition by the more successful assault of the *epígonoi*, serves as a *terminus ante quem*), whose name is identical to that of the ill-fated Phrygian prince *Ádrāstos*, son of king Gordias, who according to Herodotos had taken refuge in the court of Kroisos (559-546 BC) in Lydia because of fratricide. In this particular case the Phrygian connection receives further emphasis from the fact that Adrastos is stipulated to have escaped ignominiously from battle on one of his chariot horses, Arion. This is paralleled by his namesake in the Trojan War, *Ádrēstos*, one of the sons of Merops, the leader of the Trojan contingent from the district of Adrēsteia, Apaisos, Pityeia, and Tēreia along the northeastern coastal zone of the Troad, who likewise fled in utter dismay upon the breakdown of his chariot. This latter, moreover, is credited with the foundation of a cult in the plain of Adrasteia called *Némesis Adrāsteia*, in like manner as his mainland counterpart is reported to have founded the *Nemean games* in the place after which these are named situated along the road connecting the isthmus of Sikyon and Corinth with Mycenae. As a matter of fact, the region of Nemea is further characterized by toponymic correspondences with the aforesaid part of the Troad (river *Asōpós*, *Apaisantian* mountain, spring *Adrāsteia*, resembling the Trojan river name *Aisēpos* and the earlier mentioned place-names *Apaisós* and *Ádrēsteia*), and presumably the cult of a Kybela-type of mountain-goddess associated with lions and Phrygian male escorts (*Phoronis* frgm. 2 Ki) in like manner as the goddess Adrasteia or Adrēsteia venerated at mount Tēreia.

To these examples might be added the personal names *Akrísios*, *Arkás*, *Azán*, *Azeús*, *Kelainós*, *Khlōrís*, *Phórkūs*, *Phríxos*, *Proĩtos*, and *Teútamos*, the divine form of address *Khárites*, and the place-names *Azanía*, *Midéā*, *Olumpíā*, *Phríkion*, *Phríxa*, *Phríxos*, and *Phrugíā*, corresponding to Phrygian *agaritōi* “ungracious (D sg.)”, *Akrisias* (divine name), *Arkiaevais* (patronymic), *Azanoi* (ethnonym), *Bríges* or *Brúgoi* (ethnonym), *Mídās* (royal name), *glouros* “gold” (gloss), *Kelainai* (place-name), *Olumpōs* (mountain name), *Phórkūs* (personal name), *proitavos* (titular expression), and *teutous* “people”.

Just as in the case of the Thracian ethnic adjective *o-du-ru-wi-jo* “Odryian”, the ancient nature of this Phrygian layer discernable in the earliest history of Greece can be substantiated by the attestation of related forms of some of the given examples in Linear B, like *a-da-ra-te-ja* or *a-da-ra-ti-jo*, *a-te-re-wi-ja*, *ke-ra-no*, *mo-go-so*, *te-u-ta-ko-ro* or *te-u-to*, and *u-ru-pi-ja* (Casson 1968: 102-103; Best 1973; Best 1989; Woudhuizen 1989; Woudhuizen 1993a; Woudhuizen 1993b; Woudhuizen 2006a: 60; 99; 2006b: 146).

Even though Minyan cultural influence on Crete is negligible, a migration of Pelasgians from the Greek mainland to Crete under the leadership of *Teútamos* is reported by the literary sources, which, in view of the fact that the Teutamos in question is staged as the father of Asterios (< PIE *\*h<sub>2</sub>ster-* “star”), who in turn begot Minos, Rhadamanthys, and Sarpedon, the first of whom epitomizes the era of Minoan thalassocracy, *c.* 1600-1450 BC, and the second, as we have noted above, cannot be dissociated from the introduction of the chariot, *c.* 1600 BC, not to mention the fact that the third is linked with the foundation of the Minoan colony at Miletos, also *c.* 1600 BC, may reasonably be assigned to the Middle Helladic period. Considering the fact that the closely related personal name *Teutamías* is recorded for a likewise Pelasgian king of Larisa in Thessaly at the time of Akrisios’ deposition by Perseus, it may perhaps be suggested that the latter relationship coincides with the correspondence in name between the mythical ruler from the “Minyische Schicht” in the royal house of Iolkos, Kretheus, who is the father of Pelias and Neleus and hence may be dated back to a generation before *c.* 1600 BC, to that of the Cretan king whose daughter Teutamos is said to have married, also called Kretheus, in

which case cultural contacts eventually resulting in intermarriage between Crete and Thessaly during the Middle Bronze Age would be indicated (cf. Linear B *ke-re-te-u*, PY Ea 59).

However this may be, what primarily concerns us here is that Pelasgian, or more specifically Phrygian, presence in Minoan Crete is confirmed by epigraphic evidence from Minoan Linear A and the intrusive Mycenaean Linear B of Knossos. Thus Linear A votive inscriptions on a stone ladle from a peak-sanctuary at Kythera, dated *c.* 1600 BC, and two double-axes of gold and silver from a deposit in the cave of Arkalokhori in the eastern part of the Mesara valley, presumably postdating the Santorini-eruption of *c.* 1450 BC for the palace-style decoration of some of the other double-axes associated with this find, reading *da-ma-te* and *i-da-ma-te*, respectively, bear testimony of a divine name characterized by a reflex of the PIE root *\*méh<sub>2</sub>tēr-* “mother”. As this kinship term is definitely lacking in the otherwise discernable Luwian (see below) and, also in view of the fact that Linear B *ma-ka* “Mother Earth” clearly points to  $\gamma\hat{a}$  or  $\gamma\hat{\eta}$  as the Greek reflex of *\*gda-*, the divine name first mentioned can hardly be explained in Greek terms either, it may reasonably be suggested that the given Linear A evidence on PIE *\*méh<sub>2</sub>tēr-* should rather be attributed to Phrygian with its marked predilection for a *matar*-cult, the central deity of which is actually also known as *Ída hē máter* “the Idaian Mother”. If so, then with the noted restriction that the phonetic development *\*gda- > da-* “earth”, on account of the Anatolian Phrygian place-name *Gdanmaa*, only applies to the Pelasgian environment of its most southwesterly speakers (Woudhuizen 2006a: 143-146; Woudhuizen 2006b: 52-53).<sup>37</sup> Typically Phrygian as well are the personal names *mi-da* “Midas” and *ka-nu-ti* “Kanutie-”<sup>38</sup> as recorded for Linear A tablets from the

<sup>37</sup>Note that the identification of Pelasgian *da-* as “earth” receives welcome confirmation from the variants of Poseidon’s (Linear B *po-se-da-o-ne* (KN V 52 [D sg.]) < *\*potēi-dās* “Lord of the Earth”) traditional epithet *ἐννοσίδης* < Linear B *e-ne-si-da-o-ne* (KN Gg 717 [D sg.]), *ἐνοσίχθων*, *ἐννοσίγαιος* “earth-shaker”, cf. Janda 2000: 257. KN = Knossos.

<sup>38</sup>Cf. the patronymic *Kanutieivais* in P-03 (P = Pterria); its occurrence in form of *Kanuties* (G sg.) in an Oscan inscription (Vetter 1953: no. 126) may plausibly be ascribed to Phrygian adstrate influences detectable among the surge of west-Anatolian settlers responsible for the development of the Etruscan culture, cf. names like Adrastos (Etruscan *atresθe*), Ascanius, Marsyas,

modest archives of the annex to the palace of Phaistos at Hagia Triada (viz. HT 41.4 and 97a.3),<sup>39</sup> presumably dating to the same period as the major Linear B ones of the palace at Knossos of c. 1350 BC.

In these latter, then, we come across personal names like *mo-go-so* “Mopsos”<sup>40</sup> and, possibly, *te-u-to* “Teutos”, and the color indication *ke-ra-no* “dark”, which, as we have seen in the foregoing, are intimately linked up with the Phrygian deep-layer in the history of Greece (but note that the onomastic element *Teuta-* or *Teuto-* < PIE *\*teutā-* “society, folk, people” had a much wider distribution in view of its occurrence in, for example, Thracian [*Tautomedes*, etc.] and Illyrian [*Teutiaplos*, see Krahe 1955: 63] personal names as well, which, of course, diminishes its diagnostic value in the present context). Furthermore, it deserves our attention in the present connection that the Knossian Linear B texts also bear witness of the social organization *du-ma*, from which the composite titles for cult officials *me-ri-du-ma-te* and *po-ro-du-ma-te* as attested for the Pylos tablets are derived, and which in the field of onomastics generated the related personal name *Dūmas*, attributed by Homer (*Odyssey* VI, 22) in the Cretan context to a Phaiakian of Skheria (= the ancient name of modern Hagia Triada, see Woudhuizen 1992: 42-47). This attention is worthwhile because, as convincingly demonstrated by Wolfgang Fauth (1989; cf. Lubotsky 1997), Linear B *du-ma* cannot be dissociated from Phrygian *duma-* (B-01)<sup>41</sup> or *doum(e)* (D sg.) denoting some sort of official organization which in later times evolved to a religious association of women and

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and Sergestus (< Phrygian *Surgastoy* [D sg.] as per Beekes 2002: 214).

<sup>39</sup>HT = Hagia Triada; numbering of the Linear A texts according to Brice 1961.

<sup>40</sup>Note that in the Luwian hieroglyphic inscription from Çineköy, the royal name *Muksas* appears in combination with that of *Awarkus*, whose name has been analyzed by Forlanini 1996 as a reflex of Cretan (*W*)*rhākios*, in turn related to the Phrygian ethnonym *vrekun-*. Interestingly, as duly noted by Jasink and Marino 2008: 408-409, this latter personal name is already attested in variant form characterized by *a/o*-vowel change as *wo-ro-ko-jo* for a Linear B inscription from Pylos (PY Sa 763). If we are right, then, in our analysis of the ethnonym *Akhaioi* as derived from Phrygian *akkalos* “water” (see in the above), it so happens that with the royal names *Muksas* and *Awarkus* and the ethnonym *Hiāwa* we are confronted in the Çineköy text with a high concentration of Greek onomastics, indeed, but of ultimate Phrygian background.

<sup>41</sup>B = Bithynia.

which, in view of the mention by Homer (*Iliad* XVI, 718), again, of a Phrygian king *Dúmas* from the region along the banks of the Sangarios, can likewise be shown here to have a reflex in the realm of onomastics. Next, it might reasonably be argued that the place-name *da-wo*, which likely refers to the sanctuary of modern Hagia Triada as distinct from its civil quarters which we have already seen to be identical with Skheria,<sup>42</sup> is related to Phrygian *davo-* “god” (M-06), probably a variant-reflex of PIE *\*diyēw-* otherwise represented by *devo-* or *deo-* (cf. Woudhuizen 1993a: 14; Woudhuizen 2008-9). Yet another Phrygian type of place-name encountered in the Mesara valley is *Górtūs* or *Górtūn* or *Gortyns*, already known from Linear B in form of *ko-tu-we* (D sg.) at Pylos (Hiller 1996: 81-82) and, possibly, *ku-ta-to* (< *\*Gurtanthos* on the analogy of *Tīruns* < Linear B *ti-ri-to* = *\*Tirunthos*) at Knossos, which corresponds to Thessalian *Gurtōnē* and Phrygian *Górdion* and as such likewise constitutes a reflex of PIE *\*g<sup>h</sup>ord<sup>h</sup>-* “town”.

Finally, it is worthy of note here that Apollonios Rhodios, *Argonautica* III, 168-169, preserves the memory to *Ádrāsteia* who is reported to have nursed Zeus after his birth in the Idaian cave — no doubt a reminiscence of a former local cult of the Phrygian Kybela-type of mountain-goddess we already came across in the region of Nemea in the Argolid and mount Tēreia in the northeastern part of the Troad.

It should be realized, however, that the Linear A texts from Hagia Triada and their Linear B counterparts from Knossos, as rightly pointed out by Best (1989), incidentally also provide evidence of Thracian personal names, as exemplified by *pi-ta-ka-se* “Pittakas” (HT 21a.1) or *pi-ta-ke-si* “Pittakēs” (HT 87.2) and *go-wa-ke-se-u* “Goakseus” (KN As 602), which, though, in line with the ethnic adjective *o-du-ru-wi-jo* “Odryasian”, are rather to be explained in the frame of reciprocal contacts with the Greek mainland (or even with the southern parts of Thrace in the north Aegean itself, see below) than as the result of some otherwise unrecorded immigration of more substantial nature as we have just argued to be viable in the Phrygian case (but the possibility that these migrants consisted of a mixture of Phrygian and Thracian

<sup>42</sup>Woudhuizen 1992: 42-47, with reference to the analogy provided by the distinction of the Knossian sanctuary *da-pu<sub>2</sub>-ri-to-* “Labyrinth” from the town *ko-no-so* “Knossos” in the Knossos tablets; note also, with Hiller 1982: 56-58, the occurrence in Linear B of *i-je-ro iερόν* “shrine” alongside *wa-tu (ϕ)ᾶστν* “city”.



elements can, of course, considering the contiguous nature of their habitats on the continent, not be discarded out of hand).

In contrast to the situation in the Cretan context, which, as we have noted previously, is, admittedly much to our regret, rather uninformative in this respect, the correlation between the later Early and Middle Helladic so-called Minyan culture and population groups of Thraco-Phrygian background as observed for the Greek mainland can be substantially enhanced by the relevant evidence from the Anatolian theatre. As has been duly acknowledged in the past, the pottery of the Trojan civilization in the northwestern corner of Asia Minor, especially from the beginning of Troy VI *c.* 1800 BC onwards, is so closely related to that of Middle Helladic Greece that it is actually called Minyan ware by a number of archaeologists, one among them being one of the illustrious excavators of the site, Carl Blegen (1963: esp. 111). Now, owing to the merit of Leonid Gindin (1999) we are in the position to positively identify the language of the Trojans insofar as this is revealed by Homeric data as of Thraco-Phrygian nature. Particularly instrumental to this purpose are names like the *Skaiaí* gates, *Kebríonēs*, *Laomédōn ho Phrúks* and his wife *Strumō*, *Páris*, the Phrygian descent of Priamos' wife *Hekábē*, and the correspondence of the first element of *Príamos* to that of the place-names *Príāpos*, *Priēnē*, and Phrygian *Prietas*, which is related to Phrygian *prieis* “carae” < PIE \**priyá-* “(be)love(d)” (cf. Woudhuizen 2006a: 108, note 520).<sup>43</sup> In line with this accomplishment, it deserves our attention that the Trojan cultural influence as deducible from the distribution of its distinctive variant of Minyan can be shown to have radiated to the east at least up till the confines of the

<sup>43</sup>If Luwian *Pariyamuwas* indeed fits into the latter sequence, as suggested by Calvert Watkins (1986: 54), it must likewise be assumed to show a reflex of the PIE root in question, which, of course, is altogether possible. Note that the southern Balkan affinities of the Trojan royal house as reconstructed in Greek literary tradition, see Pauly-Wissowa Realencyclopädie, s.v. *Dardanidae*, are further stressed by names like *Dárdanos* (hence the ethnonym *Dardanians*, recorded in Egyptian in form of *Drdny* as among the Hittite allies at the battle of Kadesh, 1274 BC) and *Erikhthónios* (cf. Phrygian *kton* “earth” as recorded alongside the regular voiced variant *gdan* of the same root [usually assumed to originate from PIE \**d<sup>h</sup>eǵ<sup>h</sup>ōm-* by metathesis] mentioned earlier, see Brixhe and Drew-Bear 1997) with cognates among Illyrian ethnonyms, see Detschew 1976, s.v. *Dárdanoi*, and personal names of rulers of the indigenous Middle Helladic population of Attica, respectively.

Sangarios river already during the Middle and Late Bronze Age (see map by James Mellaart as reproduced in Palmer 1965: 326, fig. 46). Contrary to the opinion of Leonard Palmer, who used this argument in defence of his Luwian theory as to the identity of the pre-Greek population groups, this distribution pattern of the Trojan type of Minyan ware, if related to that of Luwian hieroglyphic inscriptions from about the same chronological horizon, for their being mutual exclusive rather than showing any overlap, seriously indicates that the northwest Anatolian culture is *distinct* from its Luwian, or, more in general, IE Anatolian counterpart (cf. Ruijgh and Houwink ten Cate 1962: 286). This inference coincides with the fact that according to the same source on which the Thraco-Phrygian nature of the Trojan language can be based, viz. Homer, the hinterland of Troy up till the confines of the Sangarios river is already inhabited, alongside and/or in close association with their Thracian kinsmen, by Phrygian population groups at least from the time of about a generation before the Trojan war of *c.* 1280 BC, *i.e.* the late 14th century BC, onwards, when Priamos is reported to have come in person to the aid of his Phrygian allies Otreus and Mygdon who had mustered their forces along the banks of the Sangarios in order to ward off the threat by the Amazons (Homer, *Iliad* III, 184-187).

The underlying assumption that Homer's recollection of the ethnic situation in northwestern Anatolia constitutes a genuine reflection of Late Bronze Age realities can to some extent be supported by contemporary sources, like the mention of the Phrygian personal name *Muksas* in the so-called "Indictment of Madduwattas" from the reign of the Hittite great kings Tudḫaliyas II (1390-1370 BC) and Arnuwandas I (1370-1355 BC) in the early 14th century BC, which, as must be admitted, occurs in a badly mutilated context, but, given the fact that this text is preoccupied with the political situation in western Anatolia, may plausibly be inferred to have a bearing on the latter region (Götze 1928: 36-37, Vs 75). To this comes the attestation of the likewise Phrygian personal name *Dáskulos* in the form of *Taskuwalis* on a Luwian hieroglyphic seal of unfortunately unspecified findspot (but compare the related Kaskan place-name *Taskuliya*), assigned to the 13th century BC for stylistic reasons

(Mora 1987: group VIb 1.22).<sup>44</sup>

More revealing in this connection, however, is the fact that the infiltration of Phrygians originating from the European continent into the hinterland of Troy up till the confines of the Sangarios already during the Late Bronze Age forms part and parcel of a much wider pattern of similar population movements affecting the entire Pontic northern coastal zone of Anatolia from the aforesaid hinterland of Troy in the west to Kolkhis in the east. For the regions of Paphlagonia, the coastal zone east of the mouth of the Halys, and the Hittite province Azzi-Ḫayasa to the northeast of Boğazköy/Ḫattusa, this process can be neatly followed in the Anatolian documentary evidence. Thus, it so happens that in the period of the Assyrian trading colonies and the Old Hittite kingdom the sphere of influence of rulers like Anittas (19th century BC) and Ḫattusilis I (1650-1620 BC) definitely includes the Pontic coastal zone as demonstrated by the prominent role of Zalpa or Zalpuwa, identified with either Sinope or İviztepe, but certainly situated along the north-Anatolian coast, in the records pertaining to the respective reigns of these monarchs. But after the Old Hittite period, *i.e.*

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<sup>44</sup>Note that even if this seal, like the one from Troy discovered in a layer of period VIIb2 dated to the late 12th century BC, see Latacz 2001: 68, could be shown to originate from northwest Anatolia where this name, in view of its prominence among the members of the royal house of the Mariandynians in Bithynia, appears to be particularly at home, this would not undermine the validity of our distinction between a Luwian or, more generally, IE Anatolian cultural zone on the one hand and a Trojan one on the other, as the distinct population groups of these respective cultural regions are stipulated in the contemporary sources to have been in contact with each other by means of war, alliance, dynastic marriage, etc., to which palette no doubt trade must be added. In line with this observation, it is worth noting that there can be found nuclei of Luwian population groups in the Troad, like the Lycian followers of Pandaros from the region of Zeleia along the Aisopos and the branch of the Trojan royal house represented by Ankhises and Aeneas, being particularly associated with the territory of the Leleges and/or Kilikes in the plain of Adramytion, where these inhabited places like Thebe, Lyrnessos, and Pedasos. Conversely, the southern extension of Trojan Minyan ware along the coast of Mysia and Lydia may be linked up with the infiltration of Pelasgians from the Greek mainland who, in view of personal names like *Píasos* and *Nánas*, were not numerous enough to cause a language shift and went over to the indigenous Luwian, while, as indicated by the Lydian divine names *Leús* and *Lamêtruś*, radiating in the sphere of religion only their cult of Zeus (considering the typical Anatolian *d/l*-change in form of *\*Deu-*) and Demeter, see Woudhuizen 2006a: 93; 99-100; 143.

from c. 1500 BC onwards, the region of Zalpa was permanently lost to the Kaska, who, on the basis of onomastic (*Ashalapas*, *Kuriyallis*, *Taskuwalis*, *Pittaggatallis*, *Pittaparas*, *Pendumlis*, *Huhazalmas*) and toponymic (*Midduwa*, *Duma* or *Tuma*, *Kurtalisa*, *Pargalla*, *Zidaparha*, *Taskuliya*, *Zagapura*, *Aripsa*, *Kappuppuwa*, *Kapperi*) evidence, can positively be identified as Phrygians (cf. the onomastic elements *aska-*, *kuriya-*, *dasku-*, *mid-*, *duma-*, *gord-*, and *briga-*) and Thracians (cf. the onomastic elements *pitta-*, *-para-*, *bend-*, *-pori-*, and *-zalmi-*, and the place name *Arısbē*) of Aegean background (cf. the Cretan variant of the Luwian divine name Kupapa, \**Kapupu*, and the *Kábeiroi* or “Great Gods” of ultimately Theban antecedents), having intermingled with the local IE Anatolian population (onomastic elements *zida-* or *ziti-*, *huha-*, *-ali-*, and *-talli-*) (von Schuler 1965; Woudhuizen 1993b; Woudhuizen *forthc.* 1). Similarly, it is generally acknowledged that the Palaic language as once spoken by the IE Anatolian population of Paphlagonia had already ceased to be a living speech at the time of the earliest texts recording it from the 16th century BC (Carruba 1970: 1-4; Melchert 1994: 10), which fact may well receive meaningful explanation within the frame of the progressive infiltration of Paphlagonia by new settlers possibly of Thracophrygian background. At any rate, the attestation of the Phrygian royal name *par excellence*, Midas, for a disloyal vassal of the Hittites in the region of the northeastern province of Azzi-Hayasa in a text from the reigns of Tudhaliyas II (1390-1370 BC) and Arnuwandas I (1370-1355 BC), *Mita of Pahhuwa*, may reasonably be assumed to indicate Phrygian penetration in this particular part of the north-Anatolian Pontic coastal zone as well.

This latter inference, finally, receives further emphasis from the fact that the Armenian colonization of Kolkhis, which, as we have already noted earlier, is specified by Herodotos as an *apoikia* of the Phrygians, is generally acknowledged to be reflected in the myths about Phrixos and the golden fleece and the Argonauts. Insofar as its initial stage is concerned this event can at least be dated back to the earlier phase of the Late Bronze Age on the basis of the chronological background of the saga of the Argonauts, which not only has been shown to preserve the memory of typical Hittite (*i.e.* Late Bronze Age) rites concerning the legitimization of royal power (Haas 1978) and to be

onomastically firmly rooted in the Mycenaean period (Hiller 1991), but also happens to be intricately linked up with the “Minyische Schicht” in the royal house of Iolkos in Thessaly as represented by Pelias, who as a brother of Neleus can safely be assigned to the period of *c.* 1600-1400 BC (cf. Casson 1968: 104 based on Strabo, *Geography* 11.14.12).<sup>45</sup>

Within the frame of our previous reconstruction of the Bronze Age history of Greece, it lies at hand to assume that the noted tendency of Phrygian and Thracian population groups from the southern Balkans to migrate to the Pontic coastal zone of northern Anatolia was set into motion by the arrival of the chariot fighters of Hyksos-like background in southern Greece *c.* 1600 BC and the resulting displacement of the indigenous Middle Helladic Phrygian and Thracian tribes. At any rate, it is worth noting that Bronze Age contacts between the Aegean on the one hand and the Pontic region on the other are otherwise manifested in:

- (1) the distribution area of Cretan Linear A inscriptions, which runs from Samothrace (SA Wc 1, dated to the 18th century BC; cf. Facchetti 2002: 138),<sup>46</sup> Drama (DRA Zg 1 from a Late Helladic IIIB/C deposit, but perhaps to be assigned to the earlier date of the 15th or 14th century BC, see Fol and Schmitt 2000), and Troy (TRO Zg 1-2, dated *c.* 1800 or 1700 BC, see Godart 1994; cf. Faure 1996 for two more inscriptions, assigned to about the 16th to 14th century BC) in the north Aegean all the way to Eski Samsun or Amisos (without proper find-context, see Bossert 1942: abb. 6, also included in Brice 1961: pl. XXIX, V3) at about the middle of the Pontic coast of north Anatolia; and
- (2) Linear B forms from the Knossos and Pylos tablets related to place-names in the north Aegean (*i-mi-ri-jo*

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<sup>45</sup>Note also the *Scholium* to Apollonios Rhodios, *Argonautica* I, 1024 which traces the origin of the Armenian tribe of the *Mákrōnes* back to Pelasgians from Euboia and hence further underlines the Pelasgian, *i.e.* Thracio-Phrygian, nature of the colonization of Armenia.

<sup>46</sup>Note that Minoan influence in the north-Aegean region is underlined by the tradition according to which Rhadamanthys gave Maroneia, situated on the Thracian coast opposite Samothrace, to Euanthes, the father of Maron (*Fragmente der griechischen Historiker* B3, 468, fr. 79), see Tiverios 2008: 124, note 657 (my thanks are due to my friend and colleague Frits Waanders for kindly presenting me with a copy of the book in which this contribution appeared).

“Imbrian”, *ra-mi-ni-jo* “Lemnios” and *ra-mi-ni-ja* “Lemnians [F]”), Troad (*si-mi-te-u* “Smintheus”, *to-ro* “Tros” and *to-ro-ja* “Trojan [F]”), Thracian Khersonesos (*ku-pa-si-ja* “Kupasian [F]”),<sup>47</sup> Hellespont (*ra-pa-sa-ko* “Lampsakians” and *ra-pa-sa-ko-jo* “of Lampsakos [G sg.]”), Propontis (*pe-ri-te-u* “Perintheus”), and southern Pontic region (*pa-pa-ra-ko* “Paphlagon”, *ko-ki-da* “Kolchidas” and *ko-ki-de-ja* “Kolchideios”).<sup>48</sup>

In addition, these contacts are also reflected in the archaeological record in the form of, for instance, imitations of Mycenaean and Trojan pottery reported for Georgia (Latacz 1988). (Note that as one of the consequences of the Balkan origin of the Armenians the *satem*-nature of their language must be considered as a secondary development resulting from longstanding and close contacts with the Iranians in their new habitat.)

It goes without saying, of course, that the earliest Phrygian and Thracian immigrants along the northern coastal strip of Anatolia as discussed in the foregoing were substantially reinforced by kinsmen from the European continent during the period of the upheavals of the Sea Peoples at the end of the Bronze Age, *c.* 1200 BC, as indicated in particular by the introduction of the so-called “Buckel Keramik” characteristic of Troy VIIb1-2, radiating at least to the later Phrygian capital Gordion, and the forward thrust of large numbers of Muski and Kaska into the east-Anatolian border zone with Assyria documented in the annals of Tiglathpileser I (1115-1077 BC).

As an interim conclusion of our discussion of the events at the transition from Early Helladic II to Early Helladic III, *c.* 2300 BC, it may safely be inferred that the newcomers in southern Greece from the northern Balkans and/or North Pontic steppe were, insofar as the evidence allows us to determine, Phrygians and Thracians, which means representatives of our innovatory group B among the Indo-

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<sup>47</sup>F = feminine.

<sup>48</sup>Ventris and Chadwick 1973: glossary, s.v.; cf. Parker 1999: 496; Palaima 1991: 280; 307; Plath 1994: 403; Hiller 1991: 214; for *Qulha* “Kolkhis” as a reference to the region east of Trabzon near Batum in an Urartian text of Sarduri II (756-*c.* 730 BC), see Salvini 1995: 66-67; cf. maps 1-2 of pp. 242-245; cf. Woudhuizen 2009: section III.2.

European language family, characteristic of phase II in the latter's development, *i.e.* before the shift of palatovelars to affricates or spirants typical of Indo-Aryan. This same verdict also applies, as we have just seen, to the bearers of the Minyan culture in northwest Anatolia, while in the Albanian context the introduction of the North Pontic steppe burials within stone circles under tumuli comparable to the ones found in Middle Helladic southern Greece may likewise be attributed to speakers of our group B, namely the Illyrians.

### **5. Northern immigrants in Anatolia and the Levant *c.* 2300 BC**

If we turn our attention from the Greek mainland to Anatolia, it so happens that the transition from Early Bronze Age II to Early Bronze Age III *c.* 2300 BC here also is marked by (for the adherents of the Anatolian homeland theory ominous) signs of discontinuity in the cultural development, be it — apart from the evidence for destruction this usually entails — of a different kind from the ones noted in the Greek context thus far. Of relevance in this connection is first of all the fact that the famous royal tombs of Alaca Höyük in the heartland of the later Hittite kingdom, dated to *c.* 2300-2100 BC, have recently been convincingly shown by Nathalie Tschora to be diagnostic of immigrants from the Kura-Araxes and/or Maïkop-Kuban region of, respectively, the southern and northern Caucasus to the east. This is indicated by:

- (1) the type of grave, usually designated as shaft graves but in actual fact chamber or house tombs with a stone floor and wooden roof, which is most closely paralleled for the likewise royal burial at Maïkop on the steppe side of the Caucasus mountain range during the immediately preceding period (*c.* 2500 BC), the latter certainly under a tumulus as plausibly suggested for its counterparts at Alaca Höyük;
- (2) the inventory, characterized by symbolic weapons (hammer-axes and daggers) of gold and bronze and the well-known bronze (sometimes in combination with gold, silver or electrum) standards topped by solar discs with figurines of bulls and stags inside or alternatively by bulls and stags all by themselves perhaps once forming part of the accoutrements of entirely disintegrated four-wheeled wooden funereal wagons, which recall similar weapons from the Russian steppe region and, more specifically, the

bull and stag protomes and bronze standard with wheel-formed pendant from Maïkop, again, and Tsarskaya and other Kuban burials, as well as bronze figurines of bulls and stags from the inventory of graves at Lenkorân and Agha-Evlar in the southern part of the Kura-Araxes region dating from the late 4th or early 3rd millennium BC; and

- (3) the burial rites typified by the use of ocre and sacrificial animals (pairs of bovids, probably the ones who drew the funereal wagon) of which only the head and hoofs are deposited, which customs, just like the type of grave with its wooden roof and tumulus and the hammer-axes and particularly the representations of stags among the inventory, are definitely of North Pontic and/or North Caspian steppe antecedents (Tschora 2004).

If we realize, then, that, as commonly believed, the Alaca Höyük standards were cult objects representing deities (cf. Özgüç 1948: 104; Yakar 1985: 249; Börker-Klähn and Krafzik 1986; guide of the *Museum of Anatolian Civilizations* of 2002 ad fig. 82) and that, thanks to Emilia Masson (1991: esp. 232), the ancient Indo-European trifunctional religious ideology as embodied by the sun- (F1), bull- (F2), and stag-god (F3) has been demonstrated to be faithfully preserved by the Hittites and to be even traceable during the intermediate period between that of the Alaca Höyük burials and the Old Hittite kingdom for a text from the Kültepe-Kanesh period featuring the stormgod of Zippalanda, *i.e.* the Middle and Late Bronze Age name of Alaca Höyük according to Maciej Popko (1994: 13), in second position, there can be no doubt that the immigrants from the Caucasus region arriving at Alaca Höyük during the 23rd century BC, as well as their colleagues from related burials at Horoztepe and Mahmatlar dating from the same chronological horizon, were in fact ancestors of the Hittites. This latter inference calls to mind the observation made by Ferdinand Sommer already sixty years ago that the Hittites had preserved the memory of a former habitat in a ritual text from the reign of great king Muwatallis II (1295-1271 BC) according to which the sun rises from the sea, which eminently suits a Caucasian setting of their homeland where the sun indeed comes up from the Caspian sea. Similarly, it goes a long way to help us to explain the fact that the east-Anatolian province of Isuwa (= region of modern Elaziğ east of



the upper Euphrates) with towns like Ḫatrā and Ḫemmuwa was still considered an integral part of the Hittite realm in the earliest phase of the Old Kingdom period, whereas this was of only marginal interest at later times, being located in a border zone which was actually outside the sphere of influence in times of weakness of the regime and drawn into the orbit of the Hittites' eastern neighbors, first Mittanni and later Assyria. Finally, the Caucasian origin of the Hittites puts us in a position to comprehend their former sunoikism with the Manda-people, who according to a law text in the past had, like other formerly privileged groups including the men from Ḫatrā and Ḫemmuwa in the province of Isuwa, been exempt of feudal obligations. They are to some extent historically tangible as they feature under the name of *ummān-manda* "Manda horde" in the so-called "Kuthaeon Legend of Narām-Sin" of Akkad (2291-2255 BC) as northern mountain dwellers bringing down with their raids the latter's illustrious empire and even taking possession of its capital Babylon only to be expelled from it more than a century afterwards by one of Narām-Sin's successors, the king of Uruk Utu-khegal (2120-2114 BC) (Sommer 1947: 1-7; cf. Drews 1988: 226-230; Gadd 1971). Now, the ominous Kuthi or Gutī of this legend, whose homeland in the mountainous lower Zāb region of western Iran in a later text from the time of Hammurabi (1792-1750 BC) was also addressed as Tukri, have on the basis of these two variant names been convincingly identified by Walter B. Henning (1978) as Tocharians, who inhabited the Tarim basin along the western border of China at the time from which the documents in their language stem, *i.e.* from the 5th or 6th century AD onwards, and who designate themselves in these texts as *Kučī* (< Gutī) or whose language is alternatively called *Tocri* by an Uyghur scholiast (cf. Mallory and Mair 2000: 280-282). It deserves our attention in this connection that the validity of the given legendary information from the reign of Narām-Sin of Akkad receives further emphasis from the fact that this king, like his predecessor Sargon I (2371-2316 BC), is also reported to have been in contact with Anatolia apparently already before the arrival of the ancestors of the Hittites in the region of the Halys bend as among the coalition of his Anatolian adversaries consisting of as many as 17 kings is staged the indigenous Ḫattic king Pamba (Sommer 1947: 11; cf. Gurney 1990: 14-15; 149). As it seems, then, the Kura-

Araxes region of the southern Caucasus had been infiltrated by speakers of an Indo-European tongue at least as early as before the 23rd century BC if not actually from the final stage of the 4th millennium BC onwards (see further below), who may plausibly be identified as the ancestors of the Hittites and the Tocharians, *i.e.* representatives of our conservative group A, living together in some form of symbiosis here until the time of their dispersal at the end of the reign of Narâm-Sin of Akkad, when the former group moves to the west into the Halys bend in central Anatolia and the latter goes through Mesopotamia to the east, passing Tochristan in Bactria along the route, where, considering its name in later Greek sources, it may have left some traces, in order to find its final destination in the Tarim basin. This scenario does not allow, however, for the localization of the Indo-European homeland in the Caucasus as advocated by Gamkrelidze and Ivanov (1995: 850-851), because the diagnostic cultural features clearly indicate that these particular speakers of an Indo-European tongue ultimately originated from the North Pontic and/or North Caspian steppes and therefore must be assumed to have split off from the main body of speakers of this language family at least before the 23rd century BC if not actually from say *c.* 3100 BC onwards.

In regard to southern and western Anatolia, there is, as duly stressed by James Mellaart (1971: 406-410), in general large-scale evidence for destruction of settlements from the beginning of Early Bronze Age III onwards (note the destruction by fire in this period of Troy in the northwest, Karaođlan near Ankara, Karataş-Semayük in Lycia, and Tarsus in Cilicia, see Alkım 1969: 81-128; on Tarsus, see esp. Goldman 1956: 32), but the subsequent lack of evidence for reoccupation, which induced Mellaart to the assumption that the affected regions became the grazing grounds for nomads, is not particularly helpful in identifying the perpetrators by positive criteria. Nevertheless, at those sites where reoccupation is indeed recorded, as at Tarsus in Cilicia, the new era is marked by the distribution of the Trojan *depas amphikupellon* up to the confines of Gedikli in the border zone between Cilicia and North Syria (Alkım 1969: 96-97; 113), which suggests maritime contacts directed from the northwest to the southeast. This suggestion coincides with the impression one gets by a glance at the synchronous

distribution of catacomb graves, which are of definite North Pontic steppe antecedents in view of the parallels from the lower Don and Manych areas confidently assigned to the period of *c.* 2450-2250 BC on the basis of calibrated radiocarbon dates (Gimbutas 1970; Gimbutas 1973), in the eastern Mediterranean all along the outer margins of the Anatolian subcontinent, covering various regions in eastern Greece, Crete, Cyprus, Lebanon (Byblos),<sup>49</sup> and present-day Israel in the southern Levant. Especially the latter case appears to be instructive, since the 177 catacomb graves from the period of *c.* 2300-2000 BC dug up at Jericho by Kathleen Kenyon (1960; *eadem* 1965), which she rightly attributes to Indo-European settlers from the North Pontic steppes, may plausibly be ascribed to the Biblical Hittites as reported for nearby Hebron in the story of Abraham's burial of his wife Sarah in *Genesis* 23:1-20. Even though it must be admitted that the names of the sons of Heth are without exception of Semitic background, which can, of course, easily be accounted for in terms of their merging with the much more numerous local population, it deserves our attention in this connection that the presence of speakers of an Indo-European tongue in the region in question is further underlined by linguistics in the form of the river name *Jordan*, the second element of which shows a reflex of PIE *\*dānu-* as attested for Old European and North Pontic river names referred to earlier, and the name of Abraham's wife *Sarah*, which cannot be dissociated from PIE *\*sor-* as traceable, for example, in IE Anatolian female formations in *sara-* like *ḫassusara* "queen" and *iḫasara* "mistress" recorded already for the Kültepe-Kanesh texts from the first centuries of the 2nd millennium BC.

The relationship between catacomb graves on the one

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<sup>49</sup>Note that Byblos and Ugarit are included in the list of places characterized by a destruction layer *c.* 2300 BC, and subsequently characterized by cultural traits attributed by Claude Schaeffer to the "torque-bearers", specialists in metal working presumably responsible for the introduction of tin-bronze, originating from the region of Bohemia in central Europe and likely to be identified as proto-Celts, see Woudhuizen 2006b: 144-145. Moreover, the Middle Bronze Age royal tombs at Byblos are, notwithstanding the Semitic nature of the names of the kings buried in them, decidedly of the catacomb type. Against this backdrop, it deserves our attention that the local Phoenician dialect as preserved in the Byblos script shows some remarkable Indo-European substrate influences, see Woudhuizen 2007: 734, note 11.

hand and speakers of an IE Anatolian tongue on the other established in this manner appears to be valid in the context of the insular cultures of Cyprus and Crete as well. To start with Cyprus, it so happens that catacomb graves — one even being a twin catacomb-grave — dating from the Early Cypriote period, which according to Hans-Günter Buchholz begins *c.* 2300 BC (de Jesus 1976: 226), have been discovered at Vounos on the northern coast (Steel 2004: 140). In this particular case the North Pontic origin of the immigrants responsible for their introduction appears to be emphasized to a great deal by the single horse burial of Middle Bronze Age date found at nearby Lapithos (Gjerstad 1926: 81; Herscher 1978: 793), which in fact suggests a special bond between the owner and the animal, since the horse is abundantly represented by bone material in the former region already during the preceding period of the Early Bronze Age and likely to have been domesticated here and used for riding and drawing light vehicles like the chariot. The use of the horse for chariot locomotion, as we have seen in the above, is ascertained for *c.* 2000 BC by the Krivoje Ozero find in Kazakhstan, whereas its use for riding (however deficient this may have been, on which see further below) seems to be at least strongly suggested by the phenomenon of single horse burial we are presently confronted with and have already noted to be paralleled for the North Pontic type of burial at Marathon in Greece from about the same chronological horizon (cf. Bökönyi 1978; Lichardus and Lichardus-Itten 1998). In any case, the language of the Cyprian population as documented by texts in the Cypro-Minoan script dating from the final stage of the Bronze Age, say *c.* 1200-1180 BC, can be positively identified as a Luwian dialect most closely related to Luwian hieroglyphic and Lycian (Woudhuizen 1992; Woudhuizen 1994), a verdict which also applies to the later Eteo-Cyprian as represented by a bilingual inscription with Greek in the Cypriote Syllabic script from Amathus dated to the final decade of the 4th century BC (see Woudhuizen *forthc.* 4), so that the foreigners of North Pontic origins responsible for the introduction of the catacomb graves in the island, with some reservations due the time-gap of about a millennium,<sup>50</sup> here

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<sup>50</sup>The given time-gap can now be diminished by half a millennium if we bring into play seals with a local Cyprian form of Luwian hieroglyphic dating from the late 18th century BC onwards, see Woudhuizen 2009: appendix III.

again may well come into consideration as ancestral speakers of IE Anatolian.

Similarly, the archaeological record of the island of Crete bears testimony of some measure of discontinuity at the end of the corresponding Early Minoan II period, *c.* 2300 BC, as the flourishing settlements at Vasiliki near the bay of Mirabello and Myrtos (Fournou Korifi) along the south coast were destroyed by fire and the ruins of the first covered by simple hovels and that of the second by a peak-sanctuary — a completely new phenomenon for the island, paralleled for the same period at Petsophas along the eastern coast (Branigan 1988: 103) and, at a later date and outside the context of the island, for Anatolia (as, for example, in case of the local cult of Tarsos on “Mount Ishara”, see Haider 2006) and Palestine (think in this connection of the Biblical Moses climbing up the mountain to have a conversation with God). In line with these observations, and against the background of the aforesaid developments in Cyprus and the Levant at the time, it seems not farfetched to assume that the catacomb grave reported for Mavro Spelio, a cemetery in the neighborhood of Knossos, which unfortunately lacks a proper dating, should be assigned to Early Minoan III — perhaps as a *terminus ante quem* (Zanotti and Rhine 1974: 341, fig. 10). In like manner, the earliest evidence for the horse, if rightly identified as such, as presented by an Early Minoan seal may plausibly be chronologically finetuned as belonging to Early Minoan III (Hood 1971: 129, plate 106), whereas welcome additional evidence for the horse during this early period is provided by an ivory seal from Arkhanes found in a stone-built chamber tomb dated to the transitional period from Early Minoan III to Middle Minoan I, *c.* 2000 BC (Sakellarakı 1997: 326-330).<sup>51</sup> If this is correct, it naturally follows that the Old Indo-European river names like *Iárdanos*, *Mesápios* (*Geographi Graeci Minores* I, p. 43), and \**Amnis* as exemplified by the related place-name

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<sup>51</sup>The seal in question (CHIC # 315), which in my opinion can best be described as an Anatolian stamp-cylinder seal adapted to the local Cretan glyptic tradition, alongside the images of horses also bears testimony of yet another instance of the Cretan hieroglyphic libation-formula *a-sa-sa-ra-me* “oh Asherah”, already known from other seals found in the same location and stemming from the same chronological horizon, and no doubt had belonged to a top ranking official, if not the king himself, during the latter’s lifetime, in this manner stressing the elite nature of the rare evidence for horse keeping in the eastern Mediterranean region at the time.

Amnisos are also presumably introduced in this particular period, though an earlier date cannot be excluded beforehand (see further below). Whatever the merits of these latter suggestions, fact is that as soon as the Cretans become literate with the introduction of the hieroglyphic script (of which the main body of the signary is derived from contemporary Middle Bronze Age Luwian hieroglyphic, see Woudhuizen 2009: section I.1) from *c.* 2000 BC onwards and the subsequent development of Linear A from *c.* 1730 BC onwards, their primary language as most prolifically documented for the longer hieroglyphic texts like that of the Phaistos disc and the double-axe of Arkalokhori from the early 14th century BC and as to be carefully distinguished from their simultaneous use of Semitic for initially religious and later also administrative as well as other purposes, turns out to be a Luwian dialect which, just like its Cyprian counterpart, is most closely related to Luwian hieroglyphic and Lycian (Woudhuizen 2006b; Woudhuizen 2009: esp. 50-51; 150-157). This latter observation is in conformity with the onomastic evidence as provided by the documents in the aforesaid two indigenous Minoan classes of writing as well as that from the intrusive Mycenaean Linear B (insofar as it has a bearing on the Minoan population of Crete, of course) according to which patent Luwian names are by far more prolific than Semitic or Pelasgian ones or the ones from any other distinguishable ethnic entity (cf. Billigmeier 1970; see Woudhuizen 2009: section I.4).

Against the backdrop of the identification of the North Pontic immigrants responsible for the introduction of the catacomb graves with speakers of IE Anatolian in the Levantine, Cyprian, and Cretan contexts discussed in the above, then, it seems permissible to suggest that the catacomb graves reported for Athens, Corinth, and Zygouries in the mainland of Greece as well as Manika on Euboia — the latter positively assigned to Early Helladic III (Zanotti and Rhine 1974: 350; esp. 339, fig. 7) — may well be attributed to what are presumably to be regarded as representatives of IE Anatolian or, to be more specific, Luwian among the earliest recorded population groups in Greece, namely the Carians and Leleges. In any case, these latter are likely to be held responsible for the introduction of place-names in *-ss-* and *-nth-* in southern Greece, which, if we realize that *-nth-* is the Greek

reflex of Anatolian *-nd-*, more in general are typical of the regions inhabited by speakers of the Luwian language, further entailing the Cyclades, Crete, Cyprus, and the entire region of western and southern Anatolia, to the inclusion of the territory of the Leleges and/or Kilikes in the southern Troad (Woudhuizen 1989: 194, fig. 2).

SITE	EH II/III	EH III	EH III/MH I
<b>southern and central Greece</b>			
1. Lerna	x		
2. Tiryns	x		
3. Berbati			x
4. Asine	x		
5. Tsoungiza	x		
6. Korakou		x	
7. Perachora	x		
8. Teichos Dymaion			x
9. Strephi	x		
10. Ayios Dhimitrios	x		
11. Asea		x	
12. Ayios Kosmas	x		
13. Kolonna			x
14. Thebes	x		
15. Eutresis			x
16. Kirrha	x		
<b>Crete</b>			
17. Vasiliki	x		
18. Myrtos	x		
<b>Anatolia</b>			
19. Troy	x		
20. Karataş-Semayük	x		
21. Tarsus	x		
<b>Levant</b>			
22. Ugarit	x		
23. Byblos	x		

*Table I.* Destructions in the eastern Mediterranean between *c.* 2300-2000 BC (Greece after Forsén 1992).

In retrospect, we appear to be confronted with at least two distinct immigrations by Indo-European population groups

into Anatolia at the transition from Early Bronze Age II to Early Bronze Age III, *c.* 2300 BC, one over land by the ancestors of the Hittites from the Caucasus region in the east of the Anatolian heartland inside the Halys bend, and the other of predominantly maritime nature by what in the main turns out to be the ancestors of the Luwians, apparently ultimately from the lower Don and Manych region in the Ukraine, crossing the Hellespont and through the Aegean all the way to the coastal regions of southwest Anatolia, North Syria, and even the southern Levant.<sup>52</sup> This bipartite reconstruction, which corresponds to the model already developed by Gimbutas in the 60s of the former century (Gimbutas 1965: 22, Map I), coincides with Vjačeslav Ivanov's (2001) purely linguistic analysis of Hittite and Luwian as originally distinct languages developing their common characteristics by convergent tendencies in the Anatolian setting. Such an analysis, which may be corroborated by data from toponymy (Hittite, notwithstanding the exceptional case of Zippalanda, like Palaic being outside the distribution area of the typical Luwian place-names in *-ss-* and *-nd-*), should, however, not be stretched beyond the limits of the basic fact

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<sup>52</sup>In like manner as the ancestors of the Hittites may have had a temporary abode in the Caucasus, to the east of the Black Sea, those of the Luwians may have had such an abode in the Balkans, to the west of the Black Sea. This view may be underlined by the fact that the place-names in *-bria* (cf. Detschew 1976, s.v.), covering the region from Zagreb (< *Zagabria*) in Croatia to Nesseber (< *Mesambria*) along the Bulgarian Black Sea coast, probably originate from PIE *\*b<sup>h</sup>ǵ<sup>h</sup>(i)-* in like manner as the Celtic place-names in *-briga* and, if so, show the loss of the voiced velar *\*[ǵ<sup>h</sup>]* in exactly the same way as this is typical for Luwian already from the times of the Kültepe-Kanesh period as evidenced by personal names like *Wa-wa-lá* or *Wa-wa-li* and *Mu-a-na-ni*, bearing testimony of the onomastic elements *wawa-* "ox" < PIE *\*ǵ<sup>w</sup>ow-* and *nana-* "brother" < PIE *\*ǵ<sup>h</sup>en<sub>1</sub>-*, respectively, see Yakubovich 2008: 268-277. Further evidence for the loss of voiced velars, moreover, may be provided by the Thracian MN *Immárados*, if based on a reflex of PIE *\*ǵ<sup>h</sup>im-*. Finally, it is worth noting in this connection that *Odessós* and *Édessa* along the western Black Sea coast are toponyms showing the PIE root *\*wód-* or *\*wéd-* "water" (Detschew 1976, s.v. *Edessa*) in combination with the suffix in *-ss-* of well-known Luwian type. Along this line of reasoning, then, the proto-Luwians may be suggested to have been pushed out of their temporary abode by speakers of our innovatory group B, but subsequently kept in contact with this region (no doubt for the acquisition of precious metal ores) as witnessed by the distribution zone of the *depas amphikupellon*, which includes central Bulgaria, see Leshtakov 2002 and cf. Alkım 1969: 96-97; 113 and Podzuweit 1979: 152-153.



that Hittite and Luwian both belong to the conservative group (= our group A) as distinguished in the above among the various members of the Indo-European language family, which, as we have been able to validate archaeologically in the case of Hittite and Tocharian, had already split off from the linguistic continuum at the time of the development of the innovatory tendencies. Accordingly, it is of relevance for the estimation of the validity of our scenario to note that the immigratory Indo-European population groups infiltrating through the southern Balkans, which we have been able to identify as representatives of our innovatory group B, are, thanks to their burials in tumuli with a circular stone frame, archaeologically distinct from their Anatolian kinsmen with a noted predilection for catacomb graves, so that we are in the position to explain the events *c.* 2300 BC on the close analogy provided by the historical ousting of the Kimmerians, whose language, in view of the fact that the ethnic constitutes a reflex of PIE \*ǵ<sup>h</sup>*im-*, is likely to be analyzed as of *centum*-type (cf. Puhvel, *HED*, s.v. *gim(ma)ra-*), by the Iranian (= *satem*)-speaking Skythians in terms of the involvement of peripheral (our phase I) alongside more centrally situated (our phase II) inhabitants of the North Pontic and/or North Caspian steppe zone.

#### **6. The horse in the Mediterranean *c.* 2300-1720 BC: Prominent in religion, marginal in real life**

Now, as we have seen, both types of steppe dwellers, the peripheral ancestors of the Hittites and Luwians and the central ancestors of the Phrygians, Thracians, and Illyrians, are obviously responsible for the introduction of the horse in their respective target areas of the eastern Mediterranean region, the ancestors of the Thracians and Phrygians in Greece as exemplified by the single horse burial at Marathon and the initially horse-like but later definite horse bones from Lerna, and the ancestors of the Hittites and Luwians in Anatolia, Crete, and Cyprus as particularly evidenced by the single horse burial at Lapithos and, to a lesser extent, the depiction of horses on Early Minoan III or Middle Minoan I seals from Crete. In order to complete the evidence, it should be added that the introduction of the horse in the Near East — where, as ascertained by documentary and zoological data, it had been

previously absent (Postgate 1986; Burleigh 1986)<sup>53</sup> — at the time is testified by statuettes from Tel Sweyhat in North Syria and Tell Thaya in northern Iraq (Drews 2004: 37, fig. 3.5; Bökönyi 1994: 120, abb. 3), whereas familiarity with the horse in Anatolia is documented by the depiction of riders and of the horse-god *Pirwa* on seals from the Kültepe-Kanesh period (Collon 1987: no. 737; Haas 1994a: abb. 72)<sup>54</sup> as well as by the personal names *Peruwas* of a son of Anittas related to that of the horse-god *Pirwa* and, possibly, *Akuwas*, if indeed a reflex of PIE \**ekwo-*, from texts dated to or with a bearing on this same period (Gurney 1990: 16; Ivanov 2001: 133).<sup>55</sup>

In combination with the earlier noted high percentage of horse bones among the faunal remains recorded for sites in the North Pontic and/or North Caspian steppe, there can be no doubt that the inhabitants of this region were familiar with the horse. However, since the redating of the Dereivka “head and hoofs” horse burial, with its teeth showing bit wear and its direct association with what is commonly identified as an antler cheek-piece, from *c.* 4000-3500 BC to *c.* 700-200 BC on the basis of radiocarbon dating serious doubts have been raised about the early use of the horse for riding if not its domesticated nature altogether (Drews 2004: 15; cf. Mallory 1981: 206). The tendency to skepticism about the domestic nature of the horse in the Early Bronze Age obviously goes too far, as it seems to collide with the sheer numbers associated with habitation sites and the special bond between the owner and the animal as suggested by the phenomenon of single horse burial. But the question of horse-control, and hence the conditions for its use for riding by the average person who is not endowed with the physical qualities of a circus artist (cf. Meid 1989), is a legitimate one, as we have seen in the foregoing discussion on the dissemination of chariot-warfare that in Anatolia during the Kültepe-Kanesh period in the early

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<sup>53</sup>Note that the bones from Palestine Early Bronze Age II contexts are according to Davis 1976 not of *equus caballus*.

<sup>54</sup>Note that the equid on which *Pirwa* is standing is probably a donkey which in this early period also elsewhere in the Near East functions as a common substitute for the rare and expensive horse.

<sup>55</sup>Yet another IE Anatolian word for horse may perhaps be traceable in the Hittite indication *damassara* of some, in view of its second element *-sara-* < PIE \**sor-* “woman” no doubt female, animal demons, if Haas’ (1994b: 85) identification of the first element of this word with Etruscan *damnos* “horse” as preserved in a gloss (TLE 827) applies.

2nd millennium BC the teams of horses were inadequately controlled by nose-rings, and logic prevents us to stage the Indo-European immigrants in Anatolia *c.* 2300 BC as specialists in horse riding who soon after settlement in their new habitat forget all about their advance knowledge of horse control — except, of course, in the case that the introduction of the horse in their new homelands turned out to be abortive for the lack of fresh supplies or the shortcomings of local breeding programs. Moreover, the earliest depictions of riders from the period of *c.* 2300 to 2000 BC show no means of horse control other than the whip (Anthony 2007: 415, fig. 16.3). In view of this, the early evidence of bit wear from late 4th millennium BC Kazakhstan and Armenia referred to by Anthony, Brown and George 2006: 138; 148, if correct, may be incidental rather than the norm. Therefore, it seems reasonable to assume for the time being that the holes in the mouth area of the horse statuettes from Tel Sweyat and Tell Thaya suggested to facilitate a bit, are either merely accidental or of little consequence because of the subsequent loss of the skill in horse control as a result of a dearth of fresh supplies. In similar vein, the identification of certain types of antler- and bone-objects from this early period as cheek-pieces should be considered insecure as long as definite proof by direct association with the remains of a horse as in case of the Krivoe Ozero cheek-pieces and formerly provided by the Dereivka horse burial for an earlier period (Mallory 1981: 206) is lacking.

Whatever the specifics of its actual use, it is clear that the horse was special to the Indo-Europeans of the steppe and in particular to their ruling elite. This is borne out of its role in the ritual legitimation of kingship already before the dissemination of chariot-warfare of which the sacred marriage between the horse-god Pirwa and a goddess variously identified as Ishtar or Ḫassusara “Queen” recorded for the Kültepe-Kanesh period, calling to mind the Aśvamedha ritual of the Aryans in India and the Irish Celts, and the later Luwian sacrifice of a horse by burning exclusively for the king (Haas 1994a: 416-418) bear testimony.<sup>56</sup> In Greece, such a sacred

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<sup>56</sup>Note in this connection that, as duly observed by Watkins 1995: 266, sexual intercourse of humans with horses, or their substitutes donkeys, is explicitly exempted from punishment otherwise set for bestiality in the Hittite law code.

marriage is paralleled for the mating between Poseidon Hippios and Demeter in horse shape as reported for the cult of Thelpusa in Arcadia, which is stated to have resulted in the birth of a daughter mystery practice forbade to be specified by name but otherwise known as *Déspoina* “the Mistress” and the mythical horse Areion on whose back the Argive king Adrastos ignominiously fled from battle after the failure of his expedition against Thebes. In connection with this myth, it has been duly observed that the mistress in question can be no other than the Eleusinian Persephone or Kore, whose original horse shaped character is memorized by Pindar’s (*Olympian Odes* 6, 95) use of *λεύκιππος* as her epithet. The ancient nature of this cult is indicated by its Bronze Age reflections in the Linear B texts from Pylos, where on the one hand Poseidon is directly associated with Demeter and Persephone as addressed by their cultic title “the Two Queens” (PY Fr 1219: *wa-na-so-i po-se-da-o-ne* “to the Two Queens [and] Poseidon”) and on the other hand we are confronted with *po-ti-ni-ja i-qe-ja* “for the Horse Mistress” (PY An 1281). Moreover, its Indo-European background has recently been established by Michael Janda’s (2000) identification, on the basis of Hubert Petersmann’s (1986) path-breaking discovery that the onomastic element *perse-* is an earlier reflex of Greek *πέρρα* “sun”, of Eleusian Persephone (= Linear B *pe-re-swa*, PY Un 1189)<sup>57</sup> as a reflex of the sun-maiden or Aurora, the daughter of the sun-god traditionally assisted by the divine twins or *Aśvins* also addressed in Greek lore as *λεύκιπποι* or *λευκόπῳλοι*.

But we can go even further than this, since we have already observed in the preceding the Pelasgian, more specifically Middle Bronze Age Phrygian background of Demeter and Poseidon, the latter obviously in his original role as storm-god mating with the earth goddess to which his traditional attribute, the trident, which is in fact the Anatolian symbol of lightning with a lengthened grip (Schachermeyr 1950: 164-166; Pötscher 1990: 35), preserves the memory. This Pelasgian or more specifically Middle Bronze Age Phrygian entourage is further enhanced by the association of

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<sup>57</sup>Note that Persephone occurs here together with Poseidon and, like the latter in PY Un 6, receives *suovetaurilia* recalling the Eleusinian *τρίττοα βούαρχος* or, in regard to Poseidon, the Homeric, *Odyssey* XI, 130 ff., *τριπτύες*, cf. Weilhartner 2005: 226.

Areion with Adrastos, whose name, as we have seen, is Phrygian and whose association with Amphiaraos reminds one of that of his Trojan counterpart Adrèstos with Amphiaraos' shorthand reflex Amphion, suggestive of an original twin relationship as otherwise abundantly attested in literary tradition among representatives of the pre-Greek population groups (Amphion and Zethos, the Aloadai Otos and Ephialtes, the Moliones), and having a continued history among the Phrygians in the form of the cult figures of the Kabeiroi Tottes and Onnes or Korybantes or Idaian Daktyloi or Kouretes. Similarly, the name of the stand-in for Demeter in the myth of Poseidon's conception of the winged-horse Pegasos, *Médousa*, the daughter of the Phrygian named Phorkus, who is reported to have given birth at the time of her beheading by the founder of Mycenae, Perseus, may likewise be considered as a reflex of the Ásvamedha ritual ultimately rooted in Middle Helladic religious practice. Whatever the merits of these latter suggestions, it seems no mere coincidence that the Greek word for horse, represented by Mycenaean *i-ḡo*, which we have argued to be of Middle Helladic antecedents, is most closely paralleled among the Indo-European languages by *q*-Celtic *Íccona*, the Lusitanian (= actually "proto-Celtic", on which see below) variant of the Gaulish horse-goddess Epona, since only the Thraco-Phrygian deep-layer in Greek literary tradition bears witness of direct contacts with Celtic population groups as further exemplified by, for instance, the shared roots *nem-*, *brig-*, *mid-*, and *teuta-*. On the basis of the Anatolian and Middle Helladic evidence, then, it may safely be concluded that the Ásvamedha ritual is rooted in Early Bronze Age Indo-European religious practice and only secondarily associated with the chariot as in case of the Indian and the Roman traditions (cf. Mallory 1981: 216-217).

#### **7. Northern immigrants in the Mediterranean c. 3100-2300 BC**

In his lucid and concise discussion of Hans Kuhn's "Nordwestblock" of 1986, Wolfgang Meid formulated a number of criteria for the distinction of speakers of an Indo-European tongue in northwestern Europe (*in casu*: the Netherlands, Belgium, and the adjacent parts of Germany) which is neither Celtic (because it preserves *p*-initial) nor Germanic (because it remains unaffected by the diagnostic "Lautverschiebung"). Among these criteria feature, apart from the aforesaid

- (1) preservation of *p*-initial;
- (2) toponyms characterized by the suffix *-st* (like Dutch and German *Soest*);
- (3) river names characterized by the final element in *-apa* (< \**ap-* “water, rivulet”), the root of which is well-known from its prominence among Hans Krahe’s Old European river names;
- (4) ethnonyms characterized by the suffix *-k*; and
- (5) recurrent ethnics (Meid 1986).

As it seems, then, we are dealing here with an ancient Indo-European dialect, most adequately defined as “Old Indo-European” or “proto-Celtic” — of which designations the latter one will, for the sake of convenience, be maintained here.

Now, in his informative book on the Indo-Europeans of 1995, Bernard Sergent draws our attention to the presence of Celtic dialects in the Mediterranean region which, in like manner as Hans Kuhn’s “Nordwestblock”, show the preservation of *p*-initial. In this context, then, he mentions Lusitanian in Iberia, which originally may have had a wider distribution than in the region between the Durios and Tagos of present day Portugal up to and including Asturia and the territory of the Vettones and Vaccaei, and Ligurian in Italy, which, apart from the region of Genoa up to the Rhône, originally appears to have been spoken on the islands of Corsica and Sardinia, on the continent up to Latium, and as far south as on the island of Sicily as well (Sergent 1995: 76-77). If we combine this information with the evidence presented by Sergent in 1988 on the earliest Celts in Anatolia, one of his most significant examples is formed by a tribal name based on the same root as Greek *ποιμήν* (Linear B *po-me*) “herdsman”, which occurs in the “Nordwestblock” in the form of the Belgic ethnic *Paemani*, in the Iberian context in the form of the epiklesis *Poemana* of a goddess, and in the Anatolian context in the form of the name of the locality *Poimanēnos* and the tribal name *Poemaneni*. Taking this example at face value, it seems likely that we have to reckon with “proto-Celtic” not only in the Iberian and Italian peninsulas, but also in northwest Anatolia. As far as dating is concerned, such a “proto-Celtic” dialect in Anatolia cannot possibly be situated in the context of the dispersal of the Urnfield culture during the Early Iron Age, as Sergent (1988: 358) does, but, as we will try to show in the following, leads us back into the earliest stage

of the Early Bronze Age and to the assumption of an Indo-European substrate prior to the arrival of the speakers of IE Anatolian!

As the argument for an “Old Indo-European” or “proto-Celtic” substrate in Anatolia provided by the tribal name *Poemaneni* and the locality *Poimanēnos* originates from late sources, it stands to reason to have a look at those from the Bronze Age. In doing so, a first case in point may be provided by the ethnic *Nuwā’um* with which the indigenous Anatolians are addressed by the Assyrian colonists in the Kültepe-Kanesh texts. This has been explained by Onofrio Carruba (1992: 256) as a reference to the Luwians, for which he needs to assume the substitution of [n] for [l] — an assumption in which he is followed by Petra Goedegebuure (2008: 174).<sup>58</sup> However, if we realize that in our Late Bronze Age texts, especially those by the Hittites on the Kaska (see von Schuler 1965: 105) but also others, toponyms characterized by the final element *-nuwa* are attested quite abundantly in a region stretching from within the Halys bend (*Sapinuwa* = Ortaköy) to the Tyanitis in Cilicia to the south (*Tuwanuwa* “newly erected” = Tyana) as well as to Lycia to the southwest (*Ḫibānuwā*) and Mira to the west (*Ḫapanuwa*), whereas, if related personal names like that of the Karkamisian king *Sahurnuwas* may be taken in consideration, even the province of North Syria is included (see table II), the question may legitimately be raised whether the assumption of a consonantal change from [n] to [l] in the given ethnic is necessary at all. Does it not lie more at hand to assume that the given ethnic *Nuwā’um* bears testimony of the same element *nuwa-* as attested for the category of place-names in question? At any rate, it is clear that we are dealing in the latter case with a reflex of PIE *\*newo-* “new” which is different from Hittite *nawa-*, Luwian *nawa-*, and Lycian *ñnewe-*, but more closely corresponds to, apart from Tocharian *ñuwe*, Latin *novus* (cf. the toponym *Villanova*) and Celtic *novio-* (cf. toponyms like *Noviomagus*, etc.). As such, then, the element *nuwa-* “new” may safely be attributed to an Indo-European substrate layer in IE Anatolian. Moreover, if the ethnic *Nuwā’um* is indeed based on the same element, we happen to be dealing with a tribal name comparable to Celtic ethnics like *Novantae* “new arrivals” and *Trinovantae* “three [groups] (of)

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<sup>58</sup>“(…) does the ethnonym *nuwa’um* refer to the proto-Luwians? I believe with Carruba (1992) that it does.”

new arrivals” as attested for Scotland and England, respectively (Sergent 1995: 208), whereas the negative meaning attributed to this ethnic by the Assyrians (“rude, uneducated, brute, stupid”, see *Chicago Assyrian Dictionary*, s.v. *nû’u*) can be compared to the development of an ethnic like *Vandals*. Note, finally, that the frequency of the toponyms in *-nuwa* and their continued use into the Early Iron Age as exemplified by *Īrhanua* (< Hittite *irha-* “border”) “new border” from the Luwian hieroglyphic Cekke text (Woudhuizen 2005: 14, § 20) is no obstacle to their substrate nature, as the well-known pre-Greek toponyms in *-ss-* and *-nth-* are very prolific, indeed, and these suffixes remained productive well after Greek had become the dominant vernacular (Woudhuizen 1989: 202-204; 194, fig. 2).

1. <i>Ailanuwa</i>	17. <i>Puskurunuwa</i>
2. <i>Anunuwa</i>	18. <i>Saka/utunuwa</i>
3. <i>Aspinuwa</i>	19. <i>Sapinuwa</i> (= Ortaköy)
4. <i>Atunuwa</i>	20. <i>Sarpunuwa</i>
5. <i>Ḫibānuwā</i> (Lycia)	21. <i>Saspinuwa</i>
6. <i>Ḫalunuwa</i>	22. <i>Sispinuwa</i> <sup>59</sup>
7. <i>Ḫapanuwa</i> (Mira)	23. <i>Tapapanuwa</i>
8. <i>Ḫapinuwa</i>	24. <i>Tapal(hu)nuwa</i>
9. <i>Ḫarnunuwa</i>	25. <i>Tuwanuwa</i> (= Tyana)
10. <i>Ḫasinuwa</i>	26. <i>Zarninuwa</i>
11. <i>Ḫaspinuwa</i>	27. <i>Ziḫnuwa</i>
12. <i>Ḫatarsanuwa</i>	28. <i>Zarninuwa</i>
13. <i>Īrhanua</i> (North Syria)	29. <i>Zinirnuwa</i>
14. <i>Istaḫarunuwa</i>	30. <i>Zipunuwa</i>
15. <i>Lapasunuwa</i>	31. <i>Zirnanuwa</i>
16. <i>Pakurunuwa</i>	32. <i>Zitharunuwa</i>

Table II. Anatolian place-names in *-nuwa* (based on del Monte and Tischler 1978 and del Monte 1992).

Against the background of the Indo-European *Nuwa*-people, presumably inhabiting Anatolia already before the IE Anatolians, it deserves our attention that markedly in the Kaska texts, again (von Schuler 1965: 104), but also in other Hittite texts we are confronted with place-names in *-st-*, one of the characteristics, as we have seen, of the so-called

<sup>59</sup>In view of the fact that this TN occurs in the Kaska texts, it may reasonably be argued that its root *Sispi-* corresponds to that of the mythological king of Corinth, *Sisuphos*.



“Nordwestblock” or speakers of the early form of Indo-European we have baptized “proto-Celtic”. In checking the repertory of Hittite geographic names as assembled in del Monte and Tischler 1978 and supplemented by Giuseppe del Monte in 1992 I came across as many as 16 instances of this type of toponym (see table III). Moreover, as is the case in the European context (Krahe 1962: 296-297), the suffix *-st-* can also be shown to have been productive in the realm of river names, as exemplified by Hittite *Dahasta*. If sources of later date may be included, mention should be made of the *Mákestos* (< PIE \**méh<sub>2</sub>*), a tributary of the Rhyndakos running in the vicinity of the “proto-Celtic” *Poimanēnos* (Rosenkranz 1966: 133).

	IBERIA	ITALY	PAN./ILL. <sup>60</sup>	GREECE	ANATOLIA
1.	<i>Segestica</i> <sup>61</sup>	<i>Segesta</i>	<i>Segestica</i>	<i>Palaistinos</i>	<i>Anamusta</i> (S-E)
2.	<i>Ligustīnē</i>	<i>Ateste</i>	<i>Burnistae</i>	<i>Mákistos</i>	<i>Harasta</i>
3.		<i>Tergeste</i>	<i>Perestae</i>	<i>Kárystos</i>	<i>Harpusta</i>
4.		<i>Alísta</i>	<i>Pirustae</i>	<i>Pelastikón</i>	<i>Hupista</i>
5.		<i>Praeneste</i>	<i>Palaistē</i>	* <i>Pelastoi</i>	<i>Istumista</i>
6.		<i>Segesta</i>		<i>Phaistós</i>	<i>Isdupista</i>
7.				<i>Lapasta</i> (Cypr.) <sup>62</sup>	<i>Iunzarasta</i>
8.					<i>Kapastusta</i>
9.					<i>Kurusta</i>
10.					<i>Marista</i>
11.					<i>Parista</i> (W)
12.					<i>Tahasta</i>
13.					<i>Taggasta</i> (N-E)
14.					<i>Urista</i>
15.					<i>Zaparasta</i>
16.					<i>Ziggasta</i> <sup>63</sup>

Table III. Place-names in *-st-* in the Mediterranean region.

<sup>60</sup>Cf. Mallory 1989: 75, fig. 45; Lehmann 1985: 47. In his discussion of the Celtic personal names in Pannonia, Wolfgang Meid (2005: 19) attributes the name of the region to a substrate which, as its first element *pan-* originates from PIE \**pan-* “marshy meadow”, preserves *p*-initial. If we further realize that in this region we come across a place-name in *-st-*, *Segestica* (Meid 2005: 14-15, note 7), a river name in *-ap-*, *Serapilli* (Meid 2005: 24), and an ethnic related to those of the “Nordwestblock”, *Belgites* (Meid 2005: 42), it may reasonably be argued that the given substrate is of our “proto-Celtic” or “Old Indo-European” type as well.

<sup>61</sup>Schmoll 1958: 8, note 3 with overview of the TN *Segesta* and related toponyms in the western Mediterranean.

<sup>62</sup>Lapp 1966: 103.

<sup>63</sup>Freu and Mazoyer 2007: 176 (Maşat Höyük/Tapikka texts).

In following the trail of Meid's criteria, it next is relevant to our cause that to the west of the aforesaid locality *Poimanénos* runs the river *Aísēpos*, which happens to be a hydronym in *-apa*. It is true that this river name, just like Trojan *Apidanós*, which in turn bears testimony of a variant type of hydronym with the related element *\*ap-* in front (Rosenkranz 1966: 136), is only recorded for sources of later date, but an example from Hittite texts may be provided by the western Anatolian river name *Astarpa*, if rightly analyzable as a compound of PIE *\*h<sub>2</sub>ster-* “star” with the element *-apa*.<sup>64</sup> The salient point about this latter analysis is that we appear to be dealing with an Indo-European substrate in which *the PIE laryngeal \*h<sub>2</sub> is not rendered by h as typical of IE Anatolian in contradistinction to all other Indo-European languages*. The same verdict might very well apply to the element *-apa*, which is closely matched by the Hittite use in toponymy of *-hapa* (< PIE *\*h<sub>2</sub>eb<sup>h</sup>-*), if only Peter Kitson (1996: 88, note 22) is right in suggesting that the variants *\*ap-* and *\*ab<sup>(h)</sup>-* for watery elements are mere reflections of one and the same root. As we will see below, such a suggestion appears to receive welcome support in the North Syrian context, where, as far as reflexes of PIE *\*h<sub>2</sub>eb<sup>h</sup>-* are concerned, IE Anatolian is represented by the river name *Habûr*, but our Indo-European substrate by that of *Abana*!

In connection with ethnonyms characterized by the suffix *-k-* and recurrent ethnics, finally, Sergent (1988: 346) has duly pointed out that the name of the *Bebrykes* as attested for the region of Bithynia is based on PIE *\*b<sup>h</sup>éb<sup>h</sup>ru-* “beaver” and as such represents the group of ethnics showing the formation in *-k-*, whereas it is closely paralleled, amongst others, for the *Berybrakes* of the eastern Iberian coastal region in the neighborhood of present-day Valencia (Avienus, *Ora*

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<sup>64</sup>The validity of this analysis can—on the analogy of the fact that IE Anatolian *hapa*—alongside in river names like *Parmashapa* also features in place-names like the town *Parmashapa* or the country *Hapala*—be further emphasized by the TN *Apasa* “Ephesos”, which is of similar formation as *Wilusa* < *wēllu-* “meadow” and *Tarwisa* < *taru-* “wood” and therefore likely renders the meaning “of, belonging to the river”—which, of course, suits its location at the mouth of the Kaistros. Note also in this connection the combination of the *Seha* river (= Maeandros) with the land *Apawiya* (= Marsyas on the basis of the identification of the associated toponyms *Iyalanda* and *Atriyā* with classical *Alinda* and *Idrias*, see Freu 2008: 113).

*Maritima* 485: described in clear terms as backward herdsmen). Moreover, if we realize that the Belgic *Paemani* as referred to in the above live near the *Cauci*, it may reasonably be argued that in the case of the *Kaukōnes* in Paphlagonia we are likewise dealing with a recurrent ethnonym. Now the *Kaukōnes* are named after the mythical founding father *Kaukōn* and stated by Herodotos, *Histories* IV, 148 to be originally at home in the region of later founded places like Lepreon, Makistos, Phrixai, and Pyrgo in the hinterland of Triphylian Pylos. At the time of the Trojan War (c. 1280 BC), however, they may, on the combined testimony of Homer, *Iliad* X, 429 and XX, 329, who places them in passing among the Trojan allies, and Strabo, *Geography* 12.3.5, already have been living along the Parthenios river in Paphlagonia. It is possible that the ethnic *Kikōnes* (< heros eponym *Kikōn*) of the people inhabiting the Aegean coast of Thrace between the Bistonian lake and the mouth of the Hebros in the historical period provides us with a variant form of *Kaukōnes*. At any rate, the *Kikōnes* are officially enlisted among the Trojan allies in the enumeration of Homer, *Iliad* II, 846-847. What primarily concerns us here is that the *Kaukōnes* in their original habitat are associated with — apart from a Phrygian toponym like Phrixai — a place-name in *-st-*, viz. *Makistos* (< PIE \**még<sub>h</sub>₂-*), the toponymic counterpart of the earlier mentioned northwest Anatolian hydronym *Makestos*. It follows then that the ancient nature of the ethnic may be underlined by its apparent relationship to the Trojan royal name *Kukunnis* as preserved in Hittite sources as a predecessor of Alaksandus (Bryce 1998: 247)<sup>65</sup> and that of a Lycian scribe, *Kwkwon* (cf. epichoric Lycian *Khukhune* [D sg.], see Melchert 1993, s.v.), working during the final stage of the Middle Bronze Age at the court of Abišemu II of Byblos (Woudhuizen 2007: 697, note 1; Woudhuizen 2009: section II.5). Finally, it deserves mention in this connection that, notwithstanding the hesitations by H. d'Arbois de Jubainville (1889: 287), a Ligurian presence in the region of Paphlagonia

<sup>65</sup>Against the backdrop of the correspondence of the royal name *Alaksandus* to Homeric *Aléksandros*, the memory to this king may well be traceable in Greek literary tradition in the form of *Kúknos*, who according to the Cypria is defeated by Akhilleus in an early stage of the Trojan war. Perhaps to be situated anterior to this episode is the duel between Herakles and Kyknos near the Ekhedoros river (= the Gallikos) in the territory of the Paionians, the most westerly allies of the Trojans according to Homer's catalogue, see Apollodoros, *The Library* II, v, 11 and cf. Tiverios 2008: 21; 32; 44.

in the form of the ethnic *Lígues* is explicitly reported by Herodotos, *Histories* VII, 72.

As an afterthought, it may be added here that the royal names of the Mariandynoi (< PIE \**marya*- “young warrior” and \**dūno*- “fortress”), inhabiting the region in between that of the Bebrykes and the Kaukones in the saga of the Argonauts, namely those of king *Lúkōs* and his son *Bōrmos*, are of typical Celtic background. In his discussion on the topic, Sergent (1988: 342) rightly correlates the Greek form *Lúkōs* to that of the Celtic sun-god *Lug* or *Lugus*, whose name most likely originates from PIE \**luk*- “light” (see Woudhuizen *forthc.* 2, note 7). Similarly, *Bōrmos* corresponds to the name of the Celtic god of thermal springs, *Bormō*, which can be positively traced back to PIE \**g<sup>wh</sup>orm*- “warm” (see further Woudhuizen *forthc.* 2). The use of *Lúkōs* as a river name, like the one near Herakleia to the east of the territory of the Mariandynoi, or as an ethnic name, as in the case of the *Lukka* of southwest Asia Minor and, considering the fact that the root of the latter appears as *Lik*- in line 9 on the Cypro-Minoan inscription on the Enkomi cylinder seal, probably that of the *Lígures* (< \**Ligus*-) of northwest Italy as well, does not cause any problems at all for the given identification with *Lug* or *Lugus*, as Sergent (1988: 342) gives ample evidence of river names derived from deity names, like the *Matrona* (= Marne) and *Cernunnos* (= Sânon) — cf. in this respect also *Tiber* < Luwian *Tiwat/ra*- —, whereas the same author elsewhere (1995: 202-5) presents a list of ethnics derived from deity names, like *Velauni* (< *Vellaunos*), *Bormanni* (< *Bormō*), *Cornovii* (< *Cernunnos*), and *Rhaetii* (< *Reitia*).<sup>66</sup>

If we next turn to North Syria and the Levant, it so happens that — if we are willing to set Meid’s criteria aside for a moment — we come across here, as demonstrated by Bernhard Rosenkranz, Indo-European river names. In the foregoing, we have already pointed out the Indo-European nature of the river name *Jordan* (Biblical *Jardên*), based on PIE \**dānu*-. To this instance, Rosenkranz (1966: 134) adds the case of the *Habûr* (= modern al-Ĥābûr; attested from the Old Babylonian period onwards, see Groneberg 1980, s.v., and cf. Nashef 1982, s.v.), a tributary of the Euphrates, which for its

<sup>66</sup>The closest parallel for the ethnic *Lukka* is provided by *Loũgoi* (< *Lugus*) as reported for a people in Scotland, see Marco Simón 1998: 37 with reference to Ptolemaios, *Geographia* 2, 3, 12.

initial laryngeal *h* definitely is of IE Anatolian type. As opposed to this, it seems that *Abana*, the Biblical name of the Chrysorrhoeas near Damascus (Rosenkranz 1966: 126), confronts us with a reflex of the same PIE root *\*h<sub>2</sub>eb<sup>h</sup>*- but this time lacking the initial laryngeal, which means that it is definitely *not* of IE Anatolian type. The suggestion, ventilated in the above, that we might be dealing here with a hydronym from an Indo-European substrate anterior to IE Anatolian may receive welcome supporting evidence from other patent Indo-European river names, like the *Arantu* (Assyrian texts of the 9th and 8th century BC, see *Reallexicon der Assyriologie*, s.v. *Orontes*) or *irnt* (Egyptian) or *Oróntēs* (Greek) in North Syria and the *Arnon* (Biblical) along the border of the kingdom of Moab in Jordan, which are based on the root *\*er-/or-* featuring prominently among Hans Krahe's Old European hydronymy (Rosenkranz 1966: 135-136). To these examples may legitimately be added the *Lúkos* (< PIE *\*luk-*), the ancient name of the Nahr el-Kelb near Berytus, which belongs to a type we are already acquainted with from the Anatolian theatre, and the *Rhadānu*, a tributary of the Tigris, the name of which is of similar structure as the European *Rhodanós* "Rhône" (Rosenkranz 1966: 136-137; based on PIE *\*dānu-*). It is unfortunate that the nature of the root of the river name *Sagur* (attested for a Early Iron Age Luwian hieroglyphic inscription from Karkamis, K-A11b/c, § 25, see Woudhuizen 2004b) of a tributary of the Euphrates eludes us, but its close correspondence to that of the *Saḫiriya-* (Hittite) or *Sangários* in northwest Anatolia (Rosenkranz 1966: 135; cf. del Monte and Tischler 1978, s.v.) as well as that of the place-name *Saḫarwa* or *Skheriā* (= Hagia Triada, see Woudhuizen 2006b: 82) in southern Crete strongly suggest an early Indo-European origin.

The Indo-European nature of the river names in North Syria and the Levant presented in the above ties in with the analysis by Ignace Gelb (1961) of the ethnic situation in Syria on the basis of onomastics. According to this analysis, the earliest recorded personal names from the Ur III period (2135-2027 BC) are of unknown ethnic affiliation. Later on, in the Mari texts (early 18th century BC) and those of Alalakh VII (1720-1650 BC), west-Semitic or Amurru names become predominant, whereas from the time of Alalakh VII to Alalakh IV (15th century BC) and that of the Ugarit archives (14th-

13th century BC) especially Hurrian names come to the foreground. According to Gelb, this state of affairs coincides with the fact that place-names of a decidedly non-Semitic type, like the ones in *-iya* and *-uwa*, maintain a prominent position in the Alalakh and Ugarit texts, because, as he stipulates, onomastics are more liable to changes in fashion than toponymy. If we realize, then, that the given category of place-names in *-iya* and *-uwa* are a typical feature of Hittite toponymy (in the case of TNs in *-iya* I counted more than 200 instances in the repertory by del Monte and Tischler of 1978 and the supplement by del Monte of 1992, whereas the total numbers of TNs in *-uwa*, though still impressive, are more modest), the conclusion seems to be justified that North Syria had once been inhabited by Indo-European population groups, to be more specific: during the Early Bronze Age! Such a conclusion, then, can be corroborated by the fact that well-known west-Semitic divine names like *Astarte* and *Dagan* have plausibly been explained as originating from the PIE roots *\*h<sub>2</sub>ster-* “star” (Gamkrelidze and Ivanov 1995: 592; 772) and *\*d<sup>h</sup>eǵ<sup>h</sup>om-* “earth” (Singer 2000), respectively. And what to think of the personal name *Matrunna* of the daughter of the 18th century BC Karkamisian king Aplaḥanda, which is clearly based on a reflex of PIE *\*mēh<sub>2</sub>tēr-* “mother”, and therefore *Indo-European of a non-IE Anatolian type?*

If we would include further evidence from Anatolia, we could easily elaborate on this issue, by pointing, for example, to a form from a Luwian perspective irregular form like the TN *Parḫa* < PIE *\*b<sup>h</sup>rǵ<sup>h</sup>(i)-* in Pamphylia, in which the voiced velar *\*[ǵ]* is represented by laryngeal *ḫ*, or the originally west-Anatolian royal name *Pithana* if indeed a compound of PIE *\*b<sup>h</sup>wī-* “to procreate, grow” with *\*ǵenh<sub>1</sub>-* “descendant, offspring” to which the same verdict in that case would apply. By means of conclusion to this topic, I would like to point out that the Luwian hieroglyphic divine name *Pārti-* < PIE *\*b<sup>h</sup>rend<sup>h</sup>-* as a variant indication of the stag-god in an inscription from Malatya (Woudhuizen 2004b: 29, note 1; cf. the Italic TN *Brindisium* and ethnic *Frentāni*) may likewise be attributed to pre-IE Anatolian Indo-European substrate influences.

From an archaeological perspective, Indo-Europeanization in the Mediterranean during the earliest phase of the Early Bronze Age appears to receive its materialization by means of three diagnostic features:

- (1) catacomb or tumuli graves;
- (2) apsidal houses; and
- (3) statue menhirs.

Of these features, the origin of the grave types and the statue menhirs can positively be traced back to the North Pontic steppes, whereas apsidal houses for lack of attestation in the steppe region appear to be of merely southern Balkan antecedents.

Starting with the graves, catacomb graves, among which one of twin type, dating to Early Bronze Age I have been found at Bâb edh-Dhrâ' along the eastern side of the Jordan (de Vries 1978: 212, fig. 2). In the same location, stone *tholoi* have been unearthed which presumably served funerary purposes as well (Lapp 1966: 95). As duly observed by Nanny de Vries (1978: 211, fig. 1), a catacomb grave of twin type closely comparable to the one from Bâb edh-Dhrâ' has come to light at Palermo in Sicily, where it formed part and parcel of the local Eneolithic (= Early Bronze Age I) Conca d'Oro culture. Further catacomb graves have been reported for Boccadifalco and S. Margherita in Sicily (Zanotti and Rhine 1974: 338, figs. 4-5). Yet another catacomb grave worthy of mention in this connection is the one discovered at Porte San Pietro in Tuscany, which is baptized the "Tomb of the Widow" and belongs to the local Eneolithic or Early Bronze Age Rinaldone culture. This particular burial bears testimony of the rite of suttee as the skull of the woman showed "injuries suggesting that she was dispatched on the death of her husband" (Mallory 1989: 93-94, fig. 66). For other Rinaldone graves in the region horse remains have been reported. Finally, it deserves our attention that catacombs dating to *c.* 2900-2600 BC have been found at Vučedol in former Yugoslavia, a site along the confluence of the Drava with the Danube (Zanotti and Rhine 1974: 336, fig. 3). In their in-depth treatment of catacomb graves within the Mediterranean, David Zanotti and Barbara Rhine (1974) rightly stipulate that this type of grave is in the main associated with dagger blades of arsenical bronze, sheep bones, and, as we have already noted, the rite of suttee. Note, however, that in the foregoing we have seen that some catacombs, like the one at Manika on Euboea and yet another at Vounos (one being of twin type!) on Cyprus, and those at Jericho in Palestine date to Early Bronze Age III, *c.* 2300-2000 BC.

As far as tumuli are concerned, pride of place goes to the stone circles at Nidri on Lefkas dating from the beginning of Early Helladic II onwards. Notwithstanding the fact that tumuli here are considered hypothetical by some (Primas 1996: 134), Imma Kilian-Dirlmeier (2005: 47 ff.) provides positive evidence for the remains of a tumulus in connection with “Grabhügel S”. Interestingly, some of the burials in this particular cemetery bear testimony of the rite of cremation, which is paralleled for counterparts in the Balkans (see Primas 1996: 126 or Kilian-Dirlmeier 2005: 85, abb. 79). This rite appears as the predominant one in the cemetery at Gedikli in Cilicia, later on during the Early Bronze Age III, from *c.* 2300 BC onwards. What primarily concerns us here, however, is that the closest parallels for the stone circles under a tumulus at Nidri on Lefkas are found at Karataş-Semayük in Lycia, which are also dated to Early Bronze Age II (Mellink 1968: 257, Ill. 4; Mellink 1969: 320, Ill. 1). One may wonder whether it is merely coincidental, in this light, that the names of both these two regions in question are derived from PIE *\*luk-*. At any rate, if the tombs at Nidri on Lefkas may be ascribed to an influx of Indo-European settlers, as seems plausible in the light of the parallels, we must be dealing here with an earlier group than the Thraco-Phrygian ones we have suggested to be responsible for the destructions in central and southern Greece during the Early Bronze Age II/III (*c.* 2300 BC) and Early Bronze Age III/Middle Bronze Age I (*c.* 2000 BC) transitional periods. But what is more, along the same line of reasoning and under due consideration of the *tholoi* at Bâb edh-Dhrâ’ mentioned in the above, the circular tombs or *tholoi* in the Messara on Crete, dating from Early Minoan I onwards (Pelon 1976), should be assigned to such an early group of Indo-European settlers as well — irrespective of the fact that these tombs were used for multiple burials as this feature may likely be attributed to the influence of non-Indo-European substrate population groups!

The distribution zone of our second diagnostic feature, apsidal houses, shows a partial overlap with that of the catacomb and tumuli graves. As evident from the discussion by Marija Gimbutas (1994: 62-63), the origin of this type of house is to be looked for in the southern Balkans, where it is found in various sites in Bulgaria (Karanovo, Nova Zagora, Dyadovo), Yugoslavia (Vučedol), and northern Greece (Sitagroi to the



east of the Khalkidike, as well as Chasabali and Rachmani in Thessaly) during the Early Bronze Age I, from *c.* 3100 BC onwards. Already during this very period, the apsidal house form can be shown to have radiated to Troy and Karataş-Semayük in western Anatolia (Warner 1979: 136, Ill. 3), as well as various sites in Palestine (Byblos, Megiddo, Meşer, and Jericho, see Best 1978, whose findings have to be verified by the distinction between apsidal and curvilinear as emanating from the drawings presented by Braun 1989). As we have noted in the foregoing, later on, occasionally during Early Helladic II, but especially from the turn of this period to Early Helladic III onwards, the apsidal house form was introduced from the north into central and southern Greece.

The third and final diagnostic feature, then, concerns the statue menhir. This type of anthropomorphic stele is typical for the culture of the North Pontic steppes, and the custom of raising such monuments can be shown to have spread to the western coastal region of the Black Sea on the one hand and northern Italy, southern France, and Iberia on the other hand, where, as I have argued in Woudhuizen *forthc.* 2, it can positively be attributed to “proto-Celtic” population groups. Therefore, it may suffice here to note that a statue menhir has been reported for Troy during the earliest phase of the Early Bronze Age (*in casu* Troy I, see Anthony 2007: 338, fig. 13.11).

Now, the task remains to bring about a relationship between these archaeological features and the previously given linguistic criteria for speakers of an early form of Indo-European. In doing so, it first of all deserves our attention that, as we have noted before, the Thraco-Phrygian deep-layer in Greek in turn is characterized by a Celtic deep-layer, represented by the elements *nem-*, *brig-*, *mid-*, and *teuta-* (see preceding section). Three of these roots, moreover, can be traced in onomastics (*Mídās*, *Teútamos*) and toponymy (*Pyrgiotissa*) as recorded for the island of Crete.<sup>67</sup> Against this

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<sup>67</sup>Further correspondences in Minoan onomastics and toponymy with Celtic may be provided by the MNs *Nuwas* (CHIC # 314, 3, see Woudhuizen 2006b: 80-81; cf. our treatment of Anatolian *nuwa-* above), *Arantas* (CHIC # 300, 2, see Woudhuizen 2009: section I.1; 105; cf. Sergent 1988: 346), and the TN *Mílatos*, which is located to the east of Malia and after which according to literary tradition Miletos in southwest Anatolia is named (Woudhuizen 2006b: 156; cf. Celtic *miletu-*, see Delamarre 2003, s.v.).

background, it may not be entirely coincidental that in the region of the Mesara, where we came across the circular or *tholos* tombs, we are confronted with a toponym in *-st-*, namely *Phaistós* (Linear B *pa-i-to*), and, if we realize that *Pelasgoi* may plausibly be traced back to an earlier form *\*Pelastoi* and that the branch of this population group mentioned by Homer is likely to be situated in the Mesara as well, an ethnonym of the same type of formation. Similarly, the circular tombs of Nidri on Lefkas are in the neighborhood of that part of the Peloponnese from where the *Kaúkōnes* are said to originate and where we encounter yet another place-name in *-st-*, viz. *Mákistos*. Yet other cases of a place-name in *-st-* are provided by *Kárystos* (Linear B *ka-ru-to*) on Euboia and *Pelastikón* in Attica, to the eastern side of southern Greece. Furthermore, the attestation of *Palaistinos* for northern Greece is in the vicinity of the tumulus grave recorded for Sykia in the Khalkidike. However, the case for a relation between the early types of Indo-European graves, in this particular case catacombs, with toponyms in *-st-* can be substantially enhanced in the central Mediterranean theatre, where we come across *Segesta* (< PIE *\*seǵh-* or *seǵh-os-* “victory”) in the region of the Conca d’Oro catacomb graves of Sicily and *Praeneste* in that of their Rinaldone equivalents of Tuscany. Note that in the Sicilian case the Celtic nature of the population group in question can be ascertained thanks to the element *Calta-* in the place-names *Caltagirone*, *Caltanisetta*, and *Caltabellotta* as recorded for the inner part of the island. Similarly, as far as the Italian peninsula is concerned the “proto-Celtic” nature of the bearers of the Rinaldone culture may be underlined by their association with Ligurian, in the territory of which the toponym *Segesta* reoccurs and which, apart from preserving p-initial on account of the river name *Porco-bera* (< PIE *\*porko-* “piglet” and *\*b<sup>h</sup>er-* “to carry”, referring to a certain species of fish), bears testimony of most of our other criteria as well like a river name in *-ap-*, represented by *ostium Metapīnum* at the mouth of the *Rhodanós* “Rhône” (Plinius, *Natural History* 3, 33), and ethnics in *-k-* as exemplified by *Belaci* and *Marici* (Pokorny 1938: 86).<sup>68</sup> It must be admitted, though, that in the

<sup>68</sup>Note in this connection that Ligurian is further associated with the royal name *Kúkno*s and the river name *Ēridanós* in literary tradition (Schulzen 1922: 65), which both appear to belong to the earliest layer of Indo-European as reconstructed here. If the *Ēridanós* in this particular case indeed refers to

Levant, to the best of my knowledge, no toponyms in *-st-* are encountered,<sup>69</sup> whereas at the other side of the spectrum in the case of Iberian *Segestica* and *Ligustinē* (= *Hasta Regia* near *lacus Ligustinus*, situated along the lower Guadalquivir, according to Schulten 1950: 160) the diagnostic grave types are missing so that only the statue menhirs might be called into play, which in the case of those found in the territory of the Lusitanians (who are reportedly still fighting with bronze weapons in Roman times) may safely attributed to a “proto-Celtic” population group as well (see Woudhuizen *forthc.* 2).<sup>70</sup>

Less diagnostic, but still instrumental to our case may be the ethnics in *-k-*, which, apart from in the Levant (*Kilikies*, *Phoinikes*), are also traceable for Crete (*Phaiakes*), but particularly prolific in the Italian (*Italici*, *Falisci*, *Osci*, *Etrusci*,

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the Rhine, as suggested by the Penguin translation of Pausanias, *Guide to Greece* I, 30, 3, the king in question may reasonably be argued to be the heros eponym of the *Cauci* mentioned in the above, who according to the commentary of Carl Müller to Ptolemaios’ *Geographia* 2, 2, 8 were neighbors of the *Menapii* ultimately originating from the right side of the Lower Rhine, in like manner as the *Kaukōn* is the heros eponym of the *Kaukōnes*.

<sup>69</sup>Note that the *Philistines* are latecomers into the region, arriving in Palestine from Kaphtor (= Crete, where, as we have just noted, we come across the related ethnic *Pelasgoi* < *\*Pelastoi*) in the period of the Sea Peoples at the end of the Bronze Age, c. 1200 BC.

<sup>70</sup>As duly noted by Schulten (1922: Index, s.v. *Ligurer*), yet another relationship of Iberia with Liguria, apart from the *pernix Ligus* in the north and the explicit mention of *Ligurer* along the east coast (Skylax, *Periplus* 3 [north] and Thucydides, *Peloponnesian War* 6, 2 [south]) (see Schulten 1950: 68, note 2; 111, note 5) and alongside the aforesaid *Segestica* and *Ligustinē*, is provided by the river name *Doúrios* or *Durius* as corresponding to *Durias* in northwest Italy (occurring two times, namely as *Durias Major* and *Durias Minor*, both of which empty into the Po), see Strabo, *Geography* 3.4.20; 4.6.5; and Loeb ed. volume II, 270-271, note 2. On the basis of Schulten’s work (1922: 66), moreover, the relationship of Ligurian to the “Nordwestblock” more in general can be further underlined by the distribution of the onomastic elements *eburo-* (< PIE *\*h<sub>1</sub>epero-* “boar”), *inta-* (< PIE *\*h<sub>1</sub>éndo-* “in”), and *mel-* (< PIE *\*meh<sub>1</sub>-* “small animal”), covering the Lower Rhine region (ethnic *Eburones*, MN *Intamelus*), the territory of the Ligurians in the French Riviera and northwest Italy (fundus *Eburelia*, ethnic *Intimilii* > Ventimiglia), and Spain (TN *Eburobrittium* in Lusitania, MNs in *indi-* or *indo-* and *m/bel-* like *Indibélēs* [Schmoll 1958: 13]). Note that the ethnonym *Eburovices* (Sergent 1995: 202-205), in which *eburo-* occurs in combination with Celtic *\*vic-* “to fight, conquer”, excludes the alternative interpretation of the first mentioned root as a tree name, “yew”, as in Delamarre 2003, s.v. *eburos*. Note also that *Intamelus*, etc., given the pastoral nature of the earliest Indo-Europeans, is likely to be analyzed as of similar formation as Greek *ἐπιμήλιος* “guardian of flocks”.

etc.)<sup>71</sup> and, to a lesser extent, Iberian (*Berybrakes*, *Gallaeci*, *Celtici*) context. As far as “Old Indo-European” river names are concerned, we have already mentioned that of the *Jordan* in Palestine and of the *Iárdanos*, *Mesápios*, and \**Amnis* in Crete in the context of the upheavals of c. 2300 BC, with the noted adjustment that the given date should be taken as a *terminus ante quem*: these river names may alternatively have been introduced already during the earliest phase of the Early Bronze Age. The same verdict certainly applies to the river names in *-apa* and *-dan* attested for the Greek mainland, like *Asōpós*, *Ēridanós* in Attica, and *Apidanós* in Thessaly, not to mention Lydian *Iárdanos* and Trojan *Aísēpos* and *Apidanós*, the latter two of which are already referred to in the above.<sup>72</sup> (see table IV)

As far as mainland Greece is concerned, it has been plausibly argued by John Coleman (2000) that there is a hiatus between the Neolithic and Early Bronze Age. At any rate, such a hiatus has also been observed to the north, in present-day Bulgaria (Coleman 2000: 136 with references). Against this backdrop, it does not come as a surprise that there is no further deep-layer in Greek with information about the language or languages of Neolithic population groups in this region.

	IBERIA	ITALY/S FRANCE	GREECE	ANATOLIA	N SYRIA/ LEVANT
	<b>linguistic</b>				
<i>p</i> -initial “Celtic”	x	x		x	
TN in <i>-st-</i>	x	x	x	x	
ethnic in <i>-k-</i>	x	x	x	x	x
RN in <i>-apa</i>		x	x	x	x
RN in <i>-dan</i>		x	x	x	x

<sup>71</sup>As most of these ethnonyms are of latecomers in Italy, the formation evidently remained productive up to as late as the end of the Late Bronze Age or even Early Iron Age.

<sup>72</sup>It is interesting to note in this connection that also the name of *Ártemis* (Linear B *a-te-mi-to*, D *a-ti-mi-te*), who was venerated at her sanctuary at Brauron in Attica by young girls dressed like little bears, for the correspondence of the first element of her name to Celtic *arto-* “bear” as further attested for the TN *Artákē* and the MN *Artákēs* typical for the Doliones in the region of Kyzikos (see Sergent 1988: 329 ff.) and as clearly distinct from Greek ἄρκτος, may safely be assigned to the earliest Indo-European layer traceable for the Greek mainland.

		archaeological			
statue menhir	x	x		x	
catacomb/tholos		x	x		x
stone circle-tumulus			x	x	
apsidal house			x	x	x

*Table IV.* Linguistic and archaeological features of earliest Indo-Europeans in the Mediterranean.

Finally, attention may be drawn to graves dug into a mound used as a ready-made kurgan at Korucutepe in eastern Turkey, which are assigned to the earliest stage of the Early Bronze Age, *c.* 3100 BC. According to Shan Winn (1981), we appear to be dealing here with northern immigrants from the Transcaucasian Kura-Araxes culture or beyond. Of particular interest are the horse bones discovered in the neighborhood, at Norşun Tepe and Tepecik, as the introduction of the horse during this early period can be shown here to have been abortive, no horse bones having been found in Early Bronze Age II levels. In the foregoing, we have suggested that the Early Bronze Age introduction of the horse elsewhere in the Mediterranean may have been of marginal impact for the lack of fresh supplies or insufficient breeding programs. At any rate, the early northern immigrants in the region of Korucutepe are clearly distinguished from their colleagues in the Mediterranean, who, in view of their dispersal of the apsidal house, must have taken a route through the southern Balkans.

In the relevant literature, the Indo-Europeanization of Greece has often been identified with the question of the coming of the Greeks (Coleman 2000 is a case in point). In the foregoing, I hope to have shown convincingly that this is an irresponsible reduction of the state of affairs and that the Indo-Europeanization of Greece involves a process which is at least as multi-layered as that in Italy to the west and Anatolia to the east. At any rate, our reconstruction of the process of Indo-Europeanization in the wider Mediterranean can be summarized as follows (see table V).

	Iberia	Italy	Greece	Anatolia
700	Celtiberian	Etruscan		(Cimmerians and Skyths)
1200		Oско-Umbrian Latin-Faliscan		Thracо-Phrygian (Buckel Keramik)
1600	"proto-Celtic" (Lusitanian)		Greek	Thracо-Phrygian (Kaska)
2300			Thracо-Phrygian (Pelasgian)	IE Anatolian
3100		"proto-Celtic" (Ligurian)	"proto-Celtic" (deep-layer in Pelasgian)	"proto-Celtic" (Nuwā'um)

Table V. Various Indo-European layers in the Mediterranean.

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# Proto-Tocharian Syntax and the Status of Tocharian A<sup>1</sup>

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Tocharian A must have been a second language for at least some and perhaps all of its users, since only Old Uygur and Tocharian B – not Tocharian A itself – can be shown to have been native languages of the scribes. In view of the considerable differences between Tocharian A and B in the morphological and lexical domains, it is remarkable that they are phonologically and syntactically very similar. This is an indication of substratum influence, probably exerted by Tocharian B, since that seems to have been the dominant language in general. A possible explanation is that speakers of Tocharian A commissioned Tocharian A texts from Tocharian B writers.

## §1 Introduction

In the first half century of Tocharian studies Tocharian A played the leading part, without doubt because it was first deciphered and described. Only in the second half century did Tocharian B gradually gain the position it deserved: its texts outnumber those of Tocharian A by far and they are more diverse, too, both in content and in language, and it has long been recognized that Tocharian B is linguistically more archaic on the whole. The predominance of Tocharian A was certainly one of the many reasons for the relatively slow progress in Tocharian historical grammar. With a bias towards Tocharian A, it was much more difficult to understand the Proto-Tocharian vowel system, for instance, which is closer to Tocharian B.

Another consequence of the focus on Tocharian A was, ironically, that some important facts about it were observed at a rather late stage of the research because these are most salient in comparison with Tocharian B: its language is strikingly uniform, its style formulaic, and the lexicon contains loan-

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<sup>1</sup>This paper is an adaptation of a lecture with the same title held at the Indogermanische Fachtagung, 23 September 2008, Salzburg. I would like to thank Alexander Lubotsky and Kristin Meier, as well as the two linguistic referees, for comments on an earlier draft.

words from Tocharian B. This has led to the conclusion that unlike Tocharian B, Tocharian A was not a spoken vernacular, but a fossilized liturgical language (Winter 1963: 243-244; Lane 1966: 226-227).

In this paper, I will investigate cases of interference between Tocharian A and B. First I will treat the text level (§2), then the linguistic level (§3), and finally I will consider possible consequences for the reconstruction of Proto-Tocharian and propose a possible explanation (§4).

## §2 Text interference

§2.1 Since Tocharian B was found at all sites where Tocharian A was found, and many manuscripts date from the same period, one could expect to find extensive text interference between the two languages, that is, textual evidence for the contacts between their speakers: for instance, texts translated from one language into the other, passages with citations from the other language, or even explicit mention of the sister language. However, such instances are exceedingly rare: we have no evidence of a Tocharian A text translated from Tocharian B or vice versa. The text parallels we do have are not precise enough to prove that one is translated from the other, or they concern parallel translations from Sanskrit. In my view, there must have been contact between the scribes of Tocharian A and B,<sup>2</sup> but this contact is not manifest in the texts because the languages were so close that it was not necessary to make translations. Nevertheless, some rare but instructive instances of text interference are found.

§2.2 Without doubt the most striking sample of text interference is the much discussed leaf A394 from Turfan in Tocharian A with glosses in Tocharian B and Old Uygur. As has been shown by Winter (1963: 242-243), these glosses are not written by a native speaker of Tocharian B, but rather by a Turk. Apart from the presence of glosses in Old Uygur, this is indicated by the striking syncope of *a* (Winter p. 249) and the calque *šaṅ kekseṅ* (see below). *a*-syncope is found in TB *ynemne* 'going' for *ynemane*, which glosses TA *ymām* a2 'id.'; in TB *yšucats*, gen.pl. of 'beggar', for *yaššucaṃts*, which glosses TA *paṃṣāntās wrasaśsi* a1 'of the begging beings'; and in ...*skemne* (see further below). Perhaps this *a*-syncope can be connected

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<sup>2</sup>In as far as they were not the same people, see §4.

with the defective writing of especially Old Uygur *a* and *ä* /æ/ in the Uygur script, which suggests that these vowels could be very short, but at least it shows that the Tocharian B is peculiar (by contrast, the two Old Uygur words are correct). The TB gloss *ṣaṇ̄ kekseṇ̄* ‘his own body’ must be a calque because it glosses TA *ṣṇ-āñcām* b1 ‘self’, which would rather be *ṣaṇ̄-āñm* in Tocharian B. The notable addition of the word for ‘body’ is strongly reminiscent of Old Uygur *ät’öz*, which means both ‘self’ and ‘body’ (where the latter is of course primary).

Winter concluded that the Turkish glossator had only “a modest command of [Tocharian] B” (p. 243) and he was practising Tocharian B with the help of a Tocharian A text. In my view, it is rather the other way round: as a native of Old Uygur, he spoke Tocharian B as a second language, and used it to understand the Tocharian A text. This assumption neatly explains why only parts of words are glossed when Tocharian A and B are almost the same, and why two words are glossed in Old Uygur.

In a number of cases, the glossator noted only parts of Tocharian B words. It seems that these parts systematically concern relevant differences between the Tocharian A and B words, whereas the parts he left out are identical or self-evident. Of TA *kälporā* b3 ‘having attained’ only the last part is rendered with TB *...rsa*: the complete Tocharian B word would have been *kälporsa*, the first two syllables being identical. Of TA *risāt* b1 ‘he gave up’ only the first syllable is rendered with TB *riṃ*...: indeed, the lack of a nasal in Tocharian A is the most striking difference with TB *rintsate*. TA *wrinās* a2, pl.f. of the adj. of ‘water’ is glossed with TB *...yana*, which must be a mistake, since we expect a TB pl.f. *wriyeṣṣana*\* rather than \*\**wriyana*, but the endings TA *-ās* and TB *-ana* obviously do present the relevant difference between the two languages. TB *...skemne* in turn glosses the most deviating part of TA *wätkäsmām* a3 ‘commanding’: the complete TB word would be *watkäskemane* (for the *a*-syncope, see above).

The idea that the glossator read the Tocharian A with the help of similar words in Tocharian B is further supported by two glosses in Old Uygur to TA words without an etymological TB cognate. We find TA *kātka-ṃ* a3 ‘arose to him’, glossed with Ouy. *turti* ‘stood up’, and *mokatsām* a4-b1 ‘strong’ glossed with Ouy. *küčlüg* ‘strong’, which would be *tsänkā-ne* and probably *präkre* ‘firm’, respectively, in Tocharian B (on these glosses, cf.

in particular Maue 2009: 14). There are two counterexamples to this explanation: TA *pe b1* ‘also’, glossed with TB *ra* ‘id.’, and TA *tāp* ‘he ate’, glossed with TB *śuwa* ‘id.’. In the first case, it was probably the close similarity in function that made a rendering by Tocharian B instead of Old Uygur more suitable, whereas in the second the TA prs. *śwā-* of the same (suppletive) verb may have been the reason to gloss in Tocharian B.

In short, the highly interesting leaf A394 attests only a very special kind of interference between the two Tocharian languages. It does not prove that speakers of Tocharian B needed to gloss Tocharian A texts, but rather that there were Turks who spoke Tocharian B and studied Tocharian A. In other words, Tocharian B was at a certain point spoken by non-natives, who at the same time held Tocharian A in high esteem.

That Tocharian A was prestigious among a certain group of Turks is well known: in Tocharian A manuscripts we find some names and titles that look Turkish. Most of these manuscripts come from Turfan (e.g. A382, see Maue 2009: 16) but some also from Šorčuq (e.g. A142, see Maue 2009: 15). The Tocharian A leaf from the Musée Guimet edited by Pinault (2007b) is without doubt the most striking example of such a text, as it consists almost completely of Turkish names and titles. We can add a rare sample of Turkish glosses to Tocharian A texts from Xočo, THT1651a1, where Tocharian A *tatämsusā* ‘she has begot’ is glossed with Old Uygur <tuγurγocisi><sup>3</sup> for *tugurgučisi*, agent noun of *tugur-* ‘beget’.

§2.3 Another type of text interference is presented by some instances of Tocharian B additions to Tocharian A texts (not the other way round). In these cases, the Tocharian B is clearly added at a later stage and it does not interfere with the content of the Tocharian A. For instance, in the Sanskrit text THT1524 (Šorčuq), concluded by TA /// [*śa*]*k*<sup>4</sup> *indrīsyo kaknoṣ tākimassū*<sup>4</sup> ‘may we be equipped with the ten (?) senses’, we find a later addition in Tocharian B: /// *indrārjune walau*

<sup>3</sup>I owe the correct reading of the syllable <γyo> (instead of <γyā>) to Dieter Maue (p.c.).

<sup>4</sup>The 1pl. opt. ending is *-i-mäs*: *sū* must be a particle. Evidently, it is to be compared with *päklyossū* A370.4 ‘listen!’, where *sū* was already analysed as a particle by Pinault (2005: 515-518).

*yrāṣaṅṅe yama(ṣṣa)[ly](e) ṣol<sub>1</sub> prakare tākaṃ {-e -e}<sup>5</sup> ketseṃ snai teki paltskotse anāstaṅṅe tākaṃ* ‘King Indrārjuna is to be respected. [Then] life will be long, the body [will be] without sickness, and there will be *anāstaṅṅe* (?) of the mind.’

The contents of the Tocharian B text do not have a special connection with the Tocharian A text. It is possible, for instance, that the Tocharian B scribe used only the Sanskrit text – not the Tocharian A addition – or just added a wish on the blank space of a manuscript. It must be noted, however, that the Tocharian B is a bit peculiar: the spellings *yrāṣaṅṅe* and *prakare* for *yārṣalṅe* and *pārkare* look “Tocharian-A-like”, just as the inserted *t* in *paltskotse* (for Tocharian B *palskontse*; TA *pālskes*, nom.-obl. *pālsāk*). Although I do not know how to explain *ketseṃ* for *kekteṅe* (TA *kapśaṅi*) as a Tocharian A based error, I have to conclude on the basis of *yrāṣaṅṅe*, *prakare* and *paltskotse* that the scribe was probably more used to writing Tocharian A than Tocharian B.

§2.4 As pointed out by Winter (1963: 243; see also Lane 1966: 228-229), perhaps the most important case of text interference is a mistake in the heading of a Maitreyasamitināṭaka leaf from Šorčuq. Apparently, the mistake was recognized and the leaf was copied again: on the corrected leaf (A252), we read Skt. *prathama* ‘first’ followed by TA *malto* ‘at first’, denoting the first chapter of the text, whereas in the leaf with the mistake (A251), we find *prathama* followed by TB *pārweṣṣe* ‘first’. On another Tocharian A leaf (A372) we find a pious wish in Tocharian B: *(pā)rweṣṣe kartse tāko(y)* ‘may the first be good’. Since in these two cases we have no indications that the scribe was a Turk, the evident conclusion is that he was a speaker of Tocharian B – apparently Tocharian A was written by speakers of Tocharian B, at least some manuscripts as important as this Maitreyasamitināṭaka copy.<sup>6</sup>

§2.5 So far, no speakers of Tocharian A have been traced, which is fully in line with the old idea that it was a book language, not a spoken vernacular (see §1). However, this

<sup>5</sup>Remains of two akṣaras with *ə*-vocalism are visible, but they have been erased; perhaps, it is a false start of the word *kekteṅe*, which follows as *ketseṃ* here.

<sup>6</sup>If the scribe was a Turk, this changes matters a bit, but not radically: in that case he must have been such a fluent speaker of Tocharian B that he could make this type of mistake.



traditional view is not generally accepted, as the two leading scholars of Tocharian disagree. Schmidt claims that glosses in Tocharian A prove that it was in use as a living language (1983: 279), and Pinault argues that a Tocharian A manual on magic and medicine shows that it was not dead (2007a: 180).

In my view, Pinault's argument of text genre is important, but not decisive. It certainly proves that Tocharian A apparently had a wider use than the calligraphic Buddhist manuscripts that make up the vast majority of the collection, but that does not mean that it was still a language with native speakers at the time of the manuscripts. It is clear that Tocharian A had a very high status since it was the holy language of a certain circle of Turkish Buddhists and it was written by speakers of Tocharian B. These non-native writers of Tocharian A must have had a way to pronounce it, and perhaps they spoke it in certain contexts. I think that "monastery language" covers this somewhat wider use. Although its content is not religious, even the manual for magic and medicine can be understood this way, since it is certainly a text that fits into the Indian-Buddhist literary tradition, as is also evident from its verse form.

Likewise, Schmidt's argument based on the Tocharian A glosses does not prove that it was a spoken vernacular: in a religious context, it is perfectly possible to use a holy language for glosses – all are in fact found in Sanskrit Buddhist texts. Most Tocharian A glosses are extremely difficult to read and decipher, and many have not yet been published (cf. Malzahn 2007a). I will pick out only a few that might be especially interesting because they are well understood and display linguistic peculiarities at the same time (SHT5-1098 = THT4083, Murtuq): *ets*<sub>v</sub> (e.a4), which glosses *irsyako*<sup>7</sup> 'jealous', for *emts* 'jealousy'; *yislī* (e.a4), which glosses *matsari* 'envious, jealous', for *yāslyi* 'envy'; *pakarkas*<sub>v</sub> (e.a5), which glosses *badhnata*, 2pl.ipv. of 'bind', for *pākārkās*. The shape of the first two of these glosses may not seem very striking (*ets* is well attested elsewhere, for instance), but it should be noted that the sound changes attested are perfectly parallel to those in late Tocharian B, namely *nts* > *ts*, *yā* > *yi*, whereas *li* for *lyi* may be hypercorrect (Peyrot 2008: 55, 69, 109). However, in the third gloss the scribe clearly mixed up the vowels, which might point to Tocharian B influence, since in this language the

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<sup>7</sup>For *irsyakah*.

vocalism would be exactly the reverse: *pākarkäs\** /pākǎrkəs/.

§2.6 Since it could be used for the claim that Tocharian A was spoken, it is necessary to discuss a small text that is – exceptionally – written on a piece of cloth (THT1559, from Šorčuq): *tāš\ pak\ turkšāñč<sup>8</sup>\ y(ā)mtsāt\ put(i)šparsim<sup>8</sup> akālyo k<sub>a</sub>lyi maškaṃ tākim<sub>a</sub>* ‘Turkšāñč has made this *pāk*;<sup>9</sup> may I through the wish for the Buddha-worth no longer be a woman!’ We are dealing with a personal note by a woman who wishes to be reborn as a man, a necessary step towards enlightenment. In my view, this sample does not prove that Tocharian A was spoken, because the language is correct, and the text must have been written by a well-trained and religious scribe. Since the subjects of the two clauses are probably the same, the name of the scribe was *Turkšāñč*, which does not look very ‘Tocharian’ (the suffix is probably to be compared with the Sogdian feminine suffix *-āñč*, see Gershevitch 1954: 158-159). Probably, *Turkšāñč*’ mother-tongue was not Tocharian A, but for instance Old Uygur.

§2.7 As far as text interference is concerned, evidence that Tocharian A was more than a monastery language is scanty indeed. It is very difficult to prove that no scribe was a native speaker of the language, but the fact that the only scribes that we can trace through the texts turn out to be native speakers of Tocharian B and Old Uygur is a strong indication nevertheless – in any event, it is a distinct possibility that Tocharian A was not a normal spoken language (on alleged morphological influence of Tocharian A on Tocharian B, see §3.3).

### §3 Linguistic interference

§3.1 On the linguistic level, the most obvious type of interference is without doubt found in the lexicon. Although

<sup>8</sup>The *t* of *put(i)* is a bit below the line, but a reading *pu(t)t(i)*, the correct form, seems to be excluded.

<sup>9</sup>Perhaps the word *pāk* (f.) is related to Tocharian B *pakai* /pǎkay/ (obl.) ‘chowry’ (a kind of fan). For the formation, cf. obl. TB *kolmai* ‘boat’ vs. TA *kolām* (f.) and TB *salyai* ‘border’ vs. TA *slyi* (f.). If *pāk* means ‘chowry’, this piece of cloth could be a part of that chowry. Alternatively, *pāk* might be a loan-word from Chinese, as was suggested to me by Georges-Jean Pinault (p.c.). Unfortunately, neither of these hypotheses can be verified as long as the meaning of the word is uncertain.

the lexical differences between the two languages are large, as shown by Lane (1966: 221-223), a considerable number of words are actually “too similar” in the two languages: they do not conform to the systematic differences between cognate inherited lexical items. As shown by Winter in his fundamental study on “lexical interchange” (1962<sup>10</sup>), most of these similarities have to be explained with borrowing from Tocharian B into Tocharian A. If these loan-words are scrutinized in the light of the chronological stratification of Tocharian B, they appear to be of classical shape (Šorčuq type): they do not generally display the typical cluster simplifications of the late language, and they reflect a triple *a* vowel system ( $\bar{a} : a : \ddot{a}$ ), just like the written forms of classical Tocharian B (cf. in general Peyrot 2008).

In loan-words into Tocharian A, the Tocharian B phoneme /a/ (accented < $\bar{a}$ >, unaccented <a> in the classical language) is represented as / $\bar{a}$ /, irrespective of the Tocharian B accent:

Tocharian A	meaning	TB (class.)	TB (arch.)	TB phonological
<i>āyāto</i>	‘suitable’	<i>ayāto</i>	* <i>āyāto</i>	/ayāto/
<i>āsāwe</i>	‘gross, rough’	<i>aśāwe</i>	* <i>āsāwe</i>	/aśāwe/
<i>lālamṣkā</i>	‘tender’ (f.)	<i>lalamṣka</i>	* <i>lālāmṣkā</i>	/lalónṣka/

On the other hand, the Tocharian B phoneme /ə/ (accented <a>, unaccented < $\bar{a}$ > in the classical language) is represented as / $\bar{a}$ / or /a/ in Tocharian A, according to the accent rules of classical Tocharian B:<sup>11</sup>

Tocharian A	meaning	TB (class.)	TB (arch.)	TB phonological
<i>enkāl</i>	‘passion’	<i>enkāl</i>	<i>enkāl</i>	/énkəl/
<i>enkalsu</i>	‘passionate’	<i>enkalsu</i>	* <i>enkālsu</i>	/enkól̄su/
<i>ṣṇāṣse</i>	‘relative’	<i>ṣṇāṣse</i>	* <i>ṣṇāṣse</i>	/ṣṇól̄ṣse/
<i>ymassu</i>	‘thoughtful’	<i>ymassu</i>	<i>ymāssu</i>	/ymól̄ssu/
<i>cāmpamo</i>	‘able’	<i>cāmpamo</i>	* <i>cāmpāmo</i>	/cāmpól̄mo/

<sup>10</sup>Couvreur (1947: 77 and passim) gives the first systematic explanation of irregular word-final correspondences in terms of borrowing, although the concept clearly goes back to Pedersen (1941, e.g. p. 71, 96).

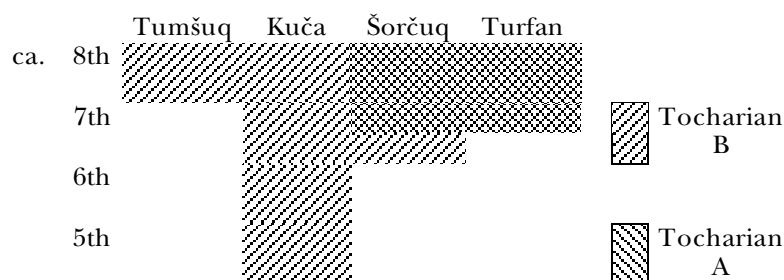
<sup>11</sup>The different treatment of TB /a/ and /ə/ may indicate that the difference between the phonetic values behind the graphemes <a> (TB /a/ and / $\acute{a}$ /) and < $\bar{a}$ > (TB /ə/) was larger than that between those for < $\bar{a}$ > (TB / $\acute{a}$ /) and <a>. In other words, the writers of Tocharian A apparently found it more important to distinguish the Tocharian B allophones of /ə/ than those of /a/.

We do not find late features like for instance a colored shwa in *\*\*cāmpamo* for *cāmpamo*. In three cases we find cluster simplification, but the simplified Tocharian B forms are well attested in the classical material (Malzahn 2007b: 239-240; Peyrot 2008: 63-64, 71).

Tocharian A	meaning	TB (class.)	TB (arch.)
<i>ñātse</i>	‘need’	<i>ñātse, ñyātse</i>	<i>ñyātse</i>
<i>ñās</i>	‘desire’	<i>ñās, ñyās</i>	<i>ñyās</i>
<i>šmoññe</i>	‘place’	<i>šmoññai</i> (obl.), <i>šmoññai</i> (obl.)	<i>šmoññai</i> (obl.)

The fact that the Tocharian B phoneme /a/ is always rendered by Tocharian A /ā/ could suggest an early date of the borrowings, namely in the archaic period of Tocharian B, but the double representation of /ə/ clearly rules out this possibility, since the accent rules affected /a/ first and /ə/ only afterwards (Peyrot 2008: 33-41).

The dating of these loan-words fits very well into our picture of the spread of Tocharian B to the east as it is attested by the manuscripts (Peyrot 2008: 191-196). A later date could still be reconciled with what we know about the dates of the manuscripts, but an earlier date would leave us with considerable problems concerning the prehistoric movements of especially the speakers of Tocharian A. In the scheme below, the period of the contacts between Tocharian B and Tocharian A is represented vertically, and the contact area horizontally. During its development from approximately the 5th to the 8th centuries, Tocharian B spread west and east from its original home Kuča. When it reached Šorčuq and Turfan in the 7th century, it came into contact with Tocharian A.



§3.2 In phonetics and phonology, another domain of possible linguistic interference, we cannot make much progress,

unfortunately. The manuscript material as we have it does not allow us to draw conclusions about whether Tocharian A was spoken with a Tocharian B accent, or the other way round, or whether there was no interference in this domain at all. The only observation we can make is that on the synchronic level the phonological systems are almost exactly the same, and the spelling is identical. In fact, the script is also identical, if we leave archaic Tocharian B out of consideration. The script type of Tocharian A suggests that it was based on a Tocharian B script contemporaneous with classical Tocharian B, but probably not with the earliest stage of it, that is to say, a script type from the second half of the seventh century or later.

§3.3 In the domain of morphology, we again find a relatively large divergence between the two languages. We can quote George Lane, who stated that “It is indeed in morphology that the two dialects go most widely asunder” (1966: 215). I cannot repeat all his examples here, but he adduces all kinds of differences in nominal and verbal endings, and divergences in the formation patterns of the verb.

Recently, Malzahn and Pinault have argued that Tocharian A influenced Tocharian B in its morphology, which is surprising in view of the general direction of borrowing from Tocharian B to Tocharian A. For Malzahn’s idea that the aberrant *au*-vocalism of the eastern and late form *prautkar* B108b6 ‘they (were) filled’ is due to Tocharian A influence (2007c: 290), I refer to my suggestion that it is a causative form (2008: 133, 209). Another instance was brought up by Pinault (2008: 643), who assumed that the late 3pl. copula *stare* was formed from the suffixed singular *star-*. According to him, this means that the singular and plural copula forms had merged functionally, which in turn would point to influence from Tocharian A, where we find the same functional overlap (Sieg, Siegling and Schulze 1931: 167). However, the intermediate form that is indifferent to number is not attested and *stare* is the free rather than the suffixed form (it is attested with a suffixed pronoun only once). Moreover, *stare* is not an eastern form, but a late one (it is well attested in the Kuča region), and it can be explained without recourse to the singular *star-* (Peyrot 2008: 141-142). The second instance Pinault adduced (2008: 185) concerns a case mistake in an eastern text, where we find the nom.sg. *oski[ye]* B108a9

‘dwelling’ in oblique function as proven by the preceding adjective *paiyneṣṣai*. Since the corresponding Tocharian A word *oṣke* has no difference between nominative and oblique, Pinault explains *oskiye* as a hypercorrection, assuming that the Tocharian A writer has mixed up the Tocharian B case forms. It is difficult to find an alternative explanation for *oskiye*, as no other interpretations of the passage seem possible,<sup>12</sup> but a confusion of nominative and oblique may evidently have other causes, too. In any event, if these phenomena should indeed be due to influence from Tocharian A, it does not yet prove that Tocharian A was a spoken vernacular. As it is plausible that the two languages were in part written by the same scribes, a little bit of confusion may have come about.

§3.4 Unfortunately, there is no systematic description of the syntax of either Tocharian language, let alone a comparative syntax of both. However, we are in the lucky position to have many case studies: apart from Thomas’ publications (which can be traced via Peyrot 2007), we may mention for instance Schmidt (1974) and Carling (2000). Admittedly, it is difficult to generalize from all these case studies, as the results vary, naturally, and the scope, size and depth of the inquiries are very different as well. Still, a tentative conclusion can be that if the formal inventories of the two languages do not match, we do obviously find differences in their usage, but if the formal inventories of the two languages are the same, the differences in usage are slight at most.

The method for detecting loan-words in the two languages was an evaluation of the systematic differences between Tocharian A and B which yielded some words that do not conform to the system because they are too similar (§3.1). Although we cannot apply exactly the same method to syntax, the lack of differences in this domain is striking, so that it is possible that at least some of the syntactic matches do not reflect the Proto-Tocharian state of affairs. Although we will

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<sup>12</sup>The only solution I can think of is that we should perhaps read *osk[aine]* (loc.sg.), which would resolve the double accusative reconstruction, translating ‘in the dwelling of your feet we make our refuge’. However, this text correction cannot be verified since the manuscript is lost; its only support is that Sieg and Siegling’s transliteration “*oski[ye]*” (1953: 44) suggests that the passage was difficult to read. In any case, Thomas’ analogy with *praṣciye* ‘rain’ (1964: 46) is inadequate: although this word may indeed lack a difference between nominative and oblique, it is masculine instead.

never be able to tell on the basis of similarities between the daughter languages *that* the proto-language was different, caution is called for: a superficial match between Tocharian A and B does not necessarily mean that Proto-Tocharian was identical.

#### §4 Discussion

In conclusion, there is an imbalance in the degree of divergence between Tocharian A and B in the different linguistic domains. The differences in morphology and lexicon are relatively large, whereas those in phonology and syntax are small. In order to explain this imbalance, I have three suggestions to make, which are not necessarily mutually exclusive.

First of all, certain syntactic similarities may be due to parallel copying from Sanskrit patterns, as many Tocharian texts are translated from Indic.<sup>13</sup> Even if a text is not a translation from Sanskrit, but for instance a Tocharian (re)composition, we can safely assume that Indian models had a strong influence. Although this suggestion does not work for syntactic agreements not matched by Sanskrit, it is very attractive because influence from Sanskrit is guaranteed, not only by numerous loan-words, but also in the form of a large number of lexical and syntactic calques in certain texts, for instance the *Udānavarga* and *Udānālaṅkāra* in Tocharian B. Candidates for Indian influence may be the usage of participles, the usage of certain cases, and probably some word order patterns.

Second, agreements between Tocharian A and Tocharian B in syntax and phonology could be due to a Tocharian B substrate in Tocharian A. Although there are many types of language contact, depending on the social situation and the types of the languages, and despite the fact that there is no ready solution for what a Tocharian B substrate in Tocharian A should look like, it is plausible that the phonetics and syntax of the substrate language were the domains that influenced the ultimate outcome most. Admittedly, it is difficult to offer hard proof for this suggestion, especially because we have little information about the precise nature of the contacts between the two languages, and their predecessor Proto-Tocharian is only reconstructed. Nevertheless, influence of Tocharian B on

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<sup>13</sup>Mostly at a rather late stage, that is, from Buddhist Sanskrit.

Tocharian A is ascertained by the loan-words and the similarities in the script types. As an additional advantage, the substrate theory accounts for the high mutual translatability: it is usually possible to make very precise translations from one language into the other. Candidates for Tocharian B influence may be the usage of tenses and moods, and possibly adverbs and particles.

The question is how the substrate could have come about. In my view, the most plausible scenario is that the Tocharian A texts were written by professional Tocharian B writers, commissioned by Tocharian A nobles. This explains the spread of Tocharian B to the east as instrumental in the development of Tocharian A writing. It also explains why the influence of Tocharian B on Tocharian A took place before the oldest attested Tocharian A text was composed, in spite of the demonstrably late date of the earliest contacts. In addition, it allows for a largely independent Tocharian A tradition as far as the content of the texts is concerned, which in turn could be the reason why there are hardly any parallel texts in the two languages, nor translations from one into the other.

Third, it cannot be excluded that there is a common foreign element which makes Tocharian A and B look similar. For instance, it has often been suggested that the agglutinative features in the Tocharian nominal system are of the Altaic type. Although we do not know where and when contacts with agglutinative languages should have taken place, it is possible that these features were borrowed only after Proto-Tocharian broke up. Independent borrowing of features from a common foreign source would account for differences in the secondary cases, for instance, case suffixes that have the same function but are not etymologically related.

### **§5 Conclusion**

To sum up, strong influence of Tocharian B on Tocharian A is certain and no speakers of Tocharian A can be traced through the manuscripts. The two languages must have converged to a certain degree and it is even possible that Tocharian A was actually written by speakers of Tocharian B. Consequently, Proto-Tocharian may have differed more from its daughter languages than is often suggested by superficial similarities between them. Therefore we should be very cautious when trying to reconstruct Proto-Tocharian syntax, especially when Tocharian A and B agree perfectly.



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# A Quartet of Graeco-Aryan Demi-goddesses: Leukothea, Eidothea, Ulūpī and Vargā

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The *Odyssey's* two scenes involving the helpful demi-goddesses Leukothea and Eidothea are linked by proximity and a number of narrative similarities; they may have arisen from a common source, one generally assumed to be folkloric. Two episodes from the Sanskrit *Mahābhārata* involving similar aquatic helper figures (Ulūpī the Nāgī, and Vargā the crocodile/celestial nymph) shed light on the Graeco-Aryan origins of the Homeric goddesses, and offer insight into the evolutionary processes of both epic traditions.

## I. Introduction

The *Odyssey's* helpful aquatic demi-goddesses Ino/Leukothea and Eidothea most likely arose from a common ancestor. The scenes that involve them occur in adjacent books and are linked by a number of narrative commonalities; even the goddesses' names suggest deeper ties between the two.<sup>1</sup> To the extent that classical scholarship has addressed these figures directly,<sup>2</sup> their origins have been presumed to lie

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<sup>1</sup>Several textual reasons suggest that Odysseus may have been the original hero of the Eidothea episode: (1) though Helen accompanied Menelaus, she is not mentioned in the scene; (2) Eidothea's address to Menelaus at *Od.* 4.389–390 is the same as Circe's to Odysseus at *Od.* 10.539–540; (3) the phrase ὑπὸ πόντου ἐδύσετο κυμαίνοντα at *Od.* 4.425 is the same as 5.351–2 in the Leukothea episode; and (4) the Eidothea episode closely resembles Odysseus' stay on Thrinakia: stranded by the winds on an island (*Od.* 4.360–363, cf. 12.325–326); an attempt to assuage hunger through makeshift fishing lines (*Od.* 4.368–369, cf. 12.331–332); the hero goes off alone away from his companions (*Od.* 4.367, cf. 10.333–335).

<sup>2</sup>Classicists have had little to say about the Homeric characters. Wilamowitz (1884:135–136) declares Leukothea an Ionian adoption, and sniffs at the idea that her character makes any contribution to the epic. Heubeck saw the interventions Ino and Eidothea provide as insufficiently accounted for within

among the helpful water spirits of folktale.<sup>3</sup> While the two episodes probably were influenced by folktales during the developmental period of the Homeric epics, there is reason to believe that these two demi-goddesses have Indo-European precursors as well.

Evidence of the shared heritage of the Greek and Sanskrit epics has been widely noted.<sup>4</sup> Both traditions center on nigh-apocalyptic wars provoked by the stealing or molestation of a woman, and their heroes divide their time between waging this war and extended and unwelcome periods of travel, along with occasional archery-based marriage-contests. The epics' common origins are also discernable in small encapsulated episodes with well-defined boundaries.<sup>5</sup> These often resemble folktales in structure and content and, like folktales, are of a size to be easily remembered and transmitted intact; such episodes are particularly abundant in the category of "The Adventures of the Wandering Hero." Like the journey of Odysseus, the travels of the Indic hero Arjuna in the *Mahābhārata* (both in the company of and apart from his brothers) involve a disproportionate number of encounters with female characters. When these women are taken as a group and set against the encounters with women in the *Odyssey*, they form a neat set of remarkably similar pairings.<sup>6</sup>

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the narrative, stating that "Particularly noteworthy is the absence of any apparent motive for the assistance which the two goddesses provide" (Heubeck et al. 1998 vol. I: 216). Benardete (1997: 45) reasons that Leukothea's role may be to ensure that Odysseus is naked when he reaches Scheria.

<sup>3</sup>E.g., Hansen (1997), who reports that "the notion that marine deities are prophetic is found in other traditions as well." Hansen connects the *Odyssey's* Proteus-encounter to Scandinavian legends in which "(1) a man captures a marine spirit, (2) as a result of which he is entitled to ask him/her questions. (3) He does so, and (4) receives truthful answers." (Hansen 1997: 453-454).

<sup>4</sup>E.g., Gresseth 1979; Meulder 2000; Suter 1987.

<sup>5</sup>E.g., Allen 2000, 2009; Garbutt 2006; Jamison 1994, 1997, 1999; E.B. West 2005, 2006, 2009.

<sup>6</sup>These encounters can legitimately be paired in several ways, as some elements seem to have become detached from their original possessors and reassigned to different characters. Allen 1996 constructs a schema organized by the structural correspondences of the encounter stories within their respective epics: Odysseus' encounter with Circe is paired with Arjuna's liaison with Ulūpī, the Sirens are identified with Vargā, Calypso with Citrāṅgadā, and Nausicaa with Subhadrā, and the heroes' wives, Penelope and Draupadī, are equated with one another. On the basis of parallel elements in

This paper is concerned with the relationship between the Ino and Eidothea episodes and a pair of similar episodes from the Sanskrit *Mahābhārata* epic: Arjuna's encounters with Ulūpī the Nāgī<sup>7</sup> and with Vargā, a celestial nymph who has been turned into a crocodile. These Indic figures are also closely linked by textual proximity; less than 25 verses separate the two adventures, and they share a number of narrative similarities as well. All four episodes share features, and even more significantly, the two *pairs* of episodes closely resemble one another: both the *Odyssey* and the *Mahābhārata* offer a pair of linked episodes about water-dwelling semi-human women, one of which involves a life-saving token, the other a wrestling match with a shape-changing opponent. I summarize all four briefly below:

(1) **Eidothea**, daughter of Proteus, appears to Menelaus at *Od.* 4.351 ff., when he is stranded on the island of Pharos off the coast of Egypt during his journey home from Troy. Eidothea gives Menelaus advice and provides him with the materials necessary to subdue her prophetic father. Following her instructions, the hero and his men are able to capture Proteus and coerce him into revealing what they must do to resume their journey home.

(2) **Ino** (also called **Leukothea**) was originally a daughter of Cadmus and princess of Thebes, but was transformed into a minor sea deity. She rescues Odysseus when his raft is in danger of being wrecked by Poseidon at *Od.* 5.333–350. Ino tells Odysseus that he is destined to survive this trial, and instructs him to tie her veil around his chest, abandon his raft, and swim to safety.

(3) **Ulūpī**, daughter of Kauravya, king of the *Nāgas*, drags Arjuna into the water of the Ganges at *MBh.* 1.206 ff., as he bathes in preparation for the evening fire ritual. Ulūpī has been smitten with love for the hero and, as this episode occurs

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the narratives, E.B. West 2009 explores shared characteristics in the tales of Citrāṅgadā and Nausicaa.

<sup>7</sup>The *Nāgas* (Snakes) are mythical beings who live in the elaborate underground city of Bhogavatī, at the bottom of the ocean, or in lakes and ponds. By situating the original narration of the *Mahābhārata* at the 12-year Snake Sacrifice of the Kurus' ancestor King Janamejaya, and by implicitly comparing Janamejaya's attempted holocaust of the Snakes with the apocalyptic war at Kurukṣetra, the epic links the destinies of the Snakes and the Kurus on many levels (e.g., Kosambi 1964); that the name of Ulūpī's father is Kauravya ("Descendant of Kuru") is particularly intriguing.

during the period in which Arjuna is separated from his wife and brothers, he and Ulūpī spend a romantic night together. Arjuna then goes on to the city of Maṇalūra, where he marries a princess (Citrāṅgadā) and fathers a son before resuming his travels. In *MBh.* 14, Ulūpī makes a second appearance when Arjuna has returned to Maṇalūra as part of a Horse Sacrifice (*Aśvamedha*) and finds that his son Babhruvāhana is now ruler of the region. Since Arjuna is following the horse, he attempts to engage Babhruvāhana in combat, but his son demurs. The two remain at an impasse until Ulūpī appears and encourages Babhruvāhana to fight his father.<sup>8</sup> When Arjuna is accidentally slain by his son, Ulūpī restores the hero to life with a magic gem placed upon his chest.

(4) **Vargā**, an *apsaras* (celestial nymph) and her four sisters were cursed by an angry brahmin whom they had playfully tempted with their beauty as he meditated.<sup>9</sup> The brahmin transformed the nymphs into crocodiles, and they live in a cluster of sacred bathing areas and pose a danger to the holy men who bathe there. At *MBh.* 1.208 ff., Arjuna learns of the menace and decides to bathe at one of these *tīrthas*, where he is duly attacked by Vargā. He grips her tightly while lifting her out of the water, releasing her from the curse. After hearing her story, he frees the other enchanted *apsarases* in the same way. It is important to note for later reference that Vargā's tale, while sharing many motifs with the other three, has its central issue reversed: whereas the others describe assistance given to a hero by a demi-goddess, this one describes the rescue of a damsel in distress. I return to this point later, as it

<sup>8</sup>Goldman 1978 traces Freudian elements in the second Ulūpī episode. Allen 1996: 8-9 rightly compares the father-son combat resulting in the father's death in this tale to that between Odysseus and Telegonus (Odysseus' son by Circe), as reported by Proclus, *Chrestomathia* 306:

[Odysseus] then, having sailed back to Ithaca, carries out the sacrifices ordered by Teiresias, and then reaches Thesprotis and marries Callidice, queen of the Thesprotians...After the death of Callidice, the succession goes to Polypoetes, Odysseus' son, while Odysseus himself returns to Ithaca. Meanwhile, Telegonus, sailing in search of his father, goes to Ithaca and razes the island. Having marched out in defense, Odysseus is slain by his son in ignorance. Telegonus, realizing his error, takes his father's body, Telemachus and Penelope to his mother [Circe], where she makes them immortal. Telegonus marries Penelope, and Telemachus marries Circe.

<sup>9</sup>Allen 1999 analyzes Vargā's role within the *Arjunavanavāsa* and in relation to the varieties of marriage described in the Law Code of Manu, and compares her to the Sirens and Scylla and Charybdis.

plays a significant role in the analysis of the relationships between the episodes.

Following Parry and Lord (1960), episodes from Homer may be seen as strings of themes (or motifs) which a poet elaborates on, embellishes, or re-orders as storytelling occasions demand, sometimes creating alternative combinations that go on to become a stable part of his repertoire as independent episodes in their own right. These four water-dwelling demi-goddesses appear to be the outcome of such an evolutionary process. Like the characters they feature, these episodes are fluid and versatile, and demonstrate how a flexible narrative element may persist where a more rigid one might be abandoned. The very flexibility that allows them to remain part of the epic, however, also causes them to be especially subject to alteration as the poet casts and recasts the scene to suit the ever-evolving larger storyline. Though the incidents pair off naturally according to the differing focal points of each narrative (a wrestling match and an immortal magical object applied to the chest), other shared motifs link all four. I contend that these shared motif clusters provide evidence of Graeco-Aryan heritage in the epics.<sup>10</sup> I now discuss all relevant shared motifs in turn.

#### A. The Aquatic Demi-goddess

All four characters have profound associations with water. In the *Odyssey* this might not at first seem particularly striking as a shared characteristic; water and the sea are prominent throughout the tale, and sea deities (like sea monsters) would seem to be logical components of it. But aside from Poseidon (who is arguably in a separate class), the only marine immortal in Homer besides those featured in these episodes, is Thetis, who, though a Nereid and Eidothea's sister, less closely resembles the figures under discussion here than other divine mother-figures such as Eos and Aphrodite.

- **Eidothea**, as a Nereid, moves freely between land and water, and through her father Proteus is deeply connected to the sea.

- **Leukothea**, though originally of mortal heritage, is now a sea goddess:

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<sup>10</sup> See M. L. West 2009 for a concise discussion of the sub-groupings within the Indo-European tradition.

τόν δὲ ἶδεν Κάδμου θυγάτηρ, καλλίσφυρος Ἰνώ  
 Λευκοθέη, ἣ πρὶν μὲν ἔην βροτὸς ἀυδήεσσα,  
 νῦν δ' ἄλως ἐν πελάγεσσι θεῶν ἕξ ἔμμορε τιμῆς.  
 (Od. 5.333–335)

The daughter of Cadmus saw him then, lovely-ankled Ino,  
 Leukothea, who previously was a mortal, speaking with a  
 human voice,  
 But now in the open sea she shares in the honor of the gods.

Though the episode refers to Ino's prior life, it does not explain the circumstances of her transition to the sea, which must be supplied from other sources.<sup>11</sup> Because Ino nursed the infant Dionysus, the goddess Hera cursed Ino's husband, Athamas, with a madness that caused him to attack his own family. His ravings drove Ino to throw herself into the ocean, after which she was transformed into a marine deity.

In the *Mahābhārata*, water-dwelling is an unusual characteristic, and in this respect the two demi-goddesses here are unique in the epic.

- Like Ino, **Vargā**, dwells in the water as the result of a curse, though Vargā's time there will be temporary.
- The encounter with **Ulūpī** begins when she pulls the bathing Arjuna below the water and takes him to the palace of her father. *Nāgas* are generally associated with water in Hindu mythology, but they are rarely portrayed as amphibious within the *Mahābhārata*, which more frequently depicts them as living in caves.<sup>12</sup> Arjuna underscores the aquatic element of Ulūpī's character by addressing her as "Denizen of the Waters," (*jalacārīṇī*, *MBh.* 1.206.22). The meaning of Ulūpī's name, "Porpoise" (Burrows 1948: 367), also arouses interest, given the frequency with which folklore depicts the rescue of stranded sailors by cetaceans, suggesting a deeper association with Ino's rescue of the shipwrecked Odysseus.

### B. The Missed/Interrupted Sacrifice

Both the Ulūpī and Eidothea episodes open with a

<sup>11</sup>Ino's misfortune was the subject of Aeschylus' lost *Athamas*. Other sources include Pi. *O.* 2. 22 ff.; Ov. *Met.* 4. 416 ff.; [Apollod.] *Bib.* 3. 28.

<sup>12</sup>As in Uttanka's visit to the land of the *nāgas* in *MBh.* 1.3, or 1.32, where Brahmā rewards the austerities of the *nāga* Śeṣa with the right to live in a chasm and support the earth on his head.



reference to an incomplete or interrupted sacrifice.

• As noted above, Arjuna meets **Ulūpī** when she interrupts his preparations for an evening ritual:

*Tatrābhīṣekaṃ kṛtvā sa tarpayitvā pitāmahān  
uttitīrṣur jalād rājann agnikāryacikīrṣayā  
apakīrṣto mahābāhur nāgarājasya kanyayā  
antarjale Mahārāja Ulūpyā kāmāyānaya  
(MBh. 1.206.12–13)*

There, having made ablutions and offered to his ancestors,  
as he was about to emerge from the water, O King,  
intending to perform the fire-rites  
the strong-armed man was dragged under the water  
by the lustful Ulūpī, daughter of the king of the *nāgas*, O  
Great King.

Fortunately, a solution to the interrupted rite is at hand: Arjuna sees a fire already prepared in the *nāga* palace, and he immediately performs an underwater version of the ritual so as to avoid divine displeasure:

*Dadarśa Pāṇḍavas tatra pāvakaṃ susamāhitam  
Kauravyasyātha nāgasya bhavane paramārcite  
tatrāgnikāryaṃ kṛtavān Kuntīputro Dhanamjayaḥ  
asāṅkam ānena hutas tenātusyad dhutāśanaḥ  
(MBh. 206.14–15)*

There the Pāṇḍava saw a well-assembled fire  
in the most revered palace of the *nāga* Kauravya.  
There Kunti's son Dhanamjaya performed the fire-rite.  
by him the oblation was offered unhesitatingly; the Fire  
was pleased by him.

The final line suggests that had Arjuna been unable to complete the ritual, he would have faced potentially serious consequences.

• The **Eidothea** episode also begins with reference to a missed sacrifice with serious consequences: as Menelaus informs Telemachus at the start of his tale, it was his failure to offer hecatombs to the gods upon his departure from Troy that resulted in his stranding on Pharos:

Αἴγυπτο μ' ἔτι δεῦρο θεοὶ μεμαῶτα νέεσθαι  
 ἔσχον, ἐπεὶ οὐ σφιν ἔρεξα τελεέσσας ἑκατόμβας  
 οἱ δ' αἰεὶ βούλοντο θεοὶ μεμνήσθαι ἐφετμέων  
 (*Od.* 4.351–353)

The gods still held me there in Egypt, eager to sail,  
 since I had not offered complete hecatombs to them.  
 The gods always wish for their commands to be  
 remembered.

The position of this statement at the beginning of Menelaus' tale is unusual in that it anticipates the substance of what Menelaus will learn from Proteus at the end of the episode; in scenes of consultation with seers and prophets, the information gained is typically withheld until it is delivered by the informant. As Menelaus learns from Proteus, he must return to Egypt and perform his sacrifices there if he wishes to get home, and he proceeds to do so.<sup>13</sup> Though the motif of the delayed rite is instantiated differently in these two tales, both place a problematic sacrifice at the beginning of the scene, and both scenes describe the accomplishment of the incomplete ritual.

### C. The Demi-Goddess Rises Out of Sea/Earth

In three of the episodes, a demi-goddess makes her appearance by rising up through water, or through land as if it were water, while the fourth narrative contains suggestions that it once contained something similar.

• **Leukothea** emerges through the water to aid Odysseus, as his raft is capsized by Poseidon off the coast of Phaiacia:

αἰθυλίη δ' εἴκυλα ποτῆ ἀνεδύσετο λίμνης,  
 ἴζε δ' ἐπὶ σχεδίσῃ καὶ μιν πρὸς μῦθον ἔειπε  
 (*Od.* 5.337–338)

Like a flying sea-gull, she arose from the water,

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<sup>13</sup>Powell sees evidence of a ritual underpinning elsewhere in the Eidothea narrative as well, comparing the ambush of Proteus to the sacrifices Odysseus performs for Teiresias and on Circe's island: "why must Menelaus and his men suffer the unpleasantness of crouching beneath malodorous skins of seals between the time of the sun's rising and high noon, the time at which Proteus rises from the sea? This, too, suggests a ritual prescription" (Powell 1970: 427).

sat upon the well-corded raft, and to him spoke these words:

- There is reason to believe that **Eidothea's** tale too once included a similar entrance: though her appearance at *Od.* 4.370 occurs on dry land, as she speaks to Menelaus when he walks about the island, her return to the sea at *Od.* 4.425 (“she sank under the billowing sea,” ὑπὸ ποντον ἐδύσετο κυμαίνοντα) is nearly identical to Leukothea's at 5.351–352 (“she sank back into the billowing sea,” ἄψ' ἐς ποντον ἐδύσετο κυμαίνοντα). Similarly, to prepare the men's ambush ὑποδύσα θαλάσσης εὐρέα κόλπον, “she dived deep into the broad bosom of the sea” (*Od.* 4.435). It thus seems possible that an appearance by rising up through the water was once part of the narrative.
- **Vargā** herself rises up out of the water only inasmuch as she is pulled out by Arjuna (*MBh.* 1.208.11). But when her friends are liberated (ostensibly by identical means) it is explicitly said that they rise up from the water: *utthāya ca jalāt tasmāt*, “and having arisen from that water...” (*MBh.* 1.209.22).
- **Ulūpī**, as her first appearance in the epic is described, pulls Arjuna under the water into her father's palace, rather than making an appearance by rising up through the water; though the text makes no note of it, in order to perform this action, she must at some point have risen up through the water from her home to go towards the hero.<sup>14</sup> In her next appearance, in the *Mahābhārata's Aśvamedhika parvan*, when Arjuna speaks to his son as they face each other on the battlefield, Ulūpī rises up directly through the ground:

*Tam evam uktaṃ bhartrā tu viditvā pānnagātmajā  
amṛṣyamāṇā bhittvorvīm Ulūpī tam upāgamat  
(MBh. 14.78.8)*

The Snake's daughter, having perceived him being thus  
addressed by her husband,  
and unable to bear it, Ulūpī came to him by splitting  
through the earth.

When viewed alongside the other elements shared among these four episodes, Ulūpī's dramatic entrance may suggest that the motif of rising up through water to meet the hero has been re-engineered here to accommodate a shift of location

<sup>14</sup>I owe this clever observation to an anonymous referee.

to the battlefield.

#### D. Appears, Unsummoned, When Needed

A hallmark of three of the tales is the demi-goddess' sudden unsolicited appearance purely in aid of the hero.<sup>15</sup> Similar "divine helpers" are widespread in folk-tale,<sup>16</sup> and Athena and Hermes periodically perform this function, but it is not part of the role of any of the other minor characters encountered in the course of war or wandering in either epic.

- Though **Ulūpi's** first appearance is amorous rather than helpful, she comes to Arjuna's aid at *MBh.* 14.78.8 (quoted in Section C) without being called, magically drawn by an awareness of the hero's situation and a desire to help him.
- **Ino** is not summoned by Odysseus, but comes to him prodded by a merciful inclination to assist a man in distress. As she says by way of introduction:

κάμμορε, τίπτει τοι ᾧδε Ποσειδάων ἐνοσίχθων  
 ᾧδύσατ' ἐκπάγλως, ὅτι τοι κακα πολλὰ φυτεύει;  
 (*Od.* 5.339–340)

Poor thing, why does Poseidon Earth-Shaker so  
 dreadfully hate you, that he devises so many evils for you?

- **Eidothea** is similarly inspired by pity for Menelaus when she sees him and his men trapped on the island, and her assistance is again a spontaneous act of sympathy:

καί νύ κεν ἦῖα πάντα κατέφθιτο καὶ μένε' ἀνδρῶν,  
 εἰ μή τίς με θεῶν ὀλοφύρατο καὶ μ' ἔλεησε  
 Πρωτέος ἰφθίμου θυγάτηρ ἁλίιοιο γέροντος,  
 Εἰδοθέη· τῇ γάρ ῥα μάλιστά γε θυμὸν ὄρινα.  
 (*Od.* 4.363–366)

And by that time all the food would have been gone, and  
 the men's strength,  
 if one of the gods had not taken pity and saved me,  
 the daughter of mighty Proteus, the Old Man of the Sea,  
 Eidothea; for it was her spirit that was so stirred.

Though pity at a hero's unfortunate situation seems a

<sup>15</sup> As noted above, Vargā's episode reverses the situation.

<sup>16</sup> See Propp 1970: 39–50; Stith-Thompson, Motif-Index F 340–348 and N 810.

straightforward excuse to introduce a minor character, the device finds little use outside of these scenes.

### E. Shape-Changing

Shape-shifting is a primary component of two of the episodes under discussion, and there are overtones of it in all four.

- In *MBh.* 1.208, **Vargā's** shift into animal form occurred against the demi-goddess' will when she and her friends were cursed by the meditating brahmin (*MBh.* 1.208.21), much as Ino was condemned to life in the water by Hera's curse.
- In **Eidothea's** story, the shape-shifter is not the demi-goddess but her father.<sup>17</sup> When Menelaus and his companions seize Proteus:

ἀλλ' ἦ τοι πρότιστα λέων γένετ' ἠϋγένειος,  
αὐτὰρ ἔπειτα δράκων καὶ πάρδαλις ἠδὲ μέγας σῶς·  
γίγνετο δ' ὑγρὸν καὶ δένδρεον ὑψιπέτηλον·  
(*Od.* 4.456–459).

But he first became a well-bearded lion,  
and then a serpent, and a panther, and a great hog;  
He became both liquid water and a high-branching tree.

Only when the parade of forms finally ends, are the men able to converse with him.

- At *Od.* 5.337 (quoted above), **Ino** appears to Odysseus *ἀιθυίη* δ' *ἐϊκυῖα* ποτῆ, “like a flying sea-gull,” although whether this refers to her *form* or her *manner* has been a matter of debate.<sup>18</sup> While my own inclination is to read the words as descriptive of manner, it is nevertheless possible that an earlier tradition, in which Ino did assume the form of a bird, eventually came to refer only to the manner of her arrival at the hero's raft.
- While **Ulūpi** does not herself change form in this incident,

<sup>17</sup>But it should be remembered that Proteus' daughters also possess their father's ability to change shape, as both Thetis and Amphitrite prove in their attempts to avoid marriage.

<sup>18</sup>Discussed in Heubeck vol. I: 283. The same phrase is used as Ino returns to the water: *αὐτῆ δ' ἄψ' ἐς πόντον ἐδύσετο κυμαίνοντα / ἀιθυίη ἐϊκυῖα: μέλαν δέ ἐ κῶμα κάλυψεν* (*Od.* 5.351–352). Cf. Athena's delivery of nectar and ambrosia to the fasting Achilles at *Il.* 19.350–351: *ἠ δ' ἄρπη ἐϊκυῖα τανυπτέρυγι λιγυφώνω / οὐρανὸν ἔκ κατεπάλλτο δι' αἰθέρος*, “And she, like a broad-winged, shrill-voiced hawk / dove out of the heavens through the aether.”

the shape-changing abilities of snakes are well-attested in the *Mahābhārata* and an integral part of their nature,<sup>19</sup> much like those of the Old Man of the Sea and his daughters.

#### F. The Wrestling Match Followed by Conversation

Two scenes—one from each epic—center on a wrestling match that ends when the opponent has resumed his or her natural form.<sup>20</sup>

- After Arjuna is told that the religious community at the sacred fords is plagued by crocodiles, he laughs off the risk and begins to bathe. The enchanted **Vargā** attacks him, and he responds by dragging her out of the water:

*Sa tam ādāya Kaunteyo viṣphurantaṃ jalecaram  
udatiṣṭhan mahābāhur balena balināṃ varah  
utkṛṣṭa eva tu grāhaḥ so 'rjunena yaśasvinā  
babhūva nāri kalyāṇi sarvabharaṇabhūṣitā  
dīpyamānā śrīyā Rājan divyarūpā manoramā  
(MBh. 1.208.10–11)*

Having seized the writhing crocodile, Kaunteya,  
that strong-armed Best of the Strong, stood up powerfully.  
Indeed, when that snapper had been dragged out by the  
glorious Arjuna,  
she became a beautiful young woman, adorned with all  
ornaments,  
blazing with beauty, King, of divine form and charming.

After Arjuna subdues the crocodile in his grip, Vargā is restored to her natural *apsaras*-form. She explains her situation and Arjuna restores the other four crocodiles to their normal forms as well:

*Utthāya ca jalāt tasmāt pratilabhya vapuḥ svakam  
tās tadāpsaraso Rājann adṛsyanta yathā purā  
(MBh. 1.209.22)*

Having arisen from the water, and recovered their own  
forms, then the *apsarases*, O King, looked as they did  
before.

<sup>19</sup>As in *MBh.* 1.3.136, where the *nāga* Takṣaka takes the form of a naked mendicant.

<sup>20</sup>The Ulūpī episode has no exact parallel to the wrestling in the Eidothea and Vargā tales, but does open with a similar scenario, when Ulūpī grabs Arjuna and pulls him underwater at *MBh.* 1.206.12–3.

- A similar wrestling match is the central feature of **Eidothea's** story, as described in the last section. She describes the task to Menelaus and his men beforehand:

ὑμεῖς δ' ἀστεμφέως ἐχέμεν μάλλον τε πιέζειν.  
 ἀλλ' ὅτε κεν δῆ σ' αὐτὸς ἀνείρηται ἐπέεσσι,  
 τοῖος ἐὼν οἶόν κε κατευνηθέντα ὕδησθε,  
 καὶ τότε δῆ σφέσθαι τε βίης λῦσαί τε γέροντα,  
 (Od. 4.419–421)

But you all hold him tightly and squeeze him all the more.  
 And then when he, himself, asks you a question with words,  
 in the same form as when you saw him sleeping,  
 then let go of your might and release the Old Man.

Menelaus and his men follow Eidothea's instructions, and wait until her father returns to his original form. Like Vargā, once Proteus has been restored to his true self it becomes possible to converse with him:

ἡμεῖς δ' ἀστεμφέως ἔχομεν τετληότι θυμῷ  
 ἀλλ' ὅτε δῆ ῥ' ἀνίαζ' ὁ γέρων ὀλοφώϊα εἰδώς,  
 καὶ τότε δῆ με ἔπεεσσιν ἀνείρόμενος προσέειπε:  
 (Od. 4.459–461)

We, unyielding, held him with enduring spirit.  
 But when the old man, the possessor of devious wiles,  
 wearied,  
 he finally spoke to me with words, asking questions.

Both the Eidothea and Vargā episodes thus present a situation in which the hero must grip his adversary firmly in order to restore him/her to his/her natural form, after which he can converse with the shape-changer, who not only no longer poses a threat but offers the hero information.

### G. The Magical Object Applied to the Chest

- In *MBh.* 14, when **Ulūpī** rises up through the earth to find Arjuna in conflict with his son over the necessity of fighting one another, she sets a plan into action. Ulūpī instructs Babhruvāhana to engage in battle with his father because this

is the only acceptable option for a warrior. Babhruvāhana is persuaded, and he and Arjuna begin a single combat. After an extended battle that both enjoy immensely, Babhruvāhana mortally injures his father. Seeing this, the young man falls into a deathlike swoon; when he regains consciousness, he resolves to starve himself to death out of remorse. In response to his grief, Ulūpī mentally summons a magic gem she knows will revive Arjuna:

*Ulūpī cintayām āsa tadā saṁjīvanaṁ maṇim  
sa copātiṣṭhata tadā pannagānām parāyaṇam  
(MBh. 14.81.2)*

Ulūpī thought then of the re-vivifying gem  
and it came there, that last resort of the Snakes.

Ulūpī directs Babhruvāhana to place the gem on Arjuna's chest, and its power restores the dead hero to life:

*Etamasyorasi tvaṁ tu sthāpayasva pituḥ Prabho  
saṁjīvitaṁ punaḥ putra tato draṣṭāsi Pāṇḍavam  
ityuktaḥ sthāpayām āsa tasyorasi maṇim tadā  
Pārthasyāmitatejāḥ sa pituḥ snehād apāpakṛt  
(MBh. 14.81.10–11)*

“Put this on the chest of your father, Lord  
Then, O Son, you will see the Pāṇḍava revived.”  
Thus addressed, on the chest of Pārtha he then placed  
the gem,  
he whose glory is boundless, not a committer of sin, for  
love of his father.

• In the *Odyssey*, **Leukothea** also provides a magical ornament to assist Odysseus: her divine veil. Like Ulūpī's gem, it works when applied to the chest. She tells him:

*τῆ δέ, τόδε κρήδεμνον ὑπὸ στέρνοιο ταύσσαι  
ἄμβροτον· οὐδέ τί τοι παθέειν δέος οὐδ' ἀπολέσθαι  
(Od. 5.346–347)*

And here, wrap this immortal veil about your chest,  
nor fear to suffer anything, or to be destroyed.

After some hesitation,<sup>21</sup> Odysseus follows Leukothea's order to

<sup>21</sup>Gutglueck 1988 attributes Odysseus' reluctance to follow Ino's orders to



abandon his raft, and uses the veil to save himself from drowning during his three-day drift in the sea (*Od.* 5.354–372).

Though there are obvious differences between the tokens, there are similarities as well. Both are items of adornment, and both are described with adjectives relating to the crossing from death to life: ἄμβροτον for the veil and *saṃjīvanam* for the gem. In both cases, use of the token is also connected with the hero's visit to the country of a young and marriageable princess: Ino's veil saves Odysseus' life by bringing him to Nausicaa's island, while Ulūpī's assistance saves Arjuna's life in Citrāṅgadā's kingdom.<sup>22</sup> The paired occurrence of links that reach outside of individual episodes and extend into another set of comparable episodes strongly suggests that these interlocking tales derive from a precursor that diverged to form the Greek and Indic epics.

#### H. Resolution of a Curse

Both the Ino and Ulūpī narratives also have the intervening goddess reveal to the hero that events in the episode were pre-ordained, originating in curses from divine parent angered at the treatment of his or her son.

- The storm that threatens Odysseus' life during the **Ino** episode was caused by Poseidon as a result of the supplication made to the god earlier by his son the Cyclops (*Od.* 9.526–536).
- In *MBh.* 14, **Ulūpī** reveals that the combat between father and son was necessary to expiate a curse placed upon Arjuna by the goddess Gaṅgā, after Arjuna killed Bhīṣma unfairly when the latter was already engaged in combat with Śikhaṇḍin:

*Mahābhāratayuddhe yat tvayā Śāmtanavo nṛpaḥ  
adharmeṇa hataḥ Pārtha tasya iṣā niṣkṛtiḥ kṛtā  
na hi Bhīṣmas tvayā vīra yudhyamāno nīpātitaḥ  
Śikhaṇḍinā tu saṃsaktas tam āśritya hatas tvayā  
tasya śāntim akṛtvā tu tyajes tvam yadi jīvitam  
karmanā tena pāpena patethā niraye dhruvam.  
eṣā tu vihītā śāntiḥ putrād yāṃ prāptavān asi  
Vasubhir Vasudhāpāla Gaṅgayā ca Mahāmate  
(*MBh.* 14.82.8–11)*

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residual fears about nudity and emasculation from his initial conflict with Circe.

<sup>22</sup>On the comparison between Nausicaa and Citrāṅgadā, see E.B.West 2009.

In the Mahābhārata battle, by you the kingly son of Śāmtanu was killed with an unjust act,<sup>23</sup> Pārtha, for which this atonement was done. Indeed, Bhīṣma was not felled fighting with you, Hero, but, having engaged Śikhaṇḍin, intent upon him, he was killed by you. If you should depart life without having made atonement for it, because of this sinful action you would certainly fall into hell. But by this which you have received from your son, peace is made with the Vasus<sup>24</sup> and Gaṅgā, O Great-Souled One, Protector of Wealth.

Arjuna's "death" at his son's hand has thus spared him from hell. For Odysseus, the resolution is only temporary; Poseidon decides that he has troubled the hero enough for the time being:

... ἴδε δὲ κρείων ἐνοσίχθων,  
κινήσας δὲ κάρη προτὶ ὄν μυθήσατο θυμόν·  
"οὕτω νῦν κακὰ πολλὰ παθῶν ἀλόω κατὰ πόντον,  
εἰς ὃ κεν ἀνθρώποισι διοτρεφέεσσι μιγήης.  
ἀλλ' οὐδ' ὥς σε ἔολπα ὀνόσσεσθαι κακότητος."  
ὥς ἄρα φωνήσας ἵμασεν καλλιίτριχας ἵππους,  
ἵκετο δ' εἰς Αἰγῆας. ὅθι οἱ κλυτὰ δώματ' ἔασιν.  
(*Od.* 5.375–381)

...The powerful Earthshaker saw him,  
but shaking his head he spoke to his own spirit:  
"There now! Wander on the sea, suffering many evils,  
that you might be brought amongst the people cherished  
by Zeus.  
Nor do I imagine you will treat your misfortunes lightly."  
So speaking, he whipped up his lovely-maned horses  
And went to Aigai, where his glorious palace is.

Though Poseidon has left off his persecution for the moment,

<sup>23</sup>Note that just as Arjuna is accused of "cheating" in his fight with Bhīṣma, Odysseus is accused of an unfair maneuver by the Cyclops at *Od.* 9.511–16.

<sup>24</sup>The class of gods headed by Indra.

final resolution of the curse (via the planting of an oar according to Teiresias' instructions) does not occur within the text of our *Odyssey*.

### I. Help from the Goddess' Powerful Father

• **Eidothea** describes Proteus' knowledge and powers to Menelaus:

ὅς κέν τοι εἴπησιω ὁδὸν καὶ μέτρα κελεύθου  
νόστον θ', ὡς ἐπὶ πόντου ἐλεύσεαι ἰχθυόεντα.  
καὶ δέ κέ τοι εἴπησι, διοτρεφές, αἴ κ' ἔθελησθα  
ᾧτι τοι ἐν μεγάροισι κακόν τ' ἀγαθόν τε τέτυκται  
οἰχομένοιο σέθεν δολιχὴν ὁδὸν ἀργαλέν τε.  
(*Od.* 4.389–393)

He could tell you the road and the length of your path  
and about your homecoming, as you travel upon the  
fishy sea.

And he could tell you, Cherished of Zeus, if you wish it,  
whatever wicked or good things have been done in your  
palace  
while you have traveled on your long and difficult  
journey.

Proteus, of course, is the γέρων ἄλιος, the “Old Man of the Sea” (as at *Od.* 4.384) who, as Poseidon's second-in-command, rules the enormous family of Nereids and Oceanids. He is apparently a local figure in this episode as well: ἀθάνατος Πρωτεύς Αἰγύπτιος, “immortal Egyptian Proteus” (*Od.* 4.385). While he spends much of his time in the water, he sleeps with his seals near the beach ὑπὸ σπέσσι γλαφυροῖσιω, “beneath hollow caverns” (*Od.* 4.403), a lifestyle intriguingly similar to that of the cave- and water-dwelling *nāgas*.

• **Ulūpī's** father Kauravya is also the powerful ruler of a tribe of minor deities (the *nāgas*) and lives in the area. Ulūpī's assistance to Arjuna, like Eidothea's to Odysseus, is based upon the employment of her father's abilities. When Ulūpī overhears Gaṅgā authorizing the curse upon Arjuna (*MBh.* 14.82.7–23), she immediately seeks her father's assistance:

*Tad ahaṃ pitur āvedya bhṛṣaṃ pravṛyathitendriyā  
abhavaṃ sa ca tac chrutvā viśādam agamat param  
pitā tu me Vasūn gatvā tvadarthe samayācata  
punah punah prasādyaināṃs ta enam idam abruvan  
(MBh. 14.82.16–17)*

I, having reported this to my father, became excessively distressed,  
and he, having heard this, went into a state of deep dejection.  
Having gone to the Vasus, my father pleaded on your behalf,  
again and again he propitiated them. They said this to him...

Ulūpī's father is able to secure a bargain with the gods, that Arjuna will be freed from the curse by being killed by his son, after which Ulūpī will be able to resurrect Arjuna safely.<sup>25</sup>

### J. Foreknowledge and Prophecy Regarding the Hero

All four demi-goddesses exhibit prior knowledge of the hero's identity and personal history, and two go on to foretell his future.

- **Eidothea's** foreknowledge about Menelaus is the most limited, presumably because her father is the informant, and his role would be rendered unnecessary if Eidothea herself appeared too prescient. She therefore primarily exhibits a grasp of Menelaus' current situation and of what he must do to learn how to escape it.
- **Ino** not only seems familiar with Odysseus and his plight, but

<sup>25</sup>One final consideration is the unusual situation of Ino's father, and his possible ties to Ulūpī's father. While Cadmus plays no role in Ino's episode in the *Odyssey*, the text suggests that the narrator is familiar with the back-story to her peculiar life. It is perhaps significant therefore that (as foretold by Dionysus in *The Bacchae*) Ino's father Cadmus becomes a giant snake at the close of his life: δράκων γενήσῃ μεταβαλὼν, δάμαρ τε σὴ / ἐκθηριωθεῖσ' ὄφεος ἀλλάζει τύπον, / ἦν Ἄρεος ἔσχεσ' Ἀρμονίαν θνητὸς γεγώς ("You will transform and become a serpent; and your wife / will become a beast and take on the form of a snake / Harmonia, Ares' daughter, whom you have though you are mortal," E. Bac. 1330–1332; see also Ap. Rhod., *Argon.* iv.516ff.; Dionysius, *Perieg.* 390ff., with the commentary of Eustathius, *Comm. on Dionysius Perieg.* v.391; Strab. 1.2.39, 7.7.8; Paus. 9.5.3). Whether this transformation is pure invention by Euripides, or a nod to a dutifully preserved tradition extending back to Graeco-Aryan sources, is unclear.

is able to offer comforting words about his long-term prospects. She asks, perhaps rhetorically, why Poseidon is so angry, and assures him that the god οὐ μὲν δὴ σε καταφθίσει μάλα περ μενεαίνων, “will not destroy you, though greatly he is striving” (*Od.* 5.341). Finally, she tells Odysseus that he will reach Phaiacia ὅθι τοι μοῖρ ἐστὶ ἀλύζαι, “where it is your fate to escape” (*Od.* 5.345).

• **Ulūpī’s** knowledge about Arjuna is perhaps the most extensive. At their first meeting, when he protests that he is temporarily committed to a hermit’s life, Ulūpī assures him that she is fully aware of the situation:

*Jānāmy ahaṃ Pāṇḍaveya yathā carasi medinīm  
yathā ca te brahmacaryam idam ādiṣṭhavān guruḥ  
(MBh. 1.206.24)*

I know, O Pāṇḍava, how you wander the earth,  
And how your guru has directed you to this state of  
chastity.

Ulūpī carefully explicates the *dharma* involved in Arjuna’s temporary celibacy, making a compelling case that the ban does not apply to her (*MBh.* 1.206.24). During their second meeting, Ulūpī explains the necessity of his temporary death at Babhruvāhana’s hand to resolve the curse (*MBh.* 14.82.8 — 11, quoted above in section H).

• **Vargā** also has critical foreknowledge about Arjuna: she tells him that his coming had been predicted to her by the brahmin who transformed her:

*Yadā ca vo grāhabhūtā grhṇantīḥ puruṣān jale  
utkarṣati jalāt kaścīt sthalam puruṣasattamaḥ  
tadā yūyam punaḥ sarvāḥ svarūpam pratīpatsyatha  
anytaṃ noktāpūrvaṃ me hasatāpi kadācana  
(MBh. 1.209.9–10)*

When you, in the form of crocodiles are grabbing people  
in the water,  
a certain superior man will drag you from the water to  
the land.  
Then all of you will return again to your own form.  
Never before has an untruth been spoken by me, even in  
jest.

Though the brahmin's words were meant to reassure, they fail to comfort the *apsarases*. Wandering dejectedly, they meet the itinerant seer Nārada, who offers them a slightly more specific version of the brahmin's prediction:

*Dakṣiṇe sāgarānūpe pañca tīrthāni santi vai  
 puṇyāni ramaṇīyāni tāni gacchata māciram  
 tatrāsu puruṣavyāghraḥ Pāṇḍavo vo Dhanamjayah  
 mokṣayiṣyati śuddhātmā duḥkhād asmān na saṁśayah  
 (MBh. 1.209.17–18)*

In the marshes of the Southern ocean are five *tīrthas*,  
 holy and charming; go there without delay!  
 There Dhanamjaya Pāṇḍava, that tiger-of-a-man  
 whose soul is pure, will no doubt release you from your  
 sorrow.

The superfluity of prophetic older male figures in the Vargā tale raises a number of questions, and with this point I begin an analysis of the extent and significance of the episodes' similarity to one another.

### **The Relationship Between the Four Episodes**

All four incidents discussed above center on water-dwelling female minor deities, all refer somehow to shape-shifting, and all are concerned with remediation of a curse or vendetta: in three versions it is the hero who suffers from the curse, and a demi-goddess who repairs matters, while in Vargā's tale the roles are reversed.<sup>26</sup> The structures of the incidents are summarized in Figure 1. At two places (as indicated by italics) the chart yields an unexpected result: Ino takes on the prophetic function as well as the helper role in her episode, while the nameless brahmin performs both the curse-inflicting and prophetic functions in Vargā's tale. I argue below that these discrepancies share a common explanation.

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<sup>26</sup>It is worth noting as an aside that "The Resolution of a Curse" is a common story pattern. While no other adventures of Odysseus or the Pāṇḍavas follows this template, it is essentially the structure of the *Odyssey* as a whole, with Poseidon as the grudge-holder, Athena as the helpful goddess, and Teiresias as the foreteller of the resolution.

**Figure 1: The Four Episodes According to Roles and Characters**

Demi-Goddess:	Ino	Eidothea	Ulūpī	Vargā
Hero:	Odysseus	Menelaus	Arjuna	Arjuna
Curse or Grudge from:	Poseidon	The Gods	Ganga	The brahmin
Curse Resolution Foretold or Explained By:	<i>Ino</i>	Proteus	Kauravya	<i>The brahmin &amp; Narada</i>
Curse Neutralized when:	Odysseus swims to safety w/veil	Menelaus performs sacrifices	Arjuna dies and is revived w/gem	Arjuna lifts Vargā from the water

One manner in which oral narratives are observably re-shaped is through the transference of the actions of male characters to female characters, often resulting in the elimination of the now-superfluous male.<sup>27</sup> Such alterations often increase the interest of a tale by broadening the range of possibilities in the storyline: whereas encounters between males generally lead to conflict, male-female encounters can have a wider array of progressions and outcomes. Ino's story may once have contained a male prophet, quite possibly a father, who was subsequently eliminated in favor of Ino's performance of the role. Similarly, the use of two prophets (the brahmin and Nārada) in the Vargā episode suggests that a two-stage shift may have occurred there: first, with the transference of the curse from hero to *apsaras*, the hero wrestles with the young woman instead of the prophetic male. The narrative advantages of such a substitution are obvious: an audience might well be more delighted with a wrestling match

<sup>27</sup>A straightforward example of this phenomenon comes to us in the "Tale of Cyavana and Sukanyā," whose three variants are found at *Śatapatha Brāhmaṇa* 4.1.5.1–15, *Jaiminiya Brāhmaṇa* III.120-128, and *Mahābhārata* 3.121–125. In all three versions, Princess Sukanyā is given to the ascetic Cyavana in marriage as compensation for an assault on Cyavana's person: in the earlier *Brāhmaṇa* versions, boys in the king's retinue abuse the decrepit Cyavana because he is old and ugly. In the *Mahābhārata*, however, the nature of the assault is substantially altered: rather than being ugly, in this version Cyavana has been sitting in meditation for so long that an anthill has formed around him, covering him entirely. The taunting boys are eliminated and Sukanyā's role is enlarged: when she walks by the mound, she sees a flash of desire from Cyavana's eye, and assuming that a jewel lies concealed there, she pokes at it with a thorn. She is then given to Cyavana in marriage as compensation for poking at his eye.

that leaves the hero with a beautiful young woman in his arms than with one in which he is left holding a damp old man who sleeps with seals. The role of the prophet was then filled not once but twice, with both the brahmin and Nārada, two different solutions being incorporated into the tale during its period of development and change.<sup>28</sup>

If the common features and underlying narrative template shared by the four stories suggest a common origin, what evidence do they offer about their evolution and their Graeco-Aryan predecessor(s)?

It seems reasonable to assume that the presence of paired tales in each epic reflects the distribution of their hypothetical forerunners: i.e., Graeco-Aryan proto-epic material would have contained two tales of benevolent water-dwelling female helpers, featuring, respectively, a magic ornament placed on the chest (Ino and Ulūpī) and the overpowering of a shape-shifter (Eidothea and Vargā). But several of the motifs catalogued in Figure 2 (A, C, E, and J) appear in some form in all four episodes. Furthermore, B and I also represent significant cross-linkage between the tales of Ulūpī and Eidothea. Not only the textual proximity of the paired stories, therefore, but the motif distribution as well supports the idea that all four episodes stem from a common ancestor, though doubtless at some great remove.

It is accordingly possible that proto-epic material contained only one encounter with a water-dwelling shape-shifter and her father, and that that encounter included both a wrestling match and the gift of a magic token. Seeing the pairs of encounters as two halves of a single original explains both their close relationships to one another within the individual epics and the obvious similarities in their construction. Behind the tales of Ino, Eidothea, Ulūpī and Vargā lurks a base character, the helpful, beautiful water-dweller, who functions like the model for a string of paper dolls: the basic outline is easily reproducible, and can be

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<sup>28</sup>A multiform of the Vargā episode supports the hypothesis of the deleted male figure. In several versions of the *Rāmāyaṇa* a wrestling match between a bathing Hanūmān and an *apsaras* cursed with crocodile form also forgoes a male prophet, allowing the *apsaras*, once freed, to deliver her vital information about the evil intentions of the demon Kālanemi directly to Hanūmān (See, e.g., *Brahmāṇḍapurāna Adyātma Rāmāyaṇa* 7.22–29, or *Rāmacaritamānasa* 6.57–58), just as Ino tells Odysseus what he must do to escape Poseidon.



adorned and customized with a limitless variety of motif combinations that result in multiple versions of the tale.<sup>29</sup>

**Figure 2. Motif Distribution Throughout the Episodes**

	Ino/ Leukothea	Eidothea	Ulūpī	Vargā
<b>A. Aquatic Demi-goddess</b>	<i>Od.</i> 5.334-335	<i>Od.</i> 365	<i>MBh.</i> 1.206.22	<i>MBh.</i> 1.208.13
<b>B. Missed or Interrupted Sacrifice</b>	—	<i>Od.</i> 4.351–353	<i>MBh.</i> 1.206.12–15	—
<b>C. Rises Up From Water or Earth</b>	<i>Od.</i> 5.336-338	<i>Od.</i> 4.425 (possible)	<i>MBh.</i> 14.78.8	<i>MBh.</i> 1.208.10-11 (possible)
<b>D. Appears, Unsummoned</b>	<i>Od.</i> 5.336-338	<i>Od.</i> 4.363-369	<i>MBh.</i> 14.78.8	—
<b>E. Shape-Changing</b>	<i>Od.</i> 5.336-8	<i>Od.</i> 4.414-24	<i>Common among Nāgas</i>	<i>MBh.</i> 1.208.10-11
<b>F. Wrestling match Followed by Conversation</b>	—	<i>Od.</i> 4.414-24	<i>MBh.</i> 1.206.13 (possible)	<i>MBh.</i> 1.208.10-11
<b>G. Magical Object Applied to the Chest</b>	<i>Od.</i> 5.345-351	—	<i>MBh.</i> 14.81.2	—
<b>H. Resolution of Curse</b>	<i>Od.</i> 5.339-345	—	<i>MBh.</i> 14.82.10-12	—
<b>I. Help from Powerful Father</b>	—	<i>Od.</i> 4.462-470	<i>MBh.</i> 14.82.13-23	—
<b>J. Prophecies / Foreknowledge About the Hero</b>	<i>Od.</i> 5.339-345	<i>Od.</i> 4.472-481	<i>MBh.</i> 14.82.8-12	<i>MBh.</i> 1.209.17-18

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<sup>29</sup>The hypothesis may also suggest answers to long-standing questions about other Homeric episodes that exhibit high degrees of similarity to one another, e.g., the encounters with Circe and Calypso, whose narrative similarities were first noted by Wilamowitz 1884: 121, or the Phaiacian and Laistrygonian episodes, which begin with a strikingly similar narrative progression (meeting a young woman at a water source; her father is king; she sends them to his high-roofed house; the first contact is with her mother).

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## A Call for Functional Differentiation of the South Slavic *Vila*

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This article seeks to clarify the often confused understanding of the Serbo-Croatian *vila* and elucidate her position within the archaic South Slavic world view. Through a survey of her functional traits within the Serbo-Croatian epics, the article attempts to typify her actions in the epic sphere, and weigh those against her conception in the folkloric sphere, making a case for the understanding and study of the *vila* as one distinct figure divided into two typological facets – one mythological in nature, the other a product of folk custom.

Whether a casual reader or a scholar, anyone who works with Serbo-Croatian oral traditions will quickly learn the name of the *vila*. Drifting in a sea of Christian symbolism and static, stereotypical female characters, the *vila* (pl. *vile*) stands out in the corpora as extremely archaic, pagan, and unique. Yet, for all her appeal, the *vila* remains one of the most obscure and misunderstood characters in European mythology and folklore. Scholars following in the footsteps of Milman Parry and Albert Lord most often relegate her to footnotes, branding her a South Slavic nymph or fairy. Those who attempt to elucidate her character more thoroughly seem to produce uniformly contradictory opinions. This article will attempt to rectify and clarify the role of the *vila* in the Serbo-Croatian folk tradition by elucidating the position of the *vila* as existing in two typologically unique functions. This article advocates the need to split the conception of the *vila* into two distinct components before appropriate analyses can be performed. Where one figure exists on a folkloric level and deserves the title of nymph, the other *vila*, the *vila* of the epics (*narodne pjesme/pesme* in Croatian and Serbian, lit., folk songs) and ballads, represents a separate and unique figure with mythological implications. This article will act primarily as an outline of the functional traits of the *vila* as she appears in the Serbian, Croatian and Bosnian epics. By typifying her actions

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in the epic sphere and weighing them against her conception in the folkloric sphere, it will set forth an argument for isolating the two formats and will suggest opportunities for further enquiry and understanding.

An etymological comparison would be nothing but advantageous to such a study, were it feasible. Sadly, the name of the *vila* is most likely a shifted epithet for a long forgotten name. Etymologically *vila* would reflect a Proto-European form of *\*wi-l-ā*, the *\*wi-* designating a holy, as well as a more ghostly aspect,<sup>1</sup> while the *\*-l-* and *\*-ā* serve respectively as a diminutive and a feminine ending, with the overall meaning of ‘little holy woman’ or ‘little supernatural woman’.<sup>2</sup> The etymologies of similar folk figures in Slavic cultures, which are often equated with the *vila*, offer equally vague insight, so that the analysis must rely on typological and functional scrutiny alone.

### The Vila

In the appendix to Avdo Međedović’s version of *The Wedding of Smailagić Meho*, the translators, Albert Lord and David Bynum, refer to the *vila* as “a white female spirit, dwelling in mountain lakes. They have wings and fly. They are sometimes helpful to mortals, even becoming sisters-in-blood with, or marrying, mortal men. Sometimes they may be malicious, especially if their lakes are violated” (Međedović 1974: 252, n. 12). This depiction stands in rather stark contrast to the picture Jan Máchal paints of *vile* as the “souls of the departed [that] Serbian legends declare [were originally] proud maidens who incurred the curse of God” (2006: 91). And what then is to be made of Zora Zimmerman’s statement that *vile* are connected to certain natural environments and that “the magic they are capable of is appropriate to the environment in which they are found” (1979: 169)? Or Š. Kulišić *et al.*’s description of her “ugly legs, which she tries to hide” (1970: 66) (usually those of a horse, donkey, or goat). Elizabeth Barber speaks of the *vila* as though she were indistinguishable from the Russian *rusalka* (1997). Truly the representation of the *vila* seems profoundly confused, yet the

<sup>1</sup>The same *\*wi-* root most likely informs the name of the Norse *Vé*, one of *Óðinn*’s brothers, and may also be the root of the Indic *Vishnu*.

<sup>2</sup>I owe this etymological break-down and a number of others in my work, in part or in whole, to the insights of my mentor and instructor Dr. John Colarusso.

one aspect that these studies lack, and which provides the necessary clarity, is an acknowledgement of the formats within which this material is being transmitted.

### **The Vila in Folklore and Folk-custom**

The earliest mention of *vile* in written record comes from Procopius, the Byzantine historian, in the 6<sup>th</sup> century whose *De Bello Gottorum* describes a Slavic tribe encountered near the Danube who worshiped and offered sacrifice to beings similar to Greek nymphs (270-271). The *vila* of folk-custom and lore is at her core a nature spirit, something fairly common among Slavic groups, and the necessity for her propitiation has been carried with the South Slavs into rather recent history.<sup>3</sup> In his article on female deities of the South Slavs, Joseph Conrad cites a region of Bosnia where belief in *vile* as forest spirits carried into the 1970s (2000: 27). Conrad's depiction of the *vila* is a rare one that entirely focuses on ethnographic material and folk-custom. According to him, *vile* are shape-shifters who live in the forests, dance the *kolo* (a Slavic circle dance that is attributed to both forms of the *vila*) and interact with shepherds (27). They are portrayed in local memorates as harmful creatures that destroy crops with hail, tickle men to death, or turn them into stones or trees (27). Braiding horse's tails into tight knots, leaving fairy rings (*vilensko igrišće* or *plesališće*) and similar fairy-type behaviour is also connected with them (27).<sup>4</sup> Conrad also cites a crucial point: that in the Janj region of Bosnia "the *vile* are considered non-human, but resemble tall, thin and very beautiful girls who wear their long, black hair, *unbraided*" (27). Conrad places emphasis on the *vila*'s loose hair, but as we shall see, the more important feature for this argument is the colour.

The Bulgarians retain a similar figure in their epics,

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<sup>3</sup>Propitiation is, however, not the only form of interaction attested between humans and *vile*. Zoran Čiča (2002) chronicles church attestations, dating as early as the 16<sup>th</sup> century, of a shamanistic cult in Croatia where local healers (*Vilenice* and *Vilenjaci*) are said to derive their powers from *vile* (who are known in the epics for their knowledge of herbs and magic). The connection between folk healers and *vile* still exist in certain localities today (see Petreska 2008).

<sup>4</sup>To this day in Serbia, Croatia and Bosnia the *vila*'s name is used as a blanket term for fairies, nymphs and sprites from other countries and cultures. On my last visit to Croatia, a girl, assuming I knew nothing of the culture, tried to explain a *vila* to me by informing me that Cinderella had a '*vila* godmother'.

known as *samovila*, or sometimes as *samodiva*. The *samovila*, though sometimes functionally divergent, shares enough resemblance to the Serbo-Croatian *vila* to provide insight into some of her more obscure aspects. While *diva* is semantically linked to Indo-European *\*dyēus* in a feminine form, meaning goddess, *samo* in Slavic languages bears the meaning of only, just or merely, or can sometimes be connected to veracity or originality. The names would then be ‘the real/true little holy woman’ or ‘the real/true goddess’. Although these two terms will have appealing implications further in this argument, etymologically they provide little of worth.

In Assen Nicoloff’s book of Bulgarian folklore, the *samovila*’s mythological and folk-custom traits receive the same conflation that the *vila* often receives, although there are some important folkloric aspects addressed. He states that they live on mountains near springs, and that they dance the *kolo* (in Bulgaria the dance is the *horo*) (1975: 10-11). He also outlines the tendency for shepherds in the local memorates to enter into contests with the *samovili*, where they challenge the shepherds’ talents on the flute against their talents of dance. If the shepherds win, they most often receive the *samovili* as brides (11). Most of the material provided by Nicoloff, however, involves the mythological *samovila* and her ties to the folk hero Krali Marko (the Bulgarian variant of the Serbo-Croatian hero Marko Kraljević).

In his early study of archaic Slavic belief, Jan Máchal suggests the idea that *vile* originate from dead maidens. “The Bulgarians believe that the Samovily are girls who have died unbaptized, and among the Slovaks there is a wide-spread story that the fairies are souls of brides who died after their betrothal, and finding no rest, are doomed to roam about at night” (2006: 91). He also discusses another aspect of folk belief regarding the hair of *vile* [*vilina kosa*]: “their life and strength are believed to depend upon it, so that if a fairy loses a single hair, she will die. The Slovenians, however, assert that a Vila will show herself in her true shape to anyone who succeeds in cutting off her hair” (92). Máchal’s article reveals a number of intriguing points of local lore, but, like many texts of its type, it amalgamates material from the folk-culture and the epics indiscriminately.

In Svetozar Koljević’s opus *The Epic in the Making*, he uses the folkloric conception of the *vila* to define her, but then

proceeds to list a number of her epic functions. He explains that (folkloric) *vile* live in mountains, plants, trees, clouds and lakes, that they are “born out of dew and herbs” (347), and notes the earlier mentioned feature of possessing hideous legs (1980:347).<sup>5</sup> The same treatment is found in Woislav Petrovitch’s brief explanation in his 1914 classic *Heroes and Legends of the Serbians* (16-18). In the most comprehensive study of the *vila* that exists in English, Zora Zimmerman outlines a number of important aspects of the *vila*, although she too oscillates between mythic and folkloric functions of the *vila*, with only an occasional notation of how drastically different those aspects can be. Her article, “The Changing Role of the ‘Vila’ in Serbian Traditional Literature”, offers a respectable study of the *vila* in the epics and some insight into the folk beliefs, albeit, augmented by an odd literary analysis on the distribution of *vile* in South Slavic epics.<sup>6</sup> She suggests that there existed a specialization of *vile*, based on their natural elements (much like Greek nymphs), so that ‘cloud *vile*’ cause wind and hail, ‘water *vile*’ bathe and turn into swans, and ‘forest *vile*’ will turn into wolves and deer (1979: 169-170). This same idea was pursued much earlier by Veselin Čajkanović in his survey of Serbian demonology (1994: 228-230), who saw the traditional roots of the *vila* as a ‘coin-toss’ between the nymphic forest spirit, or the dead maiden.

Dejan Ajdačić (2001) suggests that the only way to account for the many aspects of the *vila* is to either attribute them to changes over time or else assume that multiple beings have been subsumed by the *vila* name (208). Although a few aspects of the *vila* may be borrowings from other folk creatures, her functions are not as varied as Ajdačić suggests. If the split is made between the folkloric and mythological

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<sup>5</sup>Koljević takes this point from the Serbian Mythological Dictionary (Kulišić, *et al.* 1977), yet these two texts are the only ones I have read which mention this curious aspect. It seems on the surface to resemble the kinds of demonization that the church is fond of ascribing to pagan figures.

<sup>6</sup>Zimmerman questions the absence of the *vila* in the Kosovo cycle, deciding that the sombre tone of the epics are not consonant with the *vila*’s character. This argument treats the corpora as though they are all contemporaneous and ignores the fact that although the historical Marko lived most of his life after the Battle of Kosovo, the Marko tales are mostly older songs with Marko’s name pasted over those of other heroes. The Kosovo cycle is historical and completely based in a specific time, unlike the timeless, and often archaic, Marko songs.



aspects of the *vila*, the two show themselves to be rather similar to analogues in other European and Slavic folk beliefs.

Finally, an important article by Elizabeth Barber continues the work of Marija Gimbutas and tries to connect the *vila* and the Russian *rusalka* (she treats the two as synonymous figures) to a fertility ritual. Barber suggests that the *vile* and *rusalki* are the souls of girls who died before having children, and whose unused 'fertility potential' is employed in a spring festival (called *Rusali*) so that it may be transferred into the crops (1997: 14-18). Her evidence focuses heavily on the Russian material, only using the South Slavic material as support, yet there are important issues addressed in the article. Aspects of the tie between the *rusalka* and the *vila* (specifically the folklore variant) are well-founded and fascinating, and the attribution of the *vila/rusalka* motif to calendrical fertility rites is illuminating. Indeed, the *rusalka* has much to tell us about the folkloric *vila*, but with such conflated accounts of the *vila* in scholarly studies it is hard to determine which traits truly belong to her folkloric aspects. Few ethnographic accounts of folk belief exist regarding *vile*, yet a wealth of epics have been collected over the last 500 years. So it is to the mythic *vila* that this study turns for some much-needed clarity.

### **The Vila in Myth**

Although there is bound to be some overlap, the *vila* that appears in the epics and ballads of the Serbs and Croats is a highly divergent figure with more markedly defined characteristics than the folkloric *vila*. By addressing what the mythic *vila* is, we are able to garner what she is *not* – traits that belong strictly to the folkloric use of the figure. The following is an outline of the traits and functions of the mythic *vila*.

### **Supernatural character**

First and foremost the *vila* is a supernatural being. She has magical properties. She exists on a liminal plane between nature and culture, between god(s) and humans, calling out from or travelling between one realm and the other to interact with the heroes and villains of the epics. Despite the Christian nature of the Serbo-Croatian epics, the *vila* has always been the pagan 'sore thumb' sticking out of each song in which she appears. Although *vile* often take part in genial

interactions with humans, they are still otherworldly and foreign. In the ballad *Ivanova Vila* [Ivan's Vila] (MH V pt. II, #22, 27), the protagonist Ivan brings his prospective *vila* bride to his manor, but at the sight of her, his mother invokes God and Mary, which blinds the *vila* and sends her fleeing. In the South Slavic folk imagination, there is no question that the *vila* belongs to the old world, and not to the new.

This factor also informs the actions which the *vile* perform in the epics. I reject the propensity for some scholars to categorize *vile* as good or bad, black or white (as Holton and Mihailovich do in their commentaries), depending on the actions they take within the songs. Like the Arabic *djinn* or the Celtic *sídhe*, the *vile* of the epics are seen as another race. Like humans they are impelled by their own motivations. They may be good, bad or indifferent, and may display any emotion that a human character in the songs may show. Koljević calls the *vila* the most morally ambiguous mythic figure in the epic songs (1980: 150). Certainly the actions of the *vile* set them apart, and their motives may not always be clear, but this is a testament to their supernatural otherness.

### Whiteness

In every epic and ballad in which the *vila* appears she is referred to as white. Her hair, her clothing, her skin is not only *bijela* [white] but *prebijela* [more than white, very white, too white]; the overall impression is one of an ethereal, glowing presence. It is difficult to find an epic involving the *vila* that does not contain the phrase *prebijela vila*. In one song, this glowing presence is employed by a *vila* to blind an imposing villain so that her *pobratim* may kill him (SNP III, #5, 76).<sup>7</sup> Here we see the folkloric *vila*'s dark hair in stark contrast with the mythological *vila*'s overwhelming bloneness.

### Beauty

The *vila* of the epics, like the *vila* of folklore, is known for her exceptional beauty. Not only is the figure herself often said to be beautiful in the songs, but beautiful human characters are also questioned as to whether they are *vile*, or are compared to them. In Međedović's *Wedding of Smailagić*

<sup>7</sup>The concept of the *pobratim/posestrima* is one of kinship through non-sanguinal ties, best translated in the epics as blood-brother/sister, or brother/sister in battle/God.

*Meho*, all of the beautiful women are referred to as *vile*, and in fact so are most of the young male heroes! Albert Lord cites a famous ballad, in *The Singer Resumes the Tale*, where a young woman sitting by herself muses aloud, amongst a number of riddles, whether anyone is more beautiful than herself. She is quickly replied to by a *vila* on a mountain who answers all of her riddles, but not before perfunctorily stating, “*I ja sam lepša od tebe*” [I am more beautiful than you] (1995: 49).

### Mountain/Cloud dwelling

At their core, mythological *vile* are specifically celestial beings. Although they are also connected very firmly with water, *vile* should not be confused with water spirits. The waters that they idle by, bathe in, and often protect are always mountain lakes and *vile* in the songs are capable of being drowned, a problem that should hardly be a concern for a water spirit (MH V pt. II, #29, 40).

Although their connection to water may pose some ambiguity, the mythological *vila*'s celestial traits are always explicit. Nearly as often as the *vila* is referred to as *bijela vila*, she is referred to by the epithets *vila iz oblaka*, *gorska vila* or *vila od planina* [*vila* from the clouds, mountain *vila* or *vila* from the mountain].<sup>8</sup> In one of the most famous and oldest *ženske pjesme* [women's songs], *Vilin Grad* [The Vila's City], the *vila* of the song is said to build a city “*ni na nebu ni na zemlji... neg u krajku u oblaku*” [neither in the sky nor on the ground... but rather on the edge of a cloud] (MH VII, #219, 125, lines 1-3). In another variant of the song, *Buna Žuda Grad* [The Vila Builds a City], the *vila*'s children are said to play like lightning and thunder (SNP I, #226, 150), further connecting her to the cloud motif. In both the epics and the folklore the *vile* are described as territorial, they often belong to a single mountain in the epics (and can protect these rather aggressively), while in the local lore of the former Yugoslav nations, all large mountains are said to have their own *vila*.<sup>9</sup> The mythological *vila* is also intrinsically connected to the fir tree, if she ever

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<sup>8</sup>The term *planina* in the Serbian and Croatian language applies to large mountains, while *gora* is given to smaller tree-covered mountains, large hills, and the bases of mountains.

<sup>9</sup>The *Velebit* Mountains in Croatia are famously home to the *Vila Velebita* who is the subject of pop songs, and whose marketable name graces the label of a number of *rakija* [brandy] bottles.

sits or lands in a tree in the epics it is always a fir; if a hero pursues her in an epic, he will invariably hide in, or watch her from a fir tree.<sup>10</sup> The fact that firs primarily grow in mountain forests is less than a coincidence.

Although I believe that the concept of separate water, field, forest, and mountain *vile*, each living in their own topographic habitats, is a trait which only belongs to the folkloric *vila* (possibly a borrowing from the Greeks), the mythological *vile* most certainly possess aspects of nature spirits. Not only are they always found in nature in the songs, the *vile* of the epics converse with plants and animals and often seem protectors of nature. In a song where a *vila* compares the aspects of her upbringing with that of a beautiful human girl (MH V pt. II, #33, 44), she says:

„A mene <i>vila</i> rodila,	“But a <i>vila</i> gave birth to me,
U zelen listak povila.	In green leaves she swaddled me.
Meni su bile pelene	My diapers were
Od one trave zelene;	Of that green grass;
Meni su bile postelje	My beds were
Grančice tanke od jele;	Slender branches from firs;
Koji su vjetri puhali,	Winds that were blowing,
Oni su mene zibali;	They rocked me;
Koje su st'jene padale,	Boulders that fell,
One su sa mnom igrale;	They played with me;
Koje su rose rosile,	The dew that dropped,
One su mene dojile!“	It breast-fed me!”

(lines 30-41)

This role of nature spirit can, however, become ambiguous because of the *vila*'s harmful tendencies. In some of the Marko songs where the hero encounters a *vila* protecting a lake, after he has taken his fill of water and beaten or killed the *vila* for demanding a tax, there is often a sense in the songs that nature has been spoiled by the hero's transgression. And yet, in other songs the *vila* taxes all creatures for the water she controls and leaves every animal on the mountain miserable and thirsty (Petrović 1930: 70).

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<sup>10</sup>Arguably, firs are equally present in songs without *vile*, but this does not negate their connection, in fact it adds weight to their mythological significance. For a rather prominent fir tree, see *Vila Strijela Markova Pobratima* (MH II pt. I, #3, 8).

### Dancing the *Kolo*

Another area of overlap between the folkloric and mythological *vila* is seen in the *vilinsko kolo*, and the idea that *vile* are both good singers and dancers. In many epics, such as *Ženidba Marka Kraljevića* [The Wedding of Marko Kraljević] (MH II pt. I, #19, 61), the hero stumbles upon a group of *vile* dancing a *kolo* in the mountains. In other songs the *vila* uses a *kolo* to enter or exit the *mise en scène* of the tale. In *Rodjenje Marka Kraljevića* [The Birth of Marko Kraljević], where Marko's mother is portrayed as a *vila*, she spins twice around in a *kolo*, and on the third spin she flies into the clouds and out of the story. The *vile* often playfully invite humans (particularly wounded heroes, a fact that speaks to the supernatural naiveté as well as the healing power that the *vile* often exhibit) to join their *kolo* circle. This propensity for dancing is matched with the functional role of singing that both the folkloric and mythological *vila* share, although the role of singing takes a strange form in the epics.

### Singing

While the *vila* of the folklore is said to be a beautiful singer, the *vila* of the epics seldom sings. She does, however, become furious when humans sing or rejoice on her mountain. In the famous song *Марко Краљевић и Вила* [Marko Kraljević and the Vila] (SNP II, #38, 158), Marko persuades his travelling companion Miloš Obilić to sing him a song despite Miloš's vehement claims that the *vila* Ravijojla<sup>11</sup> will shoot him with her arrows.<sup>12</sup> Invariably, the instant he starts singing the *vila* fires a pair of arrows into his throat and heart and Marko must chase her down and punish her. In the similar song *Vila Strijela Markova Pobratima* [A Vila Shoots Marko's Blood-Brother], Marko asks his companion (this time Relja Bošnjanine) to specifically sing *to the mountains*, and it is *this* that angers the local *vile*. Elsewhere, the *vila*'s anger is extended to all noise and merrymaking when, in another tale (MH II pt. I, #20, 68), Marko sends his *kum* [best man] and a

<sup>11</sup>Ravijojla is a common *vila* name and is most often the name of Marko's *posestrima vila*.

<sup>12</sup>Vuk Karadžić, attempting an explanation for the lack of context in this song, suggested that the *vila* and Miloš must have had a singing contest before the events of the epic, and the *vila* must have forbid the hero to sing due to jealousy of his fine voice (SNP II: 159 n. 31).

wedding party to deliver his fiancée to his wedding.<sup>13</sup> He sends them off with the strict warning that they are not to speak loudly, beat drums, play music or celebrate while passing over *Orlova Planina* [The Eagle's Mountain] because of the *vila* who resides there. These prescriptions of silence most likely have a deeper meaning than the superficial reading of a *vila*'s jealousy.

### Flight

The *vile* have wings and can fly, although sometimes the nature of their flight is vague in the epics. This point will receive more attention and elucidation further in the discussion.

### Retinue

There are many *vile*, and they gather together in groups, most often to dance the *kolo*, but also for meetings. In *A Vila Shoots Marko's Blood-Brother*, a gathering of thirty *vile* convene to decide who should deal with Relja Bošnjanine. The group has a leader, elected by seniority, who offers her position to any of the clan bold enough to attack a friend of Marko's. In the tale *Ženidba Marijana, Sestrića Marka Kraljevića* [The Marriage of Marijan, the Nephew (son of sister) of Marko Kraljević] (MH II pt. I, #69, 286-300), a *vila* leads a troupe of (again) thirty in the protection of a mythical lake on the peak of a mountain. Within most stories the *vile* are distinct enough to receive a number of individual names, although they are mostly common names (Mandalina, Anđelija, Gjurja etc.) that provide little assistance to mythological analysis.<sup>14</sup>

### Powerful Warriors

The largest role that the *vila* plays in the heroic songs, and the most surprising given the average passive depiction of women in South Slavic epics, is that of a warrior. The *vile* are seen as powerful, supernatural warriors whose might is only rivalled by the bravest of heroes. Often Kraljević Marko is the only hero said to frighten *vile*, and usually only after he has given one a reason to fear him, and yet, in one variant of *Smrt Marka Kraljevića* [The Death of Marko Kraljević] (MH II pt. I, #72, 316), it is an angry *vila* who ends the life of this most

<sup>13</sup>For traditional Serbian wedding practices, see Mijatović, 2007.

<sup>14</sup>For more on the names of *vile*, see Banašević, 1952.

famous hero.<sup>15</sup> The fact that the *vile* are said to gather in groups most likely suggests their involvement in a supernatural war-band. If *vile* do intervene violently in the epics their weapon of choice is always a bow and arrow and they are often described as wearing armour.<sup>16</sup>

In those epics that do not employ the *vila* as an enemy or love interest, her role is always that of a supernatural aid to the hero.<sup>17</sup> Most heroes in the corpora have a *vila* who acts as their *posestrima*, aiding them in battle (most often with secret knowledge rather than through action). This connection to heroes also informs a number of epics where a *vila* comes upon a wounded hero (often her *pobratim*) dying after a battle. In these songs the *vila* will extend the honour of last rites that any human hero would equally perform; she will either bring word of his death to the hero's family, or give him a proper burial. In one song a *vila* not only buries a hero, but builds a church and plants an orchard on his grave (Petrović 1930: 39).<sup>18</sup> Again, deeper meanings regarding this role may be shrouded in the past, as many songs hint at a *vila*'s possible role as psychopomp.

#### Omniscience and Secret Knowledge

If the *vila*'s preeminent role in most epics is that of heroic aid, her main weapon is not the bow and arrow, but her secret knowledge and seeming ability to see all and know all. Most often her role in the epics is that of a disembodied voice. If a hero or villain has performed a disgraceful act, or erred in some way, a *vila* will call down to him from a mountain like a manifest conscience.

*Al mu vikne iz gorice vila:* But a *vila* from the mountain  
yelled to him:  
„Zlo ti jutro, mali Marijane!“Bad morning to you little  
Marijan!

<sup>15</sup> Strangely, the *vila* simply wills Marko's death, as though telekinetically. The hero's head begins to hurt as he ignores the *vila*'s demands and then he promptly falls dead. This is not the only epic containing this motif.

<sup>16</sup> See (MH II pt. I, #3, 11).

<sup>17</sup> For a richer analysis of heroic helpers, including the *vila*, refer to chapter 2 of Miller, 2000.

<sup>18</sup> Respectively symbols of culture and nature, one of the many divides that the *vila* passes between.

<i>Uteće ti beže Sokoliću</i>	The beg Sokolić fled <sup>19</sup>
<i>U avliju, u bijelu kulu.</i>	To his courtyard, to his white tower.
<i>U njega je kamena avlija,</i>	His is a stone courtyard,
<i>Zatvorit će čelik i mandale,</i>	He is going to close steel and wood beams,
<i>Ti ga više ni viditi ne ćeš.“</i>	You will not see him again.”
	(MH VIII, #28, 176, lines 120-126)

The positive side of this trope is the *vila*'s ability to call down to her *pobratim* in a time of need. In the tale *Vidak Harambaša i Barun Franjo Trenk* [Vidak the Outlaw and Baron Franjo Trenk] (MH VIII, #13, 87), Franjo is saved from a secret ambush by his *vila*.

<i>Oni pošli Trenkovome dvoru,</i>	They went to Trenk's manor,
<i>Misle momci, nitko ih ne čuje,</i>	The lads thinking that no one hears them,
<i>Al to čula vila u planini,</i>	But a <i>vila</i> in the mountains heard,
<i>Pa je vila Trenka dozivala:</i>	Then the <i>vila</i> called to Trenk:
<i>„Pobratime, Trenkoviću Franjo!</i>	“Blood-brother Trenković Franjo!
<i>Zlo si sio i vino popio</i>	You have sown evil and drunk wine
<i>Eto na te gorski harambaše,</i>	Mountain outlaws are upon you,
<i>Pred njima je Vidak harambaša,</i>	Leading them is Vidak the Outlaw,
<i>Misle tvoje popalit timare,</i>	They intend to burn down your estate,
<i>Opkoliti tvoju b'jelu kulu,</i>	Surround your white tower,
<i>Pobiti će mlađane pandure,</i>	They will slaughter your young guards,
<i>Porušit će tvoju b'jelu kulu,</i>	They will reduce your white tower to rubble,
<i>A tebe će mlađa uhvatiti</i>	And you, young one, they will capture
<i>I tebi se ljuto osvetiti.</i>	And avenge their anger upon you.
<i>Već ti kupi, Trenkoviću Franjo,</i>	But gather, Franjo Trenković,

<sup>19</sup>Beg is a Turkish title, known in English as bey, denoting a district governor.



<i>Već ti kupi mlađane pandure,</i>	But gather the young guards,
<i>Pa ih meći u tajne busije</i>	Then place them into a secret ambush
<i>I zatvori na ćardaku vrata,</i>	And close the door of your manor,
<i>Pa kad dođu gorski harambaše,</i>	Then when the mountain outlaws arrive,
<i>Pospi na njih iz zasjede vatru!</i> <sup>20</sup>	Hasten upon them with ambush fire!”

(lines 63-82)

This secret knowledge, coupled with tactical advice, is the *vila*'s most characteristic aid in heroic epics. Perhaps the most familiar South Slavic epic to English language readers is that of Marko Kraljević's fight with Musa Kesedžija [Musa the Robber (lit. Purse-snatcher)] (SNP II, #67, 26). In this song, Marko is overcome by Musa, who is the more powerful warrior, and is near defeat, when he calls out to his *vila*, reprimanding her for deserting him after she has promised to protect him. In most variants the *vila* replies to Marko from the clouds above that she never fights on Sunday<sup>20</sup> and that two warriors attacking one is an unfair advantage. This does not preclude her involvement, however, and the *vila* reminds Marko of daggers that he has hidden upon him. Musa (an Albanian, which may explain his lack of *vila* familiarity<sup>21</sup>) looks to the clouds to see with whom Marko is conversing and Marko exploits the opportunity by disembowelling him.

This secret knowledge of the *vile* also notably encompasses botanical knowledge. Every song which involves a *vila* harming an acquaintance of Marko's will inevitably end in Marko beating the *vila* into submission and then forcing her to obtain secret herbs (or sometimes healing waters) to cure the victim. Tatyana Popović cites a song where Marko forces a *vila* to use this knowledge to raise a hero from the dead (1988: 126).

While the *vile* are privy to secret knowledge and are always watching events unfold in the world, this omniscience is matched with an equally potent prescience. Their

<sup>20</sup>The fact that the supernatural, pagan *vile* appear in the epics as devout Christians is a wonderful trope that surfaces frequently.

<sup>21</sup>The Albanians have their own *vila*-like figure, the *zona* (see Miller, 2009), but I suspect that a Serbian singer would assume any outsider to be unfamiliar.

proclamations to heroes in a number of songs hint at their knowledge of the future, but the most telling example is in Vuk Karadžić's favourite variant of *The Death of Marko Kraljević* (SNP II, #74, 314). Marko, being the great hero that he is, cannot be killed by a mere villain. In this famous song, Marko is travelling upon a mountain when his sure-footed steed, Šarac [lit. Pie-bald], begins to stumble and shed tears. Marko starts to reprimand his horse, but is interrupted by his *vila*, who informs him that Šarac is grieving the death of his master. Marko is unbelieving at first, but he is directed to a well where he sees the truth of his fate reflected. He kills and buries his horse (so that it may not fall into enemy hands), breaks his weapons, leaves a message and some money for the man who may find his body, and then lies down and dies.<sup>22</sup>

### Bestowers of Power

Along with the *vila's* ability to tap into supernatural powers, she is also able to bestow this power upon mortals. In many of the stories of Marko's birth, his mother *Yevrosima*<sup>23</sup> is replaced by a *vila*. Some stories even tell that Marko (as well as many other South Slavic heroes) was born of the union of a *vila* and a dragon. This mythological parentage is explanation enough in the epics for a hero's magnificent strength and other attributes. In other stories where Marko is human-born, his strength is often bestowed upon him by a *vila*. In these tales, a young Marko is usually working as a shepherd when he comes upon a *vila* lying out in the sun, whom he shades with plants and flowers lest her beauty be sunburned. In other variants Marko finds a *vila's* children lost in the heat of the day and shades them. As a gift, the *vila* will often give Marko a sword and his marvellous horse Šarac (Popović 1988: 72), or tell him where to go to capture or purchase his horse.<sup>24</sup> In a number of other origin songs, most likely the oldest and certainly the most important for mythological study, the *vila* repays Marko for his kindness to her by letting him suckle

<sup>22</sup>In line with the humorous mood of most Marko songs, his body remains there a week; all the passersby assuming Marko is sleeping and leaving him alone, for fear of his rage.

<sup>23</sup>See Popović, 1988 for more information on Marko's human parents and their implications regarding his heroic nature.

<sup>24</sup>Following a very common Indo-European motif, Šarac is often depicted as a mangy, unsightly horse until he is purchased by Marko who is aware of his true nature.

three times from her breast, thus imbuing him with his heroic strength (Lord 1991: 206).

### **Power in Hair or Garments**

Another shared feature between the myths and folk belief is that the hair or garments of a *vila* contain her power. Folklore materials place the most emphasis on the idea that a *vila*'s hair holds her supernatural power, and that control can be gained over her through the magic laws of contagion. There is some mention of this trait in the epics. In variants of Marko's battle with Musa Kesedžija, Marko's *vila* refuses to join the fight, for fear that Musa's more numerous *posestrime vile* will tear her hair out (Fisher 1990: 42). In one ballad, a mother's hasty wishes bring the sexual advances of a *vila* to her son (much to the chagrin of his fiancée). The mother's knife and the threat of shorn locks promptly remedies the situation (MH V pt. II, #23, 29). Yet most often within the epics, a *vila*'s clothing take on far more prominence than her hair. In a unique song, a *vila* becomes foster parent to her *pobratim*'s son when he is imprisoned (MH IX, #2, 11). When the child has grown old enough to rescue his father, the *vila* sets him off with a sword and horse and provides him with 'vila clothes' [*vilinsko odilo*] which magically camouflage him, making him unrecognizable. When he arrives to rescue his father, the Turkish enemies mistake him for a number of famous heroes, unable to see through his glamour until he reveals himself with his 'signature laugh'. A *vila*'s clothing, however, is a veritable repository of magic power and serves a much more important role.

### **Marriage with Mortals**

One of the most common functions that the *vile* serve in the epics has been hinted at earlier, that is, their ability to marry heroes, and bear them children. But it is the form of these unions that is most fascinating. One of the oldest motifs involving the *vila*, is that of a hero forcing her to marry him by stealing her garments while she bathes or sleeps. In some tales the garments are clothes, armour or a crown, in others (certainly the more mythologically important) it is her wings, a feather, or her bird garb. In *The Birth of Marko Kraljević*, Marko's father, King Vukašin, is directed to the lake of a mountain *vila* named Mandalina, where he finds her sleeping.

He steals her crown and wings and flees back to his castle, promptly hiding them from sight. The *vila* races to his manor, demands her clothing back and offers a trade, to which Vukašin, fully aware of the rules regarding *vile*, replies,

„Ne ću, <i>vilo</i> , nijednoga dara,	“I do not want any presents <i>vila</i> ,
Neg ako ćeš meni ljuba biti!“	But that you will be my love!”
Tužna <i>vila</i> u zlu se vidila,	The sad <i>vila</i> found herself caught in evil,
Ide za njim b'jelom njeg'vom dvoru,	She followed him into his white manor,
Vjenča <i>vilu</i> Vukašine kralju.	King Vukašin married the <i>vila</i> .
Dva je njemu porodila sina,	She gave him two sons,
Prvoga je Kraljevića Marka,	The first was Marko Kraljević,
A drugoga Andriju nejaka.	And the second Andrija the weak. <sup>25</sup>

(lines 38-45)

This tale also introduces the most crucial aspect of the marriage of heroes and *vile*, the fact that these marriages are temporary or conditional, and that the *vila* must inevitably return to her supernatural realm. After nineteen years Vukašin's *vila*-wife tricks him into returning her wings and crown and then, as mentioned earlier, dances a *kolo* in his courtyard before flying up to the sky. She calls down to him that although he shall never see her again, she shall return early in the mornings and late in the evenings to finish raising the infant Andrija.

In *The Wedding of Marko Kraljević* (MH II pt. I, #19, 61), Marko is similarly wed to a *vila*, only this time she is not forced

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<sup>25</sup>Marko's brother Andrija, or Andrijaš, factors into many epics including the oldest recorded song (*Marko Kraljević i Brat Mu Andrijaš*, recorded from fishermen on the Croatian Island of Hvar and published in Vienna in 1568). His weakness here is in regard to his young age in the tale since Andrija is a hero in his own right.

into the marriage, but chooses him willingly as a mate. Marko sees the *vila* Nadanojla (here the leader of the *vile*) dancing a kolo in a group and he sends his falcon to steal her crown<sup>26</sup> and wings. She chases after Marko, but when she catches up to him she is far from angry. They return to Marko's castle and on the way she explains her unique marital stricture to him. She instructs Marko on how to greet each of the people she knows will meet him on their arrival; he is not to tell anyone that he is returning with a *vila* to marry (obviously an honour, the pride of which he must abstain from). As Marko meets the guard of his castle and his mother, they indeed react as the *vila* has foretold, each remarking on the *vila* at Marko's side. He responds (as she has instructed) incredulously that there is no *vila* with him, but only a young shepherd girl. A few years pass and Marko is holding a tripartite celebration, he has been given a son by his wife, he is giving his sister away in marriage and it is his name day.<sup>27</sup> Caught up in the merriment, Marko foolishly boasts that a *vila* has given him a child, and Nadanojla, enraged, seizes her crown and wings and leaves him. Marko does track her down, make amends and return with her to his castle at the end of this tale, but such an ending is unconventional and the original motif is still present.

While the mythological *vila* characteristically employs the swan maiden motif, the folkloric variant does not reflect this. The idea of marriage with *vile* does find its way into the folkloric portrayal of the *vila*, but the conception there is commonly vague. Bird aspects are seldom mentioned, and when this imagery is employed it is usually the acquisition of a feather from her wings that allows the protagonist to acquire his bride. The *samovili* are able to marry men, but are said to make bad wives and worse mothers, and it is said that they will not remain long (Nicoloff 1975: 10).

This point reveals another, albeit minute, difference between the folkloric and mythological *vila*. As a mother the *vila* of folk-custom is ill-suited, the *vila* of the epics however is quite nurturing. She must inevitably return to her own realm, yet seldom are the songs where the *vila* does not promise to continue raising her young children through secret visits. By

<sup>26</sup>Here titled *uzglavje*, which is usually a term for a pillow, but here is more a headdress.

<sup>27</sup>See Mijatović, 2007 for more on this and other cultural traits.

suckling a young shepherd Marko, the *vila* also displays a propensity for fosterage (a mother's milk being a common symbol of kinship ties in myths).<sup>28</sup> The role of the children themselves is also a vague but interesting concept that could benefit from more intensive enquiry. Although heroes are said to be the children of *vile*, there are no songs that tell of their rearing. Conversely, the *vila* is often pictured with anonymous children, yet to my knowledge no song describes the adulthood of such a child. Since there are no male *vile* it can be assumed that an Amazonian system applies – the male children stay on earth as men, the females become *vile*, but this is never explicit. Only one song, to my knowledge, addresses the question at all. In *Ivan's Vila*, after the *vila* has been chased away by the hero's mother, Ivan implores her to return,

<i>Progovara vili u oblaku:</i>	He said to the <i>vila</i> in the cloud:
„Vrat' se natrag, prebijela vilo! što će tvoja dva nejaka sina?“	“Turn back white <i>vila</i> ! What will become of your two weak sons?”
<i>Al govori vila iz oblaka:</i>	But the <i>vila</i> said from the cloud:
„Ne budali, lijepi Ivane!	“Don't be foolish, handsome Ivan!
<i>Moji sinci dobro će bez majke.</i>	My sons will be fine without a mother.
<i>Ako l' sinci moje krvi budu, Oni ć' naći svoju milu majku;</i>	If our sons are of my blood, They will find their dear mother;
<i>Naći će ju nebu u oblaci'.</i>	They will find her in the sky in the clouds.
<i>Ako l' sinci tvoje krvi budu,</i>	If our sons are of your blood,
<i>Ti ji' ráni sebi uz koljena!“</i>	You will nourish them by your knees!”

(lines 61-71)

### Connection to Birds

As has already been illustrated, the predilection of the *vile* to fly and the fact that they have wings is enough to link them

<sup>28</sup>In folk-custom the *Vilenice* healers in communities are often said to have been abducted for parts of their childhood by *vile*, during which time they are taught their magic and knowledge (Čića 2002: 44-45).

totemically and anthropomorphically to birds, but beyond that, there are specific references to *vile* taking on the form of birds. While the *vile* of folk custom are said to be able to change into swans, wolves, snakes and any number of other animals (Kulišić et al. 1970: 66), the *vile* of the epics transform exclusively into birds. A *vila*'s magic garments are interchangeable for wings in the epics, a point that should not be seen as a variation so much as a continuation of a single theme. The fact that control can be gained over a *vila* by acquiring a feather, clothing or wings from her is befitting the common European myth motif, but her warrior nature also connects her to the totemic transformations of Indo-European warriors. Where berserkers in Norse mythology may don a bear hide, the *vile* wear bird suits or use their clothing to transform into birds.

In a variant of *The Wedding of Marko Kraljević* mentioned earlier, Marko must save his fiancée from a *vila* who is holding her captive in a mountain lair, torturing her in retribution for the noise that her wedding party foolishly made in the mountains. While Marko is outside the *vila*'s cliff, trying to discover the secret entrance, she emerges and flies off. This *should* reveal the cave's entrance, and yet Marko remains confounded because the *vila* has quickly darted out of the rocks in the form of an eagle. Similarly, in an old variant of *Marko Kraljević and Mina of Kostur*, recorded in 1758 in Dubrovnik, a *vila* who comes to aid Marko in battle does not call to him from the heavens with her knowledge, but flies off from her mountain and lands on Marko's shoulder (MH II pt. I, #48, 210). It could be argued that the *vila* is in full womanly form, but the idea seems rather humorous. The context suggests that the *vila* has theriomorphically transformed into a bird and has flown down to whisper help into Marko's ear. Given the nature of the *vila*'s bathing habits, her affinity to water and her connection to the swan-maiden motif, the folklore conception of *vile* as swans would be rather fitting as well. Although I have not seen it explicitly mentioned in the epics, her connection to water resembles that of a swan or similar bird. There is another conception, however, which should be addressed. In the song *The Marriage of Marijan, the Nephew of Marko Kraljević*, the leader of the *vile* is said to sprout her wings from her shoulders. Although this description could be seen as contradictory, I believe that the idea of *vile* turning

into birds does not negate the possibility of epic singers imagining a transformational middle-ground.

### Sacrifice

Maybe the most alluring and archaic aspect that belongs to the *vila* of myth is the concept of sacrifice. The sacrifice to *vile* that Procopius attributed to the South Slavic tribe he encountered finds attestation in a number of forms in the epic songs. The most famous example is from the song *Зиданье Скадра* [The Building of Skadar] (SNP II, #26, 90) where the three Mrnjavčević brothers are attempting to erect a fortress at Skadar.<sup>29</sup> Following a common European myth motif, the fortress walls fall every night. Here, however, it is a *vila* from the mountain who ruins the architects' work. The *vila* calls down to the royal brothers from a mountain, and informs them that the building can only stand if twins are found, bearing the names Stojan and Stoja,<sup>30</sup> and buried under the foundation. When these twins cannot be located<sup>31</sup> the *vila* demands a surrogate sacrifice, telling the brothers that one of their wives must be walled into the foundation. It is at this point in the tale that most scholars will note the universal folklore motif of the 'walled-up wife' and contextualise it with evidence for human sacrifice in past European building practices (Zimmerman 1979b: 373), or the fact that in Montenegro, until fairly recently, a chicken or sheep was decapitated and its blood spread on the site of a future structure (Petrovitch 1914: 24). What is never addressed is the simple fact that, typologically, demanding sacrifice is part of the *vila's modus operandi*. Moreover, most scholars overlook the detail that the buildings that the *vile* demand sacrifice for are military fortifications. A sacrifice is never performed without a beneficial outcome and within this motif, the ability of the *vila* to bestow power on heroes reaches its macabre zenith.

We find the clearest sacrificial evidence in the tale *Mijat Spasava Kraljevića Marka* [Mijat Rescues Marko Kraljević] (MH VIII, #17, 103), when Marko is captured in the city of Karlovac

<sup>29</sup>For a more in-depth study of this song (specifically the moral aspects explored within it), see Zimmerman, 1979b.

<sup>30</sup>These names are derived from the verb *stojati*, to stand.

<sup>31</sup>The futility of this incident should immediately gather the attention of mythologists. See Colarusso 1998, for an explanation of how the small, odd details in myths often hold the most archaic implications.



by Turks, but sends word to a number of heroes who form a rescue party. When the hero Marijan informs Marko's brother Andrija, he is overheard by Marko's two sons, who become worried and race to gather horses to ride to Karlovac. As they ride off, five seemingly random lines are devoted to a *vila* who exits the song as quickly as she enters.

<i>Gledala ih vila iz oblaka,</i>	A <i>vila</i> watched them from a cloud,
<i>Sama sobom ona besidila:</i>	Alone to herself she said:
<i>„Koji bi se junak nahodio,</i>	“If there could be a hero found,
<i>Pogubio dvoje dice male,</i>	To kill the two little children,
<i>Dala bi mu pola snage svoje!“</i>	I would give him half my power!”

(lines 325-329)

Although it has no bearing whatsoever on the story or any of the characters, an old epic formula makes its way into this song – for a small sacrifice of two children, the *vila* would convey power to a hero; perhaps in the same manner that it was given to the young Marko as discussed earlier.

These ideas are found as well in the tales where a *vila* guards a secret mountain lake or spring. Most often thirsty heroes are directed to the lakes, but warned that the *vila* who guards them exacts a heavy toll or tax.<sup>32</sup> Usually the fee is the two eyes, or two arms of a hero, and his horse's legs, all crucial attributes and thus the highest of prices. In *The Birth of Marko Kraljević*, before King Vukašin forces the *vila* to marry him, he is sent to her lake by another *vila* to remedy his poor hunting prowess. He is told that the *vila* of the lake can teach him how to hunt, that is, for a small price, “from a hero, arm and muscle” (line 18). The sacrifice motif may even extend to the *vila*'s penchant for dancing the *kolo*. Yoffe and Krafczik suggest that the *kolo*'s roots lie in sacrificial dances (2003: 27-28), although I remain sceptical on the matter.

In one of the starkest examples of the sacrifice motif presented in the songs, a particularly cruel *vila* is building a

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<sup>32</sup>In some rare songs this taxation is brought to an extreme and the *vila* is depicted as a water merchant (Popović 1988:10). Within the folk customs regarding *vile*, Čića outlines water taboos in Croatia requiring that *vile* be invoked as *posestrime* before the water may be touched (Čića 2002: 38).

city in the mountains, but not just any city, for her materials are the bones of heroes and their horses (MH V pt. II, #38, 51). When she runs short of these, she convinces her equally malicious *pobratim*, the *ban* Drinovič,<sup>33</sup> to lead the wedding party of a rich man's daughter into the mountain where he is to ambush the party and kill everyone, "*sve pogubi malo i veliko*" [kill everyone, both small and big (young and old)] (line 25). When the *ban* and his bandits have murdered all but the young girl, she begs for her life and asks him if he knows of her brother, the *ban* Drinovič. In this tragic moment, the *ban* learns of his *vila*'s true cruelty, that she has set him to murder everyone near and dear to his own, long lost sister. And yet the epics need not be so specific in their depiction of the *vila*'s desire for sacrifice; at the lowest level, her strong connection to war and battle (a blood ritual itself) is enough.

Aside from these firmly attested features of the mythological *vila*, there are some ambiguous aspects that should be addressed.

### Blinding

Although *vile* in the epics seem to enjoy blinding their victims, the tendency is far from exclusive. The concept of tearing out eyeballs is a general trope for South Slavic supernatural beings, which is fitting given the dramatic and gruesome nature of such an act. In the tale *Јован и Дивск Старјешина* [Jovan and the Leader of the Giants] (SNP II, #8, 29), the Giant and Jovan's deceptive mother tear his eyes out. It is in fact a *vila* who heals his wounds with sacred waters and asks God to grant Jovan new eyes. In another song a woman offers to give a *vila* one of three gifts: her wealth, her eyes, or her white hands if the *vila* will only heal her dying brother. The *vila* scoffs at all these gifts and asks instead for the girl's blonde hair, another testament to the power of hair in the lore of the *vila* (MH V pt. II, #25, 33).

### Riding Wild Animals

This is a somewhat difficult aspect to allocate to a depiction of the *vila* (folkloric or mythological), and one that requires more research. Although songs do on occasion depict

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<sup>33</sup> *Ban* is a Slavic borrowing of the Avar *bajan*. It denotes a nobleman or land owner.

the *vila* riding on horseback, a number of texts (Zimmerman, Máchal and Nicoloff) describe *vile* as riding deer and battling upon them in forests. Commonly it is said that the *vile* ride deer, using serpents as reins. The concept is, to my knowledge, based upon two mythic tropes, whether it also belongs to the folkloric *vila* is an important question. The first example involves a number of Bulgarian songs where a *samovila* brings news to a hero, or weapons he requires in battle, which she delivers riding a deer (Nicoloff 1975: 11). Popović cites a song where a *samovila* delivers a message to Krali Marko riding a gray stag, “two vipers serve her as stirrups, yellow smoke is her whip...” (1988: 67).

The second example, which comes from the Serbo-Croatian songs, regards a number of variants of one epic, *Marko Kraljević i Vila Brodarica* [Marko Kraljević and the Vila Brodarica] (MH II pt. I, #2, 5) (also called *baždarkinja*, *bardarica* or *vodarica*, all terms implying a collector of a tax on water). In this tale, Marko faces off against a *vila* who rides a deer, uses snakes for reins, and fires snakes as arrows from her bow. This trope, however, is mirrored in the odd tale *Цар и Дјевојка* [The Czar and the Girl] (SNP I, #234, 155), in which a young (human) girl retreats to the woods to construct a pagan church. When the Czar leads an army to retrieve her she is quick to act:

<i>А кад и је млада угледала,</i>	And when the young girl
	saw (the army),
<i>она оде у зелену башчу:</i>	she went to her green
	garden:
<i>јелен-рогом шарца оседлала,</i>	she saddled her pie-bald
	with deer antlers,
<i>љутом га је змијом зауздала,</i>	with an angry snake she
	bridled him,
<i>још га љућом змијом ошибује.</i>	and with an angrier snake
	she spurred him.

(lines 30-34)

Later, when she captures the Czar himself, she tears out his eyes and leaves him blind to wander the forest. Where the true root of this motif lies is debatable. If it is a key aspect of the mythological *vila*, then the trope not only adds credence to her role as a warrior, it takes her heroic traits and elevates them in league with her supernatural aspects by having her

ride an animal that was deemed sacred by the South Slavs (Koljević 1980: 56 n.127). This trope would also create new questions regarding her sometimes ambiguous position as nature spirit.

Even considering these uncertain traits it is clear that typologically and functionally the *vila* of the myths and epics is a very distinct entity from the *vila* of folk customs. The implications of this suggest the need for an alteration to the way in which this figure is analyzed and described in academic work. Furthermore, this understanding sheds light on the connection that is often posited between the *vila* and the *rusalka*.

### The Rusalka

In Russian oral tradition we find the *rusalka*. Like the folkloric *vila* she is a dangerous creature who is said to drown unsuspecting people in water or drop on them from the branches of forest trees (Ivanits 1989: 75). *Rusalki* dance the *kolo* (in Russian *khorovod*), tickle people to death, have green or brown, wet hair and are said to be “the souls of unbaptized or stillborn babies and drowned maidens” (75). Although they are said to take humans as husbands, they take boys from villages and most often bring them to their underwater kingdoms (76). The *rusalki* are often thought to be the mistresses of the *vodianoi* (the Russian male water spirit), and their earliest conceptions connect them to fish. Most folk drawings depict them as mermaids, or similar half-fish creatures.

Etymologically the water aspect comes naturally to the *rusalka*, as her name is derived from the word *ruslo* [river bed/channel], the same root that may lie behind the Sanskrit word *rasa* [water]. The elusive figure *bereginya*, which is said to be a precursor to the *rusalka*, derives its name from the word *bereg* [shore],<sup>34</sup> relating it to a common depiction of the *rusalka* as a ghostly maiden, combing her hair on the bank of a river. Both these etymologies comfortably suit Russian demonology where every spirit is named for its abode (such as the *domovoi*, derived from *dom* [home/house]). In Northern Russia, *rusalki* are said to be hideous and have large pendulous

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<sup>34</sup>This theory is not without controversy, Yoffe and Krafczik argue that the term *bereginya* was a distortion of *\*pergyni*, the name, they suggest, for the hills where the Slavic god *Perun* was worshipped (2003:19).

breasts, and indeed, the Russian scholar D. K. Zelenin found that many Russian tales lack suggestions of *rusalka* beauty, but always stress their status as unclean dead (1913). Zelenin not only emphasized the dead maiden aspect of *rusalki*, he also suggested that their closest mythological analogue is the sirens of Greece.

In addition, there is also the connection of the *rusalki* to fields and grain crops that is addressed in the Barber paper; Máchal stresses this point as well. “The Rusalky live in woods, meadows, fields, and waters. Generally appearing when the corn begins to ripen in the fields, and concealed amidst it, ready to punish him who wantonly plucks the ears... they frolic among the high-standing corn and, rocking upon it, make it wave to and fro” (2006: 90). He connects the *rusalki* to hail, bad weather and fairy-circles as Conrad did the folkloric aspects of the *vila*, as well as midnight dances to the music of shepherds. He in fact attributes a profusion of fairy characteristics to the *rusalki*, but they all fall into actions performed in three zones – fields, rivers and forests. The manner in which the *rusalki* are associated with these environs should instantly remind one of the folkloric *vila*. Moreover, the *rusalki* never appear in Russian epics, only in fairytales and memorates where their role as dangerous spirits is stressed. In the tale *A Lad Who Watched Rusalki*, translated by Jack V. Haney, they are depicted as giggling nymphs, easily fooled, preoccupied by footwear (an interesting motif), and frightening when they pursue the hero (Haney 2009: 249-252). Oinas explains that *rusalki* “are said to spare those who can solve... riddles posed to them” (1985: 109). While these traits lack any connection with the mythic *vila*, they bear striking resemblance to the folkloric depiction of the *vila*. Both figures are portrayed as having a preoccupation with their dark hair, both play simple games (tickling, scaring, tying knots) which can turn deadly, both may originate with the ghostly dead, and both are connected to fields, forests and water. All of these aspects suggest that the *rusalka* can only be compared to the *vila* if her folkloric aspects are being analyzed.

While the *rusalka* aligns so clearly with the folkloric *vila*, she never appears in epics as the *vila* does; it makes sense then to seek a Russian analogue for the mythic *vila*. Sadly, there exists no clear mythological version of the *vila* in the

Russian *byliny* [epics]. Though the *polyanitsy* or *bogatyry* are the most obvious female warriors in the *byliny*, they are specifically depicted as human, not supernatural. Although they may share some functions with the *vila* (blood-sisters and wives to heroes), their depiction as foreigners (often from Lithuania) and strong women (Bailey and Ivanova 1998:94-96) makes them a clearer analogue with the Amazons of Greek myth. There are, however, some possible vestiges of a *vila*-like figure, such as the disembodied voice from the heavens that provides Dobrynya Nikitich with tactical advice in the epic *Dobrynya and the Dragon* (91), or the supernatural swan woman that Mikhailo Potyk discovers while hunting and marries on a unique condition (156).<sup>35</sup> What this might suggest about the *vila* is debatable. Does the *vila* represent an out-growth of a Serbo-Croatian *rusalka* figure, altered over time to a new role in the epics, or conversely, has an epic *vila*, once the product of a professionalized bardic class, been taken on by the masses and given local functions as a nature spirit? Perhaps two distinct figures have been subsumed by one *vila* name. An intensive historical study could provide some insight, although the question may be unanswerable, too shrouded in a preliterate past.

It is intriguing to note that the Bulgarian figures may reflect a similar divide. Máchal, Barber and Ivanits agree that the core aspect of *rusalki* is their connection to the seasons and fertility rites of spring. Ivanits claims that the Bulgarian version of the *rusalka* lives on the edge of the world and brings moisture and fertility (1989: 78). As noted earlier, the Bulgarians have two names for their folk figure, both *samovila*, and *samodiva*. Assen Nicoloff concludes the section of his book on the *samovila* by addressing the two terms. "Similar to *samovilas* are the *samodivas*. They live on the plains and are likely to be found along rivers, pools, springs and wells. In autumn they depart for the end of the world and come back again next spring. They leave their abodes only at night in order to wash, bathe and dance. Later [historically] the term *samodiva* is used in place of *samovila*" (1975: 11). More research is needed to support Nicoloff's claim, but were the

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<sup>35</sup>Potyk must vow that whichever of them may die first, the other will be buried with the deceased for three months, certainly not a condition reflected in *vila* tales, but the other aspects of the tale merit closer examination.

depictions so starkly divided it could support the division found between the functions of the *vila*. Where the one figure is connected to themes of fertility and inhabits plains, forests and water features, the other lives in the mountains and clouds and is linked to heroes and myths.

### Conclusion

If this argument can be accepted, then certainly more questions arise than are answered. A line between folkloric genres is never as clear in practice as it appears in theory; obviously aspects of time-depth, borrowings, bleed-over and regional variation must be taken into account. Document retention and the late date of epic annotation among the Serbs and Croats will ultimately leave some questions shrouded forever. Where the lines can be drawn on ambiguous features of the *vila* is difficult to say. It would be beneficial to study more ethnographic material regarding folk-practices, as well as to explore oral traditions that lie in the middle-ground between myth and folk-custom such as the fairytale depictions of the *vila*. Yet, the ability of epic songs to retain archaic material is often astounding and the oldest materials can be analyzed to create a relatively clear picture. The conclusions drawn here are not only plausible, but statistically consistent.<sup>36</sup> Moreover, the distinction between the epic and legendary functions of the *vila* is highly productive in elucidating extensive parallels with homologous figures in the Indo-European world, namely the Norse *valkyrie* and the Indic *apsarā*, connections which I shall explore in a subsequent study.

Whatever the mysterious past of the *vila* may be, this article has elucidated enough of a functional divide to merit the separate study of the *vila* in the two formats, here sub-labelled as ‘folkloric’, belonging to folk custom, and ‘mythological’, belonging to the epics and ballads. While scholars in the past have created disorderly lists of every story, trait or aspect that has been associated with the name *vila*, by employing a simple designation of which role of the *vila* is

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<sup>36</sup>Of the one hundred mythological and epic songs surveyed for this study only one did not conform to the trait parameters set forward in this paper. The song (a *women’s song*, which are removed from the bardic practice) involves a *vila* transforming into a snake to bite a hero who has trampled on clover and made the clover cry (MH V pt. II, #31, 42).

being analyzed, folkloric or mythological, studies overloaded with facts and conflicting ideas can become clear and unambiguous. Hopefully this article will act as an exhaustive study of the role of the *vila* in Serbian, Croatian and Bosnian epics, as well as suggesting a more cogent method for analyzing her aspects.

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### Abbreviations

MH – Matica Hrvatska, SNP – Srpske Narodne Pjesme.

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## Armenian *t*-‘not’ and the Proto-Lezgian Dental Negative

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Armenian has a prefixed dental negative in *t*, for which there have been several attempts at etymology: Skt. *dus*, a negative prefix, and Lat *dē* ‘down from, concerning.’ The former cannot be justified on phonemic grounds, the latter on semantic grounds. This paper argues for a source in the Proto-Lezgian negative dental stop. There are numerous loans from Proto-Lezgian demonstrated in Armenian. The phonology is perfect, and the semantic fit is solid. In addition, there are other parallel negative suffixes in Armenian of Proto-Lezgian origin: *tara-*, *tor-* and *ta-*. There is also material which suggests that the standard Armenian stand-alone negative of *oč*, for which there is no satisfactory etymology, might somehow be related to this system.

In a phenomenon solely confined to Armenian and the Lezgian group<sup>1</sup> of the North-East Caucasian (Daghestani) languages, the morpheme *t* (in Armenian) or a dental stop (in the Lezgian languages) produces the negative<sup>2</sup>. In Armenian, the particle is attached to the beginning of the word. It can appear with words of many origins, attached to substratum vocabulary (*thas* ‘unripe’ [*has* ‘ripe’]), to Iranian words (*tgoyñ* ‘colorless’ [MP *gōñ* ‘color’]), and to words of Indo-European origin (*tgēt* ‘ignorant’ [*gēt* ‘knowledgeable,’ IE \**weid-* ‘know, see’]). This negative is well established in Armenian with either verbs, adjectives or nouns, having the negating *t* appear before words that are consonant-initial only (curiously, I have found no example of a vowel-initial word taking a *t*-prefix). These negated words appear at the oldest level of the Armenian language, from the pre-literate period, and are

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<sup>1</sup>The term Lezgian will refer to the language family while Lezgiic will refer to the particular language. For those interested in the North-East Caucasian/Urartian hypothesis, no dental negative exists in Hurrian nor Urartian (gratias ad Margarita Khachikyan).

<sup>2</sup>In Udi the word *te* means simply ‘no’: *Vi baba arene? Te!* “Did your father come yet? No!” (Gukasyan 1974:204). They do have an inseparable form *te’u*, as in *te’uuksa* “he can not eat,” (*uksun* ‘to eat’ [ibid.]).

found written in the earliest fifth century texts.<sup>3</sup> There are, according to my count, seventeen examples of a Classical Armenian word with a negating *t*.<sup>4</sup> An example of an adjective would be *tkar* ‘weak’ (Bible 12x), noun: *thač* ‘dissatisfaction’ (Chrysostom 5th C.), and verb *tgitanam* ‘be ignorant’ (Bible 2x). Adjarian (1926-37) seems unaware of this prefix and in his root dictionary he makes no mention of it, listing all the words with *t*- prefix under the larger root, without special comment. Bolognesi 1948 derives it from the precursor of Lat *dē* ‘away from,’ giving Arm. \**ti-*, but the semantic fit “away from” = “negative” is worrisome.

In addition to *t*, Armenian has another similar dental prefix with a similar function, *tara-*,<sup>5</sup> which is not quite as productive and makes changes in only eight different Classical Armenian adjectives of various etymological origins<sup>6</sup>: *tarazard* ‘indecorous’ (Bible 12x [*zard* ‘ornament’])<sup>7</sup>, *taražam* ‘ill-timed, at another time’ (Philo 6th C. [*žam* ‘time’])<sup>8</sup>, *tarahačeli* ‘unpleasant’ (Khorenatsi *Pitoyits* 7<sup>th</sup> C.? [*hačeli* ‘pleasant’]), *tarajayn* ‘dissenting, having another voice’ (David Anyaght 7<sup>th</sup> C.), *tarameržim* ‘outcast’ (Narek 10<sup>th</sup> C.), (*meržim* ‘expel’)<sup>9</sup>, *tarapayman* ‘excessive’ (Buzand 5<sup>th</sup> C. [*payman* ‘quality’]), *tarap’arš* ‘inglorious,’ (T’ēodorosi K’ot’enawordi 7<sup>th</sup> C. [*pařk*

<sup>3</sup>Actually, though the prefix *t* appears before three separate categories of Armenian words, it seems somehow to be adjectivally derived, and spread to other categories later.

<sup>4</sup>They include *tgeł* ‘ugly,’ *tg’i* ‘ignorant,’ *tgoyn* ‘colorless,’ *tzor* ‘powerless,’ *txmar* ‘foolish,’ *txur* ‘cheerless,’ *tkar* ‘weak,’ *thett* ‘simpleminded,’ *thal* ‘indigestible,’ *thač* ‘discontent,’ *thas* ‘unripe,’ *tjel* ‘unshapely,’ *tmahanam* ‘be immortal,’ *tmayn* ‘ugly, gloomy,’ *tmar* ‘foolish,’ *tmardi* ‘impolite,’ *tk’nut’iwn* ‘sleeplessness, wakefulness.’ Further, it seems most likely that a negative *t* was originally affixed only to monosyllables, and the system spread from there.

<sup>5</sup>This exists, for instance, as a suffix *-dar* (sometimes spelled *dər*) in Budukh: *k’uldže bukh čay’ ardar* “he did not bring his dog home” (Talibov 2007:248).

<sup>6</sup>Actually, and more accurately, the prefix *tara-* in Armenian is not exactly negativizing, but rather expresses something ‘other,’ Note Modern Eastern dialect *taradram* ‘a currency other than the dram,’ which also shows that this prefix remains productive.

<sup>7</sup>Adjarian seems also unaware of this prefix and divided this word *taraz-ard* (*taraz* ‘form’ and *ard* ‘recently, now’) which really doesn’t quite work.

<sup>8</sup>These words with *tara-* can be from a variety of etymological origins.

<sup>9</sup>The prefix *tara-* here seems to function as a double negative, for emphasis, as in colloquial English: “I didn’t do nothing.” Note Plato (Plato. *Lg* 808b) *καθεύδων οὐδείς οὐδενὸς ἄξιός οὐδέν μᾶλλον τοῦ μὴ ζῶντος* “Not no sleeping is no better than not living.” In Russian also я никогда не сделал это “I didn’t never do that.”

‘glory’]), *taraōrēn* ‘unlawful’ (Philo 6<sup>th</sup> C. [*ōrēn* ‘law’]).

There are a few other oddities in Armenian: a prefix *ta-* as in *tabun* ‘unnatural’ (*bun* ‘nature’); and a prefix in *toro-* *torabanam* ‘to speak incomprehensibly, be prolix, to speak in another voice/language’ (Grigor Magistros 11<sup>th</sup> C. [*banam* ‘to speak’]). The *tor-* prefix occurs also in the Lezgian languages, specifically as Tabasaran *dar-*, Kryts *da’r*, Budukh *dər-* (or *daər*) (Alexseev 1985:101).<sup>10</sup>

The relationship of the Lezgian languages with Armenian is somewhat unclear. Though we can be sure that this N. E. Caucasian contact preceded the creation of the Armenian alphabet (early 400s AD), it seems probable that it came after the great Armenian consonant shift in the undatable past. That there are Daghestani words in Classical Armenian has been known for decades, first expressed in modern times by Ghapantsyan (1975:240)<sup>11</sup> and later in Vinogradova and Klimov (1977:154-158) who proposed twenty-three examples but felt that the Lezgian words originated in Armenian and came thence into the Caucasus. Though they included many solid examples,<sup>12</sup> they also had questionable examples, being merely wander-words, not originally Daghestani nor Armenian: Arm. *katu* ‘cat,’ *t’onir* ‘oven,’ words of Iranian origin, Arm. *gund* ‘ball, lump,’ MP *gund* ‘testicle,’ Arm. *dew* ‘demon,’ MP *dēw* ‘id’; Arm. *mkrad* ‘scissors,’ Arab *mqrād* (مقراض)<sup>13</sup>, as well as words of unknown origin. But it is difficult to think that Armenian itself had a direct effect on all the Lezgian languages. If so, one would expect Armenian to have transferred some Indo-European vocabulary, especially in Armenian shape. But there is none. Since the 1970s there have been some successful attempts to find more Lezgian/Armenian correspondences in Armenian. Greppin (1996, 2008, 2009) shows more than thirty correspondences. Examples such as Arm. *bag* ‘snout,’ Tsakhur *bok* ‘id,’ Arm. *kaxard* ‘witch, wizard,’ Lezgian *qwarc* ‘house spirit,’ Arm. *kokord* ‘throat,’ Rutul *qwarqar-ak* ‘id,’ Arm. *sand*

<sup>10</sup>In addition to ignoring the Arm. *t-* negator, mentioned above, Adjarian also does not mention *tara-*, nor *tor-* nor *ta-* in his *Grammar*, volume five on negative particles (1965:239-241).

<sup>11</sup>Ghapantsyan mentions non-Indo-European Arm. *c’et* ‘tribe, branch,’ which appears in Udi as *cil* ‘grain, seed.’ This etymology was weak semantically, but better were to follow later.

<sup>12</sup>E.g., Arm. *čči* ‘worm,’ Budukh, Kryts *č’č’i* ‘worm in an apple.’

<sup>13</sup>These terms came into Lezgian and Armenian separately and are not derived through the Lezgian group.

‘pounding mortar,’ Lezgian *sunt* ‘hammer,’ Arm. *sunk* ‘mushroom,’ Udi. *ša'mkal* ‘id.’ That vocabulary has been shared between Armenian and the Daghestani languages from preliterate times is clear.

The original Indo-European negator in Armenian was IE syllabic \**ŋ-*, which produced Arm. *an-*, as in *ankar*, and is paralleled by a third negator, of unknown origin: *č̣-*. In Armenian three different negators can appear with the same root, *ankar*, *tkar*, and *č̣kar*, all meaning (though there are slight semantic variations) ‘impossible, powerless.’

The history of Armenian *č̣-*, the most productive negator<sup>14</sup>, is unknown, but there is evidence that it too might be part of this same Lezgian negative group. We find the following suffixal negatives: Lezgian *-č̣* (along side the simple negative *t-*), Rutul *\*δ̣* (along side the simple negative *\*d-*) and Archi medial *-č̣u-*. These voiced and voiceless dental affricates might reasonably be derived from the Lezgian negative dental system.

To add to the mystery, we can point out that prohibitions are expressed in the Lezgian group by *ma*<sup>15</sup> which finds parallels with IE *\*mē*, Indo-Iranian *mā*, Gk. *μη*, Arm. *mi*, and Toch. *mā*. It is perhaps not coincidental that the Indo-European prohibition particle *mē* came into Lezgian from Iranian *mā*<sup>16</sup>, since the North-East Caucasian languages as a whole contain abundant Iranian loan words. Alekseev and Shejxov (1997:114) suggest that the bulk of the Iranian influx came in the third and seventh centuries AD, during the Sassanid period, though I think there is cause to suppose it was a bit earlier.

Let me now list some more of the various Lezgian dental negatives so we can see how complete that system is. In Tsakhur (Talibov 2004:402) we find the negative *d-* (or *-id-*) for use in non word-final situations: *dac'as* ‘not to know’ (*ac'as* ‘to know’); *idoxanas* ‘not to eat’ (*oxanas* ‘to eat’); if the verb is independent we get a final *deš*: *oxanas deš* ‘to not eat’ (*oxanas* ‘to eat’). This is closely paralleled in Rutul by *diš* (Alekseev

<sup>14</sup>The stand-alone form *oč̣* is the standard Armenian word for ‘not,’ as in *č̣ē* ‘no,’ literally ‘it is not.’

<sup>15</sup>Note Udi prohibitive *qoš ma bəγ-a* “do not look back,” but standard negation *nana te-ne-arci-i* “mother is not sitting down” (Harris 2002:270).

<sup>16</sup>Other examples exist: Nakh, Tsez, Lak, Agul, Kryts, Budukh; West Caucasian *\*mā* (Starostin 1994:797).

1994a:233) *kurč'ir diš* ‘to not begin’ (*kurč'er* ‘to begin’). In Archi we have *-t'u-* (Kibrik 1994a:329): *arxar* ‘to lie down,’ *arxart'u* ‘to not lie down.’

The case of Khinalug is difficult. Some say that Khinalug has no negative in a dental (Harris 2002:268) but Starostin and Nikolaev (1994:404) say Khinalug has *-n-dä*, a suffix of negative particles. Kibrik (1994b:390) says there are no negative forms for the aorist or concrete present, while being vague elsewhere. It appears that the Khinalug negative remains unclear, as does so much else in that quite odd language. Many feel that Khinalug is not part of the Lezgian system, though, in addition to the dissimilarities, there are many surprising correspondences.

In Kryts (Saadiev 1994:432) we find an initial *d*-attached to the verb: *dataj* ‘not to beat’ (*ätäj* ‘to beat’). Budukh, closely related to Kryts, has a negative in *-d-*, whose vowel is partially determined by harmony, and is internal: *siderni* ‘not do,’ root *\*sirn* ‘do’ (Alekseev 1994:280).

Lezgian (Haspelmath 1993:133) can use a simple *t*-negator before a verb beginning with a vowel (*taxun* ‘not see,’) or *tV-* before a verb beginning with a consonant, the vowel determined by harmony (*tü-tün* ‘not eat’). In addition to this simple *t-*, Lezgian also has a stand-alone negative, *tuš* as in *am γ<sup>w</sup>eč' tuš* ‘he is not younger’ (Talibov and Gadzhiev 1966:318).

Udi, in addition to the examples mentioned in footnote two, has *oqa* ‘(he) went’, but *oqa t'u* ‘(he) didn’t go’; *at'u* ‘(he) cut,’ *at'u t'u* ‘(he) didn’t cut’ (Kaxadze 1979:305).

There seem to be plenty of words from Lezgian in Armenian, and that seems to be the direction of the flow, lacking Indo-European words of Armenian shape in Lezgian. Acknowledging this, it seems quite straightforward that the similar negative dentals in Armenian are from Lezgian and the origin of principal Armenian negative *oč'* is somehow related to this system though a description of the process would be speculative.

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### Archaeology

David W. Anthony (ed.). *The Lost World of Old Europe: The Danube Valley, 5000-3500 BC*. The Institute for the Study of the Ancient World at New York University. Princeton/Oxford: Princeton University Press, 2010. 251 pages, 4 maps, 6 tables, many illustrations, most in color.

In a letter Roger S. Bagnall, Director of the Institute for the Study of the Ancient World, writes that when he was a student he “was taught about the Greek Neolithic, but with no sense of its connections to a larger cultural canvas to the north.” (6). This is probably true of most people — our educations begin with the Greeks, but little if anything is taught about their contemporaries. We should not disparage the Greeks, but there were other cultures, and some of these with settlements larger than those of Mesopotamia, produced highly sophisticated artifacts. The exhibit *The Lost World of Old Europe: The Danube Valley, 5000-3500 BC* with its accompanying catalogue illustrates some of these artifacts and describes some of Greece’s contemporaries.

The objects are displayed in two small rooms, which most viewers can easily see in about a half hour though those who share my interest in the period and region could easily take over two hours. Many of the objects I had seen before in Romania and Moldova and only wished that the collection was larger. At the Piatra Neamș museum in Romania there are hundreds of figurines on display. The museum at Chișinău, Moldova must have hundreds of Cucuteni pots alone not counting those from other cultural groups. The gold objects are spectacular for their variety and age, the flint blades are very impressive, and the ceramics just plain beautiful.

The catalogue that accompanies the over 250 objects is large and beautifully produced. The photographs are first rate and wonderfully illustrate the collection of ceramics, metal artifacts, flints, and ornaments that belong to numerous Copper Age cultures including Cucuteni, Tiszapolgár,

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Bodrogkeresztúr, Vădastra, Gumelnița, and Varna found in Romania, Moldova, Bulgaria, and Bulgaria. Most of the objects are illustrated as figures in the catalogue or in the Exhibition Checklist, which includes description, size, context, date, and museum number, in the back of the catalogue. The exhibit is presented by the recently established Institute for the Study of the Ancient World in New York — this exhibit is only its second.

Contributions to the text have been made by scholars from Romania, Moldova, Bulgaria, France, and England and the work is edited by David Anthony with Jennifer Chi, who coordinated the exhibit. Thanks to a large and favorable review of the exhibit by New York Times Science editor, John Noble Wilford, the exhibit has been well-attended, and the catalogue has gone into a second printing, something unusual but quite welcome in a field as little known as this.

The title seems to combine the designations of these areas given first by V. Gordon Childe and later by Marija Gimbutas. “Old Europe” is the name Gimbutas gave the Balkan cultures that saw the earliest domestication of plants and animals in Europe, and it was V. Gordon Childe (1929) who earlier described the cultures that were part of the Danube Valley. Anthony follows Gimbutas in the use of the term “Old Europe,” recognizing the usefulness of it and sparing the need to run many cultural groups together.

Anthony surveys the subject in a broad if perhaps choppy Introduction, but in his defense, it is difficult to summarize this material in a few pages. He prefers the term “Copper Age” as it is comparable to Bronze Age and Iron Age, but it is also deceptive as it implies that copper was dominate when stone tools were still in the vast majority. “Eneolithic” or “Chalcolithic” are more accurate in that they take in both copper and stone as the major materials used in tools and weapons. Furthermore, a number of dramatic flint blades are part of the collection. But this is a quibble.

The twelve to fifteen hundred year period from the beginning of the Neolithic in Greece to ca. 5000 BC saw the spread of the Neolithic economy throughout the Balkans and the advance of ceramic technology. Figurines, primarily female, were also ubiquitous in the area. Some of these are black figures, the products of a reducing atmosphere high in carbon monoxide that new kiln technology permitted. These

advances in kiln technology also allowed for temperatures reaching 800-1100° C, and these high heat kilns, with their reducing atmospheres, led to the smelting of copper ores such as azurite and malachite. At 1083° C copper liquefies and this feat was achieved before 5000 BC. Turning blue and green stones into liquid copper and then making it solid again surely must have appeared to be magic. This also put the copper objects into a category of high prestige to be used in important gift exchanges between elites (35).

Anthony emphasizes long-distance trade as a key to understanding much of the material in the collection, particularly that coming from the Varna cemetery, and he considers them “symbols of status and recognition” (38). Spondylus shells are of particular interest as they only grow in warm water such as the Aegean and Adriatic Seas but not the Black Sea. Nevertheless they are found in the Balkans and found in hoards such as the Karbuna<sup>1</sup> hoard discovered some distances from the warm seas.

Figurines are a major component of Old European artifacts, and there are a variety of interpretations. Perhaps the best known and most controversial is that put forth by Marija Gimbutas. Her views have been highly criticized (some unnecessarily vitriolic) but this is an area where certainty is difficult if not impossible. Gimbutas’ view of these figurines stressed birth and regeneration, and she laid out her views in detail (see Gimbutas 1982 and 1989). A common criticism of her work is as Anthony puts it:

that modern or even medieval folk traditions are separated from Old Europe by at least five thousand years of intervening history... [and that her]...attempt to link specific Copper Age goddesses with Minoan or Greek deities must overcome the problem that Classical Greece and Bronze Age Crete were quite far from Romania or Moldova geographically, and even Minoan Crete flourished at least two thousand years after Old Europe.  
(42)

While he is correct in the time factor, 5,000 years has not been a detriment to Judaic beliefs and although Christianity has only been around for 2,000 years, yet it has spread over

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<sup>1</sup>The Karbuna hoard, found in Moldova, had 444 copper objects, 270 ornaments and unfinished ornaments in a Tripol’ye A pot. The Brad hoard consisted of copper, gold, and marble placed in a pit and found in Romania.

much of the world from its beginnings in the Near East. As for the geographic distance of Minoan Crete from Romania and Moldova, Crete was, in Gimbutas' definition, considered a part of Old Europe (see Map 1 in Gimbutas 1982) and thus built on the same traditions as Cucuteni and Neolithic Greece. Moreover, one cannot deny that certain specific similarities — such as the appearance of owls and snakes — unites these figurines with the Minoan artifacts and with classical Greek iconography in a way that is both complex and unmatched in other regions of the world. Furthermore, religious beliefs could have travelled over long distances much as material items did (see Kristiansen and Larsson 2005).

The contexts and condition of the figurines is, indeed, a problem as is the question of shrines. But in this latter case, I would suggest that shrines need not be separate from domestic contexts. Russian Orthodox households often reserve a corner of a room as a religious shrine as do some Buddhist and some Catholic households even today.

Between 4300 and 4100 BC Old Europe went on the decline perhaps because of climate change, perhaps invasions of nomadic people from the steppes, perhaps internal collapse, perhaps a combination of any or all of them — there is some evidence for all. No matter the cause, there was abandonment of settlements in most areas except in the areas occupied by the Cucuteni/Tripol'ye culture. Here, in fact, some settlements increased in size up to 450 hectares (Tal'yanki), but by the mid 4th millennium they too were abandoned.

Cucuteni is the major cultural group involved in the collection, but it is inextricably linked to the Tripol'ye of Ukraine and a simplified chronology would have been helpful. Videiko (1994) gives a short chronology which I reproduce below although it differs slightly with other chronologies offered in the catalogue.

Tripol'ye CII	3500-3200 BC
Tripol'ye BII & CI/Cucuteni B (1-3)	4000-3500 BC
Tripol'ye BI & II/Cucuteni A-B(1-2)	4200-4000 BC (Classical)
Tripol'ye BI/Cucuteni A(1-4)	4500-4200 BC
Tripol'ye A/Pre-Cucuteni I, II, III	4800-4500 BC
	(after Videiko 1994:7)

A chart of the cultural groups would have been helpful although the information can be gleaned from Table 1-1 on p. 32.

A map of “The Expansion of Early Farming Communities across Europe is on the inside the front and back covers of the volume will be very helpful to those who are not familiar with this sequence of events.

Long-distance trade, figurines, and metallurgy emphasized by Anthony are all themes taken up by the nine essays that follow the Introduction in the catalogue. These essays will be most useful to those who already have some knowledge of the material and cultures to which they belong; the number of culture groups and site names may be off-putting to the uninitiated. Having said that, the essays are informative and often present material not found in English. Clearly a knowledge of Romanian is essential to anyone wishing to gain in-depth knowledge on the subject of the cultures represented in the collection.

There are three material traits that are common to Old Europe: substantial houses, sophisticated pottery produced in a wide variety of shapes, and figurines, primarily female. Long-distance trade, was stimulated by the material traits, particularly the pottery and, as it developed, metallurgy, which took on more and more importance.

“A History of Archaeology and Museography in Romania” is given by Ioan Oriş and Cătălin Bem of the National History Museum of Romania in Bucharest. Despite the political hardships Romanians have had to face, Romanian archaeologists have continued to excavate and study the treasures of their country.

John Chapman, one of the few western European specialists in Balkan archaeology, contributes a chapter on “Houses, Households, Villages, and Proto-Cities in Southeastern Europe.” He notes the strong contrasts in the “lifeways” of Old Europeans: first between cemeteries and settlements and second between tell sites and flat sites. The two tables he provides starkly emphasize these comparisons. For example, the Varna culture sites range from 0.1 to 4 hectares for flat sites to 1 to 5 hectares for tell sites compared to Tripol’ye flat sites of 0.5 to 450 hectares. But the Varna culture produced a minimum of 100 graves and a maximum of 900 while the culture(s) of Cucuteni/Tripol’ye produced none. It is the Varna cemetery that has produced the most dramatic number and quality of metal objects.

Chapman points out that one of the Varna settlements, a

tell at Provadia, was near one of the richest salt sources in Bulgaria, but the houses were small and timber framed. Chapman rejects the view that because they were “described as economic social, and metallurgical center” (78), they were proto-cities. He finds none of the criteria, that is size or internal complexity, for proto-cities. The question remains at which sites were the items from the Varna cemetery produced.

The radiocarbon dates for Varna are surprisingly early, and Chapman is correct when he states that this makes the western Black Sea area “a leading innovator that stimulated the early expansion of trade and exchange networks linking the western Black Sea zone to communities on the northern shores and further north, into Moldova, as documented by the Karbuna hoard” (79).

The Tripol’ye culture produced some extremely large settlements. Vesely Kut is the earliest of these megasites with 150 hectares and dates to the Tripol’ye BI/II transition but most of these sites date later to ca. 3800-3500 BC to the Tripol’ye CI phase. Tal’yanki, the largest of all the sites, had 2,000 structures. Tripol’ye megasites have been characterized as elliptical sites containing perhaps thousands, certainly hundreds of houses arranged in concentric ovals with an empty area in the center. These were planned houses as the streets are laid out. Other scholars have suggested that some structures may have been shrines, but Chapman rejects this idea.

The largest of these 4th millennium settlements or “proto-cities” were larger than the earliest cities in Mesopotamia but seem to lack writing, internal settlement divisions, and interior storage systems.

The strain on resources and the need to supply these megasites would have required a reliance on subsidiary communities, but no evidence of a distribution system, temples, palaces, or even elite houses, or public mortuary rituals have been found.

Chapman concludes that Old Europeans did not display social inequality in their house architecture whether their settlements were tell or flat which he says “suggests that houses were not viewed as appropriate media for the display of social differences” (86). The conundrum he puts forth is the lack of settlement hierarchies from Varna sites where the cemeteries are so rich and the lack of any cemetery evidence

with the Tripol'ye megasites. Each case implies the other but the evidence isn't there.

Dragomir Popovici writes on the "Copper Age Traditions North of the Danube River." The material in the exhibition comes primarily from Romania and principally from three Cucuteni A sites that were excavated completely. He gives a description of where objects were found and "outline[s] the new aspects of everyday and spiritual life created by different archaeological cultures starting from a set of common, general features of the Neolithic Age" (91).

Tiszapolgár (4500-4000 BC) was first Copper Age culture in Romania. It appears as an extension from the Hungarian Plain, and most of the 130 settlement sites are level open sites, but there are a few tell and cave sites as well.

Gumelnița (4600-3950), however, was the main Copper Age culture in the lower Danube valley. These were generally tell sites — ca. 250 are known and some were on top of the earlier Neolithic Boian culture tells. Some had defensive structures — ditch and bank and some palisades. Settlements were small and occupied for only a short time. At least two sites during Gumelnița A2 phase had houses set in rows.

Pre-Cucuteni (4800-4500 BC) in eastern Romania, Moldova, and Ukraine covered the Late Neolithic and early Copper Age and from this period 167 sites are known. Of these most are small, no more than about one hectare and about 10 structures.

Somewhat later at least 1,848 Cucuteni sites are known in Romania alone, and 40% are assigned to Cucuteni A. The average distance between Cucuteni A sites is 10 km. Sites of the later phases are spaced further apart.

Salt deposits were probably a draw to the area. Copper Age sites were usually near water and some near mineral sources such as copper, salt, flint, or obsidian.

Douglass W. Bailey, the author of "The Figurines of Old Europe," has written extensively on figurines, and his contribution, while concentrating on the group of 21 figures and 13 chairs in the collection, follows his earlier work (see Bailey 2005). Bailey rejects Gimbutas view of the figurines but admits that her views were influential because they were "appealing and easy to understand" and because she held a position at an influential university (UCLA). But, he goes on to say her conclusions had "little logical, rational, or scientific



reasoning...[and that] independent evidence from the archaeological contexts of discovery did not in fact confirm them” (117). Bailey believes that these miniature figures were “handled, played with, worshipped, or cursed in their daily existence”... [and that] the function of these objects is to be found at a deeper level of reality, upon which the community constructed and maintained a sense of who one was, what one should look like, and how one was distance from others.” (124) Further, he contends

that none of the thinking that was stimulated by these figurines...can be contained in the reconstruction of a specific cult or religion or pantheon or deity. Instead, the effects that these objects had were much more subtle, the result of long accumulations of visual and tactile stimulations — accumulations of experiences through which people perceived their appropriate appearance within their communities.

The importance of these objects, therefore, is the way in which they contributed to a shared understanding of group identity; they stated without words, but in always present visual and tactile expression, ‘this is us’ (125).

This is certainly a more abstract view from that of Gimbutas’, but it is also just as difficult to prove. The figurines of southeastern and central Europe are intriguing objects. They come in a wide variety of shapes and have been found in a number of contexts, conditions, and cultures that fall into the extensive area of “Old Europe.” They remain open to many interpretations, and a definitive answer to their meaning seems elusive.

Cornelia-Magda Lazarovici’s essay on “Cucuteni Ceramics: Technology, Typology, Evolution, and Aesthetics,” is particularly informative and illustrated with examples both within and outside the collection. She points to other Balkan cultures to which Cucuteni/Tripol’ye is related: the late Boian, late Linear Pottery, and Hamangia cultures, but they ultimately rest on influences from the south coming up through the middle Danube region. “The southern influences originated in Greece” (130) which has the earliest Neolithic dates in Europe. She focuses on the Pre-Cucuteni and Cucuteni cultures of Romania.

From the beginning, Pre-Cucuteni pottery shows great skill and a wide variety of shapes. Many of the vessels have lids,

and Lazarovici suggests that there was a certain amount of flair when the dishes were presented due to the lids. Keeping the food hot may also have been a motive for lids.

The early vessels were created by coils and not until Cucuteni A-B was a slow wheel employed. The first decorated Pre-Cucuteni I vessels were incised and excised and lacked color (see Figs. 6-1, 2, 3). During Pre-Cucuteni II shapes became more elaborate suggesting that the pottery was no longer just for cooking but had taken on an element of status. By Pre-Cucuteni III paint (red and white) was applied to fired vessels but also colored slip began. All of this along with the growing variety in form and elaborate decoration was in place by ca. 4600 BC. The exuberance of these ceramics must be seen in person to be properly appreciated although the illustrations in the catalogue are excellent. The exhibition only provides a tiny glimpse of what the Cucuteni people produced or have survived.

The Pre-Cucuteni and Cucuteni periods are set apart primarily by improvements in kilns, control over firings, and the discovery of minerals that created the pigments for colored slips. Lazarovici does not exaggerate when she says "These innovations elevated Cucuteni ceramic production from an attractive craft to a specialized skill that produced objects of consummate beauty" (134). The discoveries were most likely connected to copper metallurgy which requires high temperatures for smelting.

Lazarovici provides a description of the technical and decorative aspects of the pottery beginning with the Pre-Cucuteni period. The technical aspects of these splendid ceramics had been studied in the early 1980s by Linda Ellis, an American, and her important 1984 work has held up to more recent analysis.

"The Invention of Copper Metallurgy and the Copper Age of Old Europe," by Ernst Pernicka and David Anthony provides a short but very informative history of copper metallurgy which is pertinent to both the copper and gold finds from the Varna cemetery some of which are found in the exhibition.

Current evidence shows that the first metal objects were small, made of native copper, and found in the Near East at the end of the 9th millennium BC. Smelting ore was not involved but heating the soft native copper would have made

it more malleable. The smelting of copper ore was a great leap forward and how this occurred is not completely clear, but it undoubtedly was connected to the kilns that fired ceramics. Because lead melts at a much lower temperature than copper, it may have been smelted earlier than copper. However, due to the tendency of lead to react to atmospheric carbon dioxide, becoming friable lead carbonate, there is little if any evidence for this.

The earliest evidence of alloying probably comes from Mersu in southeast Anatolia and dates to the early 5th millennium. By the mid 5th millennium, about the same date as the Varna cemetery, cast tools of copper with 1.15-4.25% arsenic were made. The arsenic makes the metal easier to cast and results in a harder tool, but the metal is not yet bronze.<sup>2</sup> The arsenic was most likely a naturally occurring part of the copper ore not intentionally added.

Balkan metallurgy is almost as old as that from the Near East as shown by the early dates, mid 5th millennium BC, of copper mines at Ruda Glava in Serbia and Ai Bunar in Bulgaria.

There are vast deposits of copper in southeastern Europe and the earliest copper objects, awls, fish hooks, rolled wire beads, are found not in southern Bulgaria but in the north in the Starčevo-Criș area away from Near East influence. The earliest smelting evidence is found at Belovode, a Vinča settlement, ca. 5400 BC.

Michel Louis Sfériadès writes on the “Spondylus and Long-Distance Trade in Prehistoric Europe.” Many species of Spondylus grow throughout the world but only in warm water, and they lose color when exposed on the beach. They are the oldest long-distance trade item in Europe beginning in the oldest Neolithic (7th-6th millennia BC) and this trade ended with the Neolithic. The range of sites where Spondylus are found mirrors the spread of domesticated grains, cattle, and sheep beginning ca. 7500-6500 in Greece, but there is no Spondylus in Cucuteni/Tripol’ye contexts except in the Karbuna hoard dating to ca. 4500 BC. The usual explanation for the trade of these shells, many of which are found far from the sea, has been one of prestige. Sfériadès, however, is not satisfied with this explanation and prefers to explain them in a connection to shamanism. This would explain their widespread

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<sup>2</sup>The ideal mixture of metals to make bronze is 90% copper and 10% tin. Although arsenic also makes for a good bronze, the disadvantage is obvious.

distribution, their repair (a broken Spondylus child's bracelet was repaired with two gold fasteners), and the fact that they were handed down from one generation to another.

Vladimir Slavchev writes about "The Varna Eneolithic Cemetery in the Context of the Late Copper Age in the East Balkans." Varna is the oldest cemetery (4400 BC) where people were buried with quantities of gold. Nowhere else in the world is such an amount of gold found for this time period. Slavchev says the gold probably came from the Sakar Mountains near the Turkish border.

The cemetery was discovered in 1972 and over the next few years very rich graves were found creating a flurry of news and television events. The cemetery was well excavated by Bulgaria archaeologist Ivan Ivanov and an excavation crew of prisoners from the Varna prison. Sixty-two graves had gold, and four graves (1, 4, 36, 43) account for over five kilograms of gold (about 13 pounds).

Grave 36 was one of the most sensational graves and proved to be a cenotaph. The finds were spectacular and included: copper and flint tools, a bone figurine, ceramics, and gold items buried in four levels. The gold items were: two sickles, an astragal, two bull figurines, two bracelets, rings, appliquéés, a string of beads, a miniature diadem, and a scepter. Because the diadem is a miniature this led Ivanov to suggest that this grave was a symbolic grave for a child. Another theory for this grave is that this was the burial of symbols of power when an old leader was replaced.

There were no surface markers of the graves, and because of the soil conditions, there was poor preservation of bone. Pottery was the most common find. One hundred-forty graves contained flint tools or weapons. Non-local, imported items of gold, copper, shells, spondylus and dentilium, were found in more than 80% of graves. There were 160 graves with human remains and three quarters of these were male in an extended position. Those graves where the remains were in an extended position usually had a battle-axe or small clay pot.

At Varna, 47 graves were cenotaphs three of which contained masks of human faces fashioned in unbaked clay. Each of the masks had gold ornaments including lip rings of spondylus and dentilium shell or mineral beads as well as gold female figurines, but there were no large copper artifacts or battle-axes. The three mask graves had spindle whorls

suggesting the graves were for females real or deified.

The remaining 44 cenotaphs were more ordinary but even here there was diversity in that some had few items and others many. Three of these 44 cenotaphs contained many gold items that together amounted to half of the gold weight of the cemetery. A scepter was found in each of these three graves.

Contracted burials were usually on the right side — only three of 67 were on the left side. Contracted burials had fewer items and metal items were much rarer. These remains had various ornaments and dress ornaments. The age and sex of only 62 individuals were determined to be females, mostly contracted on the right side; males were mostly extended but at the Varna cemetery over 25% of the extended burials were female and over 45% of contracted burials were male.

Grave 43 was a male, 40-45 years old, and had gold items that collectively weighed 1.5 kilograms. This grave had an exceptionally large number and variety of items including ritual items: hat with gold lamellae, earrings, bow and quiver, copper and flint points, scepter, stone and copper axes, gold bracelets, gold necklace, gold appliqué on his clothes, and a stone axe with shaft lined with gold.

The copper objects (160 items) also outnumber any other site from the period, and some items are unique to the Varna area. Analysis shows that the copper came from the area of Burgas 120 km south of Varna and the Ai Bunar mines near Stara Zagora ca. 200 km southwest of Varna. Other items such as flint, carnelian, and shells also came from a distance.

There is clear class distinction amongst the Varna graves. Gold items were sacral and long flint blades were symbolic with no sign of use. Slavchev reminds us that there is “no archaeological evidence of essential differences either in the sizes of the houses or the types of objects in them, suggesting that the newly surfacing hierarchical social relations did not have a strong impact on everyday life in this period” (203). Furthermore, contrary to the belief that funeral customs are conservative “rapid changes in funeral customs were instead *leading* indicators of change” (203) [author’s emphasis].

It appears that the high status individuals controlled not only external trade but internal distribution as well, and we should remember there were weapons in some of the rich graves, and the number of weapons in graves increases the

further east a cemetery is situated. Because there are so few luxury goods outside of Varna, Slavchev concludes that “the bearers of the Varna culture were the final consumers” (206) not the resellers of these goods.

By the end of the 5th millennium the Late Copper Age of the Balkans began to disintegrate. Gimbutas’ theory of steppe invaders has been criticized but is still debated. New theories include climate change, and this is attested by flooded sites along the Black Sea coast. Most likely there were a combination of factors. But the beginning of the 4th millennium BC saw the end of the sophisticated cultures of the Balkans.

Veaceslav Bichbaev reports on “The Copper Age Cemetery of Giuriulești” which was discovered in 1991 on a high plateau on the left (eastern) side of Prut river — the southern most point of Moldova 130 km from Black Sea coast. The plateau overlooks the Danube River valley. North of the river is the western most extension of the Eurasian steppe that extends east to Mongolia. It is from the steppe that nomadic tribes came and who are “assumed to have been the bearers of the Proto-Indo-European language, began to move from the Pontic-Caspian steppes into the Danubian territory at the end of the early Copper Age” (213). [A more detailed map would have been useful here as only the Danube and Dnieper rivers are named on the cover maps, but see the map on p. 26 and even here there is a confusion of river and modern political lines. The Prut runs into the Danube just before the Danube delta at about Giuriulești, #131.]

The earliest contact between steppe people and Cucuteni people appears to have been peaceful and began during Pre-Cucuteni III about 4500 BC. Bichbaev places the “first real invasion” during Cucuteni A3 and A4. This he says had “a catastrophic outcome for many of the Balkan cultures” (214). In this he follows the views of Gimbutas and Russian scholars E.K. Chernykh, Y.M. Masson, and N.Y. Merpert (see footnotes 4 and 5).

The cultural group that migrated into the lower Danube was the Novodanilovka culture. This group lacks settlements and buried their dead in both flat graves and graves covered by kurgans. The Novodanilovka graves contained quantities of ochre, the deceased placed on its back, raised knees, head to the East, hands and arms to the side. Grave goods were often

flint items, some copper items, Unio shell or seashell beads, and boar's tusks, some weapons but few ceramics.

The Giuriulești graves were found under a large Early Yamnaya kurgan that dates to ca. 3000 BC. The earlier Giuriulești graves date between 4490 and 4330 BC. There were five graves in the Giuriulești cemetery which covered approximately 200 square meters. Three graves (1-3) were of children, one was an adult male, 20-25 years old, and the fifth grave was an adult of undetermined age or sex. Grave 2, that of a child, had been robbed and the bones were disarticulated. In the remaining four graves the bodies had been placed on their backs with raised knees and there was red ochre on the floors. All the graves yielded rich grave goods very similar to Novodanilovka grave goods. Two of the children and an adult had 19 copper bracelets and five boar tusk pendants, one with copper beads. A Gumelnița pot was found in Grave 2 (a child) along with a stone axe, a variety of shell and stone beads, four copper beads, and a copper hook. Grave 1, that of a three year old child, had a number of items of particular interest: nine flint blades — one a knife in its right hand, two boar tusk pendants — one with perforation for copper beads; one strand of 75 copper beads; another strand of 420 copper beads; eight copper spiral bracelets, and two fossil shells.

Grave 3 was of a two to three year old child in a catacomb type grave. The grave goods were similar to those in Graves 1 and 2 including stone tools and weapons, boar-tusk pendants, beads copper ornaments and fossil shells.

Grave 5 was a deep grave and contained a boar-tusk pendant, shell pendant, five copper bracelets, and ten strands of copper beads totaling over a thousand beads.

Grave 4, the adult male, had been buried in a very deep (five meters) shaft. This grave produced all the gold from the cemetery and a unique item. Sixteen circlets of white coral beads, perhaps part of a headband or cap, were found on the sides of his head. The unique item was a spear shaft made of wood inset on two sides with 14 flint blades (total 28). The shaft is over 50 cm long with a detachable point made of deer antler. There were two additional antler spear points, one with three gold tubular fittings for the shaft ca. 40 cm long. There were several other antler objects as well as two spiral gold ornaments and a large copper dagger.

Between the graves was an area that is referred to as a

cult place.

This cemetery is very unusual as it has clear steppe elements but also contains gold and copper objects that date to the same period as the Varna cemetery. Another point of interest is the wealth of the children's graves. Bone preservation at Varna was not good, but children are not noted except for the very rich Grave 36 which is mentioned as a possible cenotaph for a child. Later steppe burials indicate that some children were buried with elaborate and unusual grave goods (see Jones-Bley 1994, 1999; Berseneva 2008).

The Lost World of Old Europe exhibit is well worth seeing, and it is regrettable that it is not larger, nor do I believe are there plans for it to travel. As to the exhibit, I have only one problem: several items are labeled Indo-European when they should have been labeled steppe culture. Although evidence suggests that these people from the Eurasian steppe spoke a form of Indo-European language (Proto-Indo-European), it is premature to label them or their artifacts as such.

The catalogue is beautifully produced with many excellent photographs. There are a few minor typographical issues (Tal'yanki p.52 but Talljanky p.84) still nothing at all serious. The major problem is the lack of an index. This would have been a very useful addition at least for site and cultural names. Despite these minor flaws the catalogue is a welcome addition to the ever growing number works dealing with the prehistory of eastern Europe in English.

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In 1986 Dmitry Telegin published his account of Dereivka and the Sredny Stog culture in British Archaeological Reports which provided the first full survey in English of one of the cultures most intimately associated with Marija Gimbutas' model of Indo-European origins (see, for example, Gimbutas 1991, 357-363). The culture was also briefly surveyed in Mallory (1989, 197-203). The culture was reanalyzed, virtually disassembled, in the works of Yuri Rassamakin (1999, 2002) which elicited a revised survey from Telegin in 2001 in a Russian publication reviewed in this journal (Mallory 2004). The most recent Western account is in Anthony (2007, 239-249). The current book revisits a number of the issues examined by Telegin and others and provides a thoroughly updated survey of the Sredny Stog culture as it is currently understood. For those who adhere to Gimbutas' steppe model of Indo-European origins, the Sredny Stog culture is either directly ancestral to if not identical with the Proto-Indo-Europeans.

Kotova immediately sets out to indicate how interpretations have changed. Telegin's Sredny Stog culture comprised 131 sites while Kotova's understanding of the culture limits it to the Early Eneolithic where there are 18 settlement sites and 13 cemeteries; many of Telegin's Sredny Stog sites are reassigned to Kotova's Middle Neolithic Dereivka culture which is the best known of Telegin's Sredny Stog sites. The book then concerns the formation and earliest period of the trajectory that led to Gimbutas' Kurgan culture.

Kotova's study is settlement based as these are the only sites that provide any clear evidence for stratigraphy and cultural development, especially with respect to significant remains of ceramics. The evidence of stratigraphy and ceramics also allows her to argue that the Early Eneolithic possessed a single culture (Sredny Stog) and, unlike Rassamakin who has provided a different model of cultural evolution and terminology, she rejects the concept of an independent Skeljanskaja culture, seeing the remains of its eponymous site as merely a stage in the development of the Sredny Stog culture.

Chapter 3 surveys the burials of the Sredny Stog culture and Kotova provides summary descriptions of each cemetery along with recent dates. In addition to the Sredny Stog and Novodaniloka burials proper, Kotova also includes a number of the 'western' cemeteries of Romania (Decea Muresului) and Bulgaria (Reka Devna) and Hungary (Csongrad). These latter burials comprise the evidence often invoked by Gimbutas to support a First Wave of expansion from the Dnieper-Volga region into Danubian Europe and the chronology of these burials would still seem to be robust enough to accord with such a model. The burials include both flat graves and kurgans with well known steppe characteristics of supine burial but with the legs flexed, the use of ochre, organic mats, and accompanying grave goods of flint tools and weapons, pottery, ornaments (often attached to clothes), copper objects and, occasionally, animal remains.

Chapter 4 analyzes the evidence of settlements and burials from the perspective of regional differences and Kotova divides the Sredny Stog culture into two regional variants: an eastern and a western with the border along the Kalmius river. Radiocarbon dates and cultural synchronization with the better dated Tripolje culture indicates that the eastern variant is

somewhat older and dates *c* 5300-4250 BC while the western variant dates *c* 5100-4200 BC. The western cemeteries that comprise Gimbutas' First Wave are typologically associated with the western variant.

Chapter 5 reviews the evidence for material culture and funeral rite. For those who accept Gimbutas' kurgan model for Indo-European origins, this chapter provides a catalogue of *Sachen* to be matched against whatever *Wörter* one accepts as Proto-Indo-European. While much of the material can be found in Gimbutas' and others accounts, it is extremely convenient to have these items listed and illustrated all in one place. Moreover, there are two items that are of considerable interest. One is interpreted as a weapon from the cemetery at Giurgulesti. Depicted (in fig. 138, 4) is an object *c* 50cm long. It has a pointed head of red deer antler mounted onto two long strips of wood into which a double-edged 'sword' was created with the insertion of 28 flint inserts; the handle was of bone. The second object of interest is that entire class of bone and antler objects that in the past have sometimes been interpreted as the cheek-pieces and employed as evidence for horse-riding. Kotova (p. 86) rejects this and from their position in the few burials where they occur (normally they are recovered from settlements) she interprets them as clasps associated with the clothing or bags carried by males.

In describing the funeral rites, generally inhumation with the body on its back and legs flexed, use of ochre, mats, etc., Kotova adds to earlier accounts by paying attention to all the evidence for clothing and ornaments. There is evidence, direct or circumstantial, for reconstructing head-dresses, belts, long shirts, dresses, and various ornaments. She also surveys evidence for the variability in dress, both regionally and temporally.

Chapter 6 covers the origin of the Sredny Stog culture which Kotova traces to the region between the Lower Don and Kalmius rivers. It emerges from its local background in the earlier Lower Don and Surskaya cultures and from there moved westwards. Its contacts with the neighboring Tripolje culture are regarded to have been essentially peaceful and she sees the Tripolje impact on the Sredny Stog culture primarily as a vector for introducing copper metallurgy. The Sredny Stog culture, it is argued, influenced the Tripolje culture by introducing shell-tempered pottery, one of the main coarse

wares on Tripolje settlements. In this she rejects the thesis of both Gimbutas and Dergachev (2000) that the two cultures were essentially in conflict with one another. The Sredny Stog culture also came into contact with populations of the North Caucasus by *c* 5100-5000 BC. Similarities between the Sredny Stog and Khvalynsk culture of the Volga region are explained by migration from the Don *c* 5200 BC which assimilated the local Samara population and established a common sphere of interaction that extended from the Volga to the Dnieper.

Chapter 7 reviews the evidence for economy and social structure. Evidence for cereals is extremely meagre and confined to seed impressions on pots which suggest the presence of wheat, barley, millet, bitter vetch and possibly pea. Kotova believes that cereal agriculture began in the Sredny Stog territory by *c* 6400 BC and that the culture cultivated the cereals and did not simply receive them as part of an exchange system. The domestic livestock included cattle, sheep, goat, pig, horse (listed without comment despite the major debates concerning the time and place of its domestication) and dog; wild animals were also important and comprised red deer, aurochs, ass, saiga, wild cat, hare and otter. Fishing was also practised. In addition to the subsistence economy, Kotova also discusses the exchange system between the Sredny Stog culture and its neighbors. Items traded outwards included both raw flint and flint tools from the Seversky Donets, salt and horses while the Sredny Stog culture imported copper objects. The cemeteries on the periphery of the Sredny Stog culture such as Decea Muresului and Suvorovo are interpreted as evidence for exchange expeditions led by the leaders of Sredny Stog society; these cemeteries are generally interpreted within the framework of Gimbutas' Kurgan theory as evidence for the expansion of the Sredny Stog culture westwards.

In terms of social structure, Kotova suggests small exogamous communities organized within a system of two main clans (clan membership was suggested by variability in the orientation of the graves). She argues that the members of the different clans (numbering between 100 and 1000 members) were distributed across the Sredny Stog area in different settlements. Where there were mutual marriage relationships, the clans composed a tribe (1000-5000 members) which was endogamous and formed a "cultural-

linguistic, and therefore, ethnical unity". Mortuary evidence is skewed towards males so it is not easy to employ burials to assess relative social positions. Of 113 skeletons in the Sredny Stog culture only 46 of them have been identified to age or sex. Of these children constituted 48% of the identified burials, males were 35% and females numbered only 5 (11%). Children had both ornaments on their (funeral?) clothes and special objects distinct from the goods of adults. The coming of age would appear to have fallen at around 17 years. Symbols of power such as maceheads are rare in the center of the Sredny Stog culture and are more prevalent on its periphery in the northern Caucasus or in the west. Kotova suggests that ascribing these burials to chiefs is probably unlikely in that the graves with such symbols are in no other way distinguished from other graves; she argues that the social organization was probably not so hierarchical and that while they may have had 'leaders', they did not actually have chiefs. She also argues that Yuri Rassamakin's suggestion that there was a Sredny Stog elite built on the exchange of copper is unlikely as there was no actual elite. Where we do find many ornaments, she suggests, this seems to have been determined by the age of the deceased or whether they belong to a special craft.

The book concludes with a useful summary. It should be noted that this book does not in any way concern itself with the problem of Indo-European origins and only one of Gimbutas' works is cited in the bibliography. This is probably no bad thing in that there is no obvious axe to grind regarding the interpretation of the archaeological evidence other than strictly archaeological issues. The translation is at times challenging although not really very difficult for one who knows the literature and there are abundant illustrations. From the perspective of anyone requiring an up-to-date source with which to ground test the cultural linguistic evidence for the Proto-Indo-Europeans within the confines of the 'Kurgan' theory, this book is indispensable.

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Klaus Ebbesen *The Origins of the Indo-European Languages/De indoeuropæiske sprogs oprindelse*, København, Attika, 2009, 69pp.

This slim volume, published in Danish and English, sets out “to show that both the proto-Indo-European language and the postulated Indo-European homeland are fictions; that Indo-European...has been spoken in western Eurasia ever since the immigration of *Homo sapiens sapiens* during the last ice age, and that the Indo-European languages as a rule arose and developed in the areas where they were spoken until the beginning of our era” (p. 34). This is a tall order for an English text of only 31 pages that has been padded out with eight pages of description of the various Indo-European language groups. It also should be accompanied by a health warning as it is likely to induce apoplexy among anyone conversant in Indo-European studies.

Dismissing the concept of the archaeological ‘culture’, Ebbesen suggests that the shared cultural elements found across Europe, for example, are the products of intense inter-community exchange since the Palaeolithic and that the same

mechanisms may also have accounted for the spread of the reconstructed Indo-European vocabulary. This invites the concept that Indo-European entered Europe with *Homo sapiens sapiens* as its first language and the common elements in the reconstructed vocabulary are merely loans between neighboring populations at different times. This argument, presented over no more than a single paragraph, justifies the author's dismissal of the 'historical-linguistic method' which poses the question of why waste time describing the different Indo-European language groups if the comparative method is not valid? When the author indicates that Baltic is closely related to Slavic, what is this supposed to actually mean (more late shared vocabulary?)? By now the reader must be aware that despite frequent citations of linguistic sources, the author has not really grasped their content. How else could one explain his confusion that regards Indo-Iranian and Indo-Aryan as synonyms (p. 46)? Or that the Germanic languages are not attested extensively until the sixteenth century (p. 49)? (I can well imagine an Icelander whacking the author on the head with a copy of *Cleasby-Vigfusson*; for family reasons I would use *Le Morte d'Arthur*). Or, more importantly, the distinctions between inheritance and loanwords and how the comparative method addresses these issues.

Geography and time are also pressed into his arguments when the author finds it 'noteworthy' that the earliest attested Indo-European languages are found in the southeast of Eurasia and that the Caucasian race also originates in this region (p. 53). Restating the obvious, it can hardly be regarded as noteworthy that the attestation of the Indo-European languages follows the spread of writing in Europe, a phenomenon which has absolutely nothing whatsoever to do with the emergence and dispersal of a language unless one wants to imagine that the native languages of North America only began with European contact (when they were first recorded) and then spread from east to west (with European expansion)?

At one point the author does make an attempt at providing a logical proof of his hypothesis. He asks whether his model can be falsified, i.e., whether one can actually demonstrate that there was any non-Indo-European language in Europe prior to the Indo-Europeans? Skipping past Uralic and Maltese as peripheral, we know that the author is going to

have to talk himself out of Basque. He does it by claiming that “all the oldest inscriptions known from the geographical area covered by the Basque language are formulated in either Celtic or Latin” which again confuses the vehicle of writing with the existence of a language unless he really believes that the Basques should have invented writing on their own before the spread of Near Eastern scripts. He goes on to maintain that “the earliest texts in the Basque language are in fact from the Late Middle Ages” (p. 55). Setting aside the presence of ancient Aquitanian names, clearly Basque, what is truly noteworthy is the problem that such an approach inevitably leads to: if the Indo-Europeans, be it Celts or Romans, were in Iberia and southern France before the Basques then the Basques had to come from somewhere else? And if Indo-Europeans had colonized this region since the Upper Palaeolithic and there was no one else in Europe at this time who was not Indo-European, we are going to have to look pretty far to find a Basque homeland. The author also looks to Anatolia and rightly identifies the spread of the Turkish languages there to the historical period. Unfortunately, both Hattic and Hurrian are entirely ignored. Etruscan, by the way, is simply regarded as too problematic to be discussed.

In his conclusions the author suggests that the strong division between languages was a modern phenomenon, associated first and foremost with the nation-states in the 19<sup>th</sup>/20<sup>th</sup> century” (p. 61) and that the further one receded into the past the more similar the languages become until, presumably, the Palaeolithic where one language was spoken over Europe. This takes us into the admittedly speculative area of trying to assess linguistic complexity during the Palaeolithic (see Mallory 2008) but to keep matters brief, we can ask whether his model here is falsifiable? Does anyone seriously imagine that North America was linguistically homogenous before European contact?

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## Culture

Roger D. Woodard, *Indo-European Sacred Space: Vedic and Roman Cult. Traditions*. Urbana: University of Illinois Press, 2006

There is a long history of trying to reconstruct prehistoric institutions and ideologies using the comparative method originally developed in historical linguistics. These efforts have borne for the most part on peoples speaking Indo-European languages; they have involved comparisons of personal names (the major approach in the nineteenth century), narrative patterns, or schemes of organization and relationships among divine and pseudo-historic characters (researches launched primarily by Emile Benveniste and Georges Dumézil in the 1930s and going strong today). A fairly small part of this work has been based on the comparison of ways of organizing space: here the contributions that come to mind are the linkages of the four directions with the Dumézilian functions in Ireland and Wales (Rees and Rees 1961, chapter 5) and in classical India (*ibid.*, pp. 131-133; Dumézil 1971: 253-255).

Roger Woodard's book *Indo-European Sacred Space* is far more focused in scope than its very general title suggests. Woodard offers an extensive and detailed comparison of two ritual complexes: the Vedic soma sacrifices and Roman rituals surrounding boundary markers. In both, his central concern is the delimitation and treatment of territory and the concepts that underlie this treatment. He succeeds, in my view, in demonstrating a series of noteworthy correspondences between the two traditions that are specific enough to constitute real evidence of a common, presumably Indo-European, origin.

While Woodward's thrust is broadly Dumézilian, and while he uses Dumézil's findings as a basis for his conclusions, his presentation is not primarily trifunctional, instead offering a fresh take on comparative material. This point is particularly welcome in a field in which Dumézilian approaches have too often been identified with and limited to arguments about the three (or four) functions.

Here I will go through the structure of the argument briefly, then make some comments about the methodology used and possible further lines of research.

The author presents his work as “a book about two particular bounded spaces — one small, one great — used in the practice of the ancestral Indo-European religion” (p. ix). In fact, the most remarkable parallel between Vedic and Roman sacred spaces dealt with here is their common duality: each contrasts a very limited, highly charged sacred space with a much larger and potentially expanding space of interaction with the outside.

The book has a real intrigue, a plot. In Chapter 1, “The Minor Capitoline Triad”, we hear of the building of a new temple to the triad of Roman gods, Jupiter, Juno, and Minerva on the Capitoline hill — but also how two of the older gods that had previously been worshiped in that spot remained in place: Terminus and the goddess Juventas, “Youth”. Most of the chapter (from page 11) presents a general defense of the legitimacy of taking a comparative Indo-European view of Roman materials. The Indo-European link provided by Dumézil and Benveniste is essential for Woodard’s comparative argument, and the bulk of the chapter is devoted to a synopsis of Dumézil’s theories and their application to Rome and a spirited defense of Dumézil against his Romanist detractors. While most of this discussion turns out to have little to do directly with the main points of book, it is interesting in itself and provides a broad basis for the book’s project.

Chapter 2, “Terminus”, presents parallels between this quite mysterious Roman god and Irish and Vedic sacred stones and gives a first sketch of the two spaces that will be of central concern in the book: the Vedic sacrificial space and the Roman cultic space. Chapter 3, “Into the Teacup”, compares Vedic and Roman rituals performed in and about these spaces. Chapter 4, “The Fourth Fire”, ninety-nine pages long, “brings us,” in Woodard’s words, “into the heart of the present work” (p. 142). This is the chapter that opens up the relationship of the limited sacred space of the Vedic sacrifice (*devayajana*) and of the city of Rome to much larger spaces: in the Vedic case, that of the *mahāvedi*, the always-eastward-moving sacrificial extension, which also appears as a mechanism of conquest; in that of Rome, of the wider space of already-conquered territory. Page 155 gives a summary of the book’s central argument:

In Vedic India the restricted sacred ground of the three fires, the space of the Devayajana, has adjacent to it a much larger sacred space, the Mahāvedi. In Rome, a homologous spatial and cultic juxtaposition exists. The smaller sacred space of the Roman city, defined by the boundary of the pomerium, is contiguous with a great sacred ground, the Ager Romanus. In India, the sacred spaces, large and small, are temporary structures — in effect, encampments established, then broken up to be established again... Contiguous temporary spaces have given way in the landed society of the Romans to a sacred geometry of a permanent nature.

The chapter also contains some of the discussions that will be of most interest to comparativists. More about this below.

Chapter 5, “From the Inside Out”, further develops the idea of sacrificial rite as a way of expanding territorial control and brings the argument back to Proto-Indo-European times.

### **Using the book**

The book’s argument winds among topics and sometimes goes into sub-sub-subsections of chapters. The table of contents gives only the chapter titles. Luckily, the Library of Congress entry includes a detailed online table of contents that gives the subsections (<http://catdir.loc.gov/catdir/toc/ecip0514/2005017055.html>). The reader is urged to avail him- or herself of this precious aid.

As is clear from the summary above, the book is primarily about Rome, with the Vedic material being used to prove Roman points. The postscript for further research at the end of the book is entirely about Rome. There’s nothing wrong with this — Woodard is a classical philologist — but it means that the title is somewhat misleading. Consistent with this central thrust, the book seems to assume a reader who may find India exotic, but who has a classical education. Thus while the Vedic material is fairly well contextualized, most background knowledge of Rome is assumed. As a non-classicist, I would have been happy to have more information about the Roman authors cited and their relative chronology. The book offers a very helpful chart of the sacred spaces of the Vedic soma sacrifice (p. 144), one of its two great comparands; but since so much of the argument depends on the specifics of Roman geography, a map of Rome, with the roads, boundaries, hills laid out would save the non-Latinist lots of confusion and

searching in other sources.

### **What Was Dumézil About?**

Starting on page 4, Woodard presents Dumézil's tripartition as being essentially one of social structure: "Dumézil," he writes, "perceived that the hallmark of Proto-Indo-European society was its tripartite nature — a society structuring itself into three functions..." Later (p. 12) he reiterates this, writing of "Dumézil's framework for the elucidation of Proto-Indo-European society..." But at least from the 1950s on, Dumézil was very clear that tripartition was a social ideology, not a social order: all that he attributed to the speakers of Proto-Indo-European, and he was very careful about this, was that they could be presumed to have organized their conception of the world, and particularly their pantheon, in terms of three social functions. While this kind of "realist" and ambitious claim does typify Dumézil's earliest formulations as well as Benveniste's rather loose language ("une société structurée et hiérarchisée selon trois fonctions", cited here on p. 15), Dumézil took pains not to make claims about the actual social structure of a prehistoric civilization virtually unknown to archaeology.

This is important: it means that part of Dumézil's theory is that ideology need not directly reflect real social order, but may represent an ideal or pattern very different from that which can be observed to organize people's actual lives. After all, isn't this one of the suggestions of the use of the term "ideology"? And while Dumézil himself might not have been comfortable with the rapprochement, his use of "ideology" is not that different from some contemporary Marxist uses: in both, while there is, presumably, some kind of relationship between social life and ideology, it is not one of reflection, but something more complex and, dare I say, dialectic. This is precisely the kind of argument that Woodard uses to defend Dumézil against some of his Romanist critics, who point to the lack of fit between the tripartite ideology and the actual social structure of early Rome. Woodard points out that there need be no such fit: that as Indo-European languages and the "ideological framework" they carried went from situation to situation, they could leave recognizable traces without becoming the guiding pattern of the society.

### Indo-European Comparisons

I have mentioned that the fourth chapter is much longer than any of the others. It is the chapter that contains most of the analyses that the others have set up. Within it, section 4.9 stands out as particularly labyrinthine. 4.9.2, the subsection ostensibly about the mid-day meal at the Ambarvalia sacrifice, is itself 48 pages long, and so constitutes almost half of the chapter. Inside it all the various strands come together, and it is here that Woodard makes most of his boldest comparisons. In fact, it is only here that he goes really far afield to address some major topics in Indo-European studies. For the comparativist, as opposed to the Latinist, this may well be the most exciting part of the book. 4.9.2.3 presents the story of Hercules and Cacus, a revenge for a cattle-theft, which Woodard argues is a preserved piece of old Italic mythology. From here we go into some of the most widely discussed issues in Indo-European comparative mythology. 4.9.2.4 compares this story with the Vedic myth of Indra's defeat of the monster Vṛtra, and the next two subsections note parallels with the slayers of three-headed monsters in other Indo-European traditions (cf. Benveniste and Renou 1934, Watkins 1995). Woodard concludes that

in view of the secure Indo-European motif of the hero who slays a three-headed monster, attested by the parallel Indic, Iranian, and Greek accounts, coupled with the Roman predilection for preserving ancient Indo-European religious ideas, structures, and vocabulary, there is a strong a priori case for identifying Hercules' destruction of Cacus as yet another inherited form of this ancient Indo-European myth (p. 196).

Sub-subsection 4.9.2.7 presents a poem by Propertius, and sub-sub-subsection 4.9.2.7.1 offers a defense of the use of classical poets, in spite of their personal creativity, as sources for much older traditional material: "to reject out of hand cross-culturally recurring structure because of the [literary] mantle in which it is cloaked in Rome would be abjectly nonsensical and pitiable squandering of precious data" (p. 203). Here Woodard echoes Dumézil's many critiques of "hypercritical" refusals to consider data (e.g., his defense of his use of Snorri Sturluson in *Loki*, reproduced in Dumézil 1992: 253-282).

The next sub-subsections extend the comparison to what happens to the hero when he goes into exile after the slaying of his enemy, finding specific parallels not only in Italic and Indic, but also in Iranian and Celtic materials, and tying the whole discussion up with that of different kinds of spaces in Vedic India and in Rome. This culminates in a chart on page 217 laying out twelve “structural elements of the slaying of the tricephalic foe” in Indo-Iranian and Italic myth, with seven of the elements recurring in Celtic. And this in turn (sub-subsection 4.9.2.10) leads to some theories about the role of Mars and the history of his name, and a new interpretation of a phrase from the Arval hymns (p. 224).

All of this development has taken place within subsection 4.9.2 and has served to reinforce the parallels between the Roman and Vedic rituals. Subsection 4.9.3 consists of a single paragraph on the evening meal, and on we go.

### **Homology and Analogy; Genetics and Typology**

In an important section, which would have been helpful to have at the beginning of the book but unfortunately only shows up at page 88, Woodard enlarges the methodological perspective through a comparison with biology.<sup>1</sup> It comes up in the discussion of Vedic and Roman boundary markers, but is in fact relevant for the whole comparative project. Biologists have traditionally distinguished between homology and analogy. “Among related species, anatomic structures that have their origin in an ancestral organism common to the species are said to be *homologous*... In contrast, structures that do perform similar functions but which are not of common origin are called *analogous*.” Woodard’s argument is that the corresponding details of Vedic and Roman boundary-marking

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<sup>1</sup>The homology/analogy distinction is attributed to the anatomist Richard Owen; the date given for the distinction is 1843 (*Lectures on the Comparative Anatomy and Physiology of the Invertebrate Animals*, London). The distinction between genetic and typological comparison of languages was first formulated, without using that terminology, by Friedrich von Schlegel in his book *Über die Sprache und Weisheit der Indier* in 1808. We know that already in the 1830s Darwin was finding inspiration for his theory of biological evolution in the philology of his time and the way it showed languages transforming themselves over long periods (Whitfield 2008). Is it possible that Owen, too, was influenced by philology, specifically by the dual mode of argument already current in studies of language? If so, this would be a case of areal borrowing within the Victorian intellectual world (something that happened a lot: see Burrow 1966). Otherwise, it’s a classic case of analogy.

posts, and broadly of the whole sets of materials that he is comparing, are too specific to allow a purely functional explanation in terms of analogy.

Yet some may ask, 'Why could [these structures] not be identified as analogous structures which have developed independently in the two sibling I-E cultures...?' The answer is straightforward... From a purely pragmatic perspective, the redundancy entailed in mounting the argument that closely related, idiosyncratic ritual structures arose completely independently and accidentally in two related cultures otherwise showing common ritual and religious structures, having a common origin in a single parent-culture, and so descended from a common ritual tradition, strains the limits of credulity in the face of the elegantly simple and naturally obvious solution of homology (p. 89).

One can only agree. Yet it is a bit odd that Woodard feels he has to make a detour via biology to make his methodological point. The immediate source for the kind of comparative study practiced by Benveniste and Dumézil, and now by Woodard, lies closer to hand, in linguistics, and in linguistics we have what amounts to the same division, using the same kinds of arguments. In linguistics since the nineteenth century there have been two basic approaches to language comparison, generally called genetic and typological. Typological analysis identifies structures that fulfill the same functions within a limited field of possibilities, with no regard to history or descent: both Japanese and South Asian languages put the verb at the end of the sentence, both modern Irish and Biblical Hebrew put it at the beginning, without the languages of either of these pairs being genetically related. This is not surprising: there is only a very limited number of possible positions for the verb, and you have to put it somewhere. The relationship is analogical in the biological sense. A genetic analysis, on the contrary, compares languages to see whether they are historically related, that is, descended from a common ancestor, seeking to identify elements that are homologous in the biological sense and to reconstruct a model of the shared ancestral form. Here, as John Colarusso has remarked, the proof is in the details (Colarusso 1998).

The typological possibility, that of analogies, raises real

questions for the kind of comparisons of directional symbolism proposed by Dumézil and the Reeses and mentioned at the beginning of this review. Given the nature of our planet, a division between east and west, directions of sunrise and sunset, are likely to be found analogously everywhere, as are the sidewise directions north and south. By extension, dividing a territory into quarters based on these directions and assigning them differential values within a domain (colors, seasons, social functions or clan affiliations, parts of the body, elements) is the kind of thought-process one finds in many societies, not only those speaking Indo-European languages. What might be called the typological or analogical literature on the organization and emblemization of space has its own honorable pedigree, perhaps starting with the essay on “Primitive Classification” by Emile Durkheim and Marcel Mauss (1902 [1963]), and continuing as one of the classical themes in anthropology (note, in particular, such influential works as Lévi-Strauss 1962 and Goody 1977). Well-documented cases of the conceptual use of space outside the Indo-European world include ancient China, Aztec Mexico, and the Navajo.

Woodard’s book is strictly genetic or homologous in orientation, in spite of his sophisticated discussion of the analogical alternative. And given the nature of the subject, that’s a bit disappointing. One would have hoped for at least a reference to the important typological comparative work that’s been done on the foundation of cities, notably that of the cultural geographer Paul Wheatley (e.g., 1969, 1971), and, in connection with Rome, Joseph Rykwert’s *The Idea of a Town*, first published in 1976, and I gather something of a classic in urban planning. As the blurb on the back of the 1988 edition puts it, “Rykwert focuses on the Roman town as a work of art, a symbolic pattern deliberately created and enjoyed by its inhabitants — its shape and the structure of the spaces constructed on the basis of beliefs and rituals... The principle institutions of the town, its walls and gates, its central shrines and its public spaces, were all part of a pattern to which the myths that accompanied them provide clues.” This represents, in other words, a kind of parallel project to Woodard’s but in a typological or analogical rather than a genetic or homologous mode. Comparisons here are made not with other Indo-European-speaking societies to try to find a historical link and common ancestor, but with societies in many parts of the world



that have used relatively simple shapes to construct meaningful environments.

In many societies, cities are oriented, bounded, and ritualized, and much of this ritualization is of the nature of the beast. One has to ask to what extent the big space / small space pattern found by Woodard is simply one of a small number of likely patterns available for conceiving “village/surrounding lands” (for an Indian analogue, see Malamoud 1976, English translation in Malamoud 1988) or “conquered land / land to be conquered”, the former always being necessarily smaller than the latter.

All of this is to say that this book does not answer all the questions that one might have when approaching the subject. My own impression is that the echoes that Woodard identifies between the two sets of rituals and their attendant myths are specific and numerous enough to be taken as real correspondences, indicating common ancestry.

### **Can We Reconstruct beyond Language?**

I’ve taken the liberty of looking at some other reviews of this book in composing my own. The two I’ve come upon (García-Quintelo 2007, Linderski 2008) are both by Latinists and both end their overall highly favorable reviews by expressing skepticism on the central point of the legitimacy of reconstruction: both authors are disbelievers in the reliability of reconstructed forms. For them, the asterix in front of a form does not only mean that it is reconstructed, but that, as a mere hypothesis, it is unworthy of greater elaboration or use in building further. To use starred forms to postulate other double-starred forms is to pile uncertainty upon uncertainty.

This skepticism seems to me to be based on a misreading of the method of historical reconstruction in linguistics. A reconstruction is not mere speculation, but the proposed solution to a puzzle. The reconstruction of proto-languages must be based on the comparison of other reconstructions. There is no other reliable way, and no historical linguist is about to throw up his or her hands because the reconstruction of Proto-Indo-European requires, for instance, a comparison of reconstructed Proto-Germanic and reconstructed Proto-Indo-Iranian. Of course each stage is more hypothetical than the one before, but certain robust facts and structures continue to stand out. What Woodard is doing is, in the wake of

Benveniste and Dumézil, applying standard historical-linguistic method to the evidence we have about rituals and myths. Certainly this extension of method requires greater discussion than it has hitherto received, but there is no a priori reason that a reconstructed ritual, myth, or spatial organization should be any less trustworthy than a reconstructed phoneme, lexeme, or grammatical pattern.

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 Odin and the (Indo-) Germanic Männerbünde**

*Monograph No. 36 — By Kris Kershaw*

Abbreviations; Glossary. *THE EYE IN THE WELL:* *grandaevus altero orbus oculo*; Odin's pledge; *Heiti* relating to Odin's eyesight; *Blindr*; Other possible *heiti*; "Blind," not "the blinder"; Other depictions of Odin/Wodan; Snorri and Saxo; Wodan, Woden, et. al; Iconography; Odin the Wolf-god; An overview of the book; **PART I. HERJANN:** *THE EINHERIAR:* Snorri's description of the *Einheriar*; The word *einheriar*; *Herr and Herjann*; PIE *\*koryonos*; Thor *Einheri* and the *Einheriar*. *DER SCHIMMELREITER:* The Host and the Hunt; Legend, myth, and cult; The matter of the *Männerbund*; The Dead and the living; Age sets and ancestor cult; Masks; Masks and ancestor cult; Demon horses; The Rider-god; The Ancestors bring blessings; Feasts of the Changing Year; Harlequin. *FERALIS EXERCITUS:* *Harii*; *Chatti*; *Weihekrieger*; Civilis; Haraldr Hárfagr; The hairstyles of the *Suevi*; Procopius and Ammianus on youthful warriors; An analog from Doric Greece; The liminal state (*marge*); Exiting *marge*; Demon warriors; An initiation scenario in *Völsungasaga*; Dæmon warriors among the Chatti; Two armies of the dead; *Mercurius*; Hermes at the boundaries of space and time. *FUROR TEUTONICUS:* *\*wop-*; *Óðr*; *Óðinn*; The suffix *-no-*; Examples; A "Führersuffix"?; The suffix *-no-* in divine names; Poets' god and Rune-master; Ecstasy, Possession, Inspiration, Madness; Ecstasy; *Furor heroicus*; War dances; Dancing gods; *Mysterium* and *Mimus* in the *Anabasis*; The sword-dance in Germania; Mars and the *Salii*; *Κούρητες*, *Κουρήτες*, *Κορύβαντες*, The Maruts; Some conclusions; *Veratyr*; **PART II. THE INDO-EUROPEAN MÄNNERBUND:** *\*TEUTĀ AND \*KORYOS:* *Equites* and *pedites*; Village and Forest. *THE \*KORYOS:* *Raubrecht*; The *Manes*; Animal transformations; *Ἐκστασις*; Times and seasons; Festivals; Seasonal activities; Sub-groups; Small bands; Groups of 50; Older *\*koryos-bündler*; *Weihekrieger*; Men without property; Robbers and riff-raff; *Männerbund* and *Gefolgschaft*. *CANIS AND THE \*KORYOS:* Wolf and Dog; Ethnonymns and *Männerbünde*; "Wolf"-men as founders of city-states; An historical example; Mythical foundation stories a) The founding of Rome b) Caeculus and the founding of Praeneste; The *ver sacrum*; Cyrus, the founder of the Persian Empire; Wolf-folk and Dog-folk; Ethnic names a) Wolf-folk of Anatolia b) An Ossetian wolf-clan c) Other wolf-folk d) Dog-folk e) *Hundingas* and *Ylfingar*; Wolf-priests a) *Hürpi Sorani* b) Some Hittite cult functionaries; Mythical ancestors a) Miletos b) Lamissio, king of the Langobards c) The Welfs of Swabia; Wolf-men and Dog-men; The Lombards; Germanic wolf-names; Irish dog and wolf names; Greek heroes with wolf-names; Wolf- and dog-men of the Scythians; Slavic wolf-men; *Κυνοκέφαλοι* a) "Zu den litauischen Werwölfen" b) Slavic dog-heads

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c) Survivals of the *κυνέη/ λυκέη*; *Ἄλκιμώτατοι κύνες*; “*Ver sacrum* bei den [Indo-]Germanen?”; Canine/ lupine qualities; *ODIN ANALOGS*: India; Iran; The Ossetes; The Celts; The Balts and Slavs; Greece; Italy; Mars; Faunus; Veiovis; \**teutā*-god and \**koryos*-god; *Un rite d’agrégation*; **PART III. THE VRĀTYAS: WARRIOR-BRAHMINS**: An oath-brotherhood; Vratya clothing and weapons; Seasonal activities; The brahmācārin; The education of a brahmin; The vrātyastoma; *Vrātyastoma* and *sattra*; *Sattra*; *Dakṣinā*; Vrātyas and sattrins; *RUDRA*: Rudra’s armies; *Ganapati*; The rudras; The Maruts; A troop; The Maruts are both like and unlike Rudra; The Maruts as \**koryos*; I-Ir. \**marXa*; Marut epithets; Priestly activities; War-god; The Wild Hunter; *Canis*; Dogs and the Lord of Dogs; *Dasarā*; *Le jeu du Cheval*; *Têtes coupées*; The hunter with the spear; Some conclusions; Death; Fertility; *Ekstasis*; The Feast of the Changing Year; The Dragon-Slayer; Initiation; *Natarāja*; The *Ekavrātya*; *CHOOSING A LEADER*: The *Sūlagava* sacrifice; Two stories; The vrātyas as rudras; The dice game in early India; The “dice”; How it was played; An army of dice; The dog and the dog-killer; Kali, the dog; Kali *eko’kṣah* and *ekākṣa*; The One and the Dog; The ritual dice game; *senānīr mahatō ganāsya*; *Sabhā* and *irinā*; *Sabhā* and solstice; *Hejann*; *Excursus*—The Vrātyastomas; *DARKNESS, DOGS, AND DEATH*: Conclusion—The Wolf-god and the Eye in the Well; Bibliographies; Primary Sources; Works Cited; Index.

**ISBN 0-941694-74-7**

**2000, Pages 306, Paperback: \$48.00**

### **The Historical Morphology of the Baltic Verb**

*Monograph No. 37 — By William R. Schmalstieg*

The purpose of this book is to suggest a possible scenario for the history of Baltic verbal morphology with relatively little attention to semantics and syntax. The various stages of development from a reconstructed Proto-Indo-European verbal system to the attested systems of the extant Baltic languages are proposed. Various innovative theories of the author and other contemporary specialists in Baltic historical linguistics are discussed and evaluated, in many cases making available the results of their work available in English for the first time. In addition to a large bibliography on the Baltic verb the book is supplied with an index of each word form discussed.

**ISBN 0-941694-76-3**

**2001, Pages 445, Paperback: \$56.00**

### **Greater Anatolia and the Indo-Hittite Language Family:**

**Papers presented at a Colloquium hosted**

**by the University of Richmond, March 18-19, 2000**

*Monograph No. 38 — Edited by Robert Drews*

**Robert Drews**: Introduction and Acknowledgments, Opening Remarks; **E.J.W. Barber**: The Clues in the Clothes—Some Independent Evidence for the Movement of Families; **Paul Zimansky**: Archaeological Inquiries into Ethno-Linguistic Diversity in Urartu; **Peter Ian Kuniholm**: Dendrochronological Perspectives on Greater Anatolia and the Indo-Hittite Language Family; Discussion Session, Saturday Morning; **Colin Renfrew**: The Anatolian Origins of Proto-Indo-European and the Autochthony of the Hittites; **Jeremy Rutter**: Critical Response to the First Four Papers; Discussion Session, Saturday Afternoon; **Margalis Finkleberg**: The Language of Linear A—Greek, Semitic, or Anatolian?; **Alexander Lehrmann**: Reconstructing Indo-Hittite; **Vyacheslav V. Ivanov**: Southern Anatolian and Northern Anatolian as Separate

Indo-European Dialects and Anatolian as a Late Linguistic Zone; **Bill J. Darden**: On the Question of the Anatolian Origin of Indo-Hittite; **Craig Melchert**: Critical Response to the Last Four Papers; Discussion Session—Saturday Morning; **Robert Drews**: Greater Anatolia, Proto-Anatolian, Proto-Indo-Hittite, and Beyond; **Geoffrey D. Summers**: Appendix—Questions Raised by the Identification of Neolithic, Chalcolithic and Early Bronze Age Horse Bones in Anatolia. Index.

ISBN 0-941694-77-1

2001, Page xiv and 305, Paperback: \$52.00

### A Definitive Reconstructed Text of the Coligny Calendar

*Monograph No. 39 — By Garrett S. Ostmsted*

The fragmentary calendar plate from Coligny (near Lyons) apparently dates to the second-century AD, although the Gaulish calendar engraved on this plate is plainly the result of a long transmission process. The 25-year-cycle calendar, the final system of this transmission process, probably originated early in the first-century BC, before Caesar's conquest. It is within this late pre-Roman period that the calendar took on its final form and notation to enter a two-century long transmission process. Since only 40% of the original Coligny calendar survives as a fragmentary mosaic, the reconstruction of the original whole depends upon recognizing repetitive patterns and filling in the missing sequences of these patterns. The most significant of these patterns is that discerned in the schemes of the TII and the N lunar/solar counting marks and their associated notation. Here the chronological cycles implied by these notational patterns are explained in detail. Also provided is a glossary of the functional and etymological significance of terms utilized in these daily notational patterns. The fragmentary calendar is brought to photographic completion utilizing the original wording and engraving found on the surviving fragments.

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2001, Pages 120, Paperback, 70 plates: \$40.00

### Proceedings of the Twelfth Annual UCLA Indo-European Conference: Los Angeles, May 26-28, 2000

*Monograph No. 40 — Edited by Martin E. Huld, Karlene Jones-Bley, Angela Della Volpe, Miriam Robbins Dexter*

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and Verbs; Examples of Early Texts that Reflect the Syntax of Pre-Indo-European. **DERIVATIONAL MORPHOLOGY:** Attention to Indo-European Derivational Morphology in the Major Handbooks; Theoretical Assumptions in Previous Attention to the Earlier Derivational Patterning; Evidence for the Basic Derivational Processes; The Role of Particles in the Pre-Indo-European Lexicon; Production of the Earliest Suffixed Nouns; Production of the Earliest Suffixed Verbs; Evidence in Compounds; The Increasing Use of Suffixes in the Formation of New Verbs; Conclusion. **INFLECTIONAL MORPHOLOGY:** Views in the Handbooks on Earlier Inflectional Morphology; The Active Verb System of Pre-Indo-European; of the Injunctive that Illustrate those of Earlier Verb Forms in Pre-Indo-European; Uses of the Perfect and of the Hittite *hi*-Conjugation Forms that Illustrate those of their Etymon in Pre-Indo-European; Non-finite Forms of the Verb in Pre-Indo-European; Verbal Nouns; The Development of Inflections in the Noun; Adjectives; Pronouns; Conclusion, with Examples that may Reflect Pre-Indo-European Texts. **PHONOLOGY:** Theoretical Bases of the Phonological Systems Proposed for Proto-Indo-European and Pre-Indo-European; Three Phonological Systems that have been Proposed for Proto-Indo-European; Period of Movable Pitch Accent and its Effect on Ablaut; The Period of Stress Accent and its Effect on Ablaut; Chronology of Ablaut Changes; The Obstruent System; the Glottalic Theory; The Palatals and Velars; The Resonants; The Pre-Indo-European Phonemic System. **THE CULTURE OF THE PRE-INDO-EUROPEAN SPEAKERS:** Evidence for the Civilization and Culture of the Pre-Indo-European Speakers; Criteria for Assuming a Pre-ceramic Neo-lithic Period and its Relevance for Pre-Indo-European; Social and Economic Conditions; Livestock and Agricultural Activities in the Pre-Indo-European Community; Terminology Indicating Gradual Development from Hunting-Gathering to a Settled Society; Tokens, their Distribution, and implications for Settlement Areas of the Indo-European Speakers; Art, Literature and Religion of the Pre-Indo-European Speakers; Life in the Pre-Indo-European Period; Bases of the Preeminence of the Indo-Europeans. **PRE-IE AND POSSIBLE RELATED LANGUAGES:** Pre-Indo-European in Relation to Nostratic and Eurasiatic; Principles to be Observed in Reconstructing Macro-families; The Need to Reconstruct Proto-Languages for Macro-families; References; Index.

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### Proceedings of the Thirteenth Annual UCLA Indo-European Conference: Los Angeles, November 9-10, 2001

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*Monograph 46 — Edited by Karlene Jones-Bley D. G. Zdanovich*

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**Los Angeles, November 8–9, 2002**

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Angela Della Volpe, Miriam Robbins Dexter*

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*Monograph No. 48 – Transliterated, Translated, and Edited by Hamid  
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*Originally compiled in Pashto by Shah Abdullah Badakhshi and published  
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**Proceedings of the Fifteenth Annual UCLA Indo-European Conference**

*Monograph 49 — Edited by Karlene Jones-Bley, Martin E. Huld,  
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