

Hittite *arma-* ‘moon’ and Indo-European Rites of Passage

Denise LEVERTOV: “Another spring” (1963)
Golden-mouthed, the tilted smile
Of the Moon westering (...)
I am speaking of living
Of moving from one moment into
The next, and into the one after

1. A fertile crescent

1.1. Hittite:

- a) **arma-* (c.) ‘moon, the lunar deity Arma; month’; *armanni-* ‘lunula, crescent; crescent-shaped bread (cf. *croissant*)’; **armatar* ‘monthspan’, *armuwalaezi* ‘to shine (of the moon)’, *armuwalašḫa(i)-* (c.) ‘waxing of the moon’, *armuwalai-* ‘wax like the moon’
- b) Lots of HLuw. and CLuw. anthroponyms in S Anatolia (Lycian, Greek), in Greek sometimes rendered with Ερμα-, sometimes with Αρμα-, but still from **Arma-* (PUHVEL HED 153) e.g. *Arma-ziti-*.

1.2. Anat. cognates:

- a) CLuw. **arma-* (c.) ‘lunar deity’, *armannaima/i-* ‘decorated with moonlets’; **armašša/i-* ‘month’
- b) HLuw. **arma-* (c.) ‘moon; lunar deity’
- c) Lyc. *armāma-* ‘moon’, *rmāmazata-* ‘monthly offering (NEUMANN 1974)’
- d) Lyd. *armta-* (adj.) ‘belonging to Arma’
- e) Lots of HLuw. and CLuw. anthroponyms in S Anatolia (in Lycian and Greek), in Greek sometimes rendered with Ερμα-, sometimes with Αρμα- (cf. also Lyc. *Ermēmenēni*), but still from Luw. **Arma-* (PUHVEL HED 153)

1.3. Hitt. *armae-zi* ‘to be pregnant’, *armant-* ‘pregnant’, *arma-want* ‘pregnant’, *armahḫ-i* ‘to make pregnant’, *armawar* ‘pregnancy’

PUHVEL HED 151-157; KLOEKHORST 2008: 207; NEUMANN 1974; ZEILFELDER 1992.

1.4. Proto-Anatolian **arma-* ‘moon; lunar deity; month’; *armae-zi* ‘become pregnant’ is generally explained as an inner-Hitt. derivative of **arma-* in the meaning ‘month’; it belongs to the hatrae-class of denominative verbs derived from *a*-stem nouns (KLOEKHORST 2008: 207). The origin of **arma-* itself, however, has remained enigmatic.

Other IE words for moon either derived from ‘measure’ (Gmc. **mēnōn-* m.) or ‘shine’ (Bret. *cann*, Skt. *cāndra-*, Alb. *hënë*, Gheg *hânë*; Lat. *lūnā*; Gk. *σελήνη*).

LAROCHE 1955: 20-21; PUHVEL HED 154; HILMARSSON 1989.

1.5. Earlier attempts

GOETZE: (1954: 80, fn. 104) ‘moon’ ← adj. in *-mo- from the root *or- (= *h₃er-) ‘move’ (“nicht überzeugend”, TISCHLER 1974, 277; “abortive”, PUHVEL HED: 154).

KRONASSER 1966: 25, 181, 266: ‘moon’ related to *irmala-* ~ *armala-* ‘sick’, cf. Lat. *lūnāticus* (rejected by TISCHLER), while (EHS 430) **arma-* ‘pregnancy’ is derived from ‘moon’, cf. Lat. *mēnsis* ‘month’ ~ *mēnstruare* ‘menstruate’.

TISCHLER 1974, 277 and 1983, 62-63: Not in Kappadokian texts, only southern occurrence = non-IE origin (rejected by PUHVEL HED 153). Reconstructs an independent noun **arma-* ‘pregnancy’ (PUHVEL HED 157: “wrongly”), “ohne sichere Etymologie”, but perhaps derived from ‘moon’ (≠ *irma-* ‘sick’: “Schwangerschaft ist keine Krankheit!”).

IVANOV 1977, 148: **yar-meH-* ‘year-measurer’ with reference to the ON kenning *ár-tali* ‘year-counter’ = ‘month’ (“little likelihood”, PUHVEL HED: 154-155 since **ya-* is stable in Hittite, and the YEAR-word is otherwise unattested in Anatolian).

VAN WINDEKENS 1979: Toch. ‘measurer’ (contradicted by HILMARSSON, 1989).

PUHVEL HED 154: “[The Anatolian moon] was not ‘bright’, but rather the opposite, viz. ‘pale, weak, feeble’, connected with *erman-/ arman-* ‘sickness’ (~ PGmc. **arma-* ‘poor, weakened’ etc.); ‘moon’ > ‘pregnant’, but ‘sick’ in a more remote, “collateral” relationship to ‘moon’

ZEILFELDER (1998) has justifiably rejected any connection with Hitt. *erman-* ‘sick’.

KLOEKHORST (2008: 209) leaves several possibilities open (notably VAN WINDEKENS and PUHVEL), however he interpretes PUHVEL’s explanation as “seeing the moon as the ‘weaker’ celestial body”: ZEILFELDER is not mentioned.

MANASTER RAMER (ms., p.c. 2010): PIE $\sqrt{*h_1erh_2}$ ‘to wax & wane, swell & recede, go up & down’, linked not only to Hitt. *erman-* / *arman-* ‘sickness’ and Gmc. **arma-* ‘poor, weakened’, but also **armaz* ‘arm’ and its IE cognates meaning ‘limb’.

1.6.1. Pregnant and sick: Typological parallels

1.6.1.1. Mod.Icel.

- a) *ófrísk* ‘not (feeling) well; pregnant’
- b) *vanfær*, ‘handicapped; pregnant’

1.6.1.2. ON *eigi heil* ‘not (feeling) well’. In chapter 2 of *Gunnlaug Saga Ormstungu* a woman is allegedly ‘not well’ (*Your wife is not well, and she will give birth to a wonderful child*), but she does not know about the condition herself and must be feeling okay (ZEILFELDER 1992).

1.6.1.3. Around 1800 a normal Eng. slang expression about the pregnancy was *poisoned*, referring to the swollen belly that can occur as a symptom of some poisoning diseases.

1.6.2. Waxing and waning: Typological parallel

- a) MLG *swanger* ‘pregnant’; MHG ‘slim’.
- b) OE *swancor* ‘slim (e.g. of a horse)’ ~ *swangor* ‘heavy, slow (of a horse)’ – later ‘pregnant’.
- c) Colloq. Dan. *smækker* can have both meanings.

2. How to fill a wagon

2.1. Superficial similarity with

a) Latin

arma (pl.tant.) ‘weapons, weaponry, implements of war; tools’;

armāre ‘to arm, equip, furnish with sth needful, to fit out’;

– *m* and the standard handbooks also derive *armentum* ‘herd of cattle; head of cattle’, pl. *armenta* ‘cattle’ from *arma*, but note now NUSSBAUM (2011) who derives it, I think convincingly, from **anmentum* < **animentum*, cf. *animal* ‘animal’ (PIE **anə₂-m̥nt-* = NUSSBAUM’s **h₁enh₂-m̥nt-*), with the same development as in *germen* (PIE **ǵenh₁-m̥n̥*) and *carmen* ‘song; play etc.’ (< PIE **kan-m̥n̥*).

b) Greek

ἄρμα ‘wagon’ (< **ar-m̥nt-*) with secondary aspiration, cf. the following three forms

Myc. *a-mo* ‘wheel’ (not †*a₂-mo*; the meaning ‘wheel’ may have been preserved in Homer, see PANAGL 1992)

Myc. pf. part. *a-ra-ro-mo-te-me-na*, *a-ra-ro-mo-to-me-na*, *a-ro-mo-te-me-na*, *a-ra-ro-mo-te-me-no* /*ararotmen-*/ consistently written with the ideogram ‘cart without wheels’

ἄρμα ‘food’

Delph. ἄρμα (acc. to Plutarch) ‘coitus’ (HINGE 2003: 24);

Hes., epic Ion. ἄρμενα ‘instruments, tools; sail, tackle; food’,

Hes. ἀρμαλία ‘ration, food’ < *‘provisions, supplies’.

Semantic history: ἄρμα ‘wagon’ < *‘wheel’ < *‘junction, equipment (for wagon)’ (HINGE 2003: 24)

Gk. ἀρμόζω ‘zusammenfügen, passen’ according to HINGE denominative to Gk. ἀνάρμοστος ‘unpassend, ungeschickt’ (Herodot, 3.80.5; Aristophanes *Nub.* 908), Myc. *a-na-mo-to*, *a-na-mo-ta* = /*anarmost-*/

c) Hittite

? *a-ar-me-eš* ‘part of bullock-wagon’ (FRIEDRICH-KAMMENHUBER).

d) Slavic

**jarьmъ* ‘yoke’ (Not a primary formation; on the derivational history see now PRONK 2011) > e.g.

S-Cr. *jaram* ‘yoke’

-> N Ghag Alb. *jarm* ‘plough’ (SVANE 1992)

e) Lithuanian

armaĩ ‘front axle on wagon’

< PIE **ar-* ‘to joint, to fit’ (e.g. Gk. ἀραρίσκω; usually reconstructed as **h₂-*, but in some frameworks possible without initial laryngeal, cf. BECKWITH 1994 and FORTSON 2005). Nominal derivative **ar-mo-*. Usually full-grade in these formations, see e.g. RISCH 1974)

3. Derivatives without *-mo-* have related semantics

Lyc. *ara-* ‘rite; order’ = Skt. adv. *áram* ‘fittingly’ (?)

Ru. *radet* ‘carry out rites’, otherwise ‘heed, care about’, Slavic *raditi*

Ru. *roditi* ‘give birth, bear fruit; care about, heed’

Ru. *radunitsa* ‘remembering of the dead; ‘1st Sunday after 1st full moon on or following the vernal equinox’

Cf. Avestan *Arədvī* and Skt. *Arámati-* ‘goddess of order’ = Gk. Ἄρτεμις = Lat. *Jūnō*

4. Rites of passage

Several IE languages possess words with meanings that cover both ‘pregnancy’, ‘wagon equipment’ and ‘weaponry’ because they refer to rites of passage for young soldiers-to-be and maturing girls alike:

4.1. Lithuanian *šarvai*, *šárvas* / *šařvas* (GLIWA 2005)

4.1.1. Meanings:

- 1a) discharge (after birth), placenta
- 1b) menstruation
- 1c) discharge (from the mouth of the dead)’

- 2a) armament
- 2b) soldier’s outfit, weapons and ammunition
- 2c) carapace

- 3a) dowry
- 3b) burial object
- 3c) a kind of wagon; bottom board of a wagon (GLIWA 2005 lists ‘wagon’ here because he envisages a folk-etymology Lith. *pašarvoja numirėli, t.y. paguldė ant šarvo* ‘man bahrt den Leichnam auf, d.h. legt ihn auf das Bodenbrett des Wagens’; cf. also Pol. *szaraban* ‘traditional wagon’)

4) One further meaning of *šárvas* is not mentioned by GLIWA 2005: In Brodowski’s *Lexicon Lituanicum* (before 1744), the word is glossed as ‘the month of December’

4.1.2. Related formations

Lith. *šarvójimas* ‘laying-out of the dead’

Lith. *šarvóti* ‘honor the dead, ornament the body for burial; fit out, arm’

OPr. *sarwis* ‘weapon’ (borrowed into Germanic)

The various meanings have been satisfactorily explained by GLIWA (2005) as from an earlier meaning *physical sign and ritual equipment in a rite of passage’.

4.2. Formally, the Baltic forms correspond to the second member of Cretan Gk. Διοσ-κούρος ‘6th month of the year’, cf. also the Cretan Κουρήτες ‘young men in their capacity as warriors’, guardians of the infant Zeus, and κορή ‘young girl’.

Remarkably, the Roman name of the other solstice month, *mēnsis Jūnius*, is derived from the name of *Jūnō* < *‘the new moon’ (FORTSON 2005), originally a moon-goddess and the protecting goddess of lying-in women, derived from the same base as Lat. *iuvenes*, Umbr. *iouies* ‘young men of military age; warriors’, SCr. *jūnâk* ‘soldier’, Lith. *jaunóji* ‘bride’, *jaunáitis* ‘new moon’.

4.3. Probably related to (Cf. PIE **k̑*- > Lith. *š*-, but often **k*- / *_R*-):

Lith. *krovà*, *kraujà* ‘load, equipment’, *kráutùvė* ‘storage unit’

OCS *kryti* ‘cover (fully)’

OE *hyrst* ‘ornamentation, jewel, treasure; armament, weapon’, *hrystan*, *hyrstan* ‘to arm, to ornament, to cover (fully)’

ON *hrjóða*, *hrjóðinn*, OE *hreoþan* ‘to cover (fully); to bejewel, ornament’

Gk. κορύσσω ‘put on a helmet; arm, equip’ (two different roots or just two diff. meanings?)

Gk. κορή ‘young girl, virgin; daughter’

Gk. κούρητες ‘young warrior, young man in his capacity as a warrior’

5. Latin *Jūnō*

5.1. Paulus ex Festo 92 L.: *Mēnsis iūnius* sacred to Juno and named after her. But the month is not called †*iunōnius*, and June contains no festivals dedicated to Juno, nor any religious events that have any connection to her. FORTSON 2005 has no alternative solution (“For the time being I would hope that my detailed laying-out of the problem will open up avenues of future research”).

5.2. The family name *Iūnius*, *gēns Iūniā* is derived from *iuuenis*, more commonly as a noun than as an adjective, in its earliest attestations almost always appearing in the pl. referring to a band of youths. This semantics is shared by Umbr. **iouies** ‘young men of military age, warriors’, always occurring in the fixed phrase

iouies hostatir anhostatir

ioiue hostatu anhostatu

‘young men or warriors armed or unarmed’

Archaic Lat. only *iuuentūs* in a collective sense with a meaning essentially identical to *iuuenēs*. Strong indication that ‘young’ (m.) had been specialized in the meaning ‘young man in his capacity of a warrior’. Hence Proto-Italic.

5.3. *Jūnō* was originally a moon-goddess (Varro *Ling. Lat.*; Cicero, *Nat. Deor.*; Plutarch, *Quaest. Rom.*), referring specifically to the new moon and derived from the same stem, Italic **iouen-* in the meaning ‘young’ (FORTSON 2005).

So maybe Italic **iouen-* meant not only ‘young male in his capacity of warrior’, but less specifically ‘young (person) in his capacity of entering into the next phase of life’, i.e. also of a young girl or a (personalized) new moon’?

5.4. Roman womanhood:

Jūnō Lucina as the guardian deity of women; as the foundress of marriage; as the protecting goddess of lying-in women; *Juno Februalis* oversees the secundament of the placenta.

5.5. *Jānus Jūnōnius* ‘god of passages’, cf. the rites of *arma movere* on March 1 and that of the *arma condere* at the rites of the Salii, enacting the nature of *iuuenes*.

5.4. Beyond Italic:

- a) SCr. *jūnâk* ‘soldier; hero; young man’
- b) Lith. *jaunóji* ‘bride’
- c) Lith. *jaunáitis*, *jáunatis* ‘new moon’
- d) Lith. *jaūnis* ‘the month of June’

6. Greek τέλος

- a) ‘man’s full age, manhood; troops, army unit’
- b) ‘death’
- c) ‘sacred rite’
- d) ‘marriage rites’
- e) Aesch. τελεσθεῖς ὄλβος ‘bring to birth’
- f) τελεό-μηνος ‘with full complement of months’

PIE **H₂eu-k^wl-o-* ‘the turning point of the solstice’ may have yielded PGmc. **jeuh^wlan-*, the the YULE-word, cf. Goth. *jiuleis*, ON *ýlir* ‘winter month’, OE *geohhol*, ON *jól* -> Finnish *juhla* ‘midwinter celebration’. Old riddle, usually reconstructed as ** \check{z} ek^wl-o-*, but probably contains **k^welh₁-* ‘turn’, cf. Skt. *cákra-* ‘wheel, cycle (of the year)’, Toch. B *pikul* ‘year’, Gk. ἐπιπλόμενος both the year (KATZ 1994), Fi. *Kekri* ‘Allsaints’ from IE (KOIULEHTO 2000).

7. Ripening moons and beyond

7.1. Poetic use in English (cf. Sadoff 1978) and in Friulian folk-poetry.

Algonquian languages: Creek, mohawk, passamaquoddy: full moon = ‘ripening moon’

7.2. Gk. ἐγκύμων ‘pregnant’ in ἐγκύμων τευχέων ‘full of weapons’ (Euripides on the Trojan horse) and Gk. κῶμα ‘embryo’ and ‘large group of soldiers’ cover similar aspects, but unrelated.

7.3. Uighur *aram*, Hunno-Bulg. *alem* ‘first month of the year’ have no counterparts in other Turkic languages and may be borrowings from IE. Lambdacism is notorious in Hunno-Bulgarian (as well as secondary rhotacism, cf. GRANBERG 2008).

7.4. Another candidate is Proto-Uralic **ärV-mV* ‘year; autumn’ < ‘ripening, fulfillment; (new) season’: > Votyak *arm-* ‘year’, Vogul *oarem* ‘time’, Zyr. *ar* ‘autumn; age’ < **arm* (Uotila, final *-m* disappears, so no reason to assert later suffigation), in itself derived from a root **ärV* (Samoyed forms all mean ‘autumn’ and comes from PSam. **erəjə* (JANHUNEN 1977) < PU **ärV-jV*.

8. Verbal semantics

Compare Dan. *opfylde*, *ruste*, Eng. *fulfill*, OE *hrystian* and Komi *ještō-* ‘be accomplished, be fulfilled; be in time (at arrival); be mature/ripe’ (< PIE **Heiǵ-* ‘to have in one’s power’) ~ Fi. *ehiti-ä* ‘have time, find time; get sth; be able to’; Est. *ehe*, *eht-* ‘ornament, jewel’, *ehita-* ‘to ornament, arm, equip’

PFV **(j)ešte-* may be a satem reflex of PIE **Heiǵ-* ‘to have in one’s power’ (Av. *išti-* ‘possession’).

1. Full / new moon 2. Solstice / equinox	Pregnancy; female puberty	(Part of) wagon, wheel	Weapons, armament; equipment, outfit	Rite; ornament (for burial); burial
<p>Hitt. *<i>arma-</i> (c.) ‘moon(god); month’; Cluv. <i>armannaima/i-</i> ‘decorated with lunulae’; Lyc. <i>armāma-</i> ‘moon’, <i>rmmazata-</i> ‘monthly offering (?)’; Lyd. <i>armta-</i> (adj.) ‘belonging to Arma’</p> <p>Ru. <i>radunitsa</i> ‘1st Sunday after 1st full moon on or following the vernal equinox’</p>	<p>Hitt. <i>armae-zi</i> ‘to be pregnant’, <i>arma-want</i> ‘pregnant’, <i>armahh-i</i> ‘to make pregnant’</p> <p>Delphish Gk. ἄρμα ‘coitus’</p>	<p>Hitt. <i>a-ar-me-eš</i> ‘part of bullock-wagon’</p> <p>Myc. <i>a-mo</i> ‘wheel’, Gk. ἄρμα ‘wagon’</p> <p>Lith. <i>armai</i> ‘front axle on wagon’</p> <p>SCr. <i>jaram</i> ‘yoke’</p>	<p>Lat. <i>arma</i> ‘weapons, weaponry, implements of war; tools’; <i>armāre</i> ‘to arm, equip, furnish with sth needful, to fit out’</p> <p>Hes., epic Ion. ἄρμενα ‘instruments, tools; sail, tackle; food’, Gk. ἄρμα ‘food’, Hes. ἄρμαλια ‘ration, food’ < *‘provisions, supplies’</p>	<p>Umb. <i>arsmor</i> ‘rite, ritual’</p> <p>Lyc. <i>ara-</i> ‘rite’</p> <p>Ru. <i>radet</i> ‘carry out a rite’ <i>radunitsa</i> ‘remembering of the dead’</p> <p>Lat. <i>ritus</i> ‘rite’; <i>ornō</i> ‘fit out, equip, ornament’</p>
<p>Obs. Lith. (Brodowski, bef. 1744) <i>šārvas</i> ‘December’</p> <p>Cretan 6th month Διοσκουρίος</p>	<p>Lith. <i>šarvai, šārvas / šārvas</i> ‘discharge after birth, placenta; menstruation; dowry’</p> <p>Gk. κορή ‘young girl, virgin; daughter’</p>	<p>Lith. <i>šarvai, šārvas / šārvas</i> ‘bottom board of a wagon; a kind of wagon’</p> <p>Lith. <i>pašarvoja numirėlj, t.y. paguldė ant šarvo</i> ‘man bahrt den Leichnam auf, d.h. legt ihn auf das Bodenbrett des Wagens’</p>	<p>Lith. <i>šarvai, šārvas</i> ‘armament; soldier’s outfit, weapons and ammunition; carapace’; OPr. <i>sarwis</i> ‘weapon’</p> <p>OE <i>hyrst</i> ‘armament, weapon’, <i>hrystan, hystan</i> ‘to arm’</p> <p>Gk. κούρητες ‘young (man in his capacity as a) warrior’</p>	<p>Lith. <i>šarvoti</i> ‘honor the dead, ornament the body for burial’; <i>šārvas</i> ‘burial object’; <i>šarvójimas</i> ‘laying-out of the dead’</p> <p>OE <i>hyrst</i> ‘ornament, jewel’; <i>hystan</i> ‘cover fully’</p>
<p>Lat. <i>Jūnō</i> ‘Juno’ < ‘the new moon’ (Fortson 2005), originally a moon-goddess (Varro <i>Ling. Lat.</i>; Cicero, <i>Nat. Deor.</i>; Plutarch, <i>Quaest. Rom.</i>); <i>mēnsis Jūnius</i> ‘June’</p> <p>Lith. <i>jaunaitis, jáunatis</i> ‘new moon’; <i>jaūnis</i> ‘June’</p> <p>PGmc. *<i>H̑eγ-kʷl-o-</i> ‘midwinter time’ (?)</p>	<p><i>Jūnō Lucina</i> as the guardian deity of women; as the foundress of marriage; as the protecting goddess of lying-in women; <i>Juno Februalis</i> oversees the secundament of the placenta</p> <p>Lith. <i>jaunóji</i> ‘bride’</p>		<p>Umb. <i>iouies</i> ‘young men of military age; warriors’, in a fixed phrase followed by <i>hostat- anhostat-</i> ‘armed or unarmed’</p> <p>Lat. <i>iuuenes</i> ‘id.’ <i>iuventus</i></p> <p>SCr. <i>jùnâk</i> ‘soldier; hero; young man’</p>	<p><i>Janus Junonius</i> ‘god of passages’, cf. the rites of <i>arma movere</i> on March 1 and that of the <i>arma condere</i> at the rites of the Salii, enacting the nature of <i>iuuenes</i></p>
<p>Gk. τελεό-μηνος ‘with full complement of months’</p>	<p>Gk. Aesch. τελεσθεῖς ὄλβος ‘bring to birth’; τέλος ‘marriage rites’</p>		<p>Gk. τέλος ‘man’s full age, manhood; troops, army unit’</p>	<p>Gk. τέλος 1. ‘death’ 2. ‘sacred rite’</p>

9. Coming full circle

9.1. PIE society operated with the universally (globally and historically) widespread concept of 'life phases' and rites pertaining to the passages between these phases; the concept still formed part of old Baltic religion.

9.2. PIE had a root 1. **ar-* '(1) fulfill, accomplish; enter into a new phase; (in religious sense) carry out a rite of passage' (2) take necessary precautions; equip, furnish; (>) arm' (this root may or may not be identical to **ar-* (2) 'link together, join', depending on whether the latter is reconstructed as **h₂er-* or **ar-*).

9.3. The concept is also reflected in derivatives of a stem **kerH-u-* (perhaps identical to the one in 'head; horn' > words for 'top, peak, crown'), of the root **Hieu-*, occurring in the YOUNG-word, and of **k^welh₁-* 'turn'.

9.2. The nominal derivative **ar-mo-*, **ar-ment-* meant 'turning point, new phase; ripening' and also 'equipment', 'rite of passage'.

9.3. **ar* (1) also meant 'take necessary precautions, equip' which may have developed from the meaning 'carry out a rite of passage'

9.4. Anatolian **arma-* 'moon; lunar deity; month' < 'new moon, full moon' < 'fulfillment' or 'new phase, new season'.

9.5. Hitt. *armae-zi* 'be pregnant' < *arma-* either in the meaning a) 'month' or from an older meaning b) 'womanhood, new life phase' (in theory = Delph. 'coitus')

9.6. The same **arma-* may be the (loan) source of Old Uighur *aram*, Hunno-Bulg. *alem* '1st month of the calendar', although they may also theoretically be loans from Uralic **ärV-mV* 'year; autumn' (which may in itself be a true cognate of the PIE word).

9.7. Lat. *arma* 'weapons, tools etc.' < simply 'equipment, outfit (for a soldier or even less specifically)'.
9.8. Gk. **arment-* 'wagon, wheel' < either a) 'cycle, full circle' or (more likely) b) 'equipment (for wagon)'.

9.9. Delph. 'coitus' may reflect 'entering into the next phase (manhood/womanhood); the sexual ritual of ἱερὸς γάμος' or is simply from **ar-* (2) 'to link together'.

9.11. Lith. *armaĩ* 'front axle on wagon' may come from 'equipment (for wagon)', cf. the Greek meaning.

9.12. Gk. κορὺ-βαντες are the young boys becoming men of military age, i.e. 'entering into the next phase' (?).

9.12. Lith. *šárvas* in the meaning 'December' < 'solstice', at least formally identical to the 2nd part of Cretan Διοσ-κούρος '6th month of the year', and identical to all other words of the shape *šárvas* 'ritual equipment in a rite of passage', related to Gk. κουρήτες 'young men of military age' and PGmc. **hrustjana-* 'to arm, equip etc.'

9.13. Lat. *mēnsis Jūnius* < 'solstice' (or 'new moon pertaining to solstice', cf. Slavic *radunitsa* etc.), same formation as *Jūnō* 'the new moon; related to *iūuenes*, Umbr. **iouies** 'young men of military age'.

9.14. PIE **H₂ieu-k^wl-o-* 'the turning point of the solstice' may have yielded PGmc. **jeuk^wlan-*, the the YULE-word.

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