

## *Studies in Latin Etymology and Phonology, Session 2*

### “A Crass, Gross (but Classic) Problem”

- OVERVIEW:
- A. Lat. *crassus* ‘thick, fat’ (and *crassundia* ‘sausages’)
  - B. Lat. *grossus* ‘unripe fig; green, unripe; thick, fat, coarse’
  - C. Transitional notes on other (more or less intractable) forms
  - D. Lat. *classis* ‘levy (of an army), class (of assembled people), fleet’
  - E. Summary of conclusions

#### **A. Lat. *crassus* ‘thick, fat’ introductory**

- 1 Lat. *crassus* ‘thick, dense, solid, fat; crude’ (Pl.+): traditionally (e.g. *WH* s.v., *IEW* 584), cf. Lat. *crātis* ‘wickerwork; fence’ (Pl.+), and related Baltic and Germanic words for ‘fence; door’ (e.g. Eng. *hurdle*)
- 2 but the Ba. and Gmc. material is itself problematic and ultimately obscure: formal mismatches among the alleged cognates, plus semantic specificity (*EM*: “[t]erme technique”), suggest a non-IE source (*EDLIL* s.v. *crātis*); thus the comparison between *crassus* and *crātis* rightly rejected by *EM* and *EDLIL*
- 3 surely significant somehow (as often noted): one of many words with medial geminate describing physical deformities or other negative features, like *brocc(h)us* ‘buck-toothed’, *cloppus* ‘deformed’, *gibber* ‘hunchbacked’ (cf. *gibbus* ‘hump’), *maccus* ‘buffoon’, including some used as cognomina (besides *Crassus* ‘Fatso’, e.g. *Bassus* ‘id.’, *Flaccus* ‘Lop-Ears’)  
[Leumann 1977:182 (with explicit reference to “expressive gemination”); Van Ooteghem 1963:65n6 (on the onomastic use)]
- 4 but NB: medial gemination in some such forms may result from bona fide phonological processes (rather than “expressive gemination”) — e.g. *lippus* ‘bleary-eyed’ (Pl.+), with Sabellic labial and gemination from application of the “*littera-Gesetz*” to OLat. *\*leipos* (Fortson 2008)  
[on the typology of gemination (including “expressive gemination” or “affective lengthening”), see Blevins 2008]
- 5 cf. de Vaan (*EDLIL* s.v. *crassus*): based on the geminate, “it is conceivable that the older form was *\*crāsus*. This, however, does not clarify the etymology.” — but maybe it does ...

#### ***crassus* and (non-)rhotacism**

- 6 expected: (pre-Lat.) *\*krāso-* > *\*krāro-*; rhotacism blocked by /r/ in the onset cluster? cf. non-rhotacism in *miser* ‘wretched’ (fem. *miserā*, etc.), *caesariēs* ‘long hair’ (both Pl.+), etc., where the blockage is said to involve *s ... r* in consecutive syllables  
[on the phonology of Lat. rhotacism (including exceptions, but without reference to *crassus* et sim.), see most recently Roberts 2012]
- 7 perhaps (more below); but even if so, why (apart from vague appeals to “expressive gemination”) is the unrhotacized outcome /krasso-/ (or, at least at first, /krāso-/)?
- 8 a plausible theory for this development: Christol 1996:809ff. (cf. Weiss 2009:151n14) —
  - a at the time of rhotacism, conservative dialects might remain “stuck” at the stage with intervocalic -z- (as in Oscan: *egmazum* ‘rerum’, *censazet* ‘censebunt’, etc.)
  - b speakers in fully-rhotacizing dialects (or preferring a rhotacizing phonostyle) would identify the [z] of /VzV/ forms with [ss], at that time the only intervocalic sibilant in rhotacizing speech forms; cf. Lat. <ss> rendering Gk. <ζ>, phonetically [z] in Hellenistic times (Biville 1990:108ff., esp. 112ff. for Gk. -ιζω/Lat. -issō)
  - c for original /V:zV/ sequences, at first heard as /V:ssV/ by rhotacizing speakers: once the Class. Lat. *ss*-simplification had occurred (OLat. *cāssus*, *caussa* > Class. *cāsus*, *causa*, etc.) — i.e., with /V:ssV/ no

longer a permitted sequence — such unrhottacized forms could have entered the speech of rhotacizing speakers in the form /VssV/ or (conceivably) /V:sV/

[/V:ssV/ as no longer permitted: with the restricted exception of the type *amāssō*, *prohibēssīs*, etc. (Leumann 1977:181, de Melo 2007:315ff.), and perh. also *pessimus* < \**pēssimus* (Jasanoff 2004:412n13)]

**d** if the conservative source-dialect was rural (or otherwise non-standard), such borrowed unrhottacized *ss*-forms might have had a rustic or expressive ring, or could have been used in situations where a high-style alternative did not exist

9 Christol's examples (which don't include *crassus*) are unfortunately not clear-cut:

**a** *causus* 'empty, lacking' (Pl.+): but the rusticity/expressivity is questionable, and no evidence for a plain thematic basis \**kas-o-* or \**kās-o-* (or, Leiden-style, \**k(e)h<sub>2</sub>s-o-*); perfectly plausible, instead, would be a thematized *s*-stem \**kas-(e)s-o-* beside the *ē*-stative \**kas-ē-* (Lat. *caret* 'is lacking', O. **kasit** 'it is necessary'), cf. *egestās* 'poverty', *egēnus* 'lacking' (< \**eges-no-*) beside *egēre* 'be in need'

**b** *assus* 'roasted, grilled, dry' (Pl.+; ASOM *CIL* I<sup>2</sup> 560 [3<sup>rd</sup> c.]): but there are many possibilities besides \**āso-* (~ *ārēre* 'be dry'), including \**ars(s)us* (cf. *ardēre* 'burn'), \**azd-to-* (cf. ἄζω 'dry'), and \**ad-to-* (cf. *ador* '[dried] grain'), among others (see *EDLIL* s.v.)

**c** *nassus*, *nassum* 'nose' (Naev.+), cognomen *Nassō*: traditionally spelled *nāsus/-m*, *Nāsō* (cf. *nārēs* 'nostrils'); but MSS often have *nass-* (e.g. Pl. *Mer.* 310 *nassum* [A]), and inscriptional *NASS-* is also found (e.g. *NASSO CIL* IV 3204); perhaps a relatively good case (cf. **8c** on /V:sV/ ~ /VssV/), though a derivative from a secondary *s*-stem \**nas-s-* may also be possible (Weiss 2010a)

10 Meiser's account of the maintenance of unrhottacized *-ss-* in Lat. *-issimus* superlatives (1998:153): some affinities with Christol's theory (D. Gunkel, p.c.); but the gemination in Lat. *-issimus/-errimus/-illimus* is more complex (Gunkel 2012)

#### the proposal

11 in short: **8** (Christol) is an attractive theory in search of good examples, of which pre-Lat. \**krāso-* > Lat. *crassus* may be one

12 specifically: \**krāso-* may belong with the family (a term used loosely for the moment) of Lat. *crēscere* 'grow', *creāre* 'make grow, create', *crēber* 'thick, dense, frequent', *incrēmentum* 'growth, increase', *prōcērus* 'tall', *Cerēs* (growth goddess) = O. (dat.) **kerrí**, among other forms often placed together with these

#### on the root of *crēscere* etc.

13 do all these forms (and others) really belong together? (related to) how many roots should be reconstructed for such forms, and with what shapes? three main positions in the recent literature:

**a** a root \**kre<sub>h</sub>1-/\*ker<sub>h</sub>1-* 'grow' (with Schwebelaut) underlies e.g. Lat. *crēscere*, *prōcērus*, HLuv. \**zīra-* in *zīralamma/i-* 'fruitful', distinct from \**ker<sub>h</sub>3-* 'feed' (Gk. [aor.] ἐκόρεσα 'satiated', Li. *šerti* 'feed', etc.) [Rieken 2003, García Ramón 2010 (the latter also on Myc. *ko-ro* and *da-mo-ko-ro*, *ko-re-te* and *po-ro-ko-re-te*, etc.)]

**b** everything belongs to \**ker<sub>h</sub>3-* 'feed': thus e.g. *crēscere* from a Narten *s*-present \**krē<sub>h</sub>3-s-*; for the semantics, cf. Lat. *alere*, OIr. *ailid* 'feed, nourish' vs. Go. *alan* 'grow' [*LIV* s.v. \**ker<sub>h</sub>3-*, Villanueva Svensson (forthc.)]

**c** Lat. *crēscere* (and other Italic material) rather with \**k<sup>(w)</sup>reh<sub>1-</sub>* 'become stronger', cf. Slav. \**krějō*, \**krījati/\*krējati* 'recover one's strength, heal' (SCS *o-krijati*, Russ. dial. *krejāt*, etc.) [Hill 2006, apparently followed by de Vaan (2012:319, on the morphology of *creāre*)]

14 luckily, further detail can be left aside: pre-Lat. \**krāso-* < zero-grade “\**krH-s-o-*”, which could in principle be based on any of the roots in question and which itself would shed no light on the larger problem

15 instead: the main issue here is to justify such a form both morphologically (i.e., by defending a zero-grade form with an *s*-“extension” of some kind) and semantically (i.e., by positing a semantically credible source for a word that means 'thick, fat' — almost settled by the meaning of Lat. *crēber* [12])

16 for the morphology: relatively little evidence for zero-grade forms belonging to *any* of the roots in question, and even less evidence for *s*-extended forms belonging to such zero grades; but there is *some*, to be considered in terms of two approaches —

a a noun-based analysis (i.e., based on an *s*-stem)

b a verb-based analysis (i.e., based on an *s*-present, or a verbal root with *s*-enlargement)

#### morphological analysis, version 1 (noun-based)

17 a thematic *\*krā-s-o-* could be based on an *s*-stem — which certainly exists: within Italic itself, cf. Lat. *Cerēs* (12), pointing to hysterokinetic *\*(<sup>o</sup>)kerH-ēs*, and Ital. thematized derivatives *\*keres-o-* (e.g. Lat. *Cer(r)us Manus* ‘creator bonus’ [Carm. Sal.], U. dat. **çerfe**) and *\*keres-yo-* (e.g. O. dat. sg. m. **kerríúí**) [*Cerēs* perh. decompositional to an original compound adj., e.g. *\*h<sub>1</sub>su-kerH-ēs* ‘mit gutem Getreide’ → *\*kerHés* ‘die Getreidige’ (Hill 2006:198n14); for other possibilities, see Schindler 1975:63f.]

18 also possible traces of an old *s*-stem elsewhere, e.g. OHG *hirso* ‘Hirse’ < Gmc. *\*her-s-ija(n)-*, plus some less perspicuous Armenian data; thus according to Stüber (2002:117), this material, together with hysterokinetic *\*(<sup>o</sup>)kerH-ēs*, permits the reconstruction of a proterokinetic *s*-stem *\*kérH-os* [on the Arm. forms (*ser/ser* ‘offspring’, *sermn* ‘seed’, etc.), see esp. Olsen (1999:76, 85f.) and Hill (2006:200ff.)] [some Ital. forms conceivably derivable from *\*ker-s-* (vs. *\*ker-es-*), e.g. Lat. *cēna*, O. **kersnu** ‘meal’ (Schrijver 1991:432)]

19 the existence of such an *s*-stem underlying *Cerēs* was already posited by Schindler (1975:63), who later (class instruction, c. 1976) added Hitt. (neut.) *karaš* (i.e. [kars]) ‘(type of) wheat’, with zero grade of the suffix [on Hitt. *karaš*: Melchert (forthc.), contra the popular interpretation (*EDHIL* s.v., with refs.) via a root noun *\*g<sup>h</sup>(e)rs-*, with Lat. *hordeum*, OHG *gersta* ‘barley’]

20 as for thematic derivatives of *s*-stems (needed for *\*krā-s-o-*): cf. the familiar exocentric possessive type, routinely exemplified by Ved. *vatsá-* ‘calf, yearling’, i.e. *\*wet-s-ó-* ‘having a year’ ← *\*wét-es-* ‘year’ [somewhat differently on *\*wet-s-ó-* Vine 2009:216; but the general point holds, see e.g. Stüber (2002:31) on *\*h<sub>3</sub>ór-es-* ‘rise’ (Gk. ὄρος ‘mountain’) → *\*h<sub>3</sub>or-s-o-* ‘rump’ (Gk. ὄπος etc.)]

21 less well known: such thematic derivatives can appear “zeroed-out” (i.e., with “double zero grade”), as in Ved. *śūśá-* ‘powerful’ < *\*kuH-s-ó-*, cf. the *s*-stem basis in *śávas-* ‘power’ (Rau 2009:128) [for ‘year’, in the traditional analysis, cf. *\*ut-s-o-* in CLuv. *ušša/i-*, HLuv. *u-sa/i-*, Lyc. *uhe/i-* ‘year’; similarly Ved. *útsa-* ‘well, spring’ (YAv. <sup>†</sup>*usa-*) from an *s*-stem based on ‘water’; somewhat differently Vine 2009:220]

22 within Lat. itself, at least two candidates for such double-zero-grade thematic derivatives of *s*-stems:  
a *russus* ‘red’ (Enn.+) < *\*h<sub>1</sub>rud<sup>h</sup>-s-o-*, cf. primary *s*-stems in Lat. *rubor*, Gk. ἔρευθος ‘redness’  
b *saxum* ‘rock’ (Pl.+), as if *\*s<sub>6</sub>k(H)-s-o-*, to *\*sekH-* ‘cut’ (Nikolaev 2010:231), cf. Gmc. *\*sah-s-a-* ‘sword’ (with secondary *o*-grade: cf. Gmc. ‘saw’ < *\*sok(H)-eh<sub>2</sub>*, ‘sedg’ < *\*sok(H)-yo-*) [differently Hill (2003:224f.) on a: *russus* < *\*h<sub>1</sub>rud<sup>h</sup>-to-*, cf. root noun in OIr. *rú* ‘red color’ etc.; but (i) such a *to*-formation is difficult to parallel in Latin, (ii) the root noun is not attested in Italic, (iii) Hill’s analysis assumes (incorrectly) that an *s*-stem derivative must have full grade of the root (thus *\*h<sub>1</sub>reud<sup>h</sup>-s-o-* > Lat. *\*rūso-*)]

23 thus the necessary ingredients are available for interpreting pre-Lat. *\*krāso-* via *\*k<sup>h</sup>rH-s-ó-* ‘fat’ (*\*‘having growth’*), a thematic adj. derivative (with double zero grade) to *s*-stem *\*kérH-es-* ‘growth’ (or ‘nourishment’), cf. its hysterokinetic internal derivative *Cerēs* (and thematic derivatives based on it) within Lat. itself

#### morphological analysis, version 2 (verb-based) (and Lat. *crassundia*)

24 already mentioned (13b): Villanueva Svensson (forthc.) proposes that all of the ‘grow’/‘nourish’ material belongs to *\*kérh<sub>3-</sub>* ‘feed’, which (in his analysis) made an original Narten *s*-present *\*kréh<sub>3-s-</sub>*/*\*kréh<sub>3-s-</sub>* —

a thus Lat. *crēscere* only secondarily a *scō*-verb, like *pāscere* ‘feed’ (PIE *\*peh<sub>2-s-</sub>*: cf. Lat. *pāstor* ‘herdsman’, Hitt. *pahs-* ‘protect’, OCS *pasq* ‘graze’)

b further support from Lat. *crēber* (12) < pre-Lat. *\*krē-s-ro-* (vs. traditional *\*krē-pro-*, with PIE *\*-d<sup>h</sup>ro-*: appropriate for instrument nouns, but difficult to justify in such an adjective)

[Lat. *crēber* similarly < pre-Lat. *\*krē-s-ro-* according to Hill (2006:195f.), though with a different overall conception (cf. 13c)]

- 25 though not noted by Villanueva Svensson, additional support perh. from Lat. *crassundia* (neut. pl.) ‘thick (i.e. stuffed) intestines’ (i.e. sausages) (Varro *L.* 5.111) — generally ignored, except to assert:
- a nothing to do with Lat. *-undus* forms (Leumann 1977:331, without explanation)
  - b modeled on *crepundia* (more below; *WH*, following Muller [1926:110] and others; similarly *OLD* s.v.)
  - c “a *crassus* ductum esse videtur” (*TLL* s.v. [Thurneysen]; cf. similarly vacuous *OLD* characterization “*crassus* + *-undia*”)
- 26 formally, the sole Latin comparandum to *crassundia* is indeed neut. pl. *crepundia* (Pl.+); but the form is controversial, beginning with its meaning ...
- 27 standardly ‘baby’s rattle’ (*TLL*, *OLD*, *EDLIL*), suggesting comparison with *crepitāculum*, *crepitācillum* ‘id.’ (Lucr.+ ) and ultimately *crepō* ‘make a sharp noise’ (Pl.+); but also (Pl.) trinkets worn *around a child’s neck*, sometimes as ἀναγνωρίσματα ‘recognition tokens’ (cf. ‘swaddling blanket’ [Plin.+], based on the recognition usage); clear attestations meaning ‘noisemaker’ are attested only late (Valerius Maximus, Apuleius, Prudentius, Justinian)
- 28 thus, according to Leumann (1933:240ff.), originally nothing to do with *crepō*; rather related to the *bullā aurea* (ceremonial pouch worn around the neck, allegedly of Etruscan origin), and probably based on an Etruscan word
- 29 this seems hard to rule out, and may be correct; still, Meillet (*EM*, s.v.) allows for *crepundia* ← *crepō*, and this could also be correct — if so: despite *crepāre* (perf. *crepūī*, *crepitum*), participial *\*crepundus* ‘noise-making’ (whence substantivization *\*crepundium*, pl. *-ia*) could have been based on thematic *(\*)crepere* (perh. directly attested in 2 sg. *percrepis*, Varro *Men.* 124)  
[on *(\*)crepere*: Meiser 2003:137f., 232; type *sonere* ~ *sonāre* ‘sound, make a noise’, etc.]
- 30 the more important question: could Lat. *crassus* have been modeled on *crepundia* so as to generate *crassundia* (cf. 25b-c)? seems unlikely in the extreme — little in common, apart from onset cluster [kr-]
- 31 if anything, a theoretical *\*crassundus* ‘growing fat’ (vel sim.) might have a greater claim to antiquity than *\*crepundus*: such a form could have been supported by *rotundus* (one of the original core *-undus* adjectives) at the (quite early) stage when it already meant ‘round’ (Cato+)  
[*rotundus* (*\**‘disposed to roll’) and parallel “adjectives of motion” *secundus* ‘following’, *oriundus* ‘rising’, *lābundus* ‘slipping’: Jasanoff 2006]
- 32 the most likely basis for a form *\*crassundus*: not the already-existing adj. *crassus*, but rather a verb *\*crassor* ‘grow fat’ (cf. *\*retor* or *\*rotor* ‘roll’ → *rotundus*)
- 33 so, to pursue the *s*-present scenario in more detail (here adopting the root shape and morphological assumptions of Villanueva Svensson’s analysis; but, *mutatis mutandis*, one could substitute other versions of the root [13a, c]):
- a the originally acrostatic *s*-present *\*kréh<sub>3</sub>-s-/\*kréh<sub>3</sub>-s-* ‘grow’ was renewed as an ablauting present *\*kréh<sub>3</sub>-s-/\*krh<sub>3</sub>-s-* with mobile accent  
[see Jasanoff (2003:42) on such zero-grade renewals in the weak stem-form of acrostatic paradigms]
  - b the strong form *\*kréh<sub>3</sub>-s-* → Ital. *\*krēske/o-* (cf. *pāscō* [24a]), while the weak form *\*krh<sub>3</sub>-s-(énti)* was thematized as *\*krh<sub>3</sub>-s-e/o-* (cf. OCS *pasō*)  
[*ske/o*-present perhaps also attested in the HLuv. participle /zarzamis/ ‘heranwachsende’ (Rieken 2003)]
  - c thematic *\*krh<sub>3</sub>-s-e/o-* > pre-Lat. *\*krās-e/o-*, whence *\*crassor* ‘grow fat’ (with verbal adj. *\*crassundo-* → substantivized *crassundia*, as above)
  - d finally — and most importantly for present purposes — verbal *\*krh<sub>3</sub>-s-e/o-* could also have produced a deverbal “zero-grade τομός form” *\*krh<sub>3</sub>-s-o-* ‘growing’, whence pre-Lat. *\*krās-o-* and ultimately (by Christol’s theory) *crassus* ‘fat’
    - “zero-grade τομός forms”: Nussbaum 2007a:§7, with examples (including, “[f]rom a distinctly deep PIE level”, *\*yug-ó-* ‘attached’ > ‘attachment, yoke’), further 2007b on secondary verbal nouns built to

*s*-extended verbs (e.g. Av. *sraoša-* ‘obedience’, OCS *sluxŭ* ‘hearing’, cf. thematic verbal *\*kléw-s-e/o-* in Ved. *śroṣa-* etc., LIV s.v. *\*kleus-*)

**concluding remarks on *crassus***

**34** for pre-Lat. *\*krā-s-o-* < *\*kṛH-s-ó-*, both source options (*s*-stem [17-23] or *s*-present/*s*-enlargement [24-33]) are to some degree uncomfortably hypothetical:

**a** an *s*-stem is probably reconstructable for the protolanguage and is attested in Latin, though not in the actual double-zero-grade version required

**b** Lat. *crēscō* (like *pāscō*) could be based on an *s*-present, possibly supported by *crēber* and *crassundia*, but the *s*-present (or *s*-enlarged stem) is not directly attested

**35** still:

**a** the morphological specificity of these analyses renders both proposals superior to mere root etymologies

**b** a basis in forms meaning ‘growth’, ‘nourishment’ or (in the verbal analysis) ‘grow’ or ‘feed’ provides a semantically attractive source for an adjective meaning ‘thick, fat’

**c** the phonological development is directly accounted for by Christol’s theory about non-rhotacism and *s*-gemination (8), including the possibility that *crassus* could have been associated with some sort of *sermo rusticus* or lower-register speech form

**d** these suggestions, then, seem preferable to the traditional idea of cognation with Lat. *crātis* (1-2), and, if correct, would provide a good example of the process postulated by Christol

**B. Lat. *grossus* ‘unripe fig; green, unripe; thick, fat, coarse’**

**introductory 1: philological background**

**36** a convenient starting point: de Vaan’s lemma (*EDLIL* 273) — “**grossus** ‘immature fig’ [m. *o*] (Cato+); ‘thick, unripe’ [adj.] (Col.)”

**37** some corrections/additions (see *TLL* s.v. for further detail):

**a** *grossus* in the meaning ‘unripe fig’ is both m. (e.g. Matius, Celsus) and f. (Pliny) in literary sources (but see **d** below)

**b** also attested is a diminutive *grossulus* ‘(small) unripe fig’ (Postumus ap. Macr., Col.)

**c** for *grossus* as adj.: despite de Vaan, never ‘thick’ in Columella, but only ‘unripe’, with reference to grapes and apples; elsewhere also (Schol. Germ. Bas. 100.16) with reference to figs

**d** the usage of *grossus* as an adj. ‘unripe, immature (of fruit)’ apparently led to a late substantivization *grossum* (Hil. in Matth. etc.), or else (so *WH*) *grossus* (m., f.) has developed as *grossus* (n.) after *pōmum*

**e** *grossus* meaning ‘thick, fat, coarse’ is restricted to Late Latin (Tertullian, Augustine, Vulgate, Cassiodorus, Sulpicius Severus, late glosses, etc.), apart from P.F. 40.13L (as part of a gloss, thus possibly also late)

**38** thus, though “Latin *grossus*” often treated as a single word, whether implicitly (*EDLIL*) or explicitly (*WH*), this may not be true — the philological facts suggest that at least descriptively, one must distinguish between two different lexical entities:

**a** “*grossus*<sup>1</sup>”, an agricultural term referring to unripe or immature fruit, esp. figs: the noun (m., f., later n.) is old (Cato, Matius) and well-attested in Augustan and early Imperial Latin (Celsus, Pliny, Columella), and the adj. is at least as old as Columella

**b** “*grossus*<sup>2</sup>”, the adj. meaning ‘thick, fat, coarse’: this usage (or this word) may be restricted to Late Latin, and became well-established in Romance (> Fr. *gros*, Sp. *grueso*, etc.; cf. also the adj. *\*grassus*, from contamination with *crassus*, whence Fr. *gras*, Ital. *grasso* ‘fat’, etc.)

this is essentially the conception implied by *EM*, who divide the material into two separate entries, with an etymological note provided only for “*grossus*<sup>2</sup>”

## introductory 2: previous approaches to the etymology

- 39 the etymological literature addresses only *grossus*<sup>2</sup>; the traditional approach sets up a preform *\*g<sup>w</sup>retso-*, comparing Mlr. *bres* ‘great’, somehow a variant of OIr. *bras* (MW *bras*, MBr. *braz*) ‘id.’ and also ‘boastful, defiant, violent’  
[e.g. *WH*, *IEW* 485, Mallory and Adams 2006:299 (ultimately from Osthoff and Fick, see *WH* for details)]
- 40 the same account appears in some Celtic lexica (e.g. Deshayes 2003:132, *EDP-C* 74); but Vendryes is skeptical (*LEIA* B-79, raising both formal and semantic concerns), and Schrijver (1995:55) offers a different etymology for the Celtic material (comparing instead OW *burr* ‘fat, strong, thick’, Mlr. *buirre* ‘swollenness’)
- 41 the idea that Lat. *grossus* is a “Germanic loan, from Old High German *grōz*” (“Wiktionary”, <http://en.wiktionary.org/wiki/grossus>, without citation or explanation) cannot be correct:  
a earlier Lat. loans from Gmc. are mainly “culture nouns” (e.g. ‘amber’, ‘hair-dye’, etc.; Weiss 2009:487)  
b the word would have to have been naturalized in Lat. before the time of Tertullian (c. 160-220 AD), when it would have had a form closer to its Pr.-Gmc. source *\*grautaz*, which surely would not have entered Latin in anything like the form *grossus*
- 42 in any case, none of the existing etymological solutions is compelling; and none accounts for *grossus*<sup>1</sup>

### a new approach to *grossus*<sup>1</sup>

- 43 as an agricultural term, *grossus*<sup>1</sup> is a good candidate for Christol’s theory — thus consider possibilities for (pre-Lat.) *\*grōso-*, for which various PIE interpretations are conceivable, i.e.  
a *\*grōso-* (or *\*grōso-*), *\*groHso-* (or *\*groHso-*), with voiced stop  
b *\*g<sup>h</sup>rōso-* (or *\*g<sup>h</sup>rōso-*), *\*g<sup>h</sup>roHso-* (or *\*g<sup>h</sup>roHso-*), with voiced aspirate
- 44 most of this can be eliminated immediately:  
a for *\*gres-* ‘devour’, there is no evidence for a lengthened-grade formation  
b there is no *\*g<sup>h</sup>res-* or *\*g<sup>h</sup>res-* (which might supply the basis for a lengthened *ō*-grade formation)  
c there is no usable *\*greH-(s-)/\*gréH-(s-)* (or *\*gerH-/\*géH-* with Schwebeablaut and *s*-extension)  
[*\*gres-* ‘devour’ *LIV*, but according to a different conception, *\*gras-* (e.g. *IEW* 404, Watkins 2011:33)]
- 45 but an etymon for the laryngeal-final version with voiced aspirate is readily apparent, i.e. the root of Eng. *grow* (OE *grōwan*, OIc. *gróa*, etc. < *\*g<sup>h</sup>roh<sub>1</sub>-ye/o-*) and *green* (OS *grōni*, OHG *gruoni*, etc. < *\*g<sup>h</sup>roh<sub>1</sub>-ni-*)  
[for the root: *IEW* 454, Watkins 2011:32 (*ghrē-* < *\*g<sup>h</sup>reh<sub>1</sub>-*)]
- 46 moreover, both *o*-grade and zero-grade *s*-forms are attested in Germanic, i.e.:  
a Gmc. *\*grōs-*: MHG *gruose* ‘sprout; sap’, MLG *grōse* ‘sap’ (both f.)  
b Gmc. *\*gras-* (with analogical onset): Go./OHG/OIc. *gras*, OE *græs* ‘grass’
- 47 in addition, a zero-grade *s*-form may well be attested in Lat. itself, in *grāmen* ‘grass’ (Cato+), in theory from pre-Lat. *\*grasmen* or *\*grā(s)men*
- 48 if *\*grasmen*: this would be based on a root *\*gras-* ‘devour’ (Ved. *grásate*, Gk. γράω; cf. 44 on *\*gres-* vs. *\*gras-*); thus Meillet (*EM* s.v.) and others (e.g. Watkins 2011:33), in part based on assumptions about the Latin treatment of *\*g<sup>h</sup>r-* (more below)
- 49 but the Gmc. comparanda favor analysis via the ‘grow’ root, i.e. *\*g<sup>h</sup>rh<sub>1</sub>-m<sub>n</sub>* or (more likely, with *s*-formant as in Gmc.) *\*g<sup>h</sup>rh<sub>1</sub>-s-m<sub>n</sub>* (Schrijver 1991:487, *EDLIL* s.v.); thus Lat. *grossus* (< pre-Lat. *\*grōso-*) may supply the “missing (Italic) link” in this Germanic/Italic network of agricultural terminology, i.e.  
*\*g<sup>h</sup>roh<sub>1</sub>-s-*: Gmc. *\*grōs-* (46a), Lat. *grossus*<sup>1</sup> (< pre-Lat. *\*grōs-o-*)  
*\*g<sup>h</sup>rh<sub>1</sub>-s-*: Gmc. *\*gras-* (46b), Lat. *grāmen* (< pre-Lat. *\*grā-s-m<sub>n</sub>*)
- 50 exactly what kind of *s*-extension here? difficult to determine, given the nature of the evidence ...

a parallel dental enlargement in related material (e.g. OE *græd* ‘grass’, MHG *graz* ‘young conifer branch’) is suggestive of an *s*-enlargement

b “*smen*-stem” in Lat. *grāmen* (according to that analysis) has various possible sources

51 whether, at bottom, an *s*-present or *s*-enlargement, no difficulty assuming a deverbal or deradical “τομός form” \**g<sup>h</sup>roh<sub>1</sub>-s-ó-* ‘growing’; cf. 33d above and \**klow-s-o-* (Av. *sraoša-*, OCS *sluxŭ*)

52 finally, despite the chronology of the attestations (37c), adj. *grossus* ‘unripe’ could be the older form, with *grossus* (m., f.) ‘unripe fruit (esp. fig)’ an early substantivization (later also *grossum* n.); cf. *pōmus*, *pōmum* ‘(tree-)fruit’ (Cato+) < \**po-(h<sub>1</sub>)em-o-/\*po-(h<sub>1</sub>)om-o-* or \**po-h<sub>1</sub>m-o-* ‘Abgenommenes’ [on this etymology of *pōmus/-um*, see EDLIL s.v., Weiss 2010b:229n313]

on the development of \**g<sup>h</sup>r-* (and \**g<sup>h</sup>r-*), \**g<sup>h</sup>l-* (and \**g<sup>h</sup>l-*) in Latin

53 the above proposal intersects with (and may shed light on) the notorious problem of Lat. historical phonology concerning the development of word-initial \**g<sup>h</sup>r-* (and \**g<sup>h</sup>r-*), usually considered together with \**g<sup>h</sup>l-* (and \**g<sup>h</sup>l-*; palatal notations omitted below); there are essentially three positions that have been taken (54-56) [see most usefully Leumann (1977:166); more recently Schrijver (1991:311), Sihler (1995:158), van der Staaïj (1995:57), Meiser (1998:103), Stuart-Smith 2004:152f., EDLIL (s.vv. -*gruō*, *rāvus*, following van der Staaïj), Weiss (2009:156, 163)]

54 version 1:

a the regular result of \**g<sup>h</sup>r-*/\**g<sup>h</sup>l-* is *gr-/gl-*, as in *gradior* ‘step’, *glaber* ‘smooth’, *grāmen* (49, i.e. assuming cognation with Gmc. \**gras-*)

[*gradior*: traditionally via a root \**g<sup>h</sup>red<sup>h</sup>-*, cf. OCS *grędŏ* ‘step’ etc. (e.g. IEW 456f.); but the root is now reconstructed as \**g<sup>h</sup>r(e)id<sup>h</sup>-* (see EDLIL s.v., with refs.), whence complications for *gradior*]

[*glaber*: cf. OCS *gladŭkŭ*, OHG *glat* ‘id.’; on the root (\**g<sup>h</sup>leh<sub>2</sub>d<sup>h</sup>-*) and the Lat. *ā*-vocalism, see recently Neri 2011:252]

b forms in *r-* reflect a dialectal (probably Sabellic) treatment, as in *rāvus* ‘grey, tawny’ (cf. other color terms with such a background, most transparently *rūfus* ‘red, red-haired’) or (neut.) *rūdus* ‘gravel, rubble’

[*rāvus*: cf. OHG *grāo*, OE *græg* (> Eng. *grey*), etc. < Gmc. \**grē-wo-* (Transponat \**g<sup>h</sup>reh<sub>1</sub>-wo-*; thus Lat. *rāvus* < \**g<sup>h</sup>r<sub>h</sub>1-wo-*)]

[*rūdus*: cf. OHG *grioz*, OE *grēot* ‘sand, grit’, OPr. *grūdas* ‘corn’, etc. (IEW 461); also more below on *rūdus*]

b1 the *r-*treatment is not dialectal, but related to a more restricted phonological environment, e.g. words with medial /w/ or /u/ (as in *rāvus*, *rūdus*)

55 version 2:

a the regular result of \**g<sup>h</sup>r-*/\**g<sup>h</sup>l-* is *r-/l-*, via a presumed development Ital. \**χr-/χl-* > pre-Lat. \**hr-/hl-* > Lat. *r-/l-*, as in *rāvus* for \**g<sup>h</sup>r-* and *lūridus* ‘(purplish-)yellow’, *lūtum* ‘yellow dye, yellow color’ for \**g<sup>h</sup>l-* [*lūridus*: i.e. with the old etymology (Curtius et al., refs. at WH s.v.) based on comparison with Gk. *χλωρός* ‘greenish, yellowish’]

[*lūtum*: i.e. assuming connection with Lat. *helvus* ‘yellow’ and ultimately Gk. *χλωρός* (cf. above); refs. at WH s.v., Leumann loc. cit.]

b forms like *glaber* result from an early Grassmann-like dissimilation of aspiration (Walde 1906), or (at a later stage) a spirant dissimilation

[“Latin Grassmann”: Leumann 1977:166, Stuart-Smith 2004:152f., Weiss 2009:156 (with additional material: *barba* ‘beard’, *trahō* ‘drag’)]

56 version 3:

a the regular result of \**g<sup>h</sup>r-* is *r-* (as in *rāvus*)

b the regular result of \**g<sup>h</sup>l-* is *gl-* (as in *glaber*)

[Schrijver 1991:311]

57 almost all of the relevant evidence has just been presented; unfortunately, some etymologies are disputed (i.e., in addition to *gradior* [54] and besides the alternative possibility for *grāmen* involving initial \**gr-* [48]) ...

58 thus for *lūridus* (55a), more attractive etyma are based on roots in \**l-* (Schriver 1995:332) or \*(*s*)*l-* (Nussbaum 1997:199f., 1999:403f.; see EDLIL s.v.), which can also accommodate *lūtum*; so *lūridus* and *lūtum* should probably be eliminated as potential evidence

59 for *rūdus* (and inner-Lat. cognate *rudis* ‘crude’ [Varro+]), a prominent alternative theory (Risch 1979:710ff., 721n31, followed in some handbooks) argues for derivation from \**h<sub>1</sub>reudh-* ‘red’; but no coherent account of

the unexpected medial *-d-* (beyond a vague appeal to Venetic), so probably to be rejected (also *EDLIL* s.v. *rudis*, on semantic grounds)

- 60** for *rāvus*, the alternative etymology comparing *r*-initial forms (*IEW* 853: cf. Ved. *rāmá-* ‘dark-colored’, OHG *rāmac* ‘dirty’) is still favored by van der Staij (1995:57); but Schrijver’s arguments against this approach are persuasive (1991:298f., 311)
- 61** *rāvus* with a unique complication worth mentioning: evidence for a version with initial *gr-* in the MS tradition of Plautus (*Ep.* 620), with some support in the grammatical tradition — *ravistellus* A vs. *gravastellus* P (‘old-timer, greybeard’, diminutive of a form *\*(g)rāvāster*)  
[cf. *gravastellus* P.F. 85.23L vs. *ravistellus* P.F. 339.4-5L; *CGL* 2.35.19 *grandellus*: γερων πολυετης, with marginal correction *grauistellus*]
- 62** other material sometimes adduced is not really usable: it is not legitimate to suppose (*EDLIL* s.v. *-gruō*) that behind *congruō* ‘unite, agree’ and *ingruō* ‘attack’ lies a simplex *\*gruō* ‘rush’; indeed, Sihler (1995:158) argues, not implausibly, that the simplex is none other than Lat. *ruō* ‘rush’  
[see already Walde (1906:99); for arguments against this view, see Sommer 1914:52]
- 63** similarly, Lat. *grunda* ‘roof’ (glosses only), adduced in this connection most recently by Meiser (1986:74), is probably back-formed to *suggrunda* ‘ledge, sill’ (Varro+), as de Vaan points out (*EDLIL* s.v. *grunda*)
- 64** under these difficult circumstances, little certainty about the precise interpretation of the data; but the above proposal about the background of “*grossus*” may offer a new perspective on the problem, as follows ...
- 65** preliminaries:  
**a** according to Christol’s theory, a form like *grossus* ‘unripe fig’ (or ‘unripe, immature’ of fruit [52]) would have been borrowed from a rustic dialect into the standard language, as is consistent with its meaning  
**b** consistent also with the meaning of *grāmen* ‘grass, esp. fodder’  
**c** there is nothing specific to the form of *rāvus* or *rūdus* that points to Sabellic or any other dialectal origin (in contrast, for example, with the medial *-f-* of *rūfus*, a clear Sabellic feature)
- 66** these points, together with some of the above discussion, suggest the following more nuanced (i.e. 3-part) alternative:  
**a1** the regular result of *\*g<sup>h</sup>r-* is *r-* (as in *rāvus*, *rūdus*, and conceivably *ruō*)  
**a2** the regular result of *\*g<sup>h</sup>l-* is probably *l-*, but there are no clear examples (since *lūridus* and *lūtum* should be excluded)  
**b1** the “rustic” (or low-register, etc.) result of *\*g<sup>h</sup>r-* is *gr-* (as in *grossus*, *grāmen*, and perhaps the *\*grāvāster* that underlies the variant at Pl. *Ep.* 620)  
**b2** the “rustic” (or low-register, etc.) result of *\*g<sup>h</sup>l-* is probably *gl-*, but clear examples are lacking [if de Vaan (*EDLIL* s.v. *glēba*) rightly omits the Gmc. forms usually adduced (*IEW* 359f.), Lat. *glēba* ‘clod, lump of earth’ (Cato+) — nicely “rustic” — could in principle, together with Ba. material (Li. *gl’ebti* ‘embrace’, etc.) and likely also Lat. *globus* ‘round compact mass’ (Pl.+), go back to a root *\*g<sup>h</sup>leb<sup>(h)</sup>-* (rather than the *\*gleb<sup>(h)</sup>-* usually assumed), and might then be an example of this type]  
**c1** the regular result of *\*g<sup>h</sup>r-* ... *D<sup>h</sup>* is probably *gr-*, via aspirate or spirant dissimilation, but examples are lacking (if *gradior* is excluded)  
**c2** the regular result of *\*g<sup>h</sup>l-* ... *D<sup>h</sup>* is *gl-* (as in *glaber*), via aspirate or spirant dissimilation
- 67** on the presumed phonetic developments in **66a, b**:  
**• a1/a2**: i.e. Ital. *\*χr-/ \*χl-* > pre-Lat. *\*hr-/ \*hl-* > Lat. *r-/l-* (**55a**), easily paralleled typologically, as in Gmc.: PIE *\*kr-/ \*kl-* in English (> Gmc. *\*χr-/ \*χl-* > OE *\*hr-/ \*hl-* > Eng. *r-/l-*)  
**• b1/b2**: perhaps easiest to assume a secondary voicing of Ital. *\*χr-/ \*χl-* or of “post-Ital.” *\*hr-/ \*hl-* to *\*γr-/ \*γl-*, whence occlusion to *gr-/gl-*; *\*γr-/ \*γl-* > *gr-/gl-* as in Germanic — either broadly, under the

traditional assumption of a velar spirant (even in initial position) for the Proto-Gmc. outcome of PIE *\*ǵh/\*gh* (Moulton 1954:42); or narrowly, cf. e.g. the occlusion of OIc. medial *\*-ɣl-* in Icelandic and Faroese

- 68 finally: the crude cover term “rustic” (cf. “*sermo rusticus*”) is not necessarily equivalent to “Sabellic” — see Adams (2007) on regional Lat. features like those in Sabellic, but perh. “native” to dialectal Latin; “rusticity” here in principle related to many factors besides regionalism, including register or occupation (“farmers’ argot”)

[cf. Adams 2007:108ff. on /ai/ > /ē/ monophthongizations, often assumed to be related to an Umbrian substrate, but perh. “native”]

#### final remark on *grossus*<sup>2</sup>

- 69 how, then, to interpret “*grossus*<sup>2</sup>”? unclear, but perh. originally the same word as “*grossus*<sup>1</sup>”, with a semantic split along roughly the following lines:

a \*‘growing; green’ > ‘unripe, immature (of fruit)’ > ‘immature fig’ (and other fruit, cf. 37c), whence “*grossus*<sup>1</sup>” as an agricultural *terminus technicus*

b \*‘growing, ripening’ > ‘plump, fat’ (cf. the background suggested in A. for *crassus*), with a later development to ‘coarse, rough, crude’ (influenced by *crassus*, as often assumed), whence “*grossus*<sup>2</sup>” — perh. originally a rustic or low-register usageword, naturalized in literary Latin only very late

#### C. Transitional notes on other (more or less intractable) forms

- 70 some additional Latin material could be considered as above, but most of it cannot (or should not) be pressed very far, as in the items in 71 and 72 ...

- 71 little certainty about the background of Lat. *crīsāre* (occasionally *crissāre*, see *TLL* s.v. *crīsō*) ‘move the haunches suggestively, as in intercourse (of women)’ (Lucil.+) —

a various preforms have been proposed: see *WH* for *\*kreit-s-* or *\*krīt-s-* and *EDLIL* for *\*kris-* or *\*krīs-* [*\*kreit-s-/\*krīt-s-*: *IEW* 937, *\*(s)krei-t-* (to the putative basis 3. *\*(s)ker-* ‘drehen, biegen’, 935ff.): *MIr. crith* ‘shivering, fever’, *OHG scrit* ‘Schritt’, etc.]

[*\*kris-/\*krīs-*: *IEW* 937, *\*(s)krei-s-* (to the same root as above): *Go. us-hrisjan* ‘shake out’, *Lat. crīnis* ‘hair (of the head)’, etc.]

b for *\*krīs-*, one should probably assume pre-Lat. *\*krīss-*, with gemination, whence degeminated *crīsāre* (de Vaan)

c none of this matches the pattern of *crassus* or *grossus*, and one must also reckon, in such a word, with the possibility of expressive gemination

d there is also the theoretical possibility that rhotacism in an original sequence /krīsV-/ was blocked by the onset cluster with /r/ (cf. 6; more on this below)

- 72 Lat. *vīsīre/vissīre* ‘fart softly’ (Lucil.+) is probably related to *vēsīca* ‘bladder’ (Pl.+), and at least partly involves onomatopoeic effects (see *EDLIL* s.v. *vēsīca*)

- 73 other forms seem worth pursuing at first glance, given their semantic proximity to *crassus* and *grossus*<sup>2</sup>, but turn out to be intractable, since they lack clear etymological connections (→ 74, 75)

- 74 Lat. *bassus* ‘thick’ (glosses only) and *Bassus* (Cic.+, 3) usually thought to have a Sabellic *b-*, given the Campanian profile of *Bassus*, *Bassius*, etc. (see *EM* s.v. *bassus*, *TLL* s.v. *Bassus*); but even if such a “rustic” background is granted, there is no available etymology

[later semantic development to ‘low, short’ (*CGL* IV.210.17, *Not. Tir.*+; *Ital. basso*, *Fr. bas*, etc.)]

- 75 for Lat. *spissus* ‘sluggish, dense, thick’ (Naev.+):

a de Vaan (*EDLIL* s.v.): “[s]ince *spissus* is reminiscent of *crassus*, *grossus*, it may contain an expressive geminate — hence a possible preform would also be *\*spīsus*.” — partly because the traditional etymology, based on an alleged *\*spid-to-*, is far from compelling

[*\*spid-to-*: see *EDG* s.v. *σπίδιος* for the standard Gk. comparanda, mostly meaning ‘broad, extensive, distant’; NB that Hom. (gen. sg.) *σπίδιος* (Λ 754), of uncertain meaning, is unusable, despite Frisk (*GEW* s.v. *σπίδιος*), Chantraine (*DELG* s.v. *σπίδιος*), and others; cf. West (2006:346) ad loc.: “vox ignota, fort[asse] nomen propr[ium]”]

**b** but there are no etyma that would support, e.g., a PIE *\*spiH-s-o-*; also not encouraging that Lat. *spissus* is primarily attested in poetry, which reduces (though does not quite eliminate) the possibility of a “rustic” (or other low-register) source

#### **D. Lat. *classis* ‘levy (of an army), class (of assembled people), fleet’**

##### **introductory 1: philological background**

**76** universal agreement: earliest meaning of Lat. *classis* f. (*Lex Reg.*+) was ‘(roll-)call, appeal, summons’, with reference to the levy of citizens called to arms (*classis iūniōrum* ‘levy of youths’), whence

**a** terms for various types of levied troops:

(i) *classis clipeāta*

[P.F. 48.22L: “classes clipeatas antiqui dixerunt, quos nunc exercitus vocamus”]

(ii) *classis prōcincta*

[P.F. 49.10L: “classis procincta, exercitus instructus”, similarly P.F. 251.19L, F. 294.3L, P.F. 295.2L]

**b** troops serving at sea

[P.F. 251.20L: “Vetustius enim fuit multitudinem hominum, quam navium, classem appellari”]

**77** with the developing use of *exercitus* = ‘land army’ (cf. **76a**(i), P.F.), *classis* became specialized as ‘fleet’: cf. *CIL* I<sup>2</sup> 25 (Columna Rostrata) C]LASES(ue).NAVALES, where the adjectival specifier is still necessary [here also CLASEIS, cf. Gerschner 2002:133f.; even if (following Wackernagel) the text is an Imperial concoction, its phraseology is clearly based on archaic material]

**78** also (almost) universally agreed: relationship with Lat. *calāre* ‘call out, summon’ (Varro+), as already clear to the Romans themselves (Quintil. 1.6.33: *classis a calando*) — almost exclusively attested (with its derivatives) in archaic technical (esp. religious and legal) terminology, e.g. (along with additional material below)

**a** *calātor* ‘(ritual) crier’ (KALATOREM, Forum Inscription)

**b** *calendae/kalendae* ‘beginning of the month’ (Pl.+)

##### **introductory 2: previous approaches and the present approach**

**79** but the difficulty in accounting for the sequence *-āss-* in *classis* is severe — cf. Meillet’s desperate solution (in *EM*): “Terme technique qui peut être emprunté à l’étrusque”; more recently (desperate in a different way) Weiss (2009:316): “etymology uncertain”

**80** others (see *WH* s.v.) have sought to account for the *-ss-* on the basis of the dental stem in Gk. κέλαδος ‘noise, din’ (whence alleged *\*klād-ti-* or *\*klad-ti-*); but this, too, is an extreme solution, rightly rejected by de Vaan (*EDLIL* s.v., similarly Schrijver 1991:185):

**a** the connection is “semantically unattractive”

**b** formally, any analysis based on a double-dental sequence is merely a “paper reconstruction”, lacking support for the presumed double-dental morphological sequence itself

**c** *\*klād-ti-* would have developed to *\*klāssi-*, which should then have undergone geminate simplification to *<sup>x</sup>clāsi-* (like *cāsus* < *cāssus*, etc. [**8c**])

**81** moreover: even κέλαδος cannot justify a short-vowel preform *\*klad-ti-*, which has no basis whatsoever

**82** under these circumstances, and given the attractiveness of maintaining connection with *calāre*, worth considering whether *classis* could derive from earlier *\*klā-s-i-*, which escaped rhotacism and entered the standard language as *classi-*, as proposed above (following Christol’s theory) for *crassus* and (at least) *grossus*<sup>1</sup> (if not also *grossus*<sup>2</sup>)

##### **introductory 3: on the question of “rusticity”**

**83** an initial obstacle: “rusticity”, which such a word seems to lack; yet, as already suggested (**68**), this may be an overly narrow characterization of the conditions that might justify the “borrowing” or adoption of an unrhotacized form by speakers of more advanced phonostyles

- 84 in this case: perh. the word belonged to the military “Fachsprache” (*sermo castrensis*), and was borrowed into the standard language as a technical term from that restricted (but linguistically influential) body of speakers
- 85 from the beginning of serious scholarship on *sermo castrensis* (Kempf 1901) and continuing into more recent times, it has become widely accepted that this speech form was in fact extremely close, in many respects, to some type of *sermo vulgaris* or *sermo plebeius*  
[more recently on *sermo castrensis*: Mosci Sassi 1983 (updating Kempf), Petersmann 1992, Maxlajuk 2002, Pérez Castro 2005]
- 86 J. N. Adams has sounded a cautionary note on this point, especially in his writings about the language of the Vindolanda Tablets (1995, 2003), documents characterized by a high degree of complexity in terms of their linguistic background, including a cohort of well-trained scribes, some well-versed in literary norms and even favoring archaizing orthography
- 87 yet Adams himself has uncovered many “subliterary” features in these and other texts associated with *sermo castrensis*; and other similarly sophisticated analyses of Latin military language (e.g. Pérez Castro 2005) continue to emphasize the importance of a “vulgar” component, among other features  
[in addition to the Vindolanda work (86), see also Adams 1977 (Claudius Terentianus); 1994, 1999 (Bu Njem ostraca)]
- 88 it thus seems reasonable to suppose that Lat. *classis* could have had a sociolinguistic background more or less comparable to the other terms studied above, even though it would have belonged to a different linguistic subculture
- 89 a more serious issue: the question of whether evidence can be found for related formations in \*-s-; indeed, there may be both internal (Latin) and external (Hittite) evidence, as follows

#### internal evidence for s-formations

##### *Calābra*

- 90 according to Varro (*L.* 6.27; similarly Macrobius, *Sat.* 1.15.10), the “*Cūria Calābra*” referred to a location on the Capitoline Hill and to meetings held there on the Kalends by the pontifices; Varro associates the name of this assembly with the words *Kalendae* and *calāre*, including ritual utterances containing the verb form *kalō*
- 91 similarly, discussing derivational relationships among related lexical items, Varro writes (*L.* 5.13) *nec Curia Calabra sine calatione potest aperiri*, “nor can the *Calabra Curia* ‘Announcement Hall’ be opened without the *calatio* ‘proclamation’” (transl. Kent 1951:15); likewise, Servius (ad *V. Aen.* 8.654) uses the phrase *Cūria Calābra* and associates the word with *Kalendae*  
[see *TLL* (s.v. *curia Calabra*) for other traces of such a tradition]
- 92 in short, no reason to doubt the connection between Lat. *calābra* and *calāre* (as clear to Varro and Servius as it is to modern etymologists: see *WH, EM, EDLIL* s.v. *calō*); and the form is clearly adjectival, in the fixed expression *Cūria Calābra*
- 93 yet the standard interpretation in terms of the instrument suffix \*-*d<sup>h</sup>ro*-/\*-*d<sup>h</sup>lo*- (so e.g. Leumann 1977:314) is extremely unattractive, just as it is for Lat. *crēber*, as already seen (24b); these are the only adjectival forms with this suffixation cited by Leumann
- 94 there is, to be sure, limited evidence that early Lat. forms in -*c(u)lo*- and (via liquid dissimilation) -*cro*- (based on the instrument suffix \*-*tlo*-, and otherwise in use as instrument nouns) were occasionally pressed into service in adjectival usage: see Leumann (1977:314) on  
    a secondarily adjectival “*ēluācrus*” (*lābrum ēluācrum* ‘basin for rinsing-out’, Cato *Ag.* 10.4, 11.3; cf. *lavācrum* ‘tub’ [Gell.+])  
    b secondarily adjectival “*lūdicrus*” (*artem lūdicram* Pl. *Aul.* 626, vs. *lūdicrum* ‘plaything, sport’, e.g. Cat. 61.24)  
[but the testimony of a form like *ēluācrum* may be weakened if it fundamentally reflects an appositional usage; so e.g. *OLD* s.v.]

95 but there is no evidence at all for any “instrumental” sense for either *crēber* or *calābra*, both solely attested as adjectives; thus, just as *crēber* is better interpreted in terms of a (pre-Lat.) *\*krē-s-ro-*, one can posit a pre-Lat. basis *\*klā-s-ro-* for *calābra*

96 only one further assumption (not terribly difficult) is needed, i.e. that the resulting *\*clābro-* was remodeled to *calābro-* after *calāre* (and/or other derivatives with which it was transparently associated, such as *calātiō*, as in the etymological accounts by Varro and others [91-92])

#### *conclassāre*

97 the well-attested gloss form *conclassāre*, placed with *classis* by both *WH* and *EM* (though omitted in *EDLIL*), may be considerably more interesting than it has seemed hitherto

98 the glosses assign two quite different meanings — most frequently “*classem iungere*” (*CGL* 5.57.9) and similar variants (“*adiungere classem*”, 4.222.52; “*coniungere classes*”, 5.596.21, etc.); but this looks like an etymological guess, based on the productive comitative sense of Lat. *con-* grafted onto Class. Lat. *classis*, and perhaps influenced by attestations of similar phraseology, e.g. *adiungit classem et exercitum* (Cic. *Att.* 4.1.7.6)

99 more isolated, and with an opaque meaning from the point of view of Classical Latin, is the gloss *conclassare* “*conclamare*” (*CGL* 5.593.51); given its similarity to the etymological basis of *classis* (cf. above), this may reasonably be supposed to preserve something ancient

100 moreover, this is the version of the word that seems to have survived into Romance (cf. OFr./OProv. *clas* ‘noise, bell-ringing’, Ital. *chiasso* ‘clamor, ruckus, annoying noise’, among other forms), and which may thus have a good claim to subliterate status

[for the Romance data (which are somewhat complex) see *REW* 186 (#1965, *\*classum*), 200 (#2115a, *\*conclassāre*); *DEI* II.894f. (s.v. *chiasso*<sup>1</sup>); *DELI* I.230 (s.v. *chiasso*)]

101 yet such a form cannot be derived from the *i*-stem noun *classis* itself, which should have produced a denominative <sup>x</sup>*classīre* (on *i*-stem denominatives, see Mignot 1969:64f.); and the denominative pattern with suppression of *-i-* for *i*-stem adjectives (*gravāre* ← *gravis* ‘heavy’, *levāre* ← *levis* ‘light’, etc.; Leumann 1977:546) is not relevant: no reason to think that *classi-* was ever adjectival

102 thus, for a denominative interpretation (and assuming the Christol treatment), the unmarked assumption would be that *-classāre* should be based on either an athematic stem *\*klā-s-* or a thematic *\*klā-s-o-*

103 alternatively, given the prefix and 1<sup>st</sup>-conj. form, we might have an “*ā*-intensive” of the type (*sternere* ‘spread’ → *cōnsternāre* ‘confound’, (*pellere* ‘push’ → *compellāre* ‘call upon’, etc. (Leumann 1977:549f.), implying a thematic *\*classere*, which might have a basis in an *s*-present (cf. 32, 33c on *\*crassor*)

#### *clārus* (?)

104 adj. *clārus* ‘loud’ and (secondarily) ‘clear, bright, famous’ (Naev.+) generally thought to continue a simple *ro*-adjective *\*k̑lh<sub>1</sub>-ró-* (: *calāre*), certainly the simplest assumption

105 but in theory: original *s*-stem verbal noun (‘calling out, shouting’, whence conceivably ‘loudness’) → thematic (possessive) derivative, i.e. (with zero-grade format of *russus* and perh. *crassus* [21-22]) *\*k̑lh<sub>1</sub>-s-o-* ‘having loudness’ > pre-Lat. *\*klā-s-o-* ‘loud’

106 or, as with *crassus* (33d), the same formal and semantic result could be achieved by a “zero-grade τὸμός form” based on an *s*-extended root (*\*k̑lh<sub>1</sub>-s-o-* ‘calling out’ > pre-Lat. *\*klā-s-o-* ‘loud’)

#### *clārigāre*

107 one of these possibilities may be attractive for the archaic ritual term (with reference to the Fetiales) *clārigāre* ‘formally demand satisfaction (from another state, in a ceremonial declaration of war)’ (Plin. *Nat.* 22.5;

earlier-attested verbal noun *clārigātiō* ‘reparation, redress’ [Livy+], frequentative *clārigitat* [Lucr. 5.947 *ex coni.* Lachmann]

[on the Lucr. usage and the word’s antiquity within the “vocabulaire juridico-rituel des féciaux”: Mignot (1969:343), with refs.; no mention of this archaic material in *EDLIL* (s.v. *clārus*)]

**108** usually assumed (e.g. Mignot 1969:340, Leumann 1977:550): basis of the first member is *clārus*, with *-igāre* formation modeled on *pūrigāre* ‘cleanse’ (Pl.+, Class. Lat. *purgāre*), this in turn being based on *pūrus* ‘clean, pure’

**109** but OLat. *pūrigāre* perh. based on a noun *\*pūr* ‘fire’ (cf. U. **pir** ‘id.’), not on *pūrus*; if so, *clārigāre* can be reevaluated, comparing also other archaic formations of this kind, esp. *nāvigāre* ‘go by ship’ (Pl.+), *iūr(i)gāre* ‘quarrel’ (Pl.+), *lītigāre* ‘bring a dispute’ (XII Tab., Pl.+)

[*pūrigāre* and *\*pūr* ‘fire’: *EDLIL* s.v. *pūr(i)gō* (following Dunkel 2000:94), Weiss 2009:403n8]

**110** as made clear by Dunkel (2000:94, developing Forssman on *nāvigāre*), at least the first two involve old compounds with athematic 1<sup>st</sup> members and 2<sup>nd</sup> members based on the zero grade of *\*h<sub>2</sub>eǵ* ‘drive, lead’ (and in juridical language ‘bring’): thus virtual *\*neh<sub>2</sub>w-h<sub>2</sub>ǵ-(o-)* ‘driving the ship’ and *\*yewos-h<sub>2</sub>ǵ-o-* ‘bringing the oath’ > pre-Lat. *\*nāw-ago-* and *\*yowz-ago-*

[differently Hackstein (2012a:90): *iūrigāre* formed directly from a phrase *iūre agere*, on the analogy of *nāvem agere/nāvigāre*, without an intermediate stage like *\*iūrigus*]

**111** *lītigāre*: more complex, but ultimately indeterminate; doesn’t affect the argument here ...

• Joseph (1986:123) argues strenuously for *i*-stem *lī-ti-* (vs. consonant-stem *lī-t-*); but the case is not secure

• Nussbaum: *-ti-* after stressed long vowel does not syncopate in Lat. nom. sg. (2004:§1.1.1.5, cf. *vītis, crātis*); thus nom. sg. *līs* (which Joseph does not mention) points rather to a plain *t*-stem (so also apparently Gerschner 2002:105)

• if so, pre-Lat. *\*(s)līt-ago-* or *\*(st)līt-ago-* can be a form of the same type as *\*yowz-ago-* (in the same semantic field)

• but if *lī-ti-* is preferred, not difficult to account for *lītigāre* secondarily, on which see Dunkel (2000:94)

**112** thus the archaic legal/ritual term *clārigō* could continue a compound of the same sort, i.e. (pre-Lat.)

*\*klās-ago-* ‘bringing the summons’ (vel sim.), with 1<sup>st</sup> member based either on

**a** an archaic *s*-stem (as in *\*yewos* and *iūrigāre*), or

**b** a “virtual root noun”, based on a *\*klās-*, in PIE terms the weak stem *\*k<sup>h</sup>h<sub>1</sub>-s-* of an *s*-present

[cf. again PIE *\*klew-s-* (33d), with *\*klews-/ \*klus-* treated as a root in formations like Ved. *śrūṣṭi-* ‘obedience’; within Lat., cf. also *fās* ‘divine law’, if this belongs (as *\*d<sup>h</sup>h<sub>1</sub>-s-*) with an *s*-extended version of *\*d<sup>h</sup>eh<sub>1</sub>-* (*EM* s.v., Watkins 2011:18)]

[if one follows Hackstein on *iūrigāre* (110), one could also think in terms of an original verb phrase, such as *\*klās agere* or even (with *i*-stem) *\*klāsim agere*, without the need for an intermediate compound of the sort *\*klās-ago-*]

**113** further: despite the usual assumption that *clārigāre* is simply an “*-igāre* verb” based on *clārus* (108), it does not match the transparently factitive semantics of all other such verbs

• *gnārigāvit* ‘narravit’ (Andr., P.F. 85.1L; i.e. ‘faire connaître’ [Mignot 1969:340], cf. *gnārus* ‘knowing’)

• *mītigāre* ‘make mild’ (Ter.[*con-*]+, cf. *mītis* ‘mild’)

• *lēvigāre* ‘make smooth’ (Varro+, cf. *lēvis* ‘smooth’)

• *levigāre* ‘make light’ (Gell.+, cf. *levis* ‘light’)

• *variegāre* ‘diversify’ (Apul.+, cf. *varius* ‘varied’)

**114** the adj.-based factitive *-igāre* forms would thus have developed from a synchronic interpretation of *pūrigāre* as based on the adjective *pūrus* (thus Dunkel 2000:96), a process to which *clārigāre* might even have contributed (at least formally, despite its semantic opacity)

**115** again, this analysis of the *clāri-* of *clārigāre* in terms of an earlier *\*klās-* or *\*klāsi-* is independent of the question of whether or not *clārus* itself reflects a related *s*-form, as opposed to an *s*-less *ro*-adjective (104-106)

#### external evidence for *s*-formations

**116** the above hypotheses would be strengthened by external evidence for an *s*-formation, and this can be found

**117** generally acknowledged: Lat. *calāre* (and the  $\bar{e}$ -verb in U. **kařetu, kařitu/carsitu** ‘he shall call’) belongs with  
**a** Gk.  $\kappa\alpha\lambda\acute{\epsilon}\omega$  ‘call’

**b** Hitt. *kalliš-<sup>zi</sup>* (also *kalleš-<sup>zi</sup>*) ‘call, summon, invite (to a ritual meal)’

despite persistent disagreement about the exact form of the root itself

[variously *\*kleh<sub>1</sub>-* (*LIV* and others, e.g. Meiser 2003:99n15), *\*kelh<sub>1</sub>-* (Schrijver 1991:185, *EDLIL* s.v. *calō*), *\*kalh<sub>1</sub>-* (Oettinger 1979:185, 197; Weiss 2009:41, 82), *\*kelh<sub>2</sub>-*/*\*kleh<sub>2</sub>-* (Watkins 2011:40), *\*kleh<sub>1</sub>-* for  $\kappa\alpha\lambda\acute{\epsilon}\omega$  and the Umbrian material vs. *\*kleh<sub>2</sub>-* for Lat. *calāre* (Untermann 2000:360)]

**118** the Hitt. verb sometimes explained as a stative in *\*-eh<sub>1</sub>-s-* (thus Kimball 1999:412), given its appearance as *kalleš-* (actually the minority spelling), and esp. in comparison with the Umbrian  $\bar{e}$ -verb; but this analysis is to be rejected:

**a** the semantics are not favorable for a stative (either in Hittite or Umbrian)

**b** the Umbrian form has equally good (or better) alternative explanations:

(i) it could well be a zero-grade *\*-eye-* formation, which can easily be iterative (so *LIV* and others, e.g. Kölligan 2002:154 [similarly for Gk.  $\kappa\alpha\lambda\acute{\epsilon}\omega$ ], Meiser 2003:67); or

(ii) the  $\bar{e}$ -inflection could be a purely Umbrian development of the weak stem-form *\*kale-* arising from a root athematic 3 pl. *\*k<sub>1</sub>h<sub>1</sub>-énti* (Schrijver 1991:400)

[on the morphological analysis of Lat. *calāre* beside the Umbrian  $\bar{e}$ -verb, see most recently de Vaan 2012:320]

**119** Kloekhorst has argued persuasively (*EDHIL* s.v. *kalliš-<sup>zi</sup>*, 2009:246f.) that the Hitt. verb should instead be analyzed as an athematic *s*-present, with original ablaut *\*kélh<sub>1</sub>-s-ti* / *\*k<sub>1</sub>h<sub>1</sub>-s-énti*; one can question

**a** some of K.’s assumptions about anaptyxis and its reflection in the Hitt. spellings (cf. Melchert forthc.)

**b** K.’s evaluation of the significance of the spelling *ga-li-iš-ša-an-zi* (1x, NS)

but the overall morphological interpretation in terms of an ablauting *s*-present is very attractive

**120** less appealing but perhaps marginally possible: alternative theory of Oettinger (1979:185, 197) — the Hitt. verb was back-formed from a noun *\*kalleštar* ‘invitation’ (inferable as the basis for *kallištarwana-* ‘feast’), based on a primary *s*-stem *\*kálh<sub>1</sub>-es-*, which Oettinger also sees as the source of Gk.  $\kappa\alpha\lambda\acute{\epsilon}\omega$

[Gk.  $\kappa\alpha\lambda\iota\sigma\tau\rho\acute{\epsilon}\omega$  ‘ $\kappa\alpha\lambda\acute{\epsilon}\omega$ ’ (Demosth.+ ) may have a source in Asia Minor (Oettinger 1979:197n37); but this does not support O.’s theory]

**121** apart from the analyses just proposed for some isolated Latin material, no independent evidence for a primary *s*-stem (esp. in Greek, where  $\kappa\alpha\lambda\acute{\epsilon}\omega$  is not likely to have such a source), and no reason to think that the Hitt. verb was formed in this way

[Kloekhorst (*EDHIL* s.v. *kalliš-<sup>zi</sup>*) on O.’s theory: “improbable”; *\*kallištar-* can easily reflect a deverbative *\*kelh<sub>1</sub>-s-tr-l*

#### **morphological options for *classis***

**122** what type of morphology led to a f. *\*klās-i-* ‘summons, levy’ (> Lat. *classis*, via *sermo castrensis* and phonological development à la Christol)? the isolation of *classis* renders this difficult to determine, but two options seem thinkable (**123-124**)

**123** *option 1*: if there was a thematic *\*klā-s-o-* ‘having loudness’ (**105**) as the basis for *clārus*, or a thematic *\*klā-s-o-* (with similar meaning) underlying *conclassāre* (if it’s denominative; **102**), a regular *i*-substantivization would produce a f. abstract *\*klās-i-* ‘calling out’ → ‘summons, levy’  
[this type of “*i*-substantivization”: by now very familiar; see Weiss 2009:314f. for Latin examples and further refs.]

**124** *option 2*: beside an athematic *s*-present stem *\*k<sub>1</sub>h<sub>1</sub>-s-* (or such an *s*-enlarged form), one can posit an *i*-stem verbal noun *\*k<sub>1</sub>h<sub>1</sub>-s-i-* ‘calling out’; cf.

**a** the primary *i*-stem action nouns with zero grade root in Ved. *dr̥sí-* ‘sight’, *yudhi-* ‘fighting’, etc., underlying Ved. dative infinitives *dr̥śáye* ‘to see’, *yudháye* ‘to fight’, etc.

**b** such forms also in some isolated f. action nouns (e.g. RV *kr̥sí-* ‘tillage’, AV *rúci-* ‘gleam’) beside similar formations with other vocalisms (RV *ráji-* ‘direction’, *vyáthi-* ‘path’, etc.)

**125** similar zero grade forms are attested elsewhere, as with some archaic material in Gk.: e.g. *i*-stem *\*tṛk<sup>w</sup>-i-* ‘twisting’ (cf. Lat. *torquēre* ‘twist’) underlying Myc. *to-qi-de* ‘spiral’ and related Myc. forms; frozen acc. sg. *\*k<sup>w</sup>lh<sub>1</sub>-i-* ‘turning’ in πάλιν (adv.) ‘backwards’ (to *\*k<sup>w</sup>elh<sub>1</sub>-* ‘turn’: Hom. [Aeol.] πέλομαι etc.); etc. [beside other root vocalisms in Gk. and elsewhere; for surveys of *i*-stem *nomina actionis*, see Barschel (s.d.):148ff., Rau 2009:181]

**126** “option 2” is derivationally simpler than “option 1”, as it lacks the intermediate substantivization; but an immediate objection: such *i*-stem verbal nouns tend to appear in Lat. with nom. sg. *-ēs* (often thought to derive from hysterokinetic *i*-stems), as in *caedēs* ‘murder’ (: *caedere* ‘strike, slay’), or (with isolated zero grade) *clādēs* ‘destruction’ (: *-cellere* ‘strike’), etc. [hysterokinetic *i*-stem source: Klingenschmitt 1992:114ff., Weiss 2009:243f. (with 243n13); more on this in *Session 4*]

**127** still, plain *i*-stem verbal nouns with nom. sg. *-is* are also attested:

**a** best example perhaps *scobis* f. ‘sawdust, shavings’ (Varro+), with concretized meaning (: *scabere* ‘scrape’)

[antiquity of the *i*-stem supported by *scobīna* ‘scraper, rasp’ (Pl. *fr.* 91+)]

**b** clearly archaic, but without attested verb in Italic: Lat. *scrobis* ‘hole, pit’, with verbal comparanda in Balto-Slavic, Germanic, and Celtic (*LIV* s.v. *\*(s)kreb-*)

**128** thus plausible (and part of the potential morphological interest of the word) that an isolated form like *classis* could continue an archaic verbal noun of the type Ved. *ḍṛśi-*, Myc. *to-qi-de*, etc. (**124-125**)

#### **a final point on rhotacism**

**129** final observation on the question (**6**) about the failure of rhotacism to apply in a sequence like *\*krāso-* (thus also *\*grōso-* [**B.**] and *\*krīsV-* [**71d**]): if *classis* (lacking a rhotic) has an explanation like that proposed above, it suggests that the failure of rhotacism in forms like *\*krāso-* has nothing to do with onset cluster /Cr-/

#### **E. Summary of conclusions**

**130** the main conclusions can be summarized as follows:

**a** according to Christol’s theory about *s*-gemination in forms without rhotacism (**8**), Lat. *crassus* ‘thick etc.’ and *grossus* ‘immature (of fruit); immature fig’ (both without clear etymology) could go back to pre-Lat. *\*krāso-* and *\*grōso-*

**b** etyma for both (and possibly also for Late Lat. *grossus* ‘fat’) may therefore be found in *s*-extended forms of PIE roots that basically mean ‘grow’ (cf. Lat. *crēscere*, *Cerēs*, OHG *hirso*, etc. for *crassus*, and Lat. *grāmen*, Gmc. *\*gras-* and *\*grōs-* for *grossus*)

**c** Lat. *\*crassundo-* (→ *crassundia* [**25-33**]) may support the idea that Lat. *crēscere* goes back to an old *s*-present

**d** the probable rustic background of *grossus* ‘immature (of fruit); immature fig’ leads to a new conception of the development of *\*g<sup>h</sup>r-* and *\*g<sup>h</sup>r-* in Latin (**53-67**)

**e** the hitherto unexplained form of Lat. *classis* (originally ‘levy, summons’, cf. *calāre* ‘call out, summon’) can be accounted for in the same way as *crassus* and *grossus*, given probable evidence for an *s*-present in Hitt. *kalliš-<sup>zi</sup>* ‘call, summon’ and possible evidence for *s*-based forms within Latin itself, i.e. *calābra* (in *Cūria Calābra*), *conclassāre*, and *clārigāre*