The Greek suffix -θ- and the Caland System

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Setting the scene : puzzling morphology

Verbs:

Presents in -θω (e.g., πλήθω)
Presents in -έθω (e.g., φλεγέθω)
Presents in -ύ-θω (e.g., βαρύθω)
Presents in -νύ-θω (e.g., μινύθω)
Denominatives (e.g., βρίθω)
Isolated participles (e.g., φαέθων)
Thematic aorists in -θ- (e.g, ἔσχεθον)
Passives in -θη- (e.g., -εβάθην)

Nouns:

Neuter *s-stems* in -θος (e.g., μέγεθος)
Feminines in -θη (e.g., λήθη)
Masculine *nomina agentis* (e.g., τένθης)
Later formations in -θμός, -θρον etc.
Others (rare *o-* and *u-*stems, e.g., ψἄμαθος)

Adjectives:

Stems in -θ-ύ- (e.g., βαθύς)
Stems in -θής (e.g., βαθής)
Later formations in -θαλέος, -θρας

Adverbs:

Forms in -θα (e.g., μίνυνθα)
Forms in -θά (e.g., δηθά)
Forms in -θε(ν) (e.g., πρόσθεν)
Forms in -θεν (e.g., τηλόθεν)

Issue 1: *Wurzeldeterminativ oder Wurzelerweiterung*?

1) Stem forming: Homeric pairs, e.g., φλέγω 'burn, burn up' vs. φλεγέθω 'blaze, flare up'

2) Root extension: Later formations, e.g., διώκω 'pursue, chase' : διωκάθω 'id.'

→ **From a Greek perspective, a shift may be reconstructed in diachrony**

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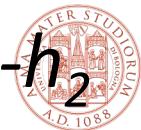
Issue 2: how many θ-suffixes?

1. **Nouns**   μέγε-θος/μέγα-θος   < *-d^h-e/os

2. **Verbs**   πλή-θω   < *-d^h-ō

3. ***Cvi*-constructions**   μάθον   < NOUN + *$d^h eh_1$-

4. **Adjectives**   βα-θύς   < *-d^h-ú-

5. **Adverbs**   μίνυν-θα   < *-$d^h n$ or -d^h-h_2

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Semantic interpretation 1: -θ- as marked for either aspect or actionality

Chantraine 1925 (followed by Prévot 1935 for passives)

«Le grec emploie le verbe en -θω quand l'achèvement de l'action est envisagé. La nuance est voisine de celle du verbe déterminé en slave. […] On peut dier sans inconvénient que le suffixe -θω fournit des présents terminatifs»

LIV

«Terminativ» (with specific reference to Chantraine)

Semantic interpretation 2: -θ- as marked for diathesis

Benveniste 1935

L'affixe *-dh-* exprime l'état, spécialement l'état achevé; les racines auxquelles il s'attache montrent une valeur neutre ou intransitive, que celle-ci leur soit conférée par l'elargissement ou qu'elle y soit seulement renforcée par l'addition de *-dh-.* […] Aussi, dans les présents en -θω, la notion de «déterminé» perd-elle de son importance à côté du fait essentiel que *ces présents sont tout intransitifs et de valeur nettement moyenne*.

Rothstein-Dowden 2022

The predominance of intransitive usage amongst these verbs is immediately striking, while the evidence for perfective semantics is slender. Of the various semantic subtypes, the most common are perhaps statives to property-concept oriented roots.

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Partial compromises

Chantraine 1958

«Ce suffixe [i.e. -θε/ο-] que l'on observe dans le système nominal et dans le système verbal semble avoir comporté originallement une valeur d'état et une valeur déterminée, c'est-à-dire que l'aboutissement de l'action est envisagé».

Magni 2008

«Il morfema -θ-, dopo una circoscritta fase produttiva nel manipolo dei presenti omerici, attraversa la costellazione di funzioni e significati che si irradia dalla nozione centrale di incoativo [i.e. reflexive, ingressive, inceptive, resultative and passive]. […] L'elemento -θ- sviluppa infatti la capacità di codificare quelle proprietà azionali e aspettuali, che Chantraine sussume nell'etichetta di *déterminé*».

A *Third Way*? Property-concept adjectives and the Caland System

➢ Risch (1974) includes the suffix -θος among Caland formants

➢ Nussbaum (1976) argues that a suffix *-dʰo-* (deriving deadjectival nouns in Greek) was a «marginal» Caland suffix

➢ Rau (2009) argues that some verbs in -θ- are part of the Caland System

➢ The presence of these forms was widely confirmed (de Lamberterie 1990; Meißner 2006; Rothstein-Dowden 2022)

Preliminary observations: Caland behavior in θ-roots

Type 1 : -θ- is foxilized

ἐρεύθω 'be red/redden'	e.g., Ved. *aru-ṇá-* 'reddish', *rav-í-* 'sun', Lat. *ru-tilus* 'red'

Type 2 : -θ- is synchronically transparent

πλήθω 'be/become full'	Av. *frāda-* 'thrive', Lat. *plēbs* 'crowd, multitude'; Ved. *pū́ryate* 'become full'; Gr. πλήρης 'full', Arm. *lir* 'multitude, fullness', Lat. *plērus* 'most' etc.

Type 3 : -θ- is a Greek innovation

βρίθω 'be strong'	βριάω 'make/be strong', βριαρός/βριερός 'strong'

The oldest group: Caland roots in -θ-

μέγεθος 'greatness'

Gr. μέγας 'big, great'; μεγαλύνω 'make great'; μέγαρον 'large room'; Skt. *máhas-* 'size, greatness'; *mahimán-* 'id.'

πλήθω 'be/become full'   Previously shown

φλεγέθω 'blaze/burn up'

Lat. *flagrō* 'be ablaze', ?Skt. *bhárghas-* 'radiance, splendor', Gr. φλεγυρός 'burning', φλογερός 'blazing'

θαλέθω 'bloom, thrive'

Arm. *dalar* 'green', Alb. *dol(l)a,* Gr. θάλος 'scion', θαλερός 'stout, blooming'

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The oldest group: Caland roots in -θ- (uncertain)

ˀφαέθω 'shine'

Ved. *bhā́s-* ‚light', Lat. ˚*bar* ‚id.'; Ved. *bhiṣ̊* ‚spell, remedy', Av. ˚*biš-* 'remedy'

ˀλήθω 'be hidden'

OIc. *lómr* 'loon'; OCS *lajǫ* 'am hidden'; Gr. ἀλανές· ἀληθές

ˀγήθω 'rejoice, be joyful'

Gr. ἀγανός 'mild, gentle', ἀγαυρός 'proud', γαίω 'rejoice', γάνυμαι 'be glad', Lat. *gaudeō* 'rejoice', *gavisus* 'rejoiced', MIr. *gūaire* 'noble'

ˀμινύθω (secondary) 'become smaller/lessen'

Lat. *minumus* 'smallest', Osc. **menvum** 'lessen', Goth. mins 'less', minniza 'smaller', OCS mьńьjь 'id.', Gr. Comp. μείων 'lesser', Gr. μινυρός 'complaining in a low tone'

Further evidence: βρίθω and βαρύθω, a well-known Caland root

$*g^u r h_2$-   Skt. *gariman-* 'weight, heaviness', *gariṣṭha-* (gramm. only)

$*g^u r h_2$-*i*-   Gr. ὄβριμος 'strong', βριαρός 'strong', Skt. *grīṣmá-* 'summer'

$*g^u r h_2$-*u*-   Skt. *gurú-* 'heavy, hard', *gurvī-* 'id.', Av. *gouru*° 'id.', Lat. *brūtus* 'heavy, brute'

A 'Caland' solution to an old problem?

LIV (206)

$*g^{u}eh_2d^h-$ [1]   'eintauchen'   -   IEW 465

Kausativ $*g^{u}oh_2d^h-é\underset{\circ}{i}e-$ air. -*bádi* 'taucht etw. unter, ertränkt';
mkymr. *bawd* 'ertränkt; ertrinkt'[2]

(M. K.)

[1] Verbal nur kelt.; vgl. gr. βῆσσα, dor. βᾶσσα f. 'Talsenke', dazu wohl auch ved. *gādhá-* 'Furt'. In ähnlicher Bedeutung stehen daneben $*g^{u}eh_2b^h-$ (s.d.) und nominal $*g^{u}emb^h-$ sowie $*g^{u}end^h-$, vgl. LAMBERTERIE 138-43.
[2] Verbalnomen *bodi*.

De Lamberterie (1990: 143)

1) $*gw\bar{a}-bh-/gw\breve{a}-bh-$
   germ. $*kw\bar{o}b-/kwab-$

   gr. βᾰφ– (?)
2) $*gwem-bh-/gwm\underset{\circ}{}-bh-$
   gr. βᾰφ– (?)
   véd. *gambh-/gabh-*
   av. *jaf-/jaf-*
3) $*gwu-bh-$
   av. *guf-* , tokh. A *kup-*

$*gw\bar{a}-dh-/gw\breve{a}-dh-$
celt. $b\bar{a}d-$
véd. $g\bar{a}(d)h-$?
gr. $*β\bar{α}θ-/β\breve{α}θ-$ (?)
$*gwem-dh-/gwm\underset{\circ}{}-dh-$
gr. βεvθ–/βᾰθ– (?)

$*gwu-dh-$
gr. βυθ–, γυθ–

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The roots *gʸeh₂bʰ-* 'niederdrücken' and *gʸeh₂dʰ-* 'eintauchen'

βάπτω 'dip'
βαφή 'dipping'

βαθύς 'deep/high'
βάθος 'depth/height'

βένθος 'depth'
β**ῆ**σσα 'valley'

?βύπτειν· βαπτίζειν

?βυθός 'depth', βυθμός· ἄντρον, πυθμήν

→ **Not necessarily the same as *gʸem-/gʸeh₂-* 'go'!**

The roots *$g^u eh_2 b^h$- 'niederdrücken' and *$g^u eh_2 d^h$- 'eintauchen'

βάπτω 'dip'
βαφή 'dipping'

βαθύς 'deep/high'
βάθος 'depth/height'
Comp. βαθίων, Sup. βάθιστος

βένθος 'depth'
?β**η**λός 'threshold'
β**η̄**σσα 'valley'

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βαθύς 'deep/high'
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Comp. βαθίων, Sup. βάθιστος

βένθος 'depth'   Toch. B *kwänt-* ?'sink'

?βηλός 'threshold'

βῆσσα 'valley'   Skt. *gā̱dhá-* 'abyss, ford'

?βύπτειν· βαπτίζειν

?βυθός 'depth', βυθμός· ἄντρον, πυθμήν

The roots *$g^ueh_2b^h$- 'niederdrücken' and *$g^ueh_2d^h$- 'eintauchen'

βάπτω 'dip'
βαφή 'dipping'

gámbhan- 'depth'
gambhīrá- 'deep, inexhaustible'
gabhīrá- 'id.'
Av. *jafra-* 'deep'

?βύπτειν· βαπτίζειν

?Av. *gufra-* 'deep'
?Toch. A k_u*pār* 'id.'

Problem: Does *gambhīrá-* require a seṭ *$g^uemb^hh_x$-? (Nikolaev 2019)

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Causative alternation and the Caland System

Adjective	Causative	Anticausative
Hittite *šalli* 'great, pre-eminent'	***šallanu-*^{zi} 'raise, exalt, magnify [tr.]'**	***šallēšš-*^{zi} 'become large, increase in power'**
Latin *gravis* 'heavy'	*gravō* 'make heavy'	*gravēscō* 'become heavy'

After Rau (2009)

KUB 30.10 obv. 6 *ammel* DINGIR-*YA kwit=mu=z(a)* AMA-*YA ḫāšta* / *nu=mu* <u>ammel</u> DINGIR-*YA* **šallanuš** 'Mein Gott, was das betrifft, dass meine Mutter mich gebar: du, mein Gott, *zogst* <u>mich</u> *groß*' (Trad. Elisabeth Rieken)

KBo 32.14 rev. 50-51 [*UL*] AN.ZA.GàR *nu antuwaḫḫaš apāš* DUMU-*aš atti=šši kuiš menaḫḫanta* L.-K.R-*aš n=aš* **šallēšta** / [*n=aš e*]*lašna āraš n=ašta namma attaš=šan anda UL aušzi* 'This is not a tower, but a human being. It is that son who is hostile toward his father. He *grew up* and reached elaššar, and no longer looks at his father'. (Trad. *CHD*)

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After Rau (2009)

Ov. *Met.* VIII 204-206 *moneo, ne, si demissior ibis, / unda **gravet** <u>pennas</u>, si celsior, ignis adurat: / inter utrumque vola*
'I [i.e., Daedalus] warn you [i.e., Icarus], as if you go too low, the water may **wait** <u>your wings</u>; if you go too high, the fire may burn them. Fly between the two.'

Verg. *Georg.* II 426-429 *Poma quoque, ut primum truncos sensere valentis / et vires habuere suas, ad sidera raptim / vi propria nituntur opisque haud indiga nostrae. / nec minus interea fetu nemus omne **gravescit***
'Fruit trees, too, so soon as they feel their stems firm, and come to their strenght, swiftly push forth skyward with inborn force, needing no help from us. No less, meanwhile, does every wood *grow heavy* with fruit'

Causative alternation with Caland roots in Greek

Il XI 393-395 τοῦ δὲ γυναικὸς μέν τ᾽ ἀμφίδρυφοί εἰσι παρειαί, / παῖδες δ᾽ ὀρφανικοί· ὃ δέ θ᾽ αἵματι <u>γαῖαν</u> **ἐρεύθων** / πύθεται, οἰωνοὶ δὲ περὶ πλέες ἠὲ γυναῖκες

'torn then with wailing are the cheeks of his wife, and his children fatherless, while he, *reddening* <u>the earth</u> with his blood, rots away, more birds around him than women'

Sapph. fr. 105a V. οἶον τὸ γλυκύμαλον **ἐρεύθεται** ἄκρῳ ἐπ᾽ ὕσδῳ

'As the sweet-apple *reddens* on the bough-top'

What happens with θω-verbs?
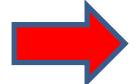
Causative	Anticausative
πίμπλημι	πλήθω
βαρύνω	βαρύθω
φλέγω (Hom.+) [intr. Pi.+]	φλεγέθω (Hom.+) [tr. 1x]

Il. XXI 22-24 ὡς δ᾽ ὑπὸ δελφῖνος μεγακήτεος ἰχθύες ἄλλοι / φεύγοντες **πιμπλᾶσι** μυχοὺς λιμένος εὐόρμου, / δειδιότες· μάλα γάρ τε κατεσθίει ὅν κε λάβῃσιν·

'And as before a monstrous dolphin other fishes flee and *fill* <u>the recesses</u> of some harbor or fair anchorage in their terror, for greedily does he devour any he catches'

Il. XXI 218-220 **πλήθει** γὰρ δή μοι νεκύων ἐρατεινὰ ῥέεθρα, / οὐδέ τί πῃ δύναμαι προχέειν ῥόον εἰς ἅλα δῖαν / στεινόμενος νεκύεσσι, σὺ δὲ κτείνεις ἀιδήλως

'*For full are* my lovely streams with the dead, nor can I in any way pour my waters out into the bright sea, being choked with the dead, while you ever slay ruthlessly'.
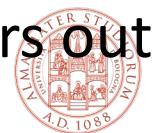
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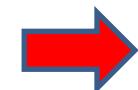
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Il. **XI 583-584** καί μιν βάλε μηρὸν ὀϊστῷ / δεξιόν· ἐκλάσθη δὲ δόναξ, **ἐβάρυνε** δὲ μηρόν

'and struck him with an arrow on the right thigh; and the reed of the arrow broke, and *made* <u>his thigh</u> *heavy*'.

Il. **XVI 517-519** ἕλκος μὲν γὰρ ἔχω τόδε καρτερόν, ἀμφὶ δέ μοι χείρ / ὀξείηις ὀδύνηισιν ἐλήλαται, οὐδέ μοι αἷμα / τερσῆναι δύναται, **βαρύθει** δέ μοι ὦμος ὑπ' αὐτοῦ·

'For I have this terrible wound and my arm is shot through with sharp pangs, nor can the blood be dried; and my shoulder is become heavy with that'

What happens with θω-verbs?

Causative	Anticausative
πίμπλημι	πλήθω
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φλέγω (Hom.+) [intr. Pi.+]	φλεγέθω (Hom.+) [tr. 1x]
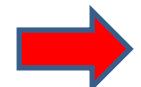
Il. II 455 Ἠΰτε πῦρ ἀΐδηλον **ἐπιφλέγει** <u>ἄσπετον ὕλην</u>

'Just as a consuming fire *makes* <u>a boundless forest</u> *blaze*'

Il. XVIII 210-211 ἅμα δ' ἠελίῳ καταδύντι / πυρσοί τε **φλεγέθουσιν** ἐπήτριμοι

'and then at sunset flame out the beacon fires one after another'

What happens with θω-verbs?

Causative	Anticausative
πίμπλημι	πλήθω
βαρύνω	βαρύθω
φλέγω (Hom.+) [intr. Pi.+]	φλεγέθω (Hom.+) [tr. 1x]

→ **Key-point 1: With verbs in -θ-, the alternation was marked by stems (i.e., by suffixes), not by endings**

→ **Key-point 2: Verbs in -θ- describe either states or spontaneous and internally caused change of state**

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Inherited types of opposition (after Rau 2009: 157-160)

1) R($é$)-*e/o*- [stative/inchoative] : R($é$)-*e/o*- [factitive] (voice opposition)
   → e.g., Skt. *svádate* 'become tasty' vs. *svádati* 'make tasty'

2) R($é$)-e/o- [stative/inchoative] : R($é^?$/z)-*n*- [factitive]
   → e.g., Skt. *pávate* 'be/become clean' vs. *punā́ti* 'make clean'

3) R($é$)-*e/o*- [stative/inchoative] : R(o)-*éie/o*- [factitive]
   → e.g., Skt. *rócate* 'shine' vs. *rocáyati* 'make light'

Inherited types of opposition

1) R(*é*)-*e/o*- [stative/inchoative] : R(*é*)-*e/o*- [factitive]

R(*é*)-*dh*-*e/o*- [stative/inchoative] : R(*é*)-*e/o*- [factitive]

→ **φλεγέθω** 'blaze, flare up' vs. **φλέγω** 'burn, burn up';

→ **φθινύθω** 'destroy, be destroied, die' vs. **φθίνω** 'destroy, be destroied, kill'

1) R(*é*)-*e/o*- [stative/inchoative] : R(*é*)-*e/o*- [factitive]

2) R(*é*)-e/o- [stative/inchoative] : R(z)-*n*- [factitive]

R(*é*)-*d*^h-*e/o*- [stative/inchoative] : R(*é/z*)-*n*- [factitive]

(After further derivations) **τηλεθάω** 'be luxuriant' vs. θάλλω '(make) grow; **πελάθω** 'draw near' vs. πιλνάω 'bring near'; **βαρύθω** 'be weighted down' vs. βαρύνω 'oppress'

Empirical statements from Bozzone (2016)

➢Root aorists, in Vedic, often feature 'Caland' verbs.

➢Caland roots, in Vedic, tend to show 'isolated' participles built on the aorist stems

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Do roots derived with -θ- show root aorist?

πλήθω: ἐπλήμην

φθινύθω: ἔφθιτο

ἠερέθομαι: *h_1e-$h_2u(e)r$- (ptc. ἀπουράμενοι)

πελάθω: πλῆτο

λήθω: λῆτο· ἐπελάθετο

βένθος (if related to *$g^{u}em$-/$g^{u}eh_2$-): βάν

Homeric isolated participles

➢ **ἐρέχθων**, ἐρέχθομενος

➢ **φαέθων** (also PN Φαέθων)

➢ **τηλεθάων and θαλέθων**

➢ **?Ἀρέθουσα** (cf. ἀρέσκω and ἀρέθω)

➢ Compare also the ptc. **αἴθουσα** 'portico, veranda' (also PNs **Αἴθουσα** and **Διαίθουσα**)

The productivity of θω-verbs: 5th-3rd century evidence

→ **Deverbals and denominals attested from the 5th century onwards, without connection to Caland roots (and often with uncertain etymology)**

εἴκω (Hom.+): εἰκ**ά**θω (8x in Sophocles, 4x in Apollonius Rhodius)

Moeris Attic. ε 26.1 εἰκάθοιμεν Ἀττικοί· εἴκομεν Ἕλληνες

Semantics of εἰκάθω

Soph. *El.* 1011-1014 καὶ τὰ μὲν λελεγμένα / ἄρρητ᾽ ἐγώ σοι κἀτελῆ φυλάξομαι, / αὐτὴ δὲ νοῦν σχὲς ἀλλὰ τῷ χρόνῳ ποτέ, / σθένουσα μηδὲν τοῖς κρατοῦσιν **εἰκαθεῖν**

'I will guard your words unspoken and unrealised, and do you in the end at least acquire the sense *to yield* to those in power when you have no strength!

Soph. *OC* 1326-1329 οἵ σ᾽ ἀντὶ παίδων τῶνδε καὶ ψυχῆς, πάτερ, / ἱκετεύομεν ξύμπαντες ἐξαιτούμενοι / μῆνιν βαρεῖαν **εἰκαθεῖν** ὁρμωμένῳ / τῷδ᾽ ἀνδρὶ τοὐμοῦ πρὸς κασιγνήτου τίσιν

'We all now beseech you in supplication, by your daughters and by your life, father, to renounce your grievous anger in favour of myself, as I set out to take vengeance on my brother'

Il. XXV 100 ἣ δ᾽ ἄρα πὰρ Διὶ πατρὶ καθέζετο, **εἶξε** δ᾽ Ἀθήνη·

'Then she sat down beside father Zeus, and Athene *gave place*'.

ἀμῡνάθω and ἀλκαθεῖν

ἀμῡνάθω (1x in Aeschylus, 1x in Sophocles, 3x in Euripides, 1x in Aristophanes, glossed as βοηθήσατε and ἀμύνειν, βοηθεῖν)

Aesch. *Eum.* 437-438 λέξας δὲ χώραν καὶ γένος καὶ ξυμφορὰς / τὰς σάς, ἔπειτα τῶνδ' **ἀμυναθοῦ** ψόγον

'Tell me your country, your family and your misfortunes, and then *rebut* the charge these accusers have brought'

Aesch. *Agam.* 1380-1381 οὕτω δ' ἔπραξα καὶ τάδ' οὐκ ἀρνήσομαι /
ὡς μήτε φεύγειν μήτ' **ἀμύνεσθαι** μόρον.
'I did it this way—I won't deny it—so that he could neither escape death nor *defend* himself'.

Aesch. *Agam.* 100-103 τοτὲ δ' ἐκ θυσιῶν ἃς ἀναφαίνεις / ἐλπὶς **ἀμύνει** φροντίδ' ἄπληστον /
'while at another, because of the sacrifices, gentle Hope manifests herself, and *wards off* our insatiable worries'

ἀμῡνάθω and ἀλκαθεῖν

Soph. *OC* 1014-1015 ὁ ξεῖνος, ὦναξ, χρηστός· αἱ δὲ συμφοραὶ / αὐτοῦ πανώλεις, ἄξιαι δ' **ἀμυναθεῖν**

'My lord, the stranger is a good man! His fortune has been ruinous, but is such that we should *defend* <u>him</u>'

Soph *OC* 428-430 οἵ γε τὸν φύσαντ' <u>ἐμὲ</u> / οὕτως ἀτίμως πατρίδος ἐξωθούμενον / οὐκ ἔσχον οὐδ' **ἤμυναν**

'when I, their father, was so shamefully extruded from the land they did not prevent it or *defend* <u>me</u>'

Eur. *Andr.* 1079-1080 ἄκουσον, εἰ καὶ <u>σοῖς φίλοις</u> **ἀμυναθεῖν** / χρήιζεις, τὸ πραχθέν, σὸν κατορθώσας δέμας

'If you wish to assist yourself and your kin, stand and listen to what has happened'.

Eur. *Supp.* 377-378 **ἄμυνε** <u>ματρί</u>, πόλις, **ἄμυνε**, Παλλάδος, / νόμους βροτῶν μὴ μιαίνειν

'O city of Pallas, *protect*, *protect* <u>a mother</u>: see that the laws of mortals are not defiled!'

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ἀμῡνάθω and ἀλκαθεῖν

ἀλκαθεῖν 'assist' : ἀλκή 'strenght, help' (Hom.+) →
Phot. *Lex.* 976 Ἀλκάθω καὶ ἀλκάθειν· Σοφοκλῆς καὶ
Αἰσχύλος. σημαίνει δὲ τὸ βοηθεῖν.

! Hsch. ἠλκάζοντο· ἠμύνοντο (ἀλκάζω is post-
Classical)

(Any relation with Ἀλκάθοος?)

Two observations

➢All Classical innovations could have been aorists (presents were posited by grammarians)

➢Morphologically, they show analogy on zero-graded aorists from *seṭ* roots (*Ch_2-d^h-), e.g., μ**ά**θον (Hom.+) and ἔλ**α**θον (Hom.+)

θω-presents from grammarians

Et. Gen. = Et. Mag. = Et. Sym. etc.

Ἀγειρέ⟦σ⟧θω· ἐκ τοῦ ἀγείρω, τὸ συναθροίζω, γίνεται ἀγειρέ⟦σ⟧θω καὶ οὐχὶ **ἀγειρά⟦σ⟧θω**, ἐπειδὴ τὰ εἰς ω λήγοντα ῥήματα βαρύτονα, εἰ μὲν μακρᾷ παραλήγονται, διὰ τοῦ <u>αθω</u> ποιοῦσι τὴν παραλήγουσαν, οἷον κίω **κιάθω**, εἴκω **εἰκάθω**, ἀμύ[νω] **ἀμυνάθω**, εἴργω **εἰργάθω**, εἰ δὲ βραχείᾳ παραλήγονται, διὰ τοῦ <u>εθω</u> ποιοῦσι τὴν παραλήγουσαν, οἷον φλέγω **φλεγέθω**, νέμω **νεμέθω**, ὅθεν τὸ **ἀγειρέθω** καὶ ἀείρω **ἀειρέθω** γενόμενον κατὰ παραγωγήν. **ἀγερέθω** ἀπέβαλε τὸ ι

Hdn. *De prosodia catholica* 3.1.440.9 Lentz

Τὰ διὰ τοῦ εθω βαρύνεται, **σχέθω**, ἔθω, ἐρέθω, **ἀερέθω**, **φαέθω**, **φλεγέθω**, **σπερέθω**, **νεμέθω**, **βρεμέθω**, **ἀρέθω**, **χρεμέθω**, **τελέθω**, **ἐγερέθω**, **ἐμέθω**, **ἀγερέθω**. τὸ δὲ τηλεθῶ τὸ εἰς ὕψος θέω περισπᾶται.

Theognost. *Can.* 852

Τὰ διὰ τοῦ εθω ῥήματα, δισύλλαβά τε καὶ ὑπὲρ δύο συλλαβὰς, διὰ τοῦ ε ψιλοῦ γράφεται, καὶ βαρύνεται· οἷον, **σπέθω**· **σχέθω**· **μέθω**· ἔθω· **κενέθω**· **ἀρέθω**· **κερέθω**· **φαέθω**· **τελέθω**· **ἐγερέθω**· **νεμέθω**· **φλεγέθω**· τὸ τηλεθῶ περισπώμενον σεσημείωται, τὴν τρίτην ἀπὸ τέλους ἔχον φύσει μακράν· καὶ τὸ αἴθω ἐπὶ τοῦ καίω, διὰ τῆς αι διφθόγγου γραφόμενον.

Productivity of -θ- in late Antiquity

1) Analogy on Caland-like adjectives?

◊ **ἀρέθω** ?**'be/make good'**: connected with Ἀρέθουσα? (see ἀρείων , ἄριστος)

◊ **κενέθω** vs. κενός 'empty' (also κεινός, κενεός and κενευϝός), κενόω 'make empty' (Hom.+) < *κενϝος, *κενεϝος < *ḱen-u-

Productivity of -θ- in late Antiquity

1) Analogy on Caland-like adjectives?

2) Deverbal on both transitive and intransitive presents

◊ **βρεμέθω** (4x between the 4ᵗʰ and the 6ᵗʰ century AD, **participle only**) vs. βρέμω 'roar' (Hom.+)

Apollin. Theol. *Metaphrasis* **2.77.48** ἐν πόντῳ βρεμέθοντι τεαί 'Yours roar in the sea'

Jo.Gaz. *Ekphrasis* **2.145** βροντὴ δὲ βρεμέθουσα 'The thunder roars'

◊ **ἐμέθω** (Gramm. only) vs. ἐμέω 'vomit' (Hom.+) e.g., αἷμ' ἐμέων 'vomiting blood' (Il. XV 511); αἷμ' ἀπέμεσσεν (Il. XIV 437)

Productivity of -θ- in late Antiquity

1) Analogy on Caland-like adjectives?

2) Deverbal on both transitive and intransitive presents

3) Analogy on the type ἀγείρω : ἀγερέθω

◊ **σπερέθω** (also Hsch. ἐσπερέθοντο· ἔσπερον. ἔσπειρον) vs. σπείρω 'saw, engender' (Hom.+)

◊ **ἐγερέθω** (Gramm. only) vs. ἐγείρω 'awaken, raise, stir up' (Hom.+)

◊ **κερέθω** (Gramm. only) vs. κείρω 'cut, crop, destroy, ravage' (Hom.+)

! From *Etymologica* : ἀγερέθω ἀπέβαλε τὸ ι

Reconstructing a (later) -εθ-: pros and cons

Homeric forms

θαλέθω : θάλος (Hom.+) < *$\sqrt{d^h eh_2 l}$-

τελέθω : τέλος (Hom.+) < * $\sqrt{telh_2}$- or/and * $\sqrt{k^{\mathrm{y}} el}$-

φαέθων : φάος (Hom.+) < * $\sqrt{b^h eh_2}$-

νεμέθω : ?νέμος (Hom.+) < *$\sqrt{nem}$-

φλεγέθω : φλέγος (Hsch.) < *$\sqrt{b^h leg}$-

μέγεθος (μέγαθος in Hdt.) : ? < *$\sqrt{megh_2}$-

Reconstructing a (later) -εθ-: pros and cons

Possible later derivations

χρεμέθω : χρεμετίζω (Hom.+) < $*\sqrt{g^h rem}$-

ἐμέθω : ἐμέω (Hom.+) < $*\sqrt{\underset{}{u}emh_1}$-

βρεμέθω : ἐριβρεμέτης, ὑψιβρεμέτης (Hom.+)

ἀρέθω : ?ἀρέσκω < $*\sqrt{h_2 erh_1}$-

Reconstructing a (later) -εθ-: pros and cons

Derivatives in -ερο- to Caland *s*-stems

κρατερός 'strong' : κράτος 'strength' (Hom.+)

θαλερός 'blooming' : θάλος 'scion' (Hom.+)

Nominals in -θ-

➤ Nouns in -θος (*s*-stems)

➤ Nouns in -θη

➤ Nous in -θος (*o*-stems)

➤ The noun πληθύς

➤ Adjectives in -θής

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Nominals in -θ-

➢**Nouns in -θος (*s*-stems)**

➢~~Nouns in -θη~~

➢~~Nous in -θος (*o*-stems)~~

➢~~The noun πληθύς~~

➢**Adjectives in -θής**

The *s*-stem neuters in -θε/οσ-

"In Greek, the first element of a complex s-stem suffix is in itself always a Caland suffix. In other words, it appears likely that **one Caland suffix was extended by another one**. [...] The reason for this additive way of forming complex suffixes is not clear. It has been observed that in some cases the s-stem noun and the present stem of the verb share the same marker [...]. However, in the majority of cases such a link cannot be established". (Meißner 2006: 51-52).

→ **-θε/οσ- as a productive 'complex' Caland suffix? Compare -ιλο-, -υλο-, -ινο-, -υνο- etc.**

βένθος vs. βαθύς   **πλῆθος** vs. πλήθω

?**τέλθος** vs. τελέθω   **μέγεθος** vs. **?**

ἔσθος (and ἐσθής) vs. ἐσθέω

s-stem adjectives in -θ-ής

○ ἀγχι-**βαθής** (Hom.+) ⟵ ?βαθύς (βάθος and Pass. ἐβάθην are late)

○ **αἰθής** (Crat.+) ⟵ αἰθός (*o*-stem), αἴθω (No Passive)

○ πολυ-**γηθής** (Hom.+) ⟵ γηθέω, aor. γήθησα (γῆθος is late)

○ ἀ-**ληθής** (Hom.+) ⟵ λήθη or λήθω (λῆθος is late)

○ ὑπερ-**μεγάθης** (Hdt.+) ⟵ μέγαθος

○ πυρι-**φλεγέθης** (Hp.+) ⟵ φλεγέθω (cf. Pass. φλεχθείη Hes.+)

○ ἐπι-**βρῑθής** (Aesch.) ⟵ ἐπιβρίθω (βρῖθος is late)

○ παμ-**πληθής** (Xen.+) ⟵ πλῆθος

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Re-derived forms in -θ-: the emergence of new derivational paradigms?

-θεσ- (later or back-formed)	-θής	-ρ(ο)-	-σύνη	Factitives	Other
αἶθος	αἰθής	αἶθρος ἰθαρός αἴθρη			αἴθαλος αἴθινος
(πλῆθος : old?)	-πληθής			πληθύνω	πληθύς, -ύος
βάθος	-βαθής	βάθρον		βαθύνω	βαθμός
λάθος	-ληθής	λάθρη λαθραῖος	λᾱθοσύνα	ἐκληθάνω	λᾱθί-
γῆθος	-γηθής		γηθοσύνη		γηθαλέος
βρῖθος	-βρῖθής		βρῖθοσύνη		
(μέγαθος : old)	-μεγάθης			μεγεθύνω	

To sum up

1) Strong correlation between Greek forms in -θ- and the Caland System, featuring the early occurrences of the suffix in Greek

2) At an early stage, a 'complex' Caland -θε/οσ- was employed for deriving neuter abstract nouns

3) During the Classical and post-Classical periods, -θ- was likely a root extention for shaping thematic aorists and presents

4) Early forms in -θ- later became the center of new derivational paradigms making use of Caland-associative morphology

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Vielen Dank für eure Aufmerksamkeit!

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