

On the etymologies of Ancient Greek *κίννα*, *κιννάβαρι*, *κιννάμωμον* and
Hattic *kinawar et al.*: steps towards further discoveries

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Abstract

A hypothesis that the Ancient Greek word *κίννα* (*Hordeum murinum*, “wall-barley”, the ears of which often turn crimson¹, whereas true barley ears do not turn red) and the *κιννά-/κῖνν(ᾶ)* elements in Ancient Greek *κῖννᾶμωμον/κίνναμον/κινάμωμον* and *κιννάβαρι/κιννάβαρις*² (meaning “cinnabar”, which is mercury sulfide/mercuric sulfide, a naturally occurring compound of the chemical elements mercury and sulfur, from which an important but toxic vermilion pigment was obtained³; cinnabar is also the form in which mercury is most commonly found in nature, and so most of the mercury of the ancient world was obtained by processing it out of cinnabar) share the same etymon with the *kina-* element in Hattic⁴ *kinawar* (the Hattic word for copper) and Hurrian⁵ *kinahnu/kinahhu* (meaning red and/or purple); and that the second element in *κιννάβαρι(ς)* (*-βαρ-*) shares the same etymon as the second element in Hattic *kinawar* (*-war* being the second element). Also included in this paper is the hypothesis that the meaning of *κιννά* was blood (and also red and/or various shades/hues of red, with the semantics including purple and violet and shades of purple and violet, and reddish-brown shades/hues as well) from an older group of connected meanings which will be explained in this paper.

1 *Hordeum murinum*: The inflorescence measures 3--12 cm, 7--16 mm wide, and is green to glaucous, sometimes red or brown at maturity.

2 Both *κιννάβαρις* (masculine form) and *κιννάβαρι* are attested. Also attested is the form *τεγγάβαρι* (*tengabari*).

3 Earliest attestation of *κιννάβαρι(ς)* is in Theophrastus' work, *On Stones*, where it is attested as *κιννάβαρι*, and which seems to be applied to several different substances, one of which is mercury sulfide/cinnabar. Most likely *κιννάβαρι(ς)* could also refer, at times, in some Ancient Greek usage, to red lead (lead tetroxide). And the word was known to also be applied to a red resin obtained from certain trees, a red resin which was known as “dragon's blood” in India. The resin is extracted from many different tropical tree species commonly called dragon trees. These may come from the plant groups *Calamus*, *Croton*, *Pterocarpus*, *Daemonorops* or *Dracaena*. The dragon's blood known to the ancient Greeks and Romans was mostly collected from *Dracaena cinnabari*, and the product was mostly imported from ancient Socotra, an island located off the coast of the tip of the Horn of Africa, near the mouth of the Red Sea, and more specifically between the Guardafui Channel and the Arabian Sea.

4 Hattic is an ancient extinct language of ancient Anatolia (central to eastern and northern Anatolia), which is currently an isolate language, since it has not yet been grouped with any other language.

5 Hurrian is an ancient extinct language of ancient eastern Anatolia; the area south of Lake Van; and parts of ancient Syria. Hurrian is grouped with Urartian/Urartian in a Hurro-Urartian/Hurro-Urartian language family, which has not yet been definitely linked to any other language family.

Keywords: *Ancient Greek, Hattic, Hurrian, Anatolian, Proto-Indo-European, Peri-Indo-European*

1. Hurrian, Akkadian and Hattic examples

In ancient Hurrian texts, we find the term *kinahnu*, which is thought to mean red or purple or a shade of red or purple. In Akkadian we find *kinahhu* meaning “purple”⁶. The Akkadian word is most likely a Hurrian loanword⁷. In Hattic we find *kinawar* meaning “copper”. I’m not sure why the Hattic word for copper contains a word also found in Hurrian, but I’m sure that that is in fact the case. Whether the Hattic word is a loan from Hurrian (or a loan from a sister language of Hurrian) or whether the Hurrian words are loans from Hattic, or whether both picked up the words from another language not grouped with Hattic or Hurrian, is as yet undetermined, but those questions are among the questions that will be studied in this paper.

In 1936, Ephraim Avigdor Speiser⁸ put forward the theory that the name of Canaan derives from Hurrian Kinahhu/Kinahnu. That has not been ruled out yet; but that theory of Speiser’s, whether it’s correct or not, does not concern my work in this paper. In fact, the Hurrian and Akkadian examples themselves are rather superfluous, and the Akkadian example in any case is quite certainly a Hurrian loanword.

2. Ancient Greek and Sanskrit and Iranian examples

It is unclear is from what language(s) did *κιννάβαρι(ς)* and *κῖννάμωμον* enter the ancient Greek dialects (Herodotus stated that the word *κῖννάμωμον* is of Phoenician origin; and in Hebrew the word is found as קִנְמֹן = *kinamón* or *qinamón*). It cannot even yet be ruled out that Hattic may have had a sister language which was one of the pre-Greek Aegean languages which the early Indo-European Greeks encountered in Greece and/or on some Aegean islands and/or in Thrace. However, I will in this paper hypothesize that it is “more likely” that *κιννάβαρι(ς)* and *κιννάμωμον* and *κίννα* (*Hordeum murinum*) entered the Greek language at a somewhat later date (later than the time of the intermingling of Greek with pre-Greek in pre-Mycenaean times), and that the words were imported from Anatolia or Syria (but not from a Semitic language; Hurrian, which was not Semitic, was spoken in parts of Syria as well).

The components of Ancient Greek *κιννάβαρι(ς)* (aside from the Greek suffix “ι(ς)”) were (at least before the publication of this paper) considered to be of unclear meaning and unclear origin. Is the word of Hattic origin, from

6 See *A Concise Dictionary of Akkadian*, edited by Jeremy A. Black, A.R. George, J.N. Postgate, Tina Breckwoldt. Pg. 158.

7 Ibid. pg. 158.

8 Ephraim Avigdor Speiser and Robert H. Pfeiffer, *One Hundred New Selected Nuzi Texts*. 1936.

kinawar? Or was the Hattic word a loanword from another language? Or was only one part of *kinawar* a loanword in Hattic? And which part was native to Hattic, which part was a loan? If the *-βαρ-* element was a loan, was it a loan from Sumerian, where *-bar* is often found as a noun base and/or a noun suffix ⁹? Or was it not from Sumerian? What did/what does the *-βαρ-* part of the word mean?

Could the *-βαρ-* element be from Proto-Indo-European, or from a language that was a sister language to Proto-Indo-European (both languages descending from a common ancestor)? The form *-βαρ-* in this context at first appears to be reminiscent of two PIE root words: 1) PIE **b^huH-*, "to become, grow, appear", from which many Indo-European words derive, such as English "be"; Latin "fi"; and 2) PIE **b^her-*, "to bear". In what way do *-βαρ-* and *-war* (the latter extracted from Hattic *kinawar*) suggest a possible connection to PIE **b^huH-*, "to become, grow, appear"? It is possible that the *-βαρ-* in *κιννάβαρι(ς)* and the *-war* in *kinawar* meant "being" or "thing" (with copper and cinnabar both being a "red-being" or "red-thing" or "blood-like thing"), in which case those forms would be very similar in sound-form and meaning to PIE **b^huH-*, "to become, grow, appear", and could possibly have an etymological kinship to that PIE root: perhaps deriving from that root, or from an older root which is the ancestor of all three forms.

Alternatively, a kinship to PIE **b^her-*, "to bear" is possible; in which case *kinawar* and *κιννάβαρι(ς)* would have meant "red-bearing" or "blood-bearing". And as with the previously mentioned PIE root-word, the Hattic *-war* and the Greek *βαρ* may not derive from PIE **b^her-*, but instead from a root-word ancestral to PIE **b^her-*.

I think that a more likely theory---the most likely so far---is that *-βαρ-* meant "dragon/snake/serpent" in an as yet unidentified and unclassified language of ancient Anatolia and/or some lands surrounding Anatolia, and *κιννάβαρ* meant "blood (of the) dragon"/"blood (of the) serpent/blood (of the) snake" ¹⁰. Part of the evidence for my hypothesis is that at some point in Ancient Greek, the word *κιννάβαρι(ς)* was also applied to the red resin of

9 For those not so familiar with the Sumerian language: Sumerian stands out as a language that had a high number of homonym words, so much so that the ancient Sumerians and/or the Akkadian scribes who were writing Sumerian had to develop a superscript notation system to distinguish the homonyms in cuneiform writing. The element "bar" is one example of a Sumerian morpheme with many different meanings. I'm sure that the *βαρ* in *κιννάβαρι(ς)* and the *-war* in Hattic *kinawar* do not derive from Sumerian, and the only Sumerian words those components have affinity to are the Sumerian *Bar* and *Bara* words that referred to a type of fish or certain types of fish, and the perhaps the Sumerian words *Bir*, *Bur*, *Buru* meaning "locust".

10 In this connection, see also in ancient Greek (in Theophrastus' work, *On Stones*, for example) the name of the stone *haimatitis* (red jasper? haematite?), which derives from the Ancient Greek word for blood, *haima*. And the English word "iron" may derive from a PIE root that meant "blood".

Socotra island's dragon tree, which was also called *αἷμα δρακόντιον* (*haima drakóntion*), "dragon's blood"¹¹: I hypothesize that the reason that *κιννάβαρι(ς)* was used as a synonym for *haima drakóntion* was because there were some ancient Greeks who knew that that is what *κιννάβαρι(ς)* originally meant; of course, some can say that that is not so, that the only thing linking mercury sulfide and that tree resin was that both were red and both were used as pigments and dyes. I don't believe that that was the only linkage, and this paper explains why I don't believe that.

As will be detailed further, the Ancient Greek element *κιννά-* in *κιννάβαρι* and also seen in *κιννά* (*Hordeum murinum*) had an older meaning of "blood", and was either a word of Proto-Indo-European origin or found in both the Proto-Indo-European language and in some Peri-/Semi-Indo-European languages, and perhaps also in some clearly Non-Indo-European languages (such as Hattic). I do not believe that *κιννά(-)* in its meaning of "blood" was native to Ancient Greek's PIE inheritance (see my discussion of the etymology of *κιννά* further in this paper), though Ancient Greek did have some kindred words, but which were in a different part of the semantic range.

The *βαρ* word meaning "dragon/serpent/snake" is even more Non-Greek than the previous term *κιννά* discussed in the paragraph above, though it is very likely Indo-European (possibly, for example, from PIE **wer-*, "to turn", referring to the movements of a serpent/snake). So the entire word *κιννάβαρ/κιννάβαρι* was very likely a loanword from an Indo-European language of Anatolia, or a language that was Semi-Indo-European/Peri-Indo-European, a sister language to Proto-Indo-European.

This Indo-European language or Semi-IE language likely had some contact with and influence on Sumerian, and the Sumerian word *bar* (the *bar* that referred to an as-yet unidentified type of fish; this is one of the words that has several homonyms in Sumerian) and *bara* (the *bara* that referred to an as-yet unidentified type of fish; this is one of the words that has several homonyms in Sumerian) could derive from the unidentified language or group of languages that I am hypothesizing, since the form of one is identical to *-βαρ-* and the form of the other nearly so, and since in ancient times the semantic link between serpents, snakes, dragons and fish/sea-creatures was strong, linguistically and in mythology/religion.

It's quite likely that the word *Bar* meaning "dragon/serpent/snake" derives either directly from PIE **wer-*, "to

¹¹ See Jean Tinquier, *Cinnabaris and Dragon's Blood: Ancient "Cinnabar" between Mineral, Plant, and Animal*, in *Revue Archéologique*, Volume 56, Issue 2, 2013, pages 305 to 346.

turn”, or from an exactly parallel word in a Non-Indo-European language; or from a root-word which was ancestral to the PIE root word. The Sumerian word *bir* meaning “locust” is possibly akin to the snake word *-βαρ-*, since in many ancient languages such creatures perceived as/or actually harmful were given names which sometimes shared the same etymology; however *bir* meaning “locust” does not involve a semantic taken from PIE **wer-*, “to turn”, so if it derives from that root or a parallel root with the same meaning, then what happened is that *bir* originally meant “snake” and only later shifted to “locust”, which is possible. Sumerian *bir*, *bur*, and *buru* all meant “locust”, while *bir-gir* meant “scorpion”. There are of course many etymological possibilities for Sumerian *bir*, *bur*, and *buru* and I’ve mentioned this possibility in case it’s correct.

An alternative derivation of *Bar* meaning “dragon/serpent/snake” would be linking the word to Latin *bēlua* (“beast, monster”), which is probably cognate to (not the source of) Albanian *bollë* which means (1) any of various nonvenomous snakes of the family Colubridae or Boidae; 2) glowworm 3) in Albanian mythology, an early form of the Hydra, before it changes to its larger form. Albanian *bollë* is considered to derive from Proto-Albanian **belva*, cognate to Latin *bēlua*. The Romanian word *balaur* (“dragon, monster”) does not derive from Latin *bēlua* according to the literature on the subject, and is usually considered to be a Pre-Roman cognate to Latin *bēlua* and Albanian *bollë*. There is no established etymology for Latin *bēlua*, nor for Albanian *bollë* and Proto-Albanian **belva*, nor for Romanian *balaur*. Since the British Classicist Geoffrey Kirk stated that *Βελλεροφόντης* (=Bellerophon=Bellerophon) means “Slayer of Bellerus”¹², then *Bellerus* is probably a cognate to the Latin and Albanian and Romanian words. The name of a Thracian tribe, the *Triballi*, may mean “three dragons”, since a three-headed serpent occurs on a Thracian metal plaque artwork found in Letnitsa in Bulgaria, in or near Triballian territory (Letnitsa is located in what was Northwestern Thrace/Moesia), and this also links with the Albanian usage, where *bollë* and *bullar* both can refer to an early stage of the mythical Hydra. The Albanian word *bullar* means 1) European glass lizard, *Pseudopus apodus* 2) slowworm, *Anguis fragilis* 3) an early form of the mythical Hydra in Albanian mythology. Albanian *bullar* is believed to derive from *bollë*, but contaminated with the Albanian root **bull* ‘to be swollen’, from PIE **b^hel-* “to blow, swell up”. PIE **b^hel-* “to blow, swell up” could be the source of Albanian *bullar*, *bollë*, Proto-Albanian **belva*, Latin *bēlua*, Romanian *balaur*, Ancient Greek *phallaina* (“=whale”), Ancient Greek **Bellerus* and Thracian *balli* if the older meaning was “large beast/dragon/monster”. If that is the etymon for those words, then the Latin word was probably a loan from another language, and the Ancient Greek **Bellerus* would be a loan for sure. Another possible etymon is PIE **wel-*, “to turn” (a root nearly identical to PIE **wer-*, “to turn”), and if so then again some of those words would be loans in their respective languages (and the Romanian one would still be from Pre-Roman); however Ancient Greek *phallaina* (source of

¹² Kirk, 1990, p. 178.

Latin *ballaena/balaena*) is most likely from PIE **b^hel-* “to blow, swell up”, not PIE **wel-*, “to turn”.

Though rhoticism from PIE **b^hel-* “to blow, swell up” or rhoticism from PIE **wel-*, “to turn” could be the source of *Bar* meaning “dragon/serpent/snake”, I think that PIE **wer-*, “to turn”, is more likely for the *Bar* found in *κιννάβαρι(ς)*; though as described earlier, the word could be from a Peri-Indo-European root, or a root found in both IE and in one or more Non-IE languages.

Now as I said I would do some paragraphs earlier, I will discuss the etymological possibilities of 1) the *κιννά-* extracted from Ancient Greek *κιννάβαρι(ς)*; 2) the Ancient Greek stand-alone word *κίννα* (*Hordeum murinum*, “wall-barley”); 3) the *κίνν(ᾶ)-* extracted from Ancient Greek *κίννᾶμομον*; 4) and the *kina-* extracted from Hattic *kinawar*.

To establish the etymon, it is necessary to know that there are forms of the word for “cinnabar” in Persian and Arabic which probably share the same etymon with Ancient Greek *κιννάβαρι(ς)*, and very significantly, these forms mostly show the following consonants: 1) -ndš¹³, which is similar to the -nj sound; 2) -ng; 3) -nj; and 4) -nk. These consonants occur in the first syllable of: Persian *šangarf*, *sindšefr*¹⁴, *sinkarf*; Arabic *kynjar*, *sindšafir*, *sindšarf*, *zingefr*, *zinjafir*, *zinjifra*, *zunjufr*. Old Persian *s-i-k-b-ru-u-š* (= *sinkabruš* (=the red carnelian stone)) is a cognate as well, and is sometimes regarded as the direct source of Persian *šangarf*.

In the case of these words, the first distinct lemma in each case is: in Persian/Iranian: *šanga*, *sindše*, *sinka*; in Arabic: *kynja*, *sindša*, *zinge*, *zinja*, *zinji*, *zunju*. The existence of a variant with the initial K sound (see *kynjar* in the Arabic examples) suggests to me that we are dealing with variant forms of a root-word which is also the source of Ancient Greek *κίννα*. See also how *-war/-bar* has shifted to *-fr*, and later to *-rf* in these Persian and Arabic examples.

There is also सिंदूर (= *sindūra*) in Sanskrit referring to: 1) red lead; 2) vermilion pigment; 3) and a tree from which red resin/dragon’s blood was obtained. This Sanskrit word has been hypothesized (not sure by whom) to derive from the Sanskrit lemma स्यन्द् (= *syand-*), which meant “oozing, trickling, distilling, flowing” and also had additional closely associated meanings (“to stream, run, move rapidly”). There is also in Sanskrit

हिङ्गूल (= *Hiṅgūla*) meaning “cinnabar”, which is no doubt another variant from the same root via a different line of

13 Š is the sound usually rendered in English orthography as SH, and in IPA as [ʃ], which I've placed in brackets.

14 In Christian Keferstein's *Mineralogia Polyglotta* (1849; in German), p. 187, I found the attestations of *sindšefr* in Persian and *sindšafir* and *sindšarf* in Arabic (both from Persian), all meaning “cinnabar”. Supposing Keferstein's forms are not actually attested, that does not impact my theory, which does not rely on those particular attestations.

transmission.

I myself am certain that 1) Ancient Greek *κίννα* (*Hordeum murinum*, “wall-barley”); 2) the *κιννά* extracted from Ancient Greek *κιννάβαρι(ς)*; 3) the *κίνν(ᾶ)* extracted from *κίννᾶμωμον*; 4) and the *kina-* extracted from Hattic *kinawar* all referred to the blood-like color of: 1) the ripe crimson-colored ears of *Hordeum murinum*; 2) the deep red color of cinnabar and the vermilion color of the pigment processed from cinnabar, and the red resin obtained from dragon’s blood trees; 3) the red of cinnamon; 4) the reddish hue of copper. All these words referred to the blood-like color because the older meaning of the word was “blood”, which came from an even older meaning of “oozing out, flowing out, trickling out, bursting out”, from a root word which was actually very similar to PIE **key-*, “to set in motion; move”, from which Ancient Greek *κινέω* (*kīnēō*, “to set in motion, move; to surge on, stir, change”, etc.) and *κίνουμαι* (*kínoumai*, “I go, move”) and a number of other Ancient Greek words derive¹⁵. It’s quite likely that PIE **key-*, “to set in motion, move” is the actual etymon: the Hattic and Hurrian words could be loanwords; quite likely the Hattic word *kinawar* (copper) was a loanword from an early IE or IE-like language; but the Hurrian words (*kinahnu*, *kinahhu*) are more likely cognates, since other IE cognates seem to exist in Hurrian and Urartan.

In a very similar/nearly identical semantic progression, English “blood” and its Germanic cognates most likely¹⁶ derive from PIE **b^hleh₃-tóm*, in turn from PIE **b^hleh₃-* “to bloom”: the idea of “to bloom” morphed into the sense of bursting or swelling out. Compare Old English *blēd* meaning “a shoot, branch; foliage, leaves, a leaf; a flower, a blossom, a bloom; a fruit”. Old English *blēd* and its Germanic cognates are from Proto-Germanic **blēduz*, *blōdiz* (“blossom, sprout”), from PIE **b^hleh₃-*, “to bloom”.

So the older derivation for: 1) Ancient Greek *κίννα* (*Hordeum murinum*, “wall-barley”); 2) the *κιννά* extracted from Ancient Greek *κιννάβαρι(ς)*; 3) the *κίνν(ᾶ)* extracted from *κίννᾶμωμον*; 4) and the *kina-* extracted from Hattic *kinawar* is probably, for all four of them, PIE **key-*, “to set in motion, move”. But that root-word is the source of many PIE and IE stems, and I have not yet reconstructed the stem form very closely to how it actually would have been, so the following reconstructions are approximate: PIE **keind-*, **keing-*, **kand-* or **kang-*, and the stem meant “running, flowing, oozing, trickling, distilling”, and the stem/those stems likely derive from PIE **key-*, “to set in motion, move”, or from an even older root, dating back before the Proto-Indo-European language that has been

15 See Julius Pokorny, *Indogermanisches-Etymologisches-Woerterbuch*, p. 538, for more Ancient Greek cognates and many other Indo-European cognates.

16 This theory about English “blood” and its Germanic cognates deriving from PIE **b^hleh₃-tóm*, in turn from PIE **b^hleh₃-* “to bloom”, already exists in the literature, though I do not have the name of the originator of this theory or the book it was published in.

reconstructed.

It is unclear whether PIE **key-*, “to set in motion, move” is the source of Sanskrit स्यन्द(=syand), a Sanskrit lemma discussed a few paragraphs above; the PIE root **key-*, may, I hypothesize, have had a parallel form **sey-*, or **tsey-*, having the same meaning or a very similar meaning (to move, to flow, stream, run, ooze, trickle). Note that the lemma *syand-* in Sanskrit and the meanings derived from it do not, from the attestations, show a tendency to refer particularly or exclusively to blood, so in the Sanskrit stem/lemma *syand-* the semantic progression to “blood” was lost or did not develop, but reappeared or developed when *sindūra* was applied to trees from which the red resin called “dragon’s blood” is extracted.

However, I believe that the Sanskrit word *sindūra* did not come from the lemma *syand-*, but instead from a common ancestor root, probably via a different language: this explains the different vowel sounds and the fact that the form *sindūra* focuses on nouns that are all red in color (red lead; cinnabar; vermilion pigment; a tree/or trees from which a red dye/pigment was extracted). I also believe that the *sind-* in *sindšāfr* (attested in Arabic, from Persian), *sindšarf* (attested in Arabic, from Persian), *sindšefr* (Persian) and the *sind-* in Sanskrit *sindūra* share the same etymon, but were transmitted via different languages and probably from different forms of an ancient root, and this transmission across different languages and involving variant root-forms explains all the variant forms seen in Old Persian (*sinka-* in *sinkabruš*=red carnelian stone), Persian (*šanga-*, *sindše-*, *sinka-*) and Arabic (*kynja-*, *sindša-*, *zinge-*, *zinja-*, *zinji-*, *zunju-*). Proto-Indo-Iranian **sind^huš* (“river, stream”) derives from the same root, via a kindred language or the same language which was the source of *sindūra*.

It’s possible that Latin *sanguis* (=“blood”; originally *sanguīs*, from an older *sanguen*) derives not from a hypothetical **h₁sh₂n-ǵ^hw-én* from PIE **h₁ésh₂r*; but instead from the root that I am discussing in this paper (from the form of that root that began with the S or Ts sound, not the form with K). And Latin *saniēs* (ichor, pus, blood mixed with pus) might derive from the root as well, and not from a hypothetical oblique stem **h₁sh₂-én-*, from PIE **h₁ésh₂r* (though *saniēs* does look like it likely derives from **h₁sh₂-én-*, an oblique stem of **h₁ésh₂r*). Balto-Slavic **asinga* (“blood”), source of Curonian *šinga* and Sudovian *asing*, has been explained as deriving from PIE **h₁sh₂n* (“blood”)+ PIE **g^weyh₃-* (“to live”) + PIE suffix **-o-m*, in a combination **h₁sh₂n-g^wh₃-o-m*. I bring up the possibility that Balto-Slavic **asinga* (“blood”) actually derives from the root that I am discussing.

It is also has to be looked into whether Arabic *ḥinnā*’ (=henna pigment/dye, and the *Lawsonia inermis* shrub from which the henna pigment is extracted) derives from the root I am discussing, as well as whether Middle Persian **hannāy-*, “to smear, anoint” derives from there.

With the stem *kinna/kinga/singa/šanga/zinja/sindša/sindura* etc., we are most likely dealing with a root-word whose oldest form may have been **key-*, “to set in motion, move”, and which may have also existed in a parallel form **sey-*, with the same meaning. This root and such stems were found in the Proto-Indo-European language as well as in some ancient languages of the Anatolian/Lake Van area/Northern Mesopotamian area/Iranian area/perhaps also the Bactrian area and Pakistan area. Some of these ancient languages were most likely languages which were sister languages to the Proto-Indo-European language.

With the *κῖνν(ᾶ)* extracted from *κῖννᾶμόμων* there are two possibilities which are more likely than any others: that the *κῖνν(ᾶ)* extracted from *κῖννᾶμόμων* shares the same etymon with the forms discussed in the paragraphs above; or, based on Persian *dârčîn* (=the cinnamon tree), that the *κῖνν(ᾶ)* extracted from *κῖννᾶμόμων* instead derives from Old Chinese **Dzin* (**Dzin* is a phonetically accurate Latin script rendering of the Old Chinese form of the name of an Old Chinese feudal state which existed from 778 BC to 207 BC, at the time that the Ancient Greek *κῖννᾶμόμων* is first attested), which however became *Θῖνα (Thîna)*, *Θῖναι (Thînai)*¹⁷ and *Σῖναι (Sînai)* in Ancient Greek, but did not, as far as can be confirmed, become *κῖν(v)* in Ancient Greek.

The Persian *dârčîn* (=the cinnamon tree) is attested far too many centuries later than the Ancient Greek *κῖννᾶμόμων* for it to make a convincing case that the *κῖνν(ᾶ)* extracted from *κῖννᾶμόμων* also derives from **Dzin*. Persian *dârčîn* is composed of *dâr* meaning “tree” (deriving from PIE **dóru-*, “tree, wood”); and *čîn* deriving from Middle Persian *čîn*, likely deriving from Ghandari *cina*, from Sanskrit *चीन=cīna*, and Sanskrit *cīna* perhaps derives from (but does not for certain derive from, there are several hypotheses in the literature) Old Chinese **Dzin*. It is very important to note: the letter *C* used to transliterate the Devangari character **च** in Sanskrit (and the corresponding character in the Ghandari script) had a pronunciation range from a voiceless palatal plosive to a voiceless palato-alveolar sibilant affricate/voiceless domed postalveolar sibilant affricate: it was never pronounced as a voiceless velar plosive (the hard K sound found in Ancient Greek *κῖννᾶμόμων*). In the case of the Sanskrit word *चीन/cīna*, **च** (=C, as described above) was pronounced as a voiceless alveolo-palatal sibilant affricate, which is rendered **č** in IPA. The Ghandari C is in the same range: it is never a voiceless velar plosive.

So in order for that “Chinese scenario” to be the etymon of the *κῖννᾶ* element in *κῖννᾶμόμων*, the existence of a form *Kin* (rather than *Dzin*) is necessary to have existed at that time, or at least a form beginning with a sound that was likely to have become a voiceless velar plosive in Ancient Greek or in an intermediary language (or two

¹⁷ Attested in the *Periplus of the Erythraean Sea*, a Greek manuscript. Current scholarship dates the work to between 40 AD and 70 AD (see John Hill, 2009, pp. 244-245).

intermediary languages) between Old Chinese and Ancient Greek; however, no such forms have been attested. The form *Qin* (the *Q* is pronounced [tʰ], which is simply an aspirated form of ㄑ) is first attested many centuries later, not in the time of Old Chinese and Ancient Greek (in Old Chinese, it would have to have been *Dzin*, as described above; while in the ZhengZhang Old Chinese dialect, it would have been *Zin*). Even in the time of Middle Chinese, the form is expected to have been *Dzin*. Not until Mandarin Chinese, after the time of Middle Chinese, is the form *Qin* attested.

In Classical Syriac ¹⁸, cinnamon was known (I don't have the time of the first attestations in Classical Syriac) as *dāršīnī* and *šīndreḡ*, both terms deriving from one or two different Iranian languages (*dār* and *dreḡ* are Indo-European words from the Iranian branch, from PIE **dóru-*, “tree, wood”), but phonologically modified (Iranian č sound became the Aramaic š sound, etc.). In Jewish Babylonian Aramaic, cinnamon was known as *daršīnī*. These Classical Syriac Aramaic and Jewish Babylonian Aramaic forms show that *Dzin* became *šīn* in Classical Syriac Aramaic and Jewish Babylonian Aramaic, after being received from an Iranian language, and Iranian received the term from Gandhari or Sanskrit. Likewise, in Arabic the form was *aš-šīn*, and in Arabic the Iranian *dārčīn* became *dāršīn*/*dārsīn*/*dāršīniyy*/*dār šīniyy*/*dārašīniyy*.

But in the time of the Phoenicians, it is expected (due to a statement by Herodotus) that the tree (and the spice derived from the bark of the tree) was already known as *kinamón* (as is found in Hebrew) or a form very close to that, a form beginning with the hard K sound. So from where does *K-* appear in Hebrew *kinamón*, if *kin-* derives from Old Chinese **Dzin*, as some still believe? It therefore seems to me that *kinamón* and Ancient Greek *κίηνάμωμον* (and its variant forms) quite likely do not derive from Old Chinese **Dzin*, since we cannot find confirmation that a form beginning with the hard K sound existed at that time, nor that such a form was likely to be found in a language of the time and region(s), since we have no evidence of such a phonological shift of Dz to K in the languages of the time and the region¹⁹.

So now here enters my hypothesis: the *κίην(ᾶ)* in *κίηνάμωμον* does not derive from Old Chinese **Dzin*, nor from

18 Classical Syriac is an Aramaic language (part of the Semitic family of languages) that emerged during the first century AD from a local Aramaic dialect that was spoken in the ancient region of Osroene, centered in the city of Edessa, an ancient city in Upper Mesopotamia (not to be confused with the city of Odessa, on the Northwestern coast of the Black Sea in Ukraine; nor to be confused with the city of Edessa in Northern Greece). Classical Syriac flourished from the 4th century AD to the 8th century AD, and continued to have an important role during the next centuries, but by the end of the Middle Ages it was gradually reduced to liturgical use, since the role of vernacular language among its native speakers was overtaken by several emerging Neo-Aramaic dialects.

19 Eventually in some languages many centuries after the time I am writing of, there did develop words that show the hard K sound and could ultimately come from Old Chinese **Dzin* via a number of intermediaries (and many centuries later). Albanian *Kinë*, Danish *Kina*, Finnish *Kiina*, Modern Greek *Kíva*, Icelandic *Kína*, Lithuanian *Kinija*, Norwegian *Kina*, Romanian *China* (ch=k in Romanian, as in Italian), Swedish *Kina*, and some more, all in modern languages.

any other Chinese term, but instead from the same root–word from which the *κιννά(-)* in Ancient Greek *κιννάβαρι(ς)* and Ancient Greek *κίννα* (*Hordeum murinum*, “wall–barley”) also derive, as does the *kina-* in Hattic *kinawar*, which meant “copper”. There is no question that the ears of *Hordeum murinum* often develop a rich dark crimson red color, as can be seen from a search of images of *Hordeum murinum* online (and as noted in botanical works describing the inflorescence of the plant), a red not seen in true barley, *Hordeum vulgare*.

Now I will discuss an etymological possibility for Ancient Greek *ἄμωμον* (*ámōmon*), which was a word on its own (probably referring to “black cardamom, *Amomum subulatum*” in Ancient Greek, though it could have referred to a different aromatic spice plant, or to several, including *Amomum subulatum*) and also found in ancient Greek *κῖννᾶμωμον* (*kinnámōmon*, meaning “Chinese cinnamon, *Cinnamomum cassia*”, in English) and in Ancient Greek *καρδάμωμον* (*kardámōmon*, meaning “cardamom, *Elletaria cardamomum*”, in English).

The only cognate for Ancient Greek *ἄμωμον* is considered to be Classical Syriac *ḥamāmā* (from which is derived Arabic *حَامَامَا* =*ḥamāmā*), which is of unknown etymology and unknown origin. I will put forth here a hypothesis that both Ancient Greek *ἄμωμ-* and Classical Syriac *ḥamām-* derive from a root of similar form (which I cannot reconstruct yet, I would need more cognates) which meant “aroma, breath” and probably also “breeze”. There is in Proto-Indo-European a root **h₂en_h1-*, “to breathe”, from which is derived Ancient Greek *ἄνεμος* (“wind, breeze, gale”), Latin *animus* (“life–force”, “soul”), Old Frisian *omma* (“breath”), et al. Again, as mentioned in some previous cases, *ἄμωμ-* and *ḥamām-* might not derive from that PIE root **h₂en_h1-*, but instead from a root ancestral to the PIE root. If *ἄμωμ-* derives directly from PIE **h₂en_h1-*, it could still be a loanword from another Indo-European language: an Anatolian Indo-European language. If *ḥamāmā* derives from PIE **h₂en_h1-*, then *ḥamāmā* is of course a loanword that entered Classical Syriac from an Indo-European language. It is also possible that we are dealing with a Non-IE form of identical meanings and nearly identical form to PIE **h₂en_h1-*, which is quite likely as well.

It is usually believed that Ancient Greek *κῖννᾶμωμον* derives from an earlier *κίνναμον*, which is attested in Ancient Greek, but apparently attested later. The later attestation however does not prove that *κῖννᾶμωμον* is the older form. If *κίνναμον* is the older form (compare Hebrew *kinamón*) then the form *κῖννᾶμωμον* was modelled on that of *ἄμωμον* (=black cardamom, and probably some other aromatic spice plants as well), and/or, due to folk etymology, on that of *ἄμωμος* (*ámōmos*, “blameless”). If *κίνναμον* is the older form, then there is the question of the etymology of *-(a)μων* (seen in the Ancient Greek word) and *-(a)μόν* (seen in the Hebrew word): the etymology may be the same as the etymology of *ἄμωμον*, making the substitution of one for the other very

natural.

I will soon enough upload an augmented version of this work, which will include further evidence and examples.

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