ό Φάρος

A Thematic Guide to Ancient Greek Vocabulary and Set Phrases

by Adrian Hundhausen



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Table of Contents

Preface and list of the 22 core sources used

- 1. The Five Elements, the Weather
- 2. Hot, Cold, Wet, Dry, Light, Dark
- 3. Astronomy, Geography, Topography
- 4. Place Names: Cities, Regions, Nations
- 5. Wait, Stay, Inns, Inhabit, Colonies
- 6. Construction, Buildings, Rooms
- 7. Household Activities & Objects
- 8. Cloth, Clothing, Leather, Jewelry
- 9. People, Family, Society
- 10. Help, Care, Service, Slavery
- 11. Human Body
- 12. Life, Health, Illness, Wounds, Medicine
- 13. Eat, Food, Drink, Water Supply, Pour
- 14. Plants, Agriculture, Wine
- 15. Animals, Stock-raising, Hunting, Fishing
- 16. Location, Placement
- 17. Movement
- 18. Boats & Navigation
- 19. Time

- 20. Be, Nature, Happen, Change
- 21. Supernatural, Fate, Prophecy, Magic
- 22. Religion, Burial, Festivals, Theatre, Sport
- 23. Senses
- 24. Colours, Dimensions, Properties of Objects
- 25. Quantity, Measure, Comparison
- 26. Possession, Take, Give, Sell, Buy
- 27. Organise, Join, Separate, Mix, Prepare
- 28. Do, Make, Art, Use, Work, Idleness
- 29. Modal Verbs & Adverbs
- 30. Mind, Soul, Thought
- 31. Communication & Writing
- 32. Emotions & Attitudes
- 33. Customs, Morals, Ethics, Law
- 34. Government, Authority, Courts
- 35. Firm, Strong, Weak
- 36. Hit, Break, Crush, Grab, Scratch, Cut, Destroy, Kill, Die
- 37. Military Matters
- 38. Danger, Error, Harm, Safety

Index

An Explanation of ὁ ΦΑΡΟΣ: A Thematic Guide to Ancient Greek Vocabulary and Set Phrases

In the summer of 2018, I participated in a full-immersion Ancient Greek course. During this course, in which Ancient Greek was not just read but also spoken, I became painfully aware of how inadequate my active vocabulary was. I also realised that when reading Ancient Greek, I more often got blocked by inadequate vocabulary than by dodgy understanding of grammar or syntax. Once the course had finished, I optimistically and naively set out to find a vocabulary learning aid more useful than the reverse dictionary I already possessed, but imagine my dismay when I found just a few phrasebooks for Biblical or Attic Greek, Klett's *Grundwortschatz*, and Greek-English versions of Comenius' *Janua reserata* and *Orbis pictus*.*

Most of the vocabulary books heretofore available for Ancient Greek are much less helpful than one might hope. This is because they simply continue the eclectic tradition inaugurated so gloriously in the 2^{nd} century AD by the mad Egyptian lexicographer Julius Pollux, who thought he could impress the very stable genius emperor Commodus by assembling long lists of semantically related words from Greek texts of every possible era, dialect, and genre. In this and subsequent works in the same vein, we are never told how common a word is, and mostly we are not told what kind of text it comes from. This will not deter those students whose final goal is to master all of the 180,000 words that have survived from all of the Ancient Greek dialects, but for the rest of us this is a horrific mess. To make matters still worse, some modern collections include neologisms and words that mean nothing like what the lexicographer wants them to mean (e.g. $\pi\epsilon\rho\acute{o}\nu\eta$, which meant a pin, brooch, or fibula bone to the ancients but a dinner fork [!] to the compiler of the 'Greek' *Orbis pictus***).

Which, then, of those 180,000 surviving ancient Greek words should we learn? To me, it is blindingly obvious that when you learn a foreign language, you had better start with ONE dialect of it, first learning the most common and useful words and phrases of that particular dialect. It is equally obvious to me that if you want to learn 'Ancient Greek', the best 'dialect' to start with is the Koine of Luke, Plutarch, Strabo, Galen, Epictetus, Marcus Aurelius, and the whole rest of the Eastern Mediterranean from about the 3rd century BC onwards. *The Pharos*, then, is a *practical* thematic lexicon of Koine Greek with the words arranged by meaning into 38 categories which will allow us to speak or read about any topic. (I have not hesitated to put a word in multiple categories where appropriate.) And since in order to be practical we must know where to train our fire, I have used our modern resources (especially the marvellous *Thesaurus Linguae Graecae* with its unfortunate Latin names for Greek texts) to determine just how frequently each word appears in Koine texts.

Obviously, the character of any such corpus-based lexicon depends on which works form that corpus, and Koine Greek is not a language for which it is evident which works to include and which to exclude. In the end, I have based my lexicon on the following 22 (more or less literary) authors or collections, divided into five rough groups:

The 22 core sources forming the corpus of Koine Greek in the Pharos:

Jewish and biblical

L = the LXX, i.e. the Septuagint (including all books found in the Eastern Orthodox canon)

N =the **N**ew Testament (both the Byzantine and Alexandrian texts)

f = **phi**lo Judaeus, I AD (sorry, capital F had already been claimed by the Physiologus)

J = Flavius Josephus, I AD (of whom BJ = Jewish Wars, AJ = Jewish Antiquities)

Pagan history, geography, philosophy

p = polybius, historian, II BC (sorry, Plutarch had already claimed the capital P)

d = diodorus Siculus, ethnographer & historian, I BC (big D had already been claimed by Pedanius Dioscorides)

S = Strabo, geographer, I BC-I AD

P = Plutarch, historian & philosopher, I-II AD (works now suspected to be spurious have been excluded)

E = Epictetus, philosopher, I–II AD (as transcribed by Arrian)

M = Marcus Aurelius, Roman emperor & philosopher, II AD

Popular narratives

C = Chariton's novel 'Callirhoe', late I AD (?)

V = Life of Aesop ('Vita Aesopi') G, II AD (?)

R = The Alexander Romance (recension A, put into its final form ca. 300 AD by a 'Pseudo-Callisthenes')

Technical works in botany, engineering, medicine, astronomy, dream interpretation, 'zoology'

D = Pedanius Dioscorides, botanist, I AD

h = hero of Alexandria, engineer, I AD (capital H already been assigned to the Hermeneumata)

G = Galen, physician & philosopher, II AD (works now considered spurious have been excluded)

T = Claudius Ptolemy, astronomer/astrologist, geographer, and musician, II AD

a = artemidorus Daldianus, oneirologist (i.e. dream interpreter), II AD (sorry, 'Aesop' had capital A already)

F = the Physiologus, 'zoologist' (only the earliest surviving recension, from perhaps the 3rd century AD)

'Didactic' Works

A = Aesop's fables (only those in the *Hermeneumata* or in the 4th century AD Collectio Augustana per Perry)

I = Hierocles' and Philagrius' 'Philogelos', a collection of jokes from the 3rd & 4th centuries AD (?)

H = the glossaries (Leidensia), dialogues, & pedagogical texts of the Hermeneumata Pseudodositheana, III-IV AD

Philo, Josephus, Polybius, Diodorus, Strabo, Epictetus, Plutarch, Marcus Aurelius, and Galen were obvious choices, and I have included Chariton, the anonymous *Life of Aesop G*, and the oldest recension of the *Alexander Romance* as examples of more popular writing. Dioscorides, Hero, Ptolemy, Artemidorus, and the Physiologus show us how the ancients talked (or at least wrote) about plants, engineering, astronomy/astrology, dreams, and animals. 'Aesop' and the *Philogelos* are included because they refer to everyday situations and everyday human foibles, while the *Hermeneumata* are extraordinarily useful because their 3th and 4th century AD (?) compilers have already selected for us the Greek words and phrases

which they thought a non-native speaker should learn. The first two sources in my list, of course, are read far more often than any of the other 20, and their qualified inclusion (see below) needs no justification. (Almost all of these texts, I suppose it should be said, are in prose except for a few books of the Septuagint and some verses included in Diodorus and the *Alexander Romance*.)

At the end of each entry in my lexicon, then, is a horrible little cluster of letters indicating which of my 22 sources use the word in question. For example: the entry for μητρυιά, meaning 'stepmother', ends with fJ.dPM.C.Ta.AH*. This means that the word occurs in: Philo, Josephus / Diodorus, Plutarch, Marcus Aurelius / Chariton / Ptolemy, Artemidorus / 'Aesop', Hermeneumata, but not in the other twelve of my 22 core sources. One can get a quick idea of what kind of writers use the word thanks to the dots that separate the five rough categories in my list above, i.e. biblical.pagan.popular.technical.didactic. I have tried not to count towards this 'corpus information' words which occur in one of my 22 sources but only in a citation from another author (e.g. the New Testament quoting the Old, a pagan author citing Homer, or Galen citing Damocrates). Occasionally, a source other than my basic 22 is noted; these are mostly other literary texts rather than non-literary inscriptions or papyri. Where I write that a word is used in such-and-such a way in Koine, that statement is based on what occurs in my 22 core sources, and I claim no knowledge of what happens elsewhere.

If a word does not occur in any of my 22 core sources, it is, you can be sure, a pretty darn rare word in Koine Greek. Such words are not included here unless they denote something extremely important like ὁ ἀρκτύλος (a bear cub ⑤). I have occasionally listed 'Byzantine' terms for things that did not yet exist in Antiquity (e.g. sugar or mosques); sources for these Byzantine words are always indicated along with their dates.

And what about that sweet little asterisk in fJ.dPM.C.Ta.AH*? Just to avoid disappointment should this book fall into the hands of any modern Keitoukeitos (the nickname of the grammarian who, at the banquet in Athenaeus' *Deipnosophistae*, obsessively asks κεῖται ἢ οὐ κεῖται; i.e. is this found in a good Attic author or not?), I have added the asterisk when a word occurs in the same meaning in the authentic writings of any of the six most feted and fetishised writers of holy Ur-Attic prose: Plato, Thucydides, Xenophon, Demosthenes, Isocrates, and Lysias. The overlap between Attic prose and Koine is rather extensive (if one discounts the endless Athenian legal terminology), so most of the words in this lexicon have the 'Attic asterisk'. And while on the topic, Attic forms in -ττ- instead of -σσ- have not been listed separately, even though they are often found in Koine texts. If, on the other hand, my 22 Koine sources overwhelmingly prefer -ττ- with a given lemma, then that variant is the only form of the word I have given. There survives a brief lexicon, compiled by a certain Aelius Moeris perhaps in the 2nd century AD, which lists how 'ἀττικοί' supposedly said some things versus how 'ἕλληνες' said them, i.e. Attic vs. Koine. Moeris did not have the corpus tools that we do, so he is not infallible, but I have mentioned his distinctions where I think they might be informative.

The end result of this most laborious process is a collection of just over 16,000 words, which I hope makes this lexicon thorough if not exhaustive. Nobody can learn anywhere near 16,000 words at once, of course, so I have tried to show which words we should prioritise. Each Greek entry appears at

one of three different sizes according to its total frequency in all 22 sources.*** Students should naturally become familiar with the largest words first, then add the smaller ones if and when needed.

Personally, I can *sometimes* learn a word more effectively when I know its etymology or a modern word derived from it, so I have given this information {in brackets like this} where it is known and I think it might be helpful (most of this is from Bailly, Montanari, or Romizi, and occasionally Beekes where the French and Italians cannot get along; Indo-European roots are not normally given, since these are not useful to normal people). Furthermore, words from a common root are organised 'etymologically', with the earliest word closest to the left margin, and derived words ranged ever further to the right according to their distance from the 'original' word.

I am a student of Ancient Greek, not one of the professors who should have compiled this lexicon long ago, and as a student, I want this guide to be as helpful as possible for learners. Therefore, I have discreetly marked adjectives denoting the absence of some quality (like this: \P), and have also discreetly marked (like this: \P) all unexpectedly two-stem adjectives, all adjectives with irregular comparative and/or superlative, and all nouns with unpredictable genders. In addition, every verb with more irregularities in its conjugation than the typical morphological problems has been discreetly provided with a handsome irregular verb box containing the irregular principal parts which appear for that verb in my 22 Koine sources. I have also tried to include whatever extra information we might need in order to use a given verb in conversation, such as whether a verb in $-\varepsilon\sigma\theta\alpha\iota$ is treated as middle or passive in the tenses where that makes a difference, and which preposition and/or case a verb should take in Koine.

I have written 'should' here quite deliberately. There was much variety, to say the least, in the way verbs were conjugated and collocated in 'Koine Greek', but far less than one might expect if we consider only native speakers like Diodorus, Strabo, Plutarch, Epictetus, Galen, Chariton, and Luke. If Koine is to be considered a single language at all, then the standard version of it is what we find in the writings of these authors. Some, however, of what is contained in the Septuagint, the New Testament, and other Jewish and Christian writings is not standard Greek of any register or region, and we rob those texts of their exotic, mystical, even divine power if we pretend otherwise. I have therefore tried to give 'standard' usages and constructions for verbs. Hopefully, later, when our feel for standard usage is strong enough, we will be able to appreciate any deviations from that usage as part of the special flavour of a text.

You will notice that all verbs are listed by their infinitives (the present infinitive if this occurs in Koine, otherwise the agrist or perfect infinitive) rather than by their first-person forms. This is because I am learning to use Koine actively and have little use for uncontracted first-person forms of contract verbs which (at worst) never existed or (at best) were used only in other 'dialects' like Epic or Ionic. The present infinitive *did* exist and gives us all the information we need in the most efficient way. For other principal parts of irregular verbs, the first-person form is given just as hallowed tradition would dictate. I have also listed a verb by its middle or passive infinitive if it was almost always used in that voice in Koine. Set phrases used with a word are in attractive shadowed boxes with the authors using them noted in tiny letters just after the Greek phrase. Longer phrases or complete sentences showing how the word was used by one particular author are *in Italics*.

I have, with the precious help of a very small circle of colleagues, tried to eliminate all typographical errors in this lexicon. Nonetheless, some errers (especially with accents) will inevitably have escaped our efforts. Suggestions for corrections or improvements are very welcome at: adrianhundhausen AT gmail.com. Since this lexicon is printed on demand only, it will occasionally be updated.

Michael Kahnert and Jenny Teichmann have offered inexhaustible help, support, and patience with this project, and I am extremely grateful to them both. Everything good about this lexicon is likely due to one of their suggestions, while any remaining deficiencies are due to me alone.

Adrian Hundhausen January 2024

*It has since come to my attention that *slightly* better materials were once available in French, Spanish, Italian, and German; perhaps the best collections of vocabulary I have seen are Karl Bernhard Todt's *Griechisches Vocabularium für den Elementarunterricht in Sachlicher Anordnung* (1868) and Pasetto & Cristiani's *Nomenclatura e fraseologia greca*, (1924; mostly Attic, plus a fair number of phrases totally unique to Theophrastus, Plutarch, or the LXX). However, one particular pair of words will go a long way towards illustrating what we are up against when looking for help with vocabulary from teachers who had no digital corpora at their disposal. In their chapter about religion, Pasetto & Cristiani give us the word ἡ σπονδή (= libation) along with ὁ σπόνδαρχος (= one who initiates the pouring of the libation). But whereas σπόνδη occurs about 1200 times in the TLG corpus before the year 300 AD, σπόνδαρχος occurs exactly *once* in the entire Greek corpus from Homer to the 17th century AD (in an epitome of Phrynichus' manual for training sophists to speak proper Attic). And yet, there the two words sit, right next to each other, with no indication of the slight disparity in how often we should expect to meet them.

** Perhaps this was taken from Modern Greek $\pi\iota\rhoo\acute{\nu}\iota$ = dinner fork? The ancients, as is well known, did not use dinner forks. If we must have an Ancient Greek word for dinner fork, $\kappa\rho\epsilon\alpha\gamma\rho\iota$ (= 'miniature hook for taking meat from a pot') can serve us while suffering far less violent distortion than $\pi\epsilon\rho\acute{\nu}$. I encourage all who are interested in Modern Greek to go and learn that beautiful language, but at the same time, I do not think it is a good idea to mix random bits of it into Ancient Greek.

*** Very broadly speaking, if a word occurs fewer than 100 times in my 'corpus', it is printed at the smallest size. If a word occurs between 100 and 300 times and is evenly spread through my 22 sources, it is printed at medium size. (Obviously, a word's frequent occurrence in Galen is taken with a grain of salt, given that his surviving corpus is far larger than all the other 21 sources combined). Words occurring more than 300 times and evenly spread through my 22 sources are printed humongously.

1. The Five Elements, the Weather

a. Earth, Mud, Dust, Sand

b. Pebbles, Gravel, Rocks

c. Stone, Quarries

d. Mines & Metal

e. Gold, Gold-mining

f. Silver

g. Copper, Iron, Blacksmithing

h. Other Minerals

i. Alchemy and Smelting

j. Water & Precipitation

k. to Flow

l. to Drip, Sprinkle, Dip

m. Dew, Mist, Clouds

n. Rain, to Soak

o. Tempests

p. Waves, Floods

q. Frost, Shivering

r. Snow

s. Ether, Air, the Weather

t. Blow, Winds, Whirlwinds

u. Fire

v. Sparks, to Set on Fire, Flames

w. to Burn, Heat

x. to Fan, Smoke, Soot

y. to Extinguish, Ashes

τὰ στοιχεῖα, -ων

in pl.: the elements, i.e. earth, water, air, fire, ether (στοιχεῖα 1^{st} so used in ΠΛΑΤΩΝ, TIMAEUS). In sing. = a phoneme or letter. {Lit. one of a row > στοιχεῖν = to stay in line > ο στοῖχος = a row > Epic στείχω = to walk/march, cogn. w/ Ger. 'steigen', Danish 'stige'.} LNIJ.pdspem.CVR.DhgTa.AH*

a. ΓΗ, ΠΗΛΟΣ, ΧΟΥΣ, AMMOΣ Earth, Mud, Dust, Sand

ἡ **γῆ**, γῆς γήϊνος, -η,-ον

earth, soil. LNfJ.pdSPEM.CVR.DhGTaF.AH*

of earth, made of earth or clay (e.g. π λίνθοι = mudbricks, τείχη = adobe town walls), perishable. f.e.ga*

ό/ἡ βῶλος, -ου

a lump, a clod of earth, a nugget. LfJ.pdSP.DG.A*

χρυσοῦς/χρυσέα βῶλος A, Diogenes Laertius (III AD) = a gold nugget.

ο βόρβορος, -ου

ὁ γλοιός, -οῦ

mire, filth. LNFJ.SPEM.DNGa*

anything sticky or viscous, e.g. tree resin, bath oil, olive oil + sand as scraped off the body of an athlete. DG, Aristotle

ἡ ἰλύς, -ύος !!!

mud, slime, sediment. LI.pdspe.Dhg* mud, clay, earth. LNfl.pdspem.cvr.DhgaF.H*

ό πηλός, -οῦ πηλώδης, -ες

muddy. dsp.dg*

πήλινος, -η,-ον προπηλακίζειν τινά

of clay or adobe (e.g. ἀνδριάς, τοῖχος). L.PE.DGa*

to splatter sb with mud, to abuse sb foully. fl.pdP.C.G.A*

Attic fut. προπηλακιῶ.

ὁ κέραμος, -ου

ο χοῦς, χοῦ

τὸ **Κεράμιον**, -ου κεραμικός, -ή,-όν ὁ κεραμεύς, -έως potter's clay. Or: something made of it, e.g. a jar or tile. LNFL,pdSP.C.DhGa.AH*

an earthenware jar, a vessel (smaller than an ἀμφορεύς). LNJ,pdPE.V.DhGa.lH*

ari eartheriware jar, a vesser (smaller triali ari αμφορεύς). LNJ.pape.v.bhga.H*

made of clay. LN.SP.DG*. Also found w/ the same meaning are Κεραμεοῦς, κεραμαῖος, κεράμειος & κεράμιος.

a potter, a tilemaker. ΗΣΙΟΔΟΣ (VII BC, as proverb in ΠΛΟΥΤΑΡΧΟΣ, DE TRANQVILITATE ANIMI): κεραμεύς κεραμεῖ κοτέει καὶ τέκτονι τέκτων = a potter bears a grudge (Epic/Attic ὁ κότος = grudge) against potter and against a carpenter, a carpenter

(i.e. two of a trade never agree). LN.pdP.Ga.A*.

ἡ κεραμίς, -ίδος

a roof-tile. pdSPE.DhG.H*

excavated soil, dust. **Dat.** χοΐ, **acc.** χοῦν. (L,F have substandard gen. χοός, which should really belong to ὁ χοῦς = a liquid measure.) {χεῖν = to pour}. LNEL,SSP.GF*

1. Elements, Weather

-1a. Earth, Mud, Dust, Sand.

1b. Pebbles, Gravel, Rocks.

1c. Stone, Quarries-

ή	κονία, -ας	dust, lime, plaster. {Cogn. w/ ἡ κόνις = dust, ashes}. LdP.DG, Aristophanes	
ή	κόνις, -εως	powder, dust, ashes. {Cogn. w/ ἡ κονία = dust, lime, plaster}. Lfl.dspm.CR.DG*	
	ὁ κονιορτός <i>,</i> -οῦ	a cloud of dust, sweepings. {Epic ὄρνυμι = to stir up}. LND.pdSP.R.DG*	
	κονίειν (τι)	to cover sth in a cloud of dust. Intrans.: to make a cloud of dust. f.P.G, Lucian*	
	ἀκονιτί (adv.)	without the dust of the arena, i.e. without effort. {adv. of ἀκόνιτος, -ov = without dust}. εl.pds.c*	
ή	γύψος, -ου <i>!!!</i>	gypsum, plaster, or mortar for bricks. dPE.DG*	
ή	τίτανος, -ου !!!	white chalk, lime, gypsum. {? from a place of that name in Thessaly?} J.ds.DG, Lucian, Aristotle	
ή	ἄμμος, -ου <i>!!!</i>	sand of any kind in any place. $\{?\ Epic\ \Hau\mu\alpha\theta\circ\varsigma=sand\}$. LfN.dSP.R.Dh.AH*	
	άμμώδης, -ες	sandy, gravelly. Lpds.DhGT	
	ἡ ἀμμοκονία, -ας	the cement used in concrete. {ἄμμος = sand + κονία = lime, plaster}. s	
ή	ψάμμος, -ου <i>!!!</i>	beach or desert sand (lonic). {? ψῆν (intrans.) = to crumble away?}. Lfl.SP.CR.DhG, Herodotus	
	ψαφαρός, -ά,-όν	crumbling, fragile, powdery, sandy (e.g. $\gamma \tilde{\eta}$). {? Cogn. w/ $\psi \tilde{\eta} v$ = to crumble?}. J.DG, Aeschylus	
ό/ή	θίς, θινός !!!	a heap or mound, esp. a sand dune or sandbank, a riverbank. (Always topographical in Koine.) Dat. pl. θισί(ν). _{Ll.pdSPM.T*}	

b. ΨΗΦΟΙ, ΚΑΧΛΗΞ, ΠΕΤΡΟΙ Pebbles, Gravel, Rocks

ό πῶρος, -ου a deposit/accretion/concretion of minerals from water, esp. a stone in the bladder.

to become hardened or petrified. (Used of calloused skin, kidney stones, and πωροῦσθαι

metaph. of persons becoming hard-hearted.) LN.G, Hippocrates

Aor. pas. ἐπωρώθην, **fut. pas.** πωρωθήσομαι.

ψῆφος, -ου !!! a pebble (e.g. for counting or voting), a vote (either an individual voice or the

communal act), a grain of sand, a tessera of a mosaic. $\{\psi \tilde{\eta} v / \psi \tilde{\alpha} v = \text{to rub, polish}\}$

sth }. LNfJ.pdSPE.CR.DhGTa.AH*

ἡ ψηφίς, -ίδος a small pebble. Or: a tessera of a mosaic. f.dP.G.A, Homer

ψηφίζειν τι to count or calculate sth (e.g. τὴν δαπάνην = the expense) (using pebbles, e.g. on an abacus). Voting was also done using pebbles, and the **middle** ψηφίζεσθαι (for sb =

 $\tau \iota \nu \iota$, for sth = $\tau \iota$) is used for that meaning. (Cf. late Latin calculare > calculus = **Attic fut.** ψηφιῶ.

pebble}. NfJ.pdSPE.VR.hGa.H*

ὁ ψηφοπαίκτης, -ου a juggler. {παίζειν = to play}. H, Eudoxus (comic poet, IV-III BC?), Sextus Empiricus (philosopher, II-III AD)

ή χάλιξ, -ικος!!! a pebble. As a collective in sing.: rubble or aggregate as a component of concrete for

building. L.SP.H*

ό κάχληξ, -ηκος!!! a pebble. Singular used as a collective: gravel. J.S.G, Heliodorus*

ή πέτρα, -ας a mass of rock, a cliff or crag. Or: a hollow rock, i.e. one w/ a cave. LNfl.pdsPE.R.DGaF.A*

ο πέτρος, -ου a rock or boulder, LfJ.dsp.G.H*

πετρώδης, -ες rocky, craggy. {Could also be from πέτρα.} NJ.pdSP.R.DhG*

πετραῖος, -α,-ον rocky. SP.DGT*

of rock, of stone. L.S.D πέτρινος, -η,-ον

ό πετροβόλος,-ου [καταπέλτης] an engine of war throwing stones. {βάλλειν = to throw}. Li,pd

c. ΛΙΘΟΣ, ΛΑΤΟΜΙΑΙ

Stone, Quarries

ό λίθος, -ου

a stone, stone as a substance. Fem. ἡ λίθος can mean a precious stone. ΛΟΥΚΑΣ: καὶ αὐτὸς ἀπεσπάσθη ἀπ' αὐτῶν ἀσεὶ λίθου βολήν = and he got pulled away from them by about a stone's throw. All 22* ἡ Ἡρακλεία λίθος P.GT, Aristotle* = the magnet.

λίθος τίμιος LN, Herodianus the Historian (II-III AD), Aelian (II-III AD) = a precious stone.

Πάριος λίθος L.D, Aristotle, Herodotus = highly-prized Parian marble from the island of Paros.

ἡ λιθ(ε)ία, -ας fine building stone. Or, collectively: precious stones, jewellery. J.pdSP

λίθινος, -η,-ον of stone. LNfJ.pdSP.R.DGTa*

-1c. Stone, Quarries.

1d. Mines and Metal.

1e. Gold, Gold-mining-

λιθοῦσθαι (pas.) to be turned to stone. f.SP.DG, Aristotle to pelt sb with stones. LNf.dP to pelt sb with stones. LNf.dP paved or decorated with mosaics. $\{\sigma\tau\rho\omega\tau\delta\varsigma = \text{covered} > \sigma\tau\rho\rho\nu\nu\nu\alpha\iota = \text{to spread}\}$. LNJ.S λιθοκόλλητος, -ov gem-covered, gem-encrusted. $\{\kappaο\lambda\lambda\alpha\nu = \text{to glue}\}$. f.dSP, Lucian, Heliodorus* δ λιθουργός, -oῦ a stoneworker, a sculptor in marble. L.SP.T* δ λιθοτόμος, -oυ a stonecutter, a mason. $\{\tau\epsilon\mu\nu\epsilon\nu\nu = \text{to cut}\}$. fi.d.G*

a stonecutter, a mason. {τέμνειν = to cut}. ε.d.σ*
a stone quarry (usually pl., mostly mentioned in their function as prisons). ΙΩΣΗΠΟΣ,
CONTRA APIONEM: καὶ τούτους εἰς τὰς λιθοτομίας τὰς ἐν τῷ πρὸς ἀνατολὴν μέρει τοῦ

Νείλου ἐμβαλεῖν = and to throw these men into the quarries on the east side of the

Nile. In this sense: LDG H*

ό λατόμος, -ου λατομεῖν τι αὶ λατομίαι, -ῶν ὁ ἀμμίτης, -ου λίθος, -ου ἡ κίσ(σ)ηρις, -εως

αί λιθοτομίαι, -ῶν

ό μάρμαρος, -ου

μαρμάρινος, -η,-ον άλαβαστρίτης, -ου [λίθος] a stonecutter, a quarry worker. {Epic $\lambda \tilde{\alpha} \alpha \varsigma$ = stone + $\tau \epsilon \mu \nu \epsilon \iota \nu$ = to cut}. $\iota \iota \iota \tau$

to hew sth (ἐκ πέτρας), to quarry stone. LNfJ.dS. Also λ αξεύειν for this in LJ. stone quarries (e.g. those serving as prisons at Syracuse). $J.dSP.h^*$

sandstone. $\{\dot{\eta} \ \, \ddot{\alpha}\mu\mu\sigma\varsigma = \text{sand}\}$. Egyptian Magical Papyrus Preisendanz no. 12 pumice-stone, created when super-heated, highly-pressurised rock is ejected from a

volcano. DG, Aristotle, Theophrastus (IV BC)

marble, a stone which sparkles in the light. {μαρμαίρειν = to sparkle}. LNJ.dSP.R.DhG.R. Meant some kind of crystalline rock in Homer and Attic tragedy.

of marble. Ll.ds

alabaster from Egypt (probably Onyx marble). s.DG, Theophrastus (IV BC)

d. TA METAAAA

Mines & Metal

τὸ μέταλλον^(′),-ου (τινος)

μεταλλικός, -ή,-όν μεταλλεύειν (τι) ό μεταλλευτής, -οῦ ἡ μεταλλεία, -ας

ἡ φλέψ, φλεβός

τὸ ἔλασμα, -ατος τὸ πέταλον, -ου

ἡ λεπίς, -ίδος

τὸ ῥίνημα^(′), -ατος τινος

τὸ ψῆγμα, -ατος

ò **ἰός**, -οῦ

ιώδης, -ες

a mine or quarry (of sth, e.g. ἀργύρου, ἀλός, μαρμάρου). Later, by the 2nd century AD: a metal, a mineral. Lfl.pdsP.R.DGTa*

of mines or metals. dp.DGT*

to engage in mining, to get sth ($\tau\iota$) by mining, to undermine sth. LfJ.pdSP.DG, Aristotle

a miner. s.GT. μεταλλουργός is used for this by d.D.

(under)mining as an activity, a mining operation. Ldsp.g*

a blood vessel, usually a vein. Also: a vein of metal in a mine, a spring of water. of metal or water: fJ,pdS*. $\dot{\eta}$ $\dot{\rho}\dot{\alpha}\beta\delta$ OS is also used for a vein of mineral in d, Theophastes (IV BC).

beaten metal, a sheet of metal. $\{ \acute{\epsilon} \lambda \widetilde{\alpha} \nu \ \text{Poetic for } \acute{\epsilon} \lambda \alpha \acute{\nu} \nu \epsilon \iota \nu \}$. In this sense: Li.dS.Dh

a leaf of a plant, a thin plate of metal. {neut. of πέταλος = broad & flat > πεταννύναι = to spread or open}. Lfl.dP.DG*

a scale of a fish, a flake (e.g. of metal, bone), a plate of metal. $\{\lambda \pm \pi \epsilon \iota \nu = to peel\}$. LNDI,pdSP.DhGTa, Aristotle

filings (e.g. χαλκοῦ = of copper, κέρατος = of horn). (ἡ ῥίνη = a rasp or file). DG, Hippocrates* scrapings, dust. (ψήχειν = to rub down). J.dsp.Dg* Ψῆγμα χρυσοῦ J.ds.G = gold dust.

poison, venom, envy, rust/verdigris/patina (on some metal = τινος, e.g. τοῦ χαλκοῦ).

As rust, verdigris, patina: LNf.pdSP.DGa*

rusty, rust-coloured (reddish-brown OR green!), venomous, poisonous. P.DGT, Theophrastus (IV BC)

e. ΧΡΥΣΟΣ, ΤΟ ΧΡΥΣΩΡΥΧΕΙΝ Gold, Gold-mining

ό χρυσός, -οῦ

τὸ χρυσίον, -ου

gold. {Semitic loan-word}. LNfJ.pdSPEM.CR.DGTa.A*

a piece of gold, a gold coin, gold coins (collective). {dim. of χρυσός}. LNfJ.pdsPE.CVR.DGTa.A*

χρυσοῦς, -ῆ,-οῦν

χρυσῖτις, -ιδος (adj.) τὰ χρυσώματα, -ων χρυσοφορεῖν χρυσοειδής, -ές golden, of gold. LNfJ.pdSPEM.CVR.DhGTa.AH*

bearing or containing gold (e.g. $\gamma\tilde{\eta}$, $\ddot{\alpha}\mu\mu\sigma$). $\dot{\eta}$ $\chi\rho\nu\sigma$ ($\tau\iota\varsigma$ = gold ore. In this meaning: SP.G, Herodotus objects made of (wrought) gold. (Almost always pl.) $_{LpdSPE.R^*}$

to wear gold ornaments. L.dS.P.a, Aristotle

gold-like. $\{ \dot{\tau} \dot{o} \dot{\epsilon} \bar{l} \delta o \zeta = thing seen, shape, form \}$. Ldsp.Dg*

-1e. Gold, Gold-mining.

1f. Silver.

1g. Copper, Iron, Blacksmithing.

χρυσώρυχος, -ov involved in digging for gold. {όρύσσειν = to dig}. s

χρυσωρυχεῖν to mine gold underground. Aelian (II-III AD)
τὸ χρυσωρυχεῖον, -ου an underground gold mine. s

τὸ χρυσοπλύσιον, -ου a placer mine, i.e. where the streambed is washed for gold. {πλύνειν = to rinse}. s one who melts gold, a goldsmith. (Never contracted in my 22.) {χεῖν = to pour}. L.P.DGT,

Diocletian's Price Edict (301 AD)*

καταχρυσοῦν τι to gild sth, to adorn sth with gold. LdP*. Simple χρυσοῦν in N.

χρυσήλατος, -ov gilded, i.e. covered in beaten gold. {έλαύνειν = to drive}. P.C. Lucian, Longus (II AD?), Aristophanes

ἐπίχρυσος, -ov covered in gold on the outside. fl.dp*

$f. AP\Gamma \Upsilon PO\Sigma$ Silver

o ἄργυρος, -ου silver. {Literally 'shiny metal' > άργός = shining, glistening.} LINFL, pds PEM.CR. DhGTa. H*

τὸ ἀργύριον, -ου a piece of silver, silver coin(s), money. {dim. of ἄργυρος}. LNfJ.pdsPEM.CR.DhGa.AH*

έξαργυρίζειν τι to monetise sth, to sell sth off and convert it into cash. pdP.A*

άργυροῦς, -ῆ,-οῦν of silver. LNfJ.pdSPE.R.DhGTa.Ah*

ἀργυρῖτις, -ιδος (adj.) bearing or containing silver (e.g. ψάμμος, βῶλος = nugget, γῆ). pds.DG* tὰ ἀργυρώματα, -ων objects made of silver, silver plate, silverware (almost always pl.). LpdsE.G.H*

ο ἀργυροκόπος, -ου a silversmith (lit. silver-coiner; used of utensil-makers). [κόπτω = to strike, cut]. INPLI

ο ἀργυρογνώμων, -ονος an assayer. {ο γνώμων = a connoisseur, an expert inspector}. PELC

καταργυροῦν τι to (completely) cover sth in silver. LdP, Herodotus

φιλάργυρος, -ov money-loving, avaricious. $\{φιλεῖν = to love\}$. $_{LNf,pdPEM.Al^*}$

g. ΧΑΛΚΟΣ, Σ ΙΔΗΡΟΣ Copper, Iron, Blacksmithing

 \(\chi \times \times \chi \tim

 χ αλκοῦς, -ῆ,-οῦν of copper (or bronze or brass). Also occurs uncontracted: χ άλκεος, -έα,-εον (note

accents!); sometimes both forms occur in the same author. LNE.pdspe.R.DhGTa.H*

τὸ χαλκεῖον, -ου a (copper) pot or cauldron. LNJ.dsP.DG.I*. Spelled χαλκίον in N, Strabo.
τὸ χάλκωμα, -ατος a vessel or instrument made of copper or bronze. pdsP.V.D.H*

ὁ χαλκεύς, -έως a coppersmith. Later: a blacksmith, a metalworker. ΑΙΣΩΠΟΣ: Γαλή εἰσελθούσα εἰς χαλκέως ἐργαστήριον τὴν ἐκεῖ κειμένην ρίνην περιέλειχε = a weasel went into a blacksmith's shop and started licking a file/rasp she found lying there. Lfn.pdspe.v.gta.A*

χαλκεύειν (τι) to work as a blacksmith, to forge sth. Ll.pdPE.Ga*

 o δίδηρος, -ου iron. LNfl.pdspem.cvr.Dhgtaf.AH*
 o ιδηροῦς, -ῆ,-οῦν made of iron, hard, stubborn. LNfl.pdspe.R.Dhgta.H*

τὸ σιδήριον, -ου a piece of iron or an iron tool, e.g. an axe blade or a poker. (Cf. Spanish 'herramienta'.) ΕΠΙΚΤΗΤΟΣ, DISSERTATIONES: ὡς χαλκεὑς ἐξιώσει τὸ σιδήριον = as the

smith will clean the rust ($\dot{\epsilon}\xi$ lo \tilde{v} > \dot{o} \dot{i} \dot{o} = poison/rust) from the tool. LSPEM.DG.H*

ὁ σιδηρεύς, -έως an iron-worker, a smith. l.R*

ὁ μύδρος, -ου a molten, red-hot mass of iron or another metal (on an anvil, shot from a volcano,

etc.). fJ.dSP, Aristotle, Herodotus, Sophocles

 $\dot{\eta} \quad \sigma \varphi \tilde{\upsilon} \rho \alpha \text{, -} \alpha \varsigma \qquad \qquad \text{a hammer. } \text{\tiny LfJ.dPE.V.hGTa.H, Aristotle, Herodotus}$

θερμαστρίς, -ίδος a pair of blacksmith's tongs, a pair of pliers. {θερμάζειν = to heat}. In this sense: Aristotle, Athenaeus

the Mechanic (I BC?)

ἄκμων, -ονος an anvil. ւք.dp.hGa.H*

 $\dot{\eta}$ φῦσα, -ης a bellows (often in pl. since they came in pairs). Or: flatulence in the body. $\{\dot{\varphi}$ υσᾶν =

to blow}. As bellows: d.DGa, Aristotle*. Also $\dot{o} \; \varphi \upsilon \sigma \eta \tau \dot{\eta} \rho, \; -\tilde{\eta} \rho o \varsigma \; \text{for bellows in L.G.}$

h. ΑΛΛΑ ΜΕΤΑΛΛΕΥΟΜΕΝΑ

Other Minerals

0 1	bευδάρνυρος. −ου	

ή ὑδράργυρος, -ου!!!

τὸ κιννάβαρι, -εως

ὁ κασσίτερος, -ου κασσιτέρινος, -η,-ον

ὁ μόλιβδος/μόλιβος, -ου

μολύβδινος, -η,-ον τὸ ψιμύθιον, -ου

ὁ πυρίτης, -ου (λίθος, -ου)

ἡ Μαγνήτις, -ιδος

ὁ ἀδάμας, -αντος

άδαμάντινος, -η,-ον

τὸ ἤλεκτρον, -ου

τὸ λυγγούριον, -ου

ό ἄνθραξ, -ακος !!!

ἡ πίσσα, -ης

ό πισσίτης, -ου οἶνος, -ου τὸ Θεῖον, -ου

ἡ στυπτηρία, -ας [γῆ]

zinc. {ψευδής = false + ἄργυρος = silver}. s

mercury, quicksilver. {τὸ ὕδωρ = water + + ἄργυρος = silver}. Dhg

cinnabar, i.e. a red form of mercury sulfide, mined for use as a cosmetic and for the mercury that could be extracted from it by roasting. d.D.G., Aristotle, Theophrastus (IV BC)

tin. L.pdSP.R.hG*

made of tin. L.SP.DGa, Aristotle

lead. J.pdP.DhGT* / LJ, Homer. μόλυβδος, which one would expect given our English 'molybdenum', is the most common variant in Attic, but is found in Koine only in D & G

leaden, made of lead. J.pP.R.DhGa, Aristotle

white lead, used as a cosmetic and in white paint. $f.dP.DG^*$ copper pyrite, a mineral for striking fire. $\{\tau \grave{o} \ \pi \breve{u} \rho = \text{fire}\}$. DG

the Magnet (from Magnesia in Thessaly). f.s.Dgt. ὁ μαγνήτης λίθος ε. ἡ Ἡρακλεία λίθος ρ.gt, Aristotle* the hardest, unconquerable metal (like our 'steel'). Later: a diamond. {δαμάζειν = to overpower}. Lf.d.R.GTF*. Aeschylus and Sophocles have ὁ χάλυψ, -υβος for this.

made of steel, hard as steel, stubborn as steel. ΦΥΣΙΟΛΟΓΟΣ: ὁ ἀδαμάντινος λίθος = a diamond. LPE.R.GaF*

amber, i.e. fossilised tree resin. Or: an alloy of 80% gold & 20% silver. {ήλέκτωρ = the shining sun. < Neo-Latin 'electricus' = like the mineral amber because it attracts other substances when rubbed < Eng. 'electric'}. L.I.dsp.C.DGa*

lyngurium, i.e. a kind of amber consisting of fossilised lynx urine! {λύγξ = lynx + οὖρον = urine}. Selb called λινύριον in Li

charcoal from wood. Rarely: mineral coal (mined in Elis and in Liguria). (Often pl. in both senses.) Or: a carbuncle or other dark red precious stone. LEJ.GSPE.R.DhGa.IH*

pitch or bitumen, tar (e.g. pine tar). Or, less often: pine resin (although this is more properly called ὑητίνη). Metaph.: bad luck. ΔΙΟΓΕΝΙΑΝΟΣ ὁ ΠΑΡΟΙΜΙΟΓΡΑΦΟΣ (ΙΙ ΑD): ἄρτι μῦς πίττης γεύεται = now the mouse tastes bad luck. {Cogn. w/ Lat. 'pix', Eng. 'pitch', Ger. 'Pech'}. Lfl.pdsPE.DGa.H*

wine with an admixture of resin of the Aleppo pine. SP.DG

sulphur (mined & used for fumigation & purification). ΓΕΝΕΣΙΣ: Κύριος ἔβρεξεν ἐπὶ Σόδομα καὶ Γόμορρα θεῖον καὶ πῦρ. = the Lord rained sulphur and fire on Sodom & Gomorrah. (Easily confused w/ forms of ὁ θεῖος = 'uncle' or θεῖος = divine.) LNELdSP.DGa* alum, or some similar astringent double salt or vitriol used in tanning, dying, and medicine. Alum mines ('στυπτηρίας μέταλλον' s) were found in the western desert

of Egypt and on Lesbos. J.ds.DG, Diocletian's Price Edict (301 AD), Aristotle, Hippocrates, Herodotus

<u>i. Η ΧΥΜΕΙΑ, Η ΚΑΥΣΙΣ</u>

Alchemy and Smelting

ἡ χυμεία/χημ(ε)ία, -ας

χυμευτικός, -ή,-όν **ό** ἄμβιξ, -ικος !!! of alchemy. Zosimus the Alchemist (III-IV AD)

an alembic, i.e. a distilling mechanism as supposedly invented by Maria the Jewess, an Alexandrian alchemist. Or sometimes more specifically: the cap of such a distilling mechanism. The complete mechanism consisted of ὁ βῖκος (the jar which was heated, probably the source of Eng. 'beaker'), ὁ ἄμβιξ (the cap which sealed the jar), τὸ μαστάριον (the little-breast-shaped glass container which trapped the vapour [= ἡ αἰθάλη]), ὁ σωλήν (the tube carrying off the vapour), and τὸ ἄγγος / ἡ φιάλη / τὸ ῥογίον ⟨ὁ ῥογός = σιτοβόλιον⟩ (the recipient). D. Zosimus the Alchemist (III-IV AD)

ή κάμινος, -ου!!!

a furnace or kiln for heating (e.g. water for the bath), smelting, brick-making, pottery-making etc. {< Old Fr. 'cheminee' < Eng. 'chimney'}. LNEJ.GSP.DGTF*

1. Elements, Weather