

BOOK FIVE: VINES & WINES

We have given an account, most loving Areius, in the four books written before, of spices, oils, ointments, and of trees and their fruits and gums; and furthermore of living creatures, of honey, milk and fats, and of those called corn and vegetables, and a full discussion about roots, herbs, juices and seeds. In this, the last of the whole work, we will discuss wines and metallic things, beginning with the tract concerning the vine.

5-1. AMPELOS OINOPHOROS

SUGGESTED: *Vitis vinifera* — Grape Vine

The leaves and tendrils of the wine-bearing vine (pounded into small pieces and applied with polenta) lessen headaches, and the inflammation and burning of the stomach. The leaves do the same (applied by themselves) as they are cooling and astringent. Furthermore, the juice of them (taken as a drink) helps dysentery, bloodspitters, gastritis, and women that lust [anaphrodisiac]. The tendrils (steeped in water and taken as a drink) do the same things. The resin from it is like gum thickening around the stumps, and taken as a drink with wine it draws out stones [urinary, kidney] [*calculi*]. Rubbed on, it heals *lichen* [papular skin disease], parasitical skin diseases, and leprosy but you must first rub the place with saltpetre [potassium nitrate]. The liquid that sweats out from a burning green branch (smeared on with oil) removes hair, and rubbed on it takes off warts. The ashes of the branches, husks and seeds after the grapes are pressed (smeared on with vinegar and applied around the perineum), heal venereal warts and glandular fever. Applied with *rosaceum* [1-53], rue [3-52, 3-53, 4-98] and vinegar it is good for dislocations, viper bites, and inflammation of the spleen.

5-2. AMPELOS AGRIA

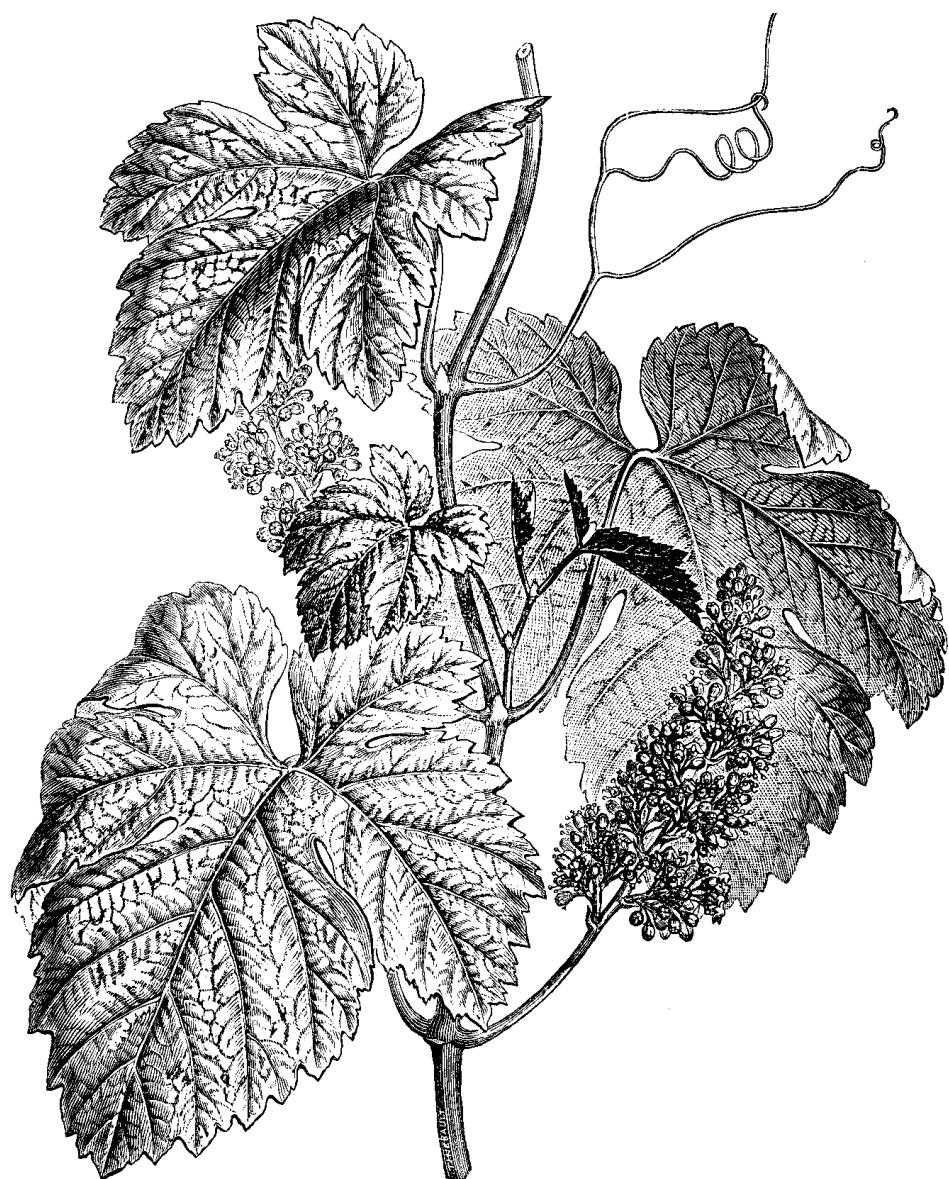
SUGGESTED: *Ampelodesma tenax* — Vine-tie, Diss
Vitis labrusca — Wild Vine or Fox Grape

Two types of wild vine are found. The grape of one sort does not ripen, but at its flowering time it brings forth shoots or buds. The other brings to ripeness a grape that is small-grained, black and astringent. The leaves, tendrils and stalks have properties similar to the cultivated vine.

5-3. STAPHULE

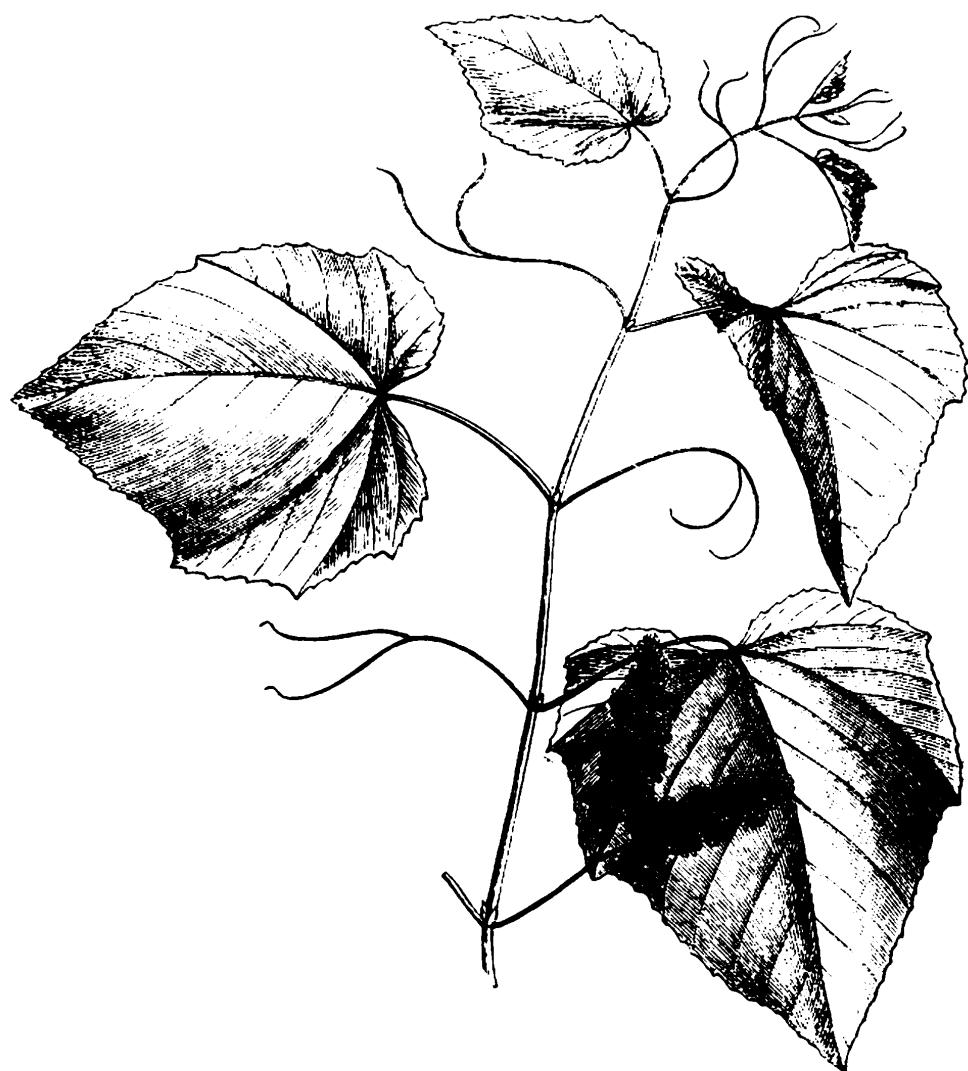
SUGGESTED: *Vitis vinifera* — Raisins — Grapes — Grape Vine

Every grape which is newly gathered disturbs the intestines and puffs up the stomach, but those which have hanged for some time share only a little of these qualities because much of the liquid has dried up. It is good for the stomach, restores the appetite, and is fit for those who are weak. Taken out of their own rubbish [Pliny mentions grapes stored in pressed-out grape skins, often with wine] out of ceramic pots, they are pleasing to the mouth, good for the stomach, and astringent to the intestines. They hurt the bladder and head, but they are good for bloodspitters. Those put into must [pulp from grapes] are similar. Those from *sapa* [syruped new wine] or *passum* [raisin wine] are worse for the stomach. They are also kept in rainwater, having first been dried in the sun. These are a little pleasantly like wine, yet are effective for thirst, those in a burning heat, and long-lasting fevers. The dregs from them are stored and applied with salt for inflammation, hard lumps, and swelling of the breasts. A decoction of these discards (given as a suppository) helps dysentery, the abdominal cavity, and womens flows [menstrual flows]. It is taken for hip bathing and warm packs. The seeds from them are astringent and good for the stomach. Dried, pounded into small pieces, and sprinkled on instead of polenta, they are good for dysentery, and the abdominal cavity, and those who have a queasy stomach.



Vitis vinifera

after FAGUET — 1888



Vitis labrusca

from ENGLER-PRANTL — 1897

5-4. STAPHIS

SUGGESTED: *Vitis vinifera* — Dried Grapes and Raisins
— Grape Vine

The white *uva passae* are astringent and their flesh (eaten) is good for the throat, coughs, kidneys and bladder, as well as for dysentery (either eaten alone with the seeds or mixed with meal of millet, meal of barley and an egg, then fried with honey and taken). It is good either by itself or chewed with pepper to draw phlegm out of the head. Applied with meal of beans and cumin it soothes inflammation from stones [urinary, kidney]. Pounded into small pieces without the seeds and applied with rue [3-52, 3-53, 4-98] it heals *epinyctis* [pustule which appears only at night], carbuncles [infected boils] [malignant skin tumours], *favus* [contagious skin disease], rotten ulcers around the joints and gangrenes. It is good applied with the juice of *panax* [*opopanax* 3-55] for gout. Applied to loose nails it soon draws them off.

5-5. OINANTHE

SUGGESTED: *Ampelodesma tenax* — Vine-tie, Diss
Vitis labrusca — Grapes from the Wild Vine

Oenanthe is Water Dropwort or Water Hemlock — poisonous

The fruit of the wild vine when it flowers is called *oenanthe*. After they have first gathered it and dried it on a sheet in the shade it must be put into a ceramic jar. The best is from Syria, Cilicia and Phoenicia. It is astringent; as a result a decoction (taken as a drink) is good for the stomach and urine, for stopping the intestines, and the spitting of blood. Dried and smeared on, it is effective for a queasy sour stomach. It is used both green and dry (with vinegar and *rosaceum* [1-53]) as an inhalant for headaches. Pounded into small pieces with honey, saffron, *rosaceum* [1-53] and myrrh [1-77, 1-73, 4-116], it is a poultice for bleeding wounds (keeping them from inflaming), as well as new ulcers in the eye and in the mouth, and gangrenous ulceration on the genitals. It is mixed with suppositories for repressing blood. For discharges of the eyes and a burning stomach it is smeared on with flour of polenta and wine. Burnt in a

ceramic jar with kindled coals it is good to add to eye medicines. With honey it heals hangnails, *pterygium* [membrane on eye], and broken bleeding gums.

5-6. OMPHACION

Vitis vinifera — Juice from Unripe Grapes — Grape Vine

Omphacium is the juice from unripe Thasian or Aminaean grapes. Having pressed out the juice before the hottest days come, you must keep it in a red brass jar in the sun (covered with a linen cloth) until it has thickened, always mixing that which congeals with the moist. Towards night take it in from the open air as the dews hinder the thickening. Choose that which is yellow, brittle, very astringent and biting to the tongue. Some boil the juice to thicken it. It is good with honey or *passum* [raisin wine] for the tonsils, the uvula, for mouth ulcers, moist flabby gums, and purulent ears; but with vinegar for fistulas, old ulcers, and gangrenous ulceration of the cheeks. It is given as a suppository for dysentery and women's menstrual flows. It is also a sight-restorer. It is good for the roughness and disorders of the corners of the eyes. It is taken as a drink for recent bloodspitting and for bleeding from a rupture. You must use it diluted very well and only a little of it too, for it burns excessively.



Cassia floribunda

after FAGUET — 1888

WINES

5-7. Old Wines

Old wines hurt the nerves and the rest of the senses, yet they are pleasant to the taste. Therefore they are to be avoided by those who have any part weak within. For the use of it in health a little is taken without hurt, and that diluted in water. New wine is inflative, hard to digest, a cause of nightmares, and is urinary. That of a middle age avoids either of these evils, as a result it is to be chosen for the uses of both health and sickness.

5-8. The Colour of Wine

Further, white wine is thin, easily digested and good for the stomach. The dark wine is thick and hard to digest, heady and fattening. The claret has a middle colour and also a middle strength compared to either of these, yet the white should be chosen both in health and sickness. Furthermore they differ in respect of their qualities.

5-9. The Flavours of Wines and their Properties

For the sweet wine consists of thick particles and is hard to evaporate, puffing up the stomach very much and disturbing the intestines and the bowels like must [grape pulp], yet it inebriates less and is helpful for the bladder and kidneys. Sharp wine is more urinary and causes both headaches and drunkenness. Unripe wine is most suitable for digesting meats, and it stops the intestines and other discharges. That which is mild affects the sinewy parts less and it is less urinary. That made with seawater is bad for the stomach, causing thirst and hurting the strength; however it is good for the bowels, but unsuitable for those lately recovered from sickness. *Passum* [raisin wine] made from sun-dried grapes or those dried on the branches and pressed is called *creticum*, *protropum*, or *pramnium*, and that of boiled must [grape pulp] is called *sirion*, or *hepsema*. That which

is black (called *melampsithion*) is thick and very nourishing. The white is thinner and that in the middle has a middle strength. All are binding like pulses [leguminous seeds], and good against all poisons [antidote] which kill by ulcerating (taken as a drink with oil and vomited up again); also against *meconium* [4-65], *pharmicum* [?poison], *toxicum* [?dogbane], hemlock and milk curdled in the stomach, as well as against disorders of the bladder, and kidneys that are corroded and ulcerated. They are windy and bad for the stomach. *Melampsithium* is suitable for those who have flowing bowels. The white is more softening for the intestines than the other. That which contains gypsum is offensive to the strength, causes the pains in the head, and is burning and worthless for the bladder. It is better than the other against poisons. Wines that contain pitch (or rosin from pine) are warming and digestive, yet hurtful for bloodspitters. Those called *aparachyta* have *sapa* [syruped new wine] mixed with them, and fill the head causing drunkenness. They are difficult to evaporate and worthless for the stomach.

5-10. Wines from Different Countries

Of the wines of Italy (in which it seems to excel) one is called *falernum*, which is old and easily digested, binding the intestines like pulses, good for the stomach but bad for the bladder, and unsuitable for the dull-sighted or for much to be taken as a drink. The Albanian has thicker particles than the *falernian* and is sweetish, puffing up the stomach and soothing the intestines, not as good for the digestion, and hurting the strength less. When this is old it grows hard. The *caecubum* is sweet, with thicker particles than the Albanian, fattening and with a good colour, but bad for the digestion. The *surrentinum* is very hard; as a result it stops excessive discharges of the intestines and of the stomach, and it affects the head less because it has light particles, but when old it is good for the stomach and becomes more pleasant. The *adrianum* and the *mamertianum* grow in Sicily. Both have thick particles, are mildly astringent, grow old quickly, and affect the strength less because of their mildness. *Praepianum* (which is brought out of the places around Adria) has a sweet scent and is milder, but

if too much is taken as a drink it does not hide, but keeps the drunkenness for a long time and brings sleep. *Istricum* is like *praepianum* only more urinary. The *chium* is more gentle than those previously mentioned — nourishing, drinkable, making one less drunk, stopping excessive discharges, and effective to add to eye medicines. The *Lesbian* wine [from Lesbos] is easily digested, lighter than the Chian wine [from Scios in the Aegean sea] and good for the intestines. That which grows in Ephesus (called *phygelites*) has the same properties as this, but that from Asia (called *messogites*), from the mountain Tmolus, causes headaches and hurts the strength. The *coon* and *clazomenian* (because they have so much seawater) are soon spoiled, inflative, disturb the intestines, and hurt the strength.

5-11. The Effects of Wines

Generally, all unmixed and simple wine (hard by nature) is warming, easily digested and good for the stomach. It encourages the appetite, is nourishing, induces sleep, and causes a good colour. Taken liberally as a drink it helps [antidote] those who have taken hemlock, coriander, *pharmicum* [?poison], *ixia* [3-103], *meconium* [4-65], *lithargyrum* [5-102], *smilax*, *aconitum* [4-77, 4-78] or mushrooms; as well as for snakebites and the strikes of all that by striking or biting kill by cold or overturn the stomach. It is effective for long-lasting windiness, anxiety from *hypochondrium* [nervous gastric disorder], distension and hiccups of the stomach, and excessive discharges of the bowels and intestines. It is good for sweating and those who faint from it, especially the white, old, sweet-smelling wines. The old sweet wines (applied with *lana succida* [underneath wool]) are more useful for disorders of the bladder and kidneys, as well as for wounds and inflammation. They are usefully applied with hot cloths for malignancies and eating, running ulcers. Those without seawater (hard and white) are fitting for use in times of health. Of these the Italian wines excel, such as *falernum*, *surrentinum*, *caecubum*, *signenan*, many others from Campania, the *praepian* from the Adriatic coast, and the Sicilian called *mamertinum*. Of the Greek wines, there is the *Chian* [from Scios in the Aegean sea], the *Lesbian* wine [from Lesbos], and the

phygelites from Ephesus. Thick black wines are bad for the stomach and inflative yet increase body weight. Those thinner and harder are good for the stomach and increase body weight less. Those that are very old and thin and white are more urinary, yet if taken as a drink too much they affect the strength. Wines of a middle age are best for drinking, such as those of seven years. The amount consumed must be gauged by the person's age, the time of the year, the customs of the drinker, and the quality of the wine. The best rule is not to be thirsty and to indulge moderately, for all drunkenness (especially that which is continual) is pernicious. For the strength, besieged daily (at last) yields, and too much drinking every day allows the entrance of sharp disorders. Taken moderately as a drink for a few days (especially after drinking water) it is acceptable. It alters the state of a man in a way, purging vapors that annoy the senses, and opening the internal organs secretly. Yet after drinking wine you must drink water, for it brings some help in avoiding illness owing to drunkenness.

5-12. OMPHAKITES OINOS

SUGGESTED: *Lesbian Wine* [from Lesbos]

The wine called *omphacites* is made properly in Lesbos. The grapes (not yet ripe in every part but tasting sour) are dried in the sun for three or four days until the clusters are wrinkled, and after pressing out the wine is placed in the sun in ceramic jars. It is astringent, good for the stomach, for lustful women [*anaphrodisiac*], those with pains in the small intestine, those with difficult digestion, and a squeamish stomach. It is sipped up to help plague symptoms. Such wines as these are used after many years, for otherwise they are not drinkable.

5-13. DEUTERIAS OINOS

SUGGESTED: *Deuteria* or Secondary Wine

Deuteria which some call *potimon* is made as follows: into the husks of the grapes out of which you have pressed two hundred and seventy gallons of wine, put in thirty nine gallons of water. Mix it, trample it, strain it out,

and boil it down to two thirds. To every four and a half litres of the liquid that is left add two pints of salt, and after winter pour it out into ceramic jars, but [do not] use it after a year, as it grows weak quickly. It is fit for those to whom we are unsure about giving wine and yet feel compelled to satisfy the desire of the sick, and for those who have recovered from a sickness that lasted long. A wine is made called *adynamon* [lack of vital powers], with the same strength as *deuteria*. Mix an equal measure of water and must [grape pulp], boil it gently over a soft fire until the water is used up, and after cooling it pour it out into a pitch glazed jar. Some mix an equal amount of sea water, rain water, honey and must, pour it out into another jar and set it in the sun for forty days. They use it for a year for the same purposes.

5-14. Wine of Wild Grapes

SUGGESTED: *Cissus digitata* — Wild Grape, Sorrel Vine
Vitis labrusca — Wild Grapes

The black wine from the wild grape is astringent. It is good for flowing intestines and the stomach and many other things that require astringency and contraction.

5-15. OINOS MELETITES

SUGGESTED: Old Wine with Honey

Vinum melitites is given in long-lasting fevers to those who have a weak stomach because it gently loosens the bowels, induces urine, and purges the stomach. It is good for arthritis, kidney disease, and those who have a weak head. It is useful for women to drink with water as it has a fragrant smell and is nourishing. It differs from mead [honey wine] because that is made from hard old wine and a little honey, but for *meletites* five gallons of hard wine is added to four and a half litres of honey and one winecup of salt. You must make it in a large jar so that it may have room to ferment lustily, sprinkling on the salt little by little until it is quite fermented, and when it stops, pour it out into other ceramic jars.

5-16. OINOMELI

SUGGESTED: *Mulsum* — Honeyed Wine, Mead

Mulsum is preferred which is made from old hard wine and good honey. Such as this creates less gas and is quickly fit to be used. Old *mulsum* is nutritive and the middle-aged is good for the bowels and diuretic. Taken after meat it hurts; taken as a drink beforehand it fills, but after that it encourages the appetite. It is usually made with nine gallons of honey mixed with eighteen gallons of wine. So that they may make it fit for use quickly, some boil the honey together with the wine and pour it into jars. For the sake of profit, some mix six pints of boiling must to one pint jar of honey, and after it has done boiling, pour it into other jars. It remains sweet.

5-17. MELIKRATON

SUGGESTED: *Melicrate* — Water Mead, Honey Water

Melicrate has the same strength as mead [honey wine]. We use it (boiled) for those in whom we wish to soften the bowels or cause vomiting, as well as for those that have taken a drink of poison [vomitory], giving it with oil. We use it (boiled) for those who have feeble pulses, the weak, coughers, pneumonia, and those who faint with sweating. That which is provided and put in jars for storage that they properly call *hydromel* [honey water] is of a middle age and similar to the second-pressed wine and *adynamon* [for the lack of vital powers] as it also restores the strength. As a result it is more suitable than second-pressed wine for those who have inflammation in some part. That which is older is not allowed for those who have inflammation and are constipated. It is suitable for those with a sore stomach, no appetite, or those who faint with sweating. It is made from two parts of old rainwater mixed with one of honey and placed in the sun. Others use fountain water, boil it down to one third and put it in jars. Honey water is also made from the honeycombs washed out with water and put in jars. When it is necessary to make it like this some also boil it. It is unsuitable for the sick because it has too much waxy stuff.

5-18. UDOR

SUGGESTED: Water

Water in general is difficult to analyse because of the individualities of places and their peculiar natures and the air and many other things. For the most part the best is pure and sincerely sweet, not having any other quality whatsoever, or staying in the digestive system very long, furthermore soon passing through without trouble, and not inflative nor spoiled.

5-19. UDOR THALASSION

SUGGESTED: Seawater

Water from the sea is hot, sharp, and bad for the stomach. It troubles the bowels, expelling phlegm. Applied with hot cloths when it is warm it extracts and dissolves. It is good for disorders of the nerves, and chilblains before ulceration. It is conveniently mixed with poultices of barley meal, and it is suitable for plasters and solutions for warm compresses. It is given lukewarm as a suppository for evacuations, and warm for griping. It is a wash for parasitic skin diseases, itches, *lichen* [skin disease with red pustules], nits, and breasts swollen with milk. Applied with hot cloths it dissolves all bruises, and is good for bites from poisonous creatures that cause trembling and quaking chills — especially from scorpions, harvest spiders and snakes. Moreover, it is good if anyone goes into a hot bath of it; such a bath is helpful for long-lasting disorders of the body and the strength. Inhaled as steam it eases dropsy, headaches, and hardness of hearing. Seawater put in jars alone and not mixed with drinkable water becomes unpoisonous, but some boil it beforehand and then put it in jars. It is given as a purge by itself (or with *posca* [hot drinks], wine or honey), and after the purging they give the broth of a hen or fish to alleviate the sharpness of the pangs of hunger.

5-20. THALASSOMELI

SUGGESTED: Seawater Sweetened with Honey

T*halassomeli* is thought to purge very well. It is made from the same amount each of honey, rainwater and seawater, strained, and placed in the sun in a pitch-glazed jar in the burning heat of the hottest days. Some mix two parts of boiled seawater and one of honey and store it in a jar. This is more moderate and milder than seawater alone.

5-21. OXUS

SUGGESTED: *Acetum* — Vinegar

A*cetum* cools and is astringent. It is good for the stomach and to encourage an appetite. It staunches excessive bloody discharges, either taken as a drink or sat in as a bath. It is good boiled together with meat for discharges of the bowels. It is fit for bleeding wounds, and applied with unwashed wool or sponges keeps inflammation away. It represses the vulva and perineum that have fallen down, and broken bleeding gums. It is also good for gangrenous ulceration, *erysipela* [streptococcal skin infection], shingles [*herpes*], psoriasis, *lichen* [skin disease with red pustules], and *pterygium* [membrane on eye] mixed with some other medicine from those that are suitable. Continuously applied with hot cloths it stops eating ulcers and gangrenous ulceration of the cheeks. Applied with hot cloths and sulphur it helps gout, and rubbed on it takes away bruises. With *rosaceum* [1-53] and unwashed wool (or a sponge) it is good for burning fevers of the head. Inhaled as a steam it helps those with difficult hearing, or noises and hissings of the ears. Dropped in the ears it kills worms. It represses *favus* [contagious honeycombed skin disease] applied lukewarm with hot cloths or sponges. It soothes itching. For the bites of venomous creatures that chill, a warm pack of it is good; but a cold one for those that spit poison that burns. It is good against all poisons [vomitory] taken warm as a drink and spewed up again, especially against the drinking of *meconium* [4-65] or hemlock. It is given against bloodclotting, or milk

curdling in the stomach, and with salt against mushrooms, *ixia* [3-103] and *smilax*. Sipped up, it expels leeches that were taken in a drink. It soothes an old cough but aggravates a new one. It is good sipped up warm for asthma. Gargled, it restrains discharges in the throat. It is good for a synanchic [abscessed] throat, for the middle ear that has fallen, and is rolled around the teeth (warm) for toothache.

5-22. OXUMELI

SUGGESTED: Oxymel, Vinegar Honey

Oxymel is made as follows. Take five half pints of vinegar, two pounds of sea salt, twenty pounds of honey and five pints of water, mix it all, boil it until it boils ten times, cool it, and pour it into another jar. It is thought that (taken) it expels thick fluids, and helps sciatica, arthritis and epilepsy. It is available for those bitten by the viper *seps* [poisonous lizard], and for those who have taken a drink of *meconium* [4-65] or *ixia* [3-103] [antidote]. It is a helpful gargle for *synanchia* [abscessed throat].

5-23. OXALME

SUGGESTED: Vinegar and Salt

Acetum *salsum* (applied with hot cloths) is good for gangrenous ulcers, rotten ulcers, dog bites and bites from venomous creatures. It stops discharges of blood from those who are castrated, poured warm into the wound straight after the surgeon has done. It helps a perineum that is fallen down, and it is given as a suppository for dysentery with gangrenous ulceration, but afterwards you must give an enema with milk. Sipped up and gargled it kills leeches, and cleans dandruff and running ulcers on the head.

5-24. THUMOXALME

SUGGESTED: *Thymoxalme* — Thyme Vinegar
Thymus vulgaris — Common Thyme

The ancients used *thymoxalme* for those with a weak stomach (mixing three or four cups with warm water) as well as for arthritis and those inflated with wind. It extracts thick black fluids, and it is made as follows. Take an *acetabulum* [vinegar cruet] of thyme pounded into small pieces, an equal amount of salt, and a little each of polenta, rue [3-52, 3-53, 4-98] and *pulegium* [3-36]; throw them into a jar, pour on them three pints of water and a quarter pint of vinegar, wrap it in a linen cloth, and set it in the open air.

5-25. SKILLETIKON OXUS

SUGGESTED: *Scilla maritima*, *Ornithogalum maritima*,
Urginea scilla, *Urginea maritima* — Medicinal Squill,
Sea Onion, Squill — Squill Vinegar

POISONOUS

Sillinum vinegar is made as follows. Clean the white squill and cut it in slices, then pierce them through with a thread so that the slices do not touch one another, and dry them in the shade for forty days. Then take one pound of it, put it into twelve pints of good vinegar, and leave it in the sun to steep for forty days, corking the jar carefully. After this remove the squill, press it out, and put it away. Strain the vinegar, pour it into a jar and preserve it. Some mix a pound of dried squill to five pints of vinegar. Some, immediately it is clean without being dried, put in an equal measure of vinegar and let it steep for six months. This is sharper. It is astringent and strengthening, good as a mouth rinse for loose, swelling gums, and for loose teeth, effectively curing rotten ulcers around the mouth and stinking breath. Sipped up, it strengthens the jaws and makes them hard, and it makes the voice loud and clear. Those with difficult digestion, epilepsy, vertigo, and depression take it. They also take it for gastritis and delirium, as well as for womb constriction, swollen spleen, and sciatica. It restores those who are extremely weak. It makes the body sound with a

good colour. It is a sight-restorer and it is effective dropped in the ears for the hard of hearing. In general it is good for all things except internal ulcers, headaches and disorders of the nerves. A little of it is given to those fasting (when they are beginning) to sip day by day, and a while after increase it to a winecupful but to some give two cups or more.

5-26. OINOS SKILLETIKOS

SUGGESTED: *Scilla maritima*, *Ornithogalum maritima*,
Urginea scilla, *Urginea maritima* — Medicinal Squill,
Sea Onion, Squill — Squill Wine

POISONOUS

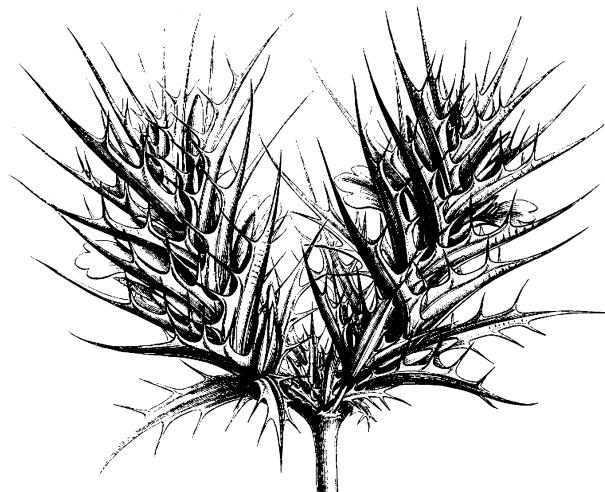
Squill wine is made as follows. Cut apart the squill, as I have said [above], and dry it in the sun. Then cut one pound of it, and having sarced [scraped, chopped] it with a thin sarce [blade], wrap it in a thin linen cloth, put it into twenty pints of good new must [grape pulp] and let it steep for three months. After this pour out the wine into other jars, sealed carefully. One may also use the moist squill, cutting it in the shape of a navew [naphew, swede] and doubling the amount; but you must keep it in the sun forty days and let it be very old [before using it].

Squill wine is also made this way. Take three pounds of the cleaned, cut-apart squill, put into it an Italian nine gallons [six gallons and seven pints] of good must, and having corked it, leave it alone six months. Then strain it and put it in another jar and put it away. It is good for indigestion from spoiled meat, for those who vomit it up, and for those who have thick fluids in their bowels or stomach, as well as for the spleen, those who have *cachexis* [malnutrition], dropsy, jaundice, frequent painful urination, or griping; also those distressed with gaseousness, paralysis, long-lasting chills, vertigo, or convulsions. It expels the menstrual flow, and does not annoy the tendons at all. The older it is, the better. You must not use it in fevers, or for those who have an internal ulcer.

5-27. OINOS THALASSIKOS

SUGGESTED: Wine made with Seawater

Wines are made with seawater in various ways. Some add seawater after the grapes are gathered; others first place them in the sun and tread them, mixing in seawater; others make raisins from the grapes and steep them with seawater in casks. This wine becomes sweet. Those that are made with a harder taste are good against the signs of approaching acute fevers (if there is nothing better at hand), for bringing down the intestines, and for rotten spitters, hard bowels, and anyone affected in the head by Aminaean wines. Yet these are bad for the stomach and cause wind.



Blepharis edulis

after FAGUET - 1874

OTHER WINES

So that this history may be complete for those who love histories, we think it is not out of place to describe the making of many other sorts of wine, not because they are useful or suitable, but so that we may not omit anything. There are some of them that require less skill to make yet they have use, such as wines of quinces, pears and pods [carob tree — *Ceratonia siliqua*] and that which is made from myrtle berries.

5-28. OINOS KUDONITES

SUGGESTED: *Cotonea malus*, *Cydonia* [Fuchs],
Mala cotonea minora [Bauhin], *Pyrus cydonia* [Linnaeus],
Cydonia oblonga, *Cydonia vulgaris* — Quince — Quince Wine

Cydonites wine is made as follows. Remove the seeds from the quinces, cut them up like a navew [naphew, swede] and put twelve pounds of them into nine gallons of must [grape pulp] for thirty days. Afterwards strain it and put it in jars. It is also made as follows: after beating and pressing out the quinces, mix them with twelve pints of quince juice and one pint jar of honey and put it in jars. It is astringent, good for the stomach, and suitable for dysentery, liver ailments, kidney disorders, and frequent painful urination. It is also called *melites*.

5-29. MELOMELI

SUGGESTED: *Cotonea malus*, *Cydonia* [Fuchs],
Mala cotonea minora [Bauhin], *Pyrus cydonia* [Linnaeus],
Cydonia oblonga, *Cydonia vulgaris* — Quince
— Quinces in Honey

Melomeli is made as follows. The quinces (with their seeds removed) are put into a good amount of honey, so that they are covered. This becomes pleasant after a year like mead [honey wine]. It has the same uses as the confection above. It is also called *cydonomeli*.

5-30. UDROMELON

SUGGESTED: *Cotonea malus*, *Cydonia* [Fuchs],
Mala cotonea minora [Bauhin], *Pyrus cydonia* [Linnaeus],
Cydonia oblonga, *Cydonia vulgaris* — Quince
— Quinces in Honey

Hydromelon is made as follows: nine gallons of melomeli of quinces [above] is mixed with eighteen of boiled water and placed in the sun in the hottest days. The properties of this are also the same [as the above].

5-31. OMPHACOMELITIS

SUGGESTED: *Vitis vinifera* — Grape Vine — Grapes & Honey

Omphacomelitis is made this way. Take unripe grapes not yet changing colour, place them in the sun for three days, and after having pressed them add to three parts of the juice one part of the best purified measurable honey, and keep it in the sun, having poured it into jars. It is repressive and cooling, and it is good for gastritis and the abdominal cavity. It can be used after [?for] a year.

5-32. OINOS APITES

SUGGESTED: *Pyrus communis* — Pear Wine

Pear wine is made the same way as that of quinces but do not let the pears stand until they are overripe. And wines of the pods [carob tree — *Ceratonia siliqua*], medlars and services [*Amelanchier rotundifolia*] are made the same way. They are all astringent, sourish, good for the stomach, and restrain discharges from within.

5-33. OINOS OINANTHINOS

SUGGESTED: *Ampelodesma tenax* — Vine-tie, Diss
Vitis labrusca — Wild Vine

Vinum oenanthinum [from vine shoots or blossoms] is made as follows. Take two pounds of the dried flowers of the wild vine's new shoots, put it into nine gallons of must [grape pulp] for thirty days, then having

strained it put it in jars. It is good for weaknesses of the stomach, lack of appetite, for the abdominal cavity, and for dysentery.

5-34. OINOS ROITES

SUGGESTED: *Roites — Rhoa — Punica granatum*
— Pomegranate Wine

Pomegranate wine is made as follows. Take ripe Apyrenian pomegranates, and having pressed the juice out of the grains put it in jars; or, having boiled it to two thirds, put it in jars. It is good for discharges from within, for fevers accompanied with excessive discharges of the bowels, and for the stomach, as well as for binding the bowels, and it is urinary.

5-35. OINOS RODITES

SUGGESTED: *Rosa canina, Rosa rugosa — Rodites* — Rose Wine

Redites is made as follows. Bind one pound of roses — that were dried and pounded — in a linen cloth and put it into eight pints of must [grape pulp]. After three months strain it, put it in other jars and put it away. It is good for those without fever, for digestion of the stomach and its disorders (taken as a drink after meat), as well as for moist bowels and dysentery. It is also made with the juice of roses and honey mixed together and this is called *rhodomeli*. It is good for roughness in the throat.

5-36. OINOS MURTITES

SUGGESTED: *Myrtites — Myrtus communis* — Myrtle Wine

Myrteum is made as follows. Take black overripe myrtle berries, beat them, squeeze out the juice with a press and put it in a jar. Some also boil it away to two thirds; and some set the berries out in the sun first, then dry them and mix three half pints of water and an equal amount of old wine to two pints of them, pounded, and then they strain it out and put it in jars. It is excessively astringent, good for the stomach, and

effective for a flowing stomach and intestines, also for ulcers within, and excessive discharges, and it makes the hair on the head black [dye].

5-37. OINOS MURSINITES

SUGGESTED: *Myrtus communis* var *romana*
— Broad-leaved Myrtle

Myrsinites is made as follows. Take the branches and leaves of the black myrtle with the myrtle berries, beat them, put ten pounds of this pounded myrtle into three gallons of must and boil it until two thirds remain, or half. Then strain it and put it in jars. This is good for running ulcers on the head, dandruff, and contagious rashes; as well as for gums, the tonsils, and pus-filled ears, and it also stops sweats.

5-38. OINOS SCHININOS

SUGGESTED: *Schinus* [Bedevian] — Mastic Tree, Pepper Tree
Schinus molle, *Pistacia lentiscus*, *Bursera gummifera*,
Sideroxylon mastichodendron — Herb Mastic

Schinus molle is now an American genus; *Bursera gummifera* is now a West Indian tree [Loudon].

Schininus wine is made the same way as myrtle wine [above].

5-39. OINOS TERMINTHINOS

SUGGESTED: *Terminthinus* — *Pistacia terebinthus*
— [Old English] Termenteyne — Turpentine Tree

Termininthos is made the same way as myrtle wine [above]. The branches of these are taken when they have fruit, and they have the same strength as myrtle wine [above] — astringent, good for the stomach, and suitable to use for discharges of the stomach, intestines, and bladder, and for bloody discharges. Applied with hot cloths they form a skin over running ulcers, and they repress discharges around the womb and perineum when sat in [a hip bath].

5-40. OINOS PHOINIKITES

SUGGESTED: *Phoenix dactylifera* — Date Palm Wine

Palmeum. Take common ripe dates and put them into a small cask bored through in the bottom and corked with a pitch-covered reed. Let the hole be covered with linen. To twenty pints of dates put in three gallons of water. If you would not have it too sweet pour in five gallons, and let it rest for ten days. On the eleventh day, take the linen cloth away from the reed, let out the thick sweet wine, and put it in jars. It is exceptionally sweet and worthless for the head, but good for discharges because it is astringent. It is fit for gastritis, the abdominal cavity and for bloodspitters. Some mix it with water, and they do this a third, fourth, and fifth time when that which is left grows sour.

5-41. OINOS KATORCHITES

SUGGESTED: *Catorchites* — *Ficus carica* — Wine made with Figs

Catorchites is made in Cyprus like the *palmeum* wine. It differs because instead of water, some put in an infusion of equal amounts of newly-pressed husks and stones of grapes. Dry, black, Chelidonian or Phoenician figs are added and steeped as in date wine [above]. After ten days the liquid is taken out and the same measure of the infusion of the husks and stones is poured on a second and third time. In the same way gradually the fourth and fifth infusion, which is sharp, is taken out: this they use for vinegar. This wine has thinner particles, and is inflative and bad for the stomach. It represses the appetite, is good for the intestines, and urinary. It extracts the menstrual flow, and makes milk abundant [breastfeeding]. It causes bad blood, and is a cause of *elephantiasis*, like *zythum* [soured barley water]. Some also put ten pints of salt or nine gallons of brine to fifty four gallons of this liquid, thinking it would be changed and good for the bowels; and some lay thyme and *marathrum* [3-81] in the bottom, then the dry figs, and they do this by turns until they have filled the jar. It is also called *suchiten*.

5-42. OINOS SUKOZIORITES

SUGGESTED: *Sycomorus antiquorum, Ficus sycomorus*
— Sycamore Fig, Sycamore, Mulberry Fig — Sycamore Wine

Sycamine — old English for Mulberry

European Sycamore is Maple e.g. *Acer campestre*, the Field Maple or Hedge Maple.

Wine from sycamores is made the same way. It turns to sharp vinegar because it is not able to keep the sweetness of the liquid that flows from them.

5-43. OINOS RETINITES

SUGGESTED: *Picea abies, Pinus mugo* — *Retinites*
— Rosin from Spruce Firs, Pines — Rosin Wine

Rosin wine is made in many nations. It is abundant in Galatia because the grapes remain unripe because of the cold, and the wine grows sour if it is not mixed with *Picea resina* [spruce]. The rosin is pounded with the bark, and a quarter pint is mixed to nine gallons of wine; some strain it after it is boiled, taking away the rosin; others leave it alone. Growing old, these become sweet. They all cause headaches and vertigo, and yet are digestive and urinary. They are good for those with dripping mucus and coughs, for the abdominal cavity, dysentery, dropsy, and women's menstrual flows, and it is a syringe for deep ulcers. The black is more binding than the white.

5-44. STROBILITES

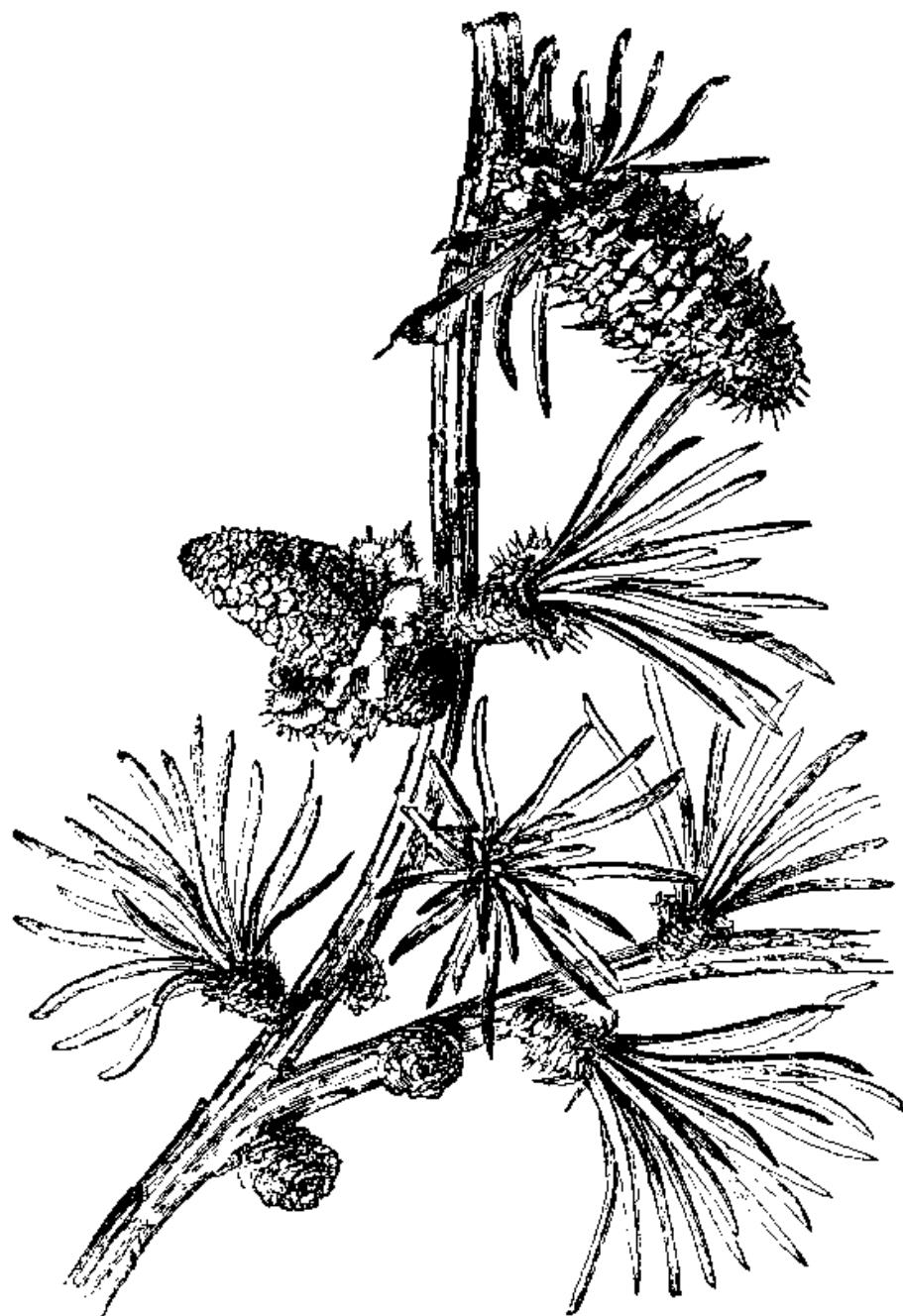
SUGGESTED: *Pinus mugo* — Pinecone Wine

Strobilites is made from new bruised pinecones steeped in must [grape pulp]. It has the same effects as *resinatum* [5-43]. Pinecones steeped in must and boiled are good taken copiously as a drink for pulmonary tuberculosis.



Pistacia terebinthus

after EICHORN — 1913



Pinus larix

after FAGUET— 1888

5-45. OINOS KEDRINOS

SUGGESTED: Cedar Wine, Juniper Wine, Cypress Wine,
Bay Wine, Pine Wine, Fir Wine

Cedar, juniper, cypress, bay, pine or fir wines are made the same way. Separate the newly cut wood when it gives out fruit, lay it in a bath in the sun or near the fire so that it may sweat, and then mix one pound of this to four and a half litres of wine. Mix it and leave it alone for two months. Then put it in another jar, and having placed in the sun for a while, put it in smaller jars. We must fill up the jars of wines made like this, for if we do not they grow sour. Nevertheless these medicinal wines are unfit for the healthy. They are all warming, urinary, and somewhat astringent. That of bay is the most warming. A wine is also made from the fruit of the bigger cedars. Mix half a pound of bruised cedar berries to four and a half litres of must and keep it in the sun for four days, and after all this strain it and pour it into another jar.

5-46. OINOS ARKEUTHIDITES

SUGGESTED: *Juniperus communis* — Juniper Wine

Wine is also made from the berries of juniper trees, as well as from the fruit of the cedar, which has the same effects.

5-47. KEDRITES

SUGGESTED: *Cedrus libani*, *Cedrus libanotica*, *Pinus cedrus*,
Abies cedrus, *Larix cedrus* — Cedar of Lebanon
Cedar deodara, *Larix deodara*, *Pina deodara* — Deodar,
Himalayan Cedar, Indian Cedar — Cedar Wine

Cedrites is made as follows. Wash the cedar rosin with sweet water, and place in each nine-litre container a winecupful apiece [of rosin], and then fill it with must [grape pulp]. This is also warming and reduces the intensity of symptoms. It is good for a cough without a fever, disorders of the chest and the sides, griping, ulcers in the stomach and the intestines, as well as for purulent

spitters, dropsy, and womb disorders. It is good for worms and shivering, it helps those bitten by snakes, and kills snakes, and dropped in the ears it heals their disorders.

5-48. OINOS PISSITES

SUGGESTED: *Pissites* — *Pinus mugo* — Pine — Pitch Wine

Vinum *picatum* is made of moist pitch and must [grape pulp]. First wash the pitch in seawater or brine until it turns white and the seawater runs clean, and then wash it in sweet water. To eight gallons of must add one or two ounces of pitch and let it stand. After it has boiled and is settled put it in jars. It is warming, digesting, cleansing, and purging — suitable to be used for disorders of the chest, bowels, liver, and spleen, as well as disorders of the womb if there is no fever. It is used for deep ulcers, and long-lasting discharges. It is good for coughs, slow digestion, gaseousness, asthmas, and dislocations (especially) applied with unwashed wool.

5-49. OINOS APSINTHITES

SUGGESTED: *Artemisia absinthium*, *Absinthium vulgare*
— Old Woman, Wormwood — Absinthe

NARCOTIC

Absinthites is made in various ways. Some mix one pound of Pontic wormwood with forty eight pints [Italian amphoras] of water and boil it until a third is left. Afterwards they pour on it six pints of must [grape pulp] and half a pound of wormwood. Then having mixed them carefully they put it in a jar and strain it out when it is settled. Others put a pound of wormwood into nine gallons of must, beat it, and binding it in a thin linen cloth, leave it alone for two months. Others put three or four ounces of wormwood and two ounces each of Syrian nard [1-6, 1-7, 1-8, 1-10], cinnamon, cassia, flowers of *juncus odoratus* [4-52, 1-16], and Phoenicean dates into nine gallons of must, beat them in a mortar (afterwards corking it tightly) and leave it alone for two or three months. Then it is strained, placed in other jars and

stored. Others put fourteen ounces of Celtic nard [1-7] and forty ounces of wormwood, binding it in a linen cloth, into a *metreta* [? measure] of must, and after forty days store it in other jars.

Others put one pound of wormwood and two ounces of dry pine rosin into twenty pints of must, and after ten days they strain it and put it in jars. It is good for the stomach and urinary, good for slow digestion, the liverish, for kidney disorders and jaundice, for those who lack appetite, stomach complaints, long-lasting distension from hypochondria [nervous gastric disorder], gaseousness, roundworms, and for the restrained menstrual flow. It is good for drinking down with *ixium* [3-103], taken copiously as a drink and vomited up again.

5-50. OINOS USSOPITES

SUGGESTED: *Hyssopus officinalis* — Hyssop Wine

The best hyssop wine is that which is made from Cilician hyssop. It is made like *absinthites* [above]. Put one pound of bruised hyssop leaves (wrapped in a thin linen cloth) into nine gallons of must and also put in small stones so that the bundle subsides to the bottom. After forty days strain it and put it in another jar. It is good for disorders in the chest, side, and lungs, and for old coughs, and asthma. It is diuretic, good for griping, and the periodical chills of fevers, and it induces the menstrual flow.

5-51. OINOS CHAMAIDRUITES

SUGGESTED: *Chamaedrys vera mas* [Fuchs],
Chamaedrys minor repens, *Teucrium chamaedrys* [Linnaeus]
— Common Germander, Ground Oak, Wall Germander
— Germander Wine

Chamaedryites is made the same way as hyssop wine [above]. It is warming and settling, good for convulsions, jaundice, womb distensions, slowness to digest, and recent dropsy; but when old it is better.

5-52. OINOS STICHADITES

SUGGESTED: *Stichas*, *Stichas arabica* [Fuchs], *Stoechas purpurea* [Bauhin], *Lavandula stoechas* — French Lavender,
Spanish Lavender — Lavender Wine

Stoechadites is made in same way as hyssop wine [above]. Put one pound of *stoechados* [lavender] into six gallons [of wine]. It dissolves thick fluids, gaseousness, pains of the side and the nerves, and extreme cold. It is effectively given with *pyrethrum* [3-86] and *sagapenum* [3-95] for epilepsy.

5-53. OXUS STICHADIKON

SUGGESTED: *Stichas*, *Stichas arabica* [Fuchs],
Stoechas purpurea [Bauhin], *Lavandula stoechas*
— French Lavender, Spanish Lavender

Stoechas vinegar is made for the same purposes as the wine [above]. The herb is steeped in the vinegar (as previously explained) and it is effective for the same things [as the wine].

5-54. OINOS KESRITES

SUGGESTED: *Betonica* [Fuchs], *Betonica purpurea* [Bauhin],
Betonica officinalis [Linnaeus], *Stachys officinalis* [in Sprague],
Stachys betonica — Betony, Woundwort, Bishop's Wort,
Hedge Nettle, Windflower

Wine is made from the *cestrum* they call *psychotrophon*. Take the herb when it is full of ripe seed together with its branches, put one pound into two gallons of wine, leave it alone for seven months, and then put it in another jar. It is good for many disorders within, as much as the plant itself. Generally all the additive wines receive the strength of the things added; therefore to those who understand them, it is easy to guess the strength of the wines. The use of wines is for the unfeverish. Vinegar made of this *cestrum* is useful for similar disorders.

5-55. OINOS TRAGORIGANITES

SUGGESTED: *Satureia thymbra*, *Thymus tragoriganum*,
Thymus graveolens, *Micromeria thymbra* — Savory of Crete,
Candian Savory — *Tragoriganum* Wine

Tragoriganites. Let down four teaspoonfuls of *tragoriganum* (bound in a linen cloth) into four pints of must [grape pulp] for three months and then jar it. It is good for griping, convulsions, hernias, pains of the side, the movement of winds, and difficulty to digest.

5-56. OINOS BOUNITES

SUGGESTED: *Napus-Bunias sativas* [Fuchs Plate #98],
Brassica campestris var *rapa* [Linnaeus], *Barbarea praecox*
— Land Cress — *Bunium* Wine

Pound two teaspoons of *bunium*, put it into two pints of must for three months, and then jar it. It is good for stomach disorders, and those tired from fighting in armour or much riding.

5-57. OINOS DIKTAMNITES

SUGGESTED: *Dictamnites* *Dictamnus albus*, *Dictamnus fraxinella*
— White Dittany, Gas Plant, Candle Plant, Fraxinella
Origanum dictamnus, *Dictamnus creticus*, *Amaracus dictamnus*
— Dittany of Crete — Dittany Wine

Steep four teaspoons of dittany in eight half pints of must for three months and then jar it. It is good for those with a squeamish stomach, and expels bodily wastes and the menstrual flow.

5-58. OINOS PRASITES

SUGGESTED: *Marrubium* [Fuchs, Brunfels],
Marrubium album vulgare [Bauhin], *Mentastro* [Italian],
Marrubium vulgare [Linnaeus] — *Prasites*
— Common White Horehound

Having pounded the leaves of fully-grown *prasium*, take two quarts of it, and put them into nine gallons of must for three months, and then jar it. It is good for disorders of the chest, and whatever *prasium* is good for.

5-59. OINOS THUMITES

SUGGESTED: *Thymus angustifolius*, *Thymus glaber* — *Thymites*
— Wild Thyme, Mother of Thyme — Thyme Wine

Bind one hundred ounces of pounded sifted thyme in a linen cloth, put it into nine gallons of must for three months, and then jar it. It is good for digestive difficulties, lack of appetite, dysentery, disorders of the nerves, and hypochondria [nervous gastric disorder]; for winter shiverings, and for poison from venomous creatures [bites] that chill and putrify.

5-60. OINOS THUMBRITES

SUGGESTED: *Satureia thymbra*, *Thymus tragoriganum*,
Thymus graveolens, *Micromeria thymbra* — Savory of Crete,
Candian Savory — Thymbra Wine

Thumbrites is made in the same way and is good for whatever *thymites* is.

5-61. OINOS ORIGANITES

SUGGESTED: *Origanum heracleoticum* [Loudon]
— Winter-sweet Marjoram — Origanum Wine,
Marjoram Wine

Origanites is made from Heracleotican origanum in the same way as *thymites*, and is good for the same things.

5-62. OINOS KALAMINTHITES, GLECHONITES, ABROTONITES

SUGGESTED: *Calamintha tertium genus* [Fuchs],
Conyza media asteris [Bauhin], *Inula dysenterica* [Linnaeus],
Pulicaria dysenterica [in Sprague] — Fleabane
Calamintha nepeta, *Nepeta cataria* [Linnaeus] — Catmint,
Catnip
Calamintha officinalis, *Melissa calamintha* — Common Calamint

Pulegium [Fuchs], *Pulegium foemina* [Brunfels],
Pulegium latifolium [Bauhin], *Mentha pulegium* [Linnaeus],
Pulegium vulgare, *Glechon* [Latin] — Pennyroyal,
Pudding Grass

Abrotonum foemina [Fuchs], *Absinthium ponticum* [Bauhin],
Artemisia pontica [Linnaeus], *Abrotanum mas* [Linnaeus],
Artemisia abrotanum, *Abrotoninum* — Southernwood

Wine from southernwood, glechium or calamint is made like that of thyme. Because they are urinary they are good for stomach disorders, those who lack appetite, and jaundice.

5-63. OINOS KONUZITES

SUGGESTED: *Conyza odorata*, *Pluchea odorata* — Ovrabla
Conyza squarrosa — Great Fleabane

Conyza wine is made in the same way as those above and it is the most effective of all against poisons [antidote].

5-64. OINOS AROMATITES

Aromatic Wine

Vinum aromatites is made as follows. Pound two pints each of dates, *aspalathus* [1-19], *calamus* [1-17, 1-114] and Celtic nard [1-7] into small pieces, mix them with *passum* [raisin wine], and when the lumps are a good size put them into twelve pints of fermented must [grape pulp], then cork the jar and leave it alone for forty days. Then strain it and put it in jars. It is also made another way. Take eight teaspoonfuls of *calamus* [1-17, 1-114],

seven teaspoonfuls of *phu* [1-10], two teaspoonfuls of *costus* [1-15], six teaspoonfuls of Syrian nard [1-6, 1-7, 1-8, 1-10], eight teaspoonfuls of cassia, four teaspoonfuls of saffron, five teaspoonfuls of *amomum* [1-14], and four teaspoonfuls of asarabacca [1-9], pound them together until fine, bind them in a linen cloth, and put them into nine gallons of must. After the wine has been boiled put it in new jars. It is good for disorders of the chest, side, and lungs, as well as for painful urination, chills, and the restrained menstrual flow. It is good taken as a drink for those who travel in extreme cold, and those who produce thick fluids. It causes a good colour, and is both sleep inducing and eases pain. It is suitable to use for suffering of the bladder and kidneys.

5-65. OINOS EK SMURNES, PEPEREOS, IRIDOS

Aromatic Wine

Aromatic wine for dripping fluids, coughs, indigestion, inflation, and mucus of the stomach is made as follows. Take two teaspoonfuls of myrrh [1-77, 1-73, 4-116], one teaspoonful of white pepper, six teaspoonfuls of iris, and three teaspoonfuls of dill [3-67] (thoroughly pounded), bind these in a linen cloth and put them into six pints of wine. After the third day strain it, put it in jars in a stone pot, and give a winecupful of it to drink after waking, giving it unmixed.

5-66. OINOS NEKTARITES

SUGGESTED: *Elenium*, *Inula*, *Enula campania* [Fuchs],
Helenium vulgare [Bauhin], *Inula helenium* [Linnaeus],
Inula campana, *Aster helenium*, *Aster officinalis* — *Nectarites*
— Common Inula, Horse Elder, Elecampane
— Elecampane Wine

Nectarites is made from elecampane. Tie five ounces of dried elecampane root in a linen cloth, put it into six gallons of must, and after three months take it out. It is good for the stomach and chest, and expels urine. It is also called *medica*, *sympytyum*, *idaeum verbascum*, *orestion*, or *nectarion*.

5-67. OINOS DIA NARDOU KAI MALABATHROU

SUGGESTED: *Phu germanicum*, *Valeriana vulgaris*, *Phu vulgare* [Fuchs], *Valeriana sylvestris major* [Bauhin], *Valeriana officinalis* [Linnaeus] — Valerian [Mabberley] — Wine from Nard

Phu magnum, *Valeriana maior*, *Phu verum* [Fuchs] *Valeriana hortensis* [Bauhin], *Valeriana phu* [Linnaeus], *Valeriana dioscorides* — Phu, Cretan Spikenard, Garden Valerian

Wine from Syrian nard, Celtic nard [1-6, 1-7, 1-8, 1-10] and *malabathrum* [1-11] is made as follows. Take half a pound of each, put them into two gallons of must, and after two months strain it out. Give one winecupful of this to three of water. It is good for kidney disorders, liver ailments, dysuria, jaundice, poor colouring and gastritis. Some put one or two ounces of *acorus* [1-2] and three ounces of Celtic nard [1-7] into nine gallons of must.

5-68. OINOS ASARITES

SUGGESTED: *Asarites* — *Asarum europaeum* — Asarabacca Wine

Put three ounces of asarabacca into six pints of must, as above. It is diuretic, good for dropsy, jaundice, liver ailments, and sciatica.

5-69. OINOS AGRIAS NARDOU

SUGGESTED: *Valeriana dioica* — Marsh Valerian — Wine of Wild Nard

Put eight ounces of fresh root of wild nard (pounded into small pieces and sifted) into a four and a half litres of must, and leave it alone two months. It is effective for liver ailments, and frequent painful urination, as well as for an inflated stomach, and stomach disorders.

5-70. OINOS DAUKITES

SUGGESTED: *Pastinaca sativa*, *Pastinaca lucida*,
Pastinaca dissecta [Loudon] — Parsnip — *Daucites*
Daucus carota var *boissieri* — Parsnip, Wild Carrot

Put six teaspoons of well-pounded *daucus* root into nine gallons of must [for several months], and then pour it into another jar. It is good for hypochondria [nervous gastric disorder] and disorders of the chest and womb; it expels the menstrual flow, and induces belching and urine. It is good for coughs, convulsions, and hernias.

5-71. OINOS ELELISPHAKITES

SUGGESTED: *Salvia maior*, *Salvia minor* [Fuchs, Bauhin],
Salvia officinalis [Linnaeus] — *Helelisphacites* — Sage

Helesphacum wine is made the same way. Put eight ounces of the herb into nine gallons of must in a ceramic jar. It is good for disorders of the kidneys, bladder and sides, as well as for bloodspitters, coughs, hernias, convulsions, bruises, and impeded menstrual flow.

5-72. OINOS PANAKITES

SUGGESTED: *Heracleum panace* — *Panacites*
— Fig-leaved Cow Parsnip
Heracleum gummiferum, *Heracleum pubescens*,
Heracleum pyrenaicum — Downy Cow Parsnip

Put one ounce of *panax* [*opopanax*, 3-55] into four and a half litres of must [for several months], and then pour it into another jar. It is good for convulsions, hernias, bruises, and *orthopnoea* [form of asthma]; it reduces the thickness of the spleen, and is good for griping, sciatica, and slow digestion. It expels the menstrual flow, and is good for dropsy, and for those bitten by venomous creatures.

5-73. OINOS AKORITES

SUGGESTED: *Acorum officinarum*, *Gladiolus luteus* [Fuchs, Brunfels], *Acorus adulterinus* [Bauhin], *Iris pseudacorus* [Linnaeus] — *Acorites* — Yellow Flag, Water Flag

Acorus and *lycoris* [?] wines are made in the same way [as those above] — steep eighty ounces of each of them in six gallons [of must] for three months, and then store it in another jar. They are effective for the side and chest, and for inducing urine.

5-74. OINOS SELENITES

SUGGESTED: *Apium*, *Apium hortense* [Fuchs], *Eleoselinum*, *Apium palustre* [Brunfels], *Apium graveolens* [Linnaeus], *Apium celleri*, *Celeri graveolens* — *Selenites* — Marsh Celery, Wild Celery, Celery, Marsh Parsley, Smallage

Bind up nine ounces of new, sifted, ripe *selinum* seed in a linen cloth, put it similarly into nine gallons of must [for several months]. It causes an appetite, and is good for stomach disorders, and frequent painful urination, and it also makes the breath sweet.

5-75. OINOS MARATHRITES KAI ANETHINOS

SUGGESTED: Wines of *Marathrum* [3-81], Dill and Parsley

Wines of *marathrum*, dill and parsley are made in the same way, and are good for the same things.

5-76. OINOS ALOS ANTHINOS

SUGGESTED: Wine with Salt

Wine is also made [by adding] ground-up salt. It is more purging than that made with seawater. It troubles the throat, kidneys, bladder and stomach. Therefore it is useful neither for health nor for sickness.

5-77. OINOS PHTHORIOS ENIBRUON

Abortion Wine

POISONOUS

A wine is made that destroys embryos, for among the vines planted there is planted *veratrum* [4-150, 4-151], wild cucumber or scammony, from which the grapes take the strength; and the wine made from [the grapes growing near] them becomes destructive. Eight cups mixed with water is given to women fasting, having first vomited.

5-78. OINOS THUMELAITES

SUGGESTED: *Thymelaea hirsuta*, *Daphne gnidium*
— *Thymelites* — Gnidium, Spurge Flax, Flax-leaved Daphne

Throw thirty teaspoons of the branches of *thymelaea* (together with its fruit) into two gallons of must. Boil it, seething it gently, until only one and a third gallons are left, then strain it and bottle it. It purges watery matter and reduces the spleen.

5-79. OINOS CHAMAILAITES

SUGGESTED: *Chamelaea* [Pliny], *Cneorum tricoccon*
— *Chamailaites* — Dwarf Olive

After the shrub flowers, beat and sift twelve teaspoons with the leaves and throw them into two thirds of a gallon of must. After two months pour it into another jar. It is good for dropsy, liver disorders, weariness, and women who are constipated after childbirth.

5-80. OINOS CHAMAIPITUINOS

SUGGESTED: *Chamaepitys lutea vulgaris* [Bauhin],
Teucrium chamaepitys [Linnaeus], *Ajuga chamaepitys* [in Sprague] — *Chamaipituinos* — Ground Pine, Yellow Bugle

Chamaepityinum is made in the same way, and is good for the same things as it is diuretic.

5-81. OINOS MANDRAGORITES

SUGGESTED: *Mandragora mas* [Fuchs], *Mandragora fructu rotundo* [Bauhin], *Mandragora officinarum* [Linnaeus],
Atropa mandragora — *Mandragorites* — Common Mandrake,
Devil's Apple — Mandrake Wine

NARCOTIC, POISONOUS

Cut the bark of the roots into pieces, pierce half a pound of them through with a thread, and put them into nine gallons of must for three months. Afterwards store it in another jar. A weak dose is a quarter pint. It is taken as a drink with double the amount of *passum* [raisin wine] added to it. They say that half a pint of it, mixed with six pints [of raisin wine] and taken as a drink, brings one into a heavy, deep sleep. And that one winecupful (taken as a drink with a pint of wine) kills. The moderate use of it takes away the sense of pain, and thickens outflows of body fluids, and either inhaled or given as a enema it does the same.

5-82. OINOS ELLEBORITES

SUGGESTED: *Elleborum nigrum* [Fuchs], *Helleborus viridis* [Linnaeus], *Helleborus officinalis*, *Helleborus niger*,
Veratrum nigrum — *Elleborites* — Black Hellebore,
Christmas Rose — Hellebore Wine

POISONOUS

Throw twelve teaspoons of finely pounded black hellebore (tied in a clean linen cloth) into two thirds of a gallon of must, diluted with seawater, and when it has boiled pour it into another jar. Or throw fourteen or fifteen ounces of black hellebore (having bruised it thoroughly) into two thirds of a gallon of must without seawater, then strain it, and after some days use it. Give one winecupful of this to drink with water after bathing for loosening the bowels, and to those who wish to vomit after supper. Or bind twenty teaspoons of veratrum, twelve ounces of *juncus* [4-52, 1-16], and thirteen ounces of Syrian *spica* [1-6, 1-7, 1-8, 1-10] (all sifted) in a linen cloth, and put them into seven pints of wine from Coon for forty days. After straining it give three quarters of a pint to drink. Or else steep six pounds of white hellebore

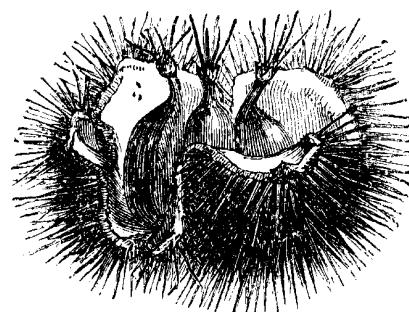
for forty days in six pints of boiled seawater, and having strained it, use it. Or steep twelve teaspoons of hellebore and four teaspoons of saltpetre in six pints of must for fifteen days, then strain it and use it after six months. This also causes infants to abort [abortifacient].

Or else take nine gallons of must made from raisins dried in the sun, throw twenty teaspoons of gypsum into the must and leave it alone for two days. Then add thirty ounces of black hellebore (tied in a knot) thirty ounces of *calamus* [1-17, 1-114], thirty ounces of *juncus odoratus* [4-52, 1-16], one and a half-pints of juniper berries, and an ounce each of myrrh [1-77, 1-73, 4-116] and saffron, having bound them in a linen cloth. Hang them in the wine for forty days, then strain it, mix it with water, and give two or three winecupfuls to drink. It purges women after childbirth and abortions, is an abortifacient, and is available for womb strangulation.

5-83. SKAMMONITES

SUGGESTED: *Convolvulus scammonia*, *Convolvulus syriacus*
— *Scammonites* — Scammony Wine

The root of scammony is dug up at the time of harvest, then pounded finely and bound in a linen cloth. Throw fifteen teaspoons of it into six pints of must for thirty days. It purges the bowels, expelling bile and phlegm.



Castanea vulgaris — Chestnut

after FAGUET — 1880

METALLIC STONES

5-84. KADMEIA

SUGGESTED: Cadmium Earth — *Cadmia*

The best *cadmia* is the Cyprian called *botryites*, which is thick and not very heavy, but rather inclining to lightness, with the outside in clusters, coloured like ashes, but ashy and rusty within when broken. The next best is an azure [blue] colour on the outside and whiter within with veins like an onyx stone. These are dug out of old mines. There is another type called *placodes* with veins (or stripes) like girdles, which is why they called it *zonitis*. There is another type called *ostracitis*, slender and mostly black, with an earthy or baked clay outside; but the white *cadmia* is useless. *Botryitis* and *onychitis* are useful for eye medicines, and the rest for plasters and dry medicines that are able to make a new skin. For these things the Cyprian is the best to use. That which is brought out of Macedonia, Thrace or Spain is useless. It is binding — filling up sores, and cleaning their foulness. It stops discharges of the pores, and dries, draws to a scab, and represses abnormal growths of the flesh, and creates a new skin on malignant ulcers.

Cadmia also comes from brass made red-hot in a furnace, from the soot sticking to the sides and top of the furnaces. Sticks of iron of a great size (called *acestides* by the metalworkers) are joined together at the top so that the particles that are carried up from the brass may be attached and settle there. Adhering together they grow into a clump, and sometimes one kind of it, sometimes two or all are made. It is also made from a burned stone called *purites* [pyrites] dug out of a hill that lies over Solis. And in the same mound are found (as it were) some veins of *chalcitis*, *misy*, *sory*, *melanteria*, *coeruleus*, *chrysocolla*, *calcanthus* and *diphryges*. Some say that *cadmia* is found in metals growing in stones, but they are deceived by the stones having a great resemblance, as in the case of a stone found at Cumae that has no strength. They are recognised because they are lighter than *cadmia*, and chewed, they are not mild to the taste but offend the teeth as if stones were being chewed. *Cadmia* remains

chewable as it has a yielding nature. It is also discerned as follows. Cadmia (pounded into small pieces, made into a paste with vinegar and dried in the sun) comes together, but that from stone does not allow this. Also the stone, broken and put into fire leaps, and the smoke that comes from it is like the fire; the *cadmia* remains quiet and yields smoke that is a yellowish brassy colour surrounding various other colours. Furthermore the stone, burnt and cooled again, is altered in colour and lighter. The *cadmia* alters in no respect unless you burn it for many days. It is also made in the furnaces for silver — paler and lighter — but less effective. They burn the previously mentioned *cadmia*, covering it in coals until it becomes transparent and casts out flaming sparks as plates of iron do, then it must be quenched in Aminaean wine. That which is for scabies [itchy parasitical disease] medicines, must be quenched in vinegar. Some beat finely again that which was burnt, mix it with wine, and burn it again in an unfired clay jar until it is made to look like pumice. Then, beating it small again and mixing it with wine, they burn it a third time until it is formed perfectly into ashes without any roughness, and they use this instead of *spodium* [calcinated powder]. Being pounded with water in a mortar, the water then poured away until no filth remains on it washes it; then it is made into balls and put in jars.

5-85. POMPHOLUX

SUGGESTED: Zinc Oxide — *Pompholyx*

P*ompholyx* differs from *spodium* [calcinated powder] specifically, as it has not a general difference. For the *spodos* is somewhat black and for the most part heavier as it is full of lumps, hairs and earth, because it is the scrapings and shavings from the floors and hearths in the brass refiners' shops. *Pompholyx* is fat, white and altogether very light, so that it can fly into the air. There are two kinds of this; one is the colour of the air and somewhat fat. The other is very white and the most light. *Pompholyx* becomes white during the working and finishing of the brass when the brass refiners sprinkle on crumbled *cadmia* [5-84] thickly, wanting to have it better; for the smoke that is carried up from this is very white

and is turned into *pompholyx*. *Pompholyx* is not only made from working brass and from its substance, but also from *cadmia* intentionally blown with the bellows to manufacture it. It is made as follows. In a house with a ceiling and roof, a chimney is built and near it towards the loft, a suitable window. It is open at the parts above. The wall of the house next to the chimney is drilled through with a small hole into the furnace for holding the bellows. It has also a proper door made for the workman to go in and come out. Joined to this room is another room, in which the bellows and the bellows blower work. Then coals are put into the furnace and kindled, afterwards the workman standing by sprinkles on *cadmia*, pounded into small pieces, from overhead. The servant that is below also does the same and puts on more coals, until all the *cadmia* [5-84] that was applied is used up. Thus burnt the thin light part is carried into the upper room and sticks to the walls and to the roof. The substance of those particles (carried up at first) is indeed like bubbles standing on water, but upon increasing it is like wool fleeces. The heavier particles fall underfoot and are spread about, some into the furnace and some to the floor of the house. This is thought to be worse than the thin particles, because it is earthy and full of filth from gathering it. Some think that the previously mentioned *spodos* is only made this way. It is thought that the Cyprian (which, worked into a paste with vinegar, has the smell of brass) is the best. The colour is pitchy, and furthermore it is like dirt to the taste. When pure it boils if it is put on a burning coal, becoming an airy colour. We must carefully observe the signs previously mentioned, for it is counterfeited with bulls' glue, or lambs' lungs, with lungs of the sea [jellyfish], or with burnt green figs and some other similar things. These are easily perceived for none of the previously mentioned tests work on them.

Pompholyx is commonly washed as follows. Having bound it (either dry or made into a paste with water) in a moderately thin clean linen cloth put it into a basin containing rain water, and plunge it about in there carrying the knot this way and that way so that the slimy matter and the stuff which is good can run out, but all the refuse will remain in the cloth. Then allow it to settle, strain out the water with the ashes, and pour on other water again. Roll it about, and then pour it out and repeat

this procedure, both straining and pouring it out until no sandy matter subsides. Finally strain out the water, dry the ashes, and put them in jars.

Some dry it as much as possible, squeeze it in their hands with water to a honeyish consistency, and strain it through a linen cloth spread over the jar that is to receive it. The mixture is not too stiff so that it may easily pass through. They then pour water abundantly on the linen cloth to disturb the ashes, then with a spoon they take up the strained frothy stuff swimming on top which they store in a new ceramic jar. Gently straining that which has settled, they pour it into another jar, while the sandy matter is left at the bottom. Again, allowing the stony substance to subside, they strain it into another clean jar and they do this often until the ashes become clean and without sand.

Others wet it as it is, a whole piece in the water, little by little, thinking that the previously mentioned sand and stony matter would fall by its own weight to the bottom of the jar and that the filaments, specks and similar things would be lifted on top by their lightness. Then separating the ashes which are in the middle and throwing them into a mortar, they wash them like *cadmia* [5-84]. It is also washed with Chian [from Scios in the Aegean sea] wine diluted with seawater as previously mentioned, and this is more astringent than that washed with water. *Pompholyx* is astringent, cooling, filling, purging, and somewhat drying. *Spodium* [calcinated powder] should be roasted after first being carefully and finely pounded. Then sprinkle it with water, make lozenges with it and put them in a new ceramic jar. Place this on a small, gentle coal fire and turn the little balls continuously until they become red and dry. It should be mentioned that *spodium* [calcinated powder] is also made out of gold and silver, and furthermore also from lead; that from lead is the best, then that from copper.

5-86. ANTISPODA

SUGGESTED: Ashes used instead of *Spodium* [5-85]

Since *spodium* is often not available and *antispodia* are very good to use, it is necessary both to show what they are, which of them are of equal strength, and how

they should be taken. Take therefore myrtle [1-155, 4-146] leaves with the flowers and unripe myrtle berries, put them into an unfired clay jar, and having sealed the cover and pierced it through with many holes, put it into a potter's furnace. When the jar is well baked, put [the myrtle] into another unfired jar, and when this second jar is thoroughly baked, take it out, wash it and use it. In the same way take a branch of an olive, but let it be from the wild; but if not, from the cultivated olive with the flowers; and if not this, quinces cut in pieces and the pith taken out; or [oak] galls, linen rags, unripe white mulberries dried beforehand in the sun, *lentisk* [1-90], *terminthos* [1-91] shoots or buds, the tender leaves of bramble, or the filaments of box, or that which is called false cypress together with its flowers. Some prepare branches of the fig tree first dried in the sun, but others use bulls' glue; some prepare rough unwashed wool, moistening it with pitch or honey. All the previously mentioned ashes are useful in that they may serve instead of *spodium* [calcinated powder].

5-87. CHALKOS KEKUMENOS

SUGGESTED: Burnt Brass

Burnt brass is good if it is red, and when rubbed looks like cinnabar [red or crystalline mercuric sulphide]. The black burnt brass is burnt more than necessary. It is made from the nails of broken ships laid together in an unfired clay pot (sulphur first scattered underneath) with the same amount of salt, and layers applied one over the other by turn. The pot is corked and smeared with potter's clay, then put into a furnace until it has baked thoroughly. Instead of sulphur and salt, some sprinkle about *allom* [5-123]. Without using either sulphur or salt some place the nails together into the pot and burn them for many days; some use sulphur alone. These nails must have the soot wiped from them. Others rub the nails with *alumen* [5-123] in small pieces together with sulphur and vinegar, and burn it in an unfired clay pot. Some sprinkle them with vinegar in a brass pot, then burn them. After the nails are burnt this way, they repeat the procedure three times, then they put the residue in jars. That which is burnt in Memphis is the best, then that from Cyprus. It

is suitable as an astringent, to dry, relieve, repress, attract, clean, form a skin over ulcers, wear off things growing in the eyes, consume the overgrown flesh of a healing wound, and stop gangrenous ulcers. It will also induce vomiting, a decoction taken as a drink with honey water, licked with honey, or smeared on. It is washed like *cadmia* [5-84], the water changed four times a day until no froth stands on top. The dregs (washed the same way) have the same property but are somewhat weaker.

5-88. CHALKOU ANTHOS

SUGGESTED: Flowers of Brass

The *flowers* of brass, which some of the ancients called *psegma* [*ramentum* — shavings] are best if they are very brittle and very red when crushed finely; and like millet in size — small, heavy and mildly glittering — and besides, not containing any dust of brass with which it is counterfeited. The powder spreading out when crushed by the teeth allows one to discern it. It is made as follows. When the brass that is melted in metallic furnaces runs through the colanders of the adjoining pipes into the receptacles, those who supervise take away the scum, and pour on the purest water intending to cool it. The previously mentioned *flower* of brass is 'spit out' (as it were) as a result of this sudden thickening and hardening. This is therapeutic for the bowels, represses abnormal growths, and wears off those things that darken the sight of the eyes as it is excessively biting. If forty grains are given it extracts thick fluids. It consumes abnormal growths of flesh in the nostrils, and with wine it represses pustules on the perineum. White *flowers* of brass are blown into the ears through a pipe for deafness that has lasted a long time. It is beaten finely and applied with honey to repress the tonsils and uvula.

5-89. LEPIS

SUGGESTED: Brass Scales

Squama is also called *helitis* and is made from Cyprian brass nails. It is thick and good; but that made from white brass is thin and weak and we refuse it, preferring

that which is thick and shiny and turns rusty when vinegar is sprinkled on it. It is contractive and reduces the intensity of symptoms of *noma* [grazer disease, eats away muscle, tissue and bones], repressing putrefaction and forming new skins. A decoction (taken as a drink with honey and water) expels fluids. Some work it into a paste with meal and give it as a *catapotium* [pill]. It is also mixed with medicines for the eyes as it dries eyelids that are rough, removing rheum [excessive fluids].

It is washed as follows: clean half a pound of dry brass scales [flakes], put them into a mortar with clear water, stir them up and down carefully by hand until the scum sinks down, and throw away the remainder. Having poured out the water, pour in one wine cup of rain water, and with the palm of the hand rub it hard in the mortar (as if you were straining it), and when it begins to send out viscousness, little by little pour on water (as much as six cups) beating it strongly. Take the *squama* with your hand against the side of the mortar, press it hard, and having pressed it take that which has run out into a red brass box, for this is the *flower of squama*. It is very potent and very effective for eye medicines. The rest has no strength. Yet, washing that which remains in the same way, work it until it shows no glueyness. Having covered it with a linen cloth, you must let it stand still for two days. Then pour out the water that stands on top, dry the remains and put it in a box. Some wash it like *cadmia* [5-84] and put it in jars.

5-90. LEPIS STOMOMATOS

UNKNOWN: stoma is a little mouth

Scales [flakes] of *stomoma* have the same strength as scales [flakes] of brass, and their washing and storage are the same; but in purging the bowels they are less effective than that of brass.

5-91. IOS XUSTOS

SUGGESTED: Verdigris — Brass Oxide

Aerugo *rasis* [verdigris — brass oxide] is prepared as follows. Pour the sharpest vinegar into a cask or

some similar jar and place over it a brass jar. It is good if the hollow faces downward — if not, let it be flat. It must be clean and leave no space for air. After ten days take off the cover and scrape off the *aerugo* [verdigris — brass oxide] that has grown on it. Or, having made a plate of the brass itself hang it in the jar so as not to touch the vinegar, and after the same number of days scrape it off. Or, hide one piece or plate or more among the husks of grapes (not pressed recently but turning sour) inverted the same way. It may also be made from filings of brass, or the plates between which leaves of gold are held when pounded out if one sprinkles them with vinegar, then turns them three or four times until they are rusty all over. They say that this rust is obtained in the Cyprian mines in two ways; flourishing on some stones containing brass, and secondly dropping out of a certain cavern in the scorching weather on the hottest days. The former is only a little quantity and very good, but that from the cavern, though it flows out in abundance and has a good colour, is worthless because it is mixed with stony matter.

It is counterfeited by the addition of many other things, especially with the following. Some mix it with pumice stone, some with marble, and others with *calcanthum* [limestone]. You can discern the pumice stone and marble by wetting the thumb of the left hand and rubbing some part of the rust with the other, because the rust in it spreads out while the particles of pumice stone and marble remain undissolved. At last it turns white after long rubbing and with the addition of the moisture. Also decide by crushing it with your teeth, for the unmixed breaks down smooth and not rough. The addition of *calcanthum* [limestone] is discerned by fire. If you sprinkle the rust thus counterfeited on a plate or ceramic jar and put either of these in warm ashes or on coals, that made with *calcanthum* [limestone] is changed and grows red because it usually has such a colour when it is burnt.

5-92. IOS SKOLEX

SUGGESTED: *Scolecia* — Rust

RISK OF BLOOD POISONING

There are two types of rust called *scolecia*; for the one is a mineral and the other is made as follows. Pour a quarter pint of white sharp vinegar into a mortar made from Cyprian brass, and with a pestle made of the same material beat it until it is viscous. Then add one teaspoon each of ground *allom* [5-123] and transparent mineral salt or sea salt (as white and strong as possible) and if not, the same amount of saltpetre [potassium nitrate]. Then beat them together in the sun in the extreme heat of the hottest days until the mixture becomes rusty in colour but gluey in consistency. Then make it into little worms like *rhodianda* [? stamens of roses] and put it in jars. It is made effectively and with a good colour if one part of vinegar and two parts of old urine are used and processed as previously mentioned.

Some mix that which is useless with *aerugo rasilis* [5-91], form it into a shape with gum and sell it. This is to be refused as worthless. A type of rust is also made by the goldsmiths with a Cyprian brass mortar and pestle and a child's urine, with which they solder gold. The previously mentioned rusts are commonly similar to burnt brass. They are stronger in effect. It should be mentioned that the dug-up or mined *scolecia* [rust] is the best, next to that is the scraped or smooth, and then the manufactured. This last is more biting and astringent but that from the goldsmiths is similar to the scraped or smooth. All rust is suitable as an astringent, to warm, to wear off and relieve scars in the eyes, to draw tears, stop gangrenous ulcers, keep wounds from inflammation, and form a skin over ulcers with oil and wax. Boiled with honey they purge *callos* [pus under a hard skin] and foul ulcers. Taken with *amoniaccum* [3-98] the same way as eye salves or suppositories, they remove fistulas and their *callos*. They are good for abnormal growths, and protuberances of the gums; rubbed on with honey they greatly lessen [swollen] eyelids. After rubbing you must bathe with a sponge and warm water. Taken with *terminthos* [1-91] rosin, brass or saltpetre [potassium nitrate] they take away leprosy.

Rust is burnt as follows. Break it into very small pieces, put it in a ceramic platter, set it over burning coals and stir it around until it changes and looks a somewhat ashy colour, then cool it, put it in jars and use it. Some burn it in an unfired clay jar, as previously described, but burnt like this it will not change altogether into the same colour.

5-93. IOS SIDEROU

SUGGESTED: Iron Rust

CAN CAUSE BLOOD INFECTIONS ON OPEN CUTS

Iron rust is astringent, and applied it stops women's excessive discharges [menstrual flow]. A decoction (taken as a drink) causes inception [birth control], and rubbed on with vinegar it heals rashes such as measles. It is suitable to use for whitlows, *pterygium* [membrane on eye], scabbed eyelids, and venereal warts, and it strengthens the gums. Rubbed on it helps gout, and thickens loss of hair [*alopecia*]. Iron made burning hot then quenched in water or wine, and the liquid (taken as a drink) is good for the abdominal cavity, dysentery, spleen, cholera, and diarrhoea.

5-94. SKORIA SIDEROU

SUGGESTED: Iron Slag

Skoria [slag] of iron is suitable for as many things as rust from iron but to a lower degree. Taken as a drink with vinegar and honey [antidote] it helps *aconitum* [4-77, 4-78].

5-95. MOLUBDOS PEPLUMENOS

SUGGESTED: Washed Lead — *Molybdos* [Greek] — Lead
Molybdomenite — Selenite of Lead

TOXIC

Washed lead is prepared as follows. Place water into a lead mortar and beat it with a lead pestle until the water becomes black and muddy. Then strain it

through a linen cloth, pouring on more water, so that all that which is dissolved may be strained. Repeat the procedure until it seems that you have enough, then letting that which is washed settle, pour out that water and pour in other water, as in the case of *cadmia* [5-84], and wash it until no blackness remains on it. Then make tablets from it and put it in jars. Some sprinkle water onto clean lead, beat it in a stone mortar with a stone pestle or by hand, pouring on water little by little underhand. When that which has turned black has been allowed to settle they pour it out and form it into tablets immediately. For that which is rubbed longer becomes like *cerussa* [white lead ore]. Some put a little *plumbago* [5-100] into the lead dust saying that lead washed this way is better.

It is able to cool, and is an astringent to close the pores, fill up sores and wounds, and deter fluids that gather in the eyes, and fleshy abnormal growths of ulcers. It is also a blood stauncher, and is good used with *rosaceum* [1-53] for ulcers on the perineum, venereal warts, and haemorrhoids. It is also used for sores that will not heal, and in general it treats the same things as *spodium* [calcinated powder] without raising a scab. Unmixed lead is rubbed on to help the strike of a sea scorpion [2-14] or sea dragon [2-15].

5-96. MOLUBDOS KEKAUMENOS

SUGGESTED: Burnt Lead

TOXIC

Lead is burnt as follows. Take plates of lead (as thin as possible), put them into a new pot and sprinkle sulphur on them, and place layers of lead plates and sulphur until you have filled the pot. Then start a fire underneath. When the lead is kindled, stir it with an iron rod until it is perfectly turned into ashes and has nothing leadlike in it. Then take it out (having closed your nostrils, for the vapour is harmful), throw this dust of lead and sulphur into a pot, and burn it. Some throw the plates into an unfired clay jar, put it into a furnace or over coals (sealing the cover with soft clay and giving it a little breathing place [hole]), and burn it. Some sprinkle *cerussa* [white lead ore] or barley on it instead of sulphur. Some

place the plates in without any admixture, use a sharp fire, and stir it around lustily with an iron rod until it turns to ashes. Burning it like this is difficult, and burned too much it takes on the colour of *lithargyrum* [5-102]. The first method pleases me. We must wash it as we do *cadmia* [5-84] and put it in jars. It has the same uses that the washed lead has but is far stronger.

5-97. SKORIA MOLUBDOU

SUGGESTED: Lead Slag

TOXIC

The best lead slag [*scoria*] looks like *cerussa* [white lead ore], thick and hard to break with no trace of lead in it, yellowish in colour and glistening like glass. It is good for the same things as burnt lead but is more astringent. It is washed in a mortar, with water poured on and that which remains on top is a yellowish colour when poured out. This is done often until the *scoria* [slag] is used up. Then after allowing it to settle we pour out the water and make it into tablets.

5-98. MOLUBDOEIDES LITHOS

SUGGESTED: Lead Stone

TOXIC

Lead stone has the same properties as *scoria* [slag] and is washed in the same way.

5-99. STIMMI

SUGGESTED: *Stibium* — Trisulphide of Antimony,
Black Antimony

The best *stibium* is the brightest — shining, crusty when broken, with no earthiness or foulness, and quickly broken. It is able to close the pores, and is astringent and cooling, repressing fleshy abnormal growths, forming new skins on ulcers, and cleaning filth and ulcers in the eyes. It stops discharges of blood that come from the meninx [brain and spinal cord]. Generally

its properties are like burnt lead. In particular it will not let burns form a scab rubbed on with new grease, and it forms skin over sores grown to scabs if some wax and a little *cerussa* [white lead ore] is mixed with it. It is roasted — wrapped around with dough and hidden in coals until the dough has turned to a coal. When taken out it is quenched with the milk of a woman that bears a male child or with old wine. It is further burnt: applied to coals and blown until it flames, for if it is burnt more it melts like lead. It is washed like *cadmia* [5-84] and brass, but some wash it like lead *scoria* [slag]. Some have called this *stibi*, *platyphthalmon*, *larbason*, *gynoecion*, or *chalcedonium*.

5-100. MOLUBDAINA

SUGGESTED: Silver Salts and Gold Salts

Plumbago — *Molybdos* [Greek] — Lead — in this manuscript
Molybdomenite — Selenite of Lead

TOXIC.

Old English — Plumbago is native or mineralised carbon. Molybdenum is a metallic element — a silvery metal — symbol Mo. Molybdenite is disulphide of Molybdenum.

The best plumbago looks like frothy silver — yellow, somewhat glittering, and a tawny yellow when pounded into small pieces. Boiled with oil it becomes like liver in colour. That which is an airy or lead colour is worthless. It is made from silver and gold, and there is some found which is dug out of the earth about Sebastia and Corycum. The best of this is neither like *scoria* [slag], nor stony, but yellow and glittering. It has properties like *lithargyrum* [5-102] and [slag] of lead, and is washed and burnt the same way. It is most effectively mixed with gentle plasters called *lipara*, and is effective with plasters that are not corrosive — promoting the growth of flesh in a wound or sore, and forming new skin. It is not suitable for those plasters that close open cuts and clean.

5-101. SKORIA ARGUROU

SUGGESTED: Silver Slag

Scoria [slag] of silver is called *helcysma* or *encauma*. It has the same strength as *plumbago* [5-100]; as a result it is mixed with black plasters, and those for forming new skin, as it is extractive [draws out] and astringent.

5-102. LITHARGUROS

SUGGESTED: *Lithargyrum*, Litharge — Monoxide of Lead
Monoxide of Silver and Monoxide of Molybdenum

TOXIC

Some *spuma argenti* or froth of silver is made from sand called *molibditis* [molybdenite — disulphide of molybdenum] blown in a furnace until perfectly fired. Some is made from silver and some from lead. The Attican is best, next to this is the Spanish, after these that from Dicaearchia in Campania and from Sicily, for much of it is made in these various places from lead plates that are fired. The best is a yellow glittering sort called *chrysitis*; that from Sicily is called *argyritis* [silver], and that from silver is called *calabritis*. It is astringent and softening, filling up hollownesses, repressing abnormal growths of flesh, and forming new skins; as well as being cooling, and closing the pores. You should burn it as follows. Divide it into pieces the size of *carya* [1-178], place them on burning coals, and blow on them until thoroughly fired. Then wipe away the filth that has formed on it and put it in jars. Some quench it three times with vinegar or wine then burn it again, and having done these things, put it in jars. It is washed like *cadmia* [5-84].

It is made white as follows. Take as much as an Athenian *choenix* [two pints] of that which is called *argyritis* [silver] (and if not, then one of the others) broken into pieces the size of beans, and throw it into a new ceramic jar. Pour on water and throw in two pints of white wheat as well. Take a handful of barley, bind it in a thin clean linen cloth, hang it from the handle of the ceramic jar, and boil it until the barley is broken. Then pour it all out into a clean broad-mouthed plate, separate the wheat, and throw it away. Pour on water to wash the

sediment, rubbing it strongly at the same time with your hands. Then take it out, dry it, and beat it in a Thebaean mortar, pouring on warm water until it has dissolved. Straining out the water, pound it again for a whole day, and in the evening pour on hot water then leave it alone. In the morning strain out that water, pour in more, and repeat this procedure three times a day. Do this for seven days. Then mix to a pound of *lithargyrum* five teaspoonfuls of mineral salt, pour on warm water and beat it three times a day, straining out the old water and mixing in new water each time. Even if it turns white pour on warm water until it contains no saltiness. Dry it in a very hot sun (first throwing away the liquid) then put it in jars.

Alternatively, take one pound of *argyritis* [silver], beat it into small pieces carefully, and mix in three times as much mineral salt, also pounded into small pieces. Put it into a new ceramic jar, and add water until it is covered. Stir it every day, morning and evening, pouring in more water as needed, but pouring out none of the original water. Do this for thirty days for if it is not stirred it becomes as hard as a shell. Afterwards (having poured out the salt water) gently beat the sediment finely in a Thebaean mortar. Put it into a ceramic jar, pour in water, and stir it diligently with your hands, pouring out the first water and pouring on more until it has no saltiness. Then pour out the white *lithargyrum* into another jar, make lozenges with it, and keep them in a lead box.

Some break the sediment into pieces the size of beans, place them into the raw intestines of a swine, and boil it in water until the intestines have dissolved. Then they take it out, beat it with the same amount of salt, and wash it as previously described. Some beat one pound of salt and the same amount of *lithargyrum* in the sun with water, (continuously replacing the water) until it becomes white. Or, alternatively, take as much *lithargyrum* as you want, wrap it in white wool, place it in a new ceramic jar with water and one handful of clean new beans, and boil them. When the beans are broken and the wool has turned black, take out the *lithargyrum*, wrap it in other wool, and boil it a second time, adding a winecupful of water and the same amount of beans, and repeat the procedure until the wool absorbs no more colour. After this place it into a mortar, mixing one pound of mineral salt to eighty Athenian teaspoons of *lithargyrum*, and beat

it finely. Then after a while add forty seven teaspoonfuls of the very whitest saltpetre washed with water, and beat it again until the sediment is sufficiently white. Then pour it from a height into a broad-mouthed ceramic jar, add a quantity of water, let it settle, and strain it. Repeat the procedure until the water that runs over becomes very clear and sweet, not salty. Finally, put it into a new ceramic platter (all the liquid having been gently strained out), set it in the sun forty days during the hottest days, and having dried it, use it. *Lithargyrum* that has been washed seems to be good to put in eye medicines, as well as for foul scars, wrinkled faces and those full of spots.

5-103. PSIMUTHIOS

SUGGESTED: *Cerussa* — White Lead

TOXIC

Cerussa is made as follows. Pour the sharpest vinegar into a broad-mouthed jar or ceramic urn, and fasten a lead plate to the mouth of the jar with a little reed mat placed underneath. On the top of it put covers so that the vinegar cannot evaporate before it is dissolved, and falls down distilled. Strain out the pure liquid on top. Pour the viscous stuff out into a jar and dry it in the sun. Then it must be ground in a hand mill, or finely pounded some other way and scraped [scraped]. Repeat this pounding and scraping three or four times. That which is scraped [scraped] first is the best, to be used in eye medicines, and the next best follows next, and so on. Some use a bullrush mat, fastening it towards the middle of the jar so that it touches the vinegar. Then they cork the mouth of it, seal it all up, and leave it alone. After some days they take off the cover to look in, and when it is all dissolved they repeat the procedures previously described. To form it into lozenges, it must be kneaded with sharp vinegar, shaped, and dried in the sun. The things mentioned here must be done in the summer for then it becomes white and effective.

It is also made in the winter, the ceramic pots set over furnaces, baths, or chimneys. The warmth is carried from above, the same as the sun. That which is made in Rhodes, Corinth or in Lacedaemonia is considered the best. The next is that which comes from Puteoli. It is

roasted as follows: place a new Ostracean jar (especially an Athenian) over light burning coals, sprinkle on cerussa [white lead] pounded into small pieces, and stir it continuously. When it is ashy in colour take it out, cool it, and use it. If you want to burn it put the pounded small pieces into a hollow platter set it over live coals, and stir it with a stick of *ferula* until it is similar in colour to *sandarac* [5-122] then take it out and use it. If cerussa is washed the same way as *cadmia* [5-84] some call this *sacyx*. Mixed with stiff ointments, plasters called *lipara*, and with lozenges [tablets, but not to take internally] it is cooling, pore-closing, softening, filling, reduces the intensity of symptoms; and furthermore gently represses abnormal growths, and forms new skins; it is among those things which taken internally kill.

5-104. CHRUSOKOLLA

SUGGESTED: *Chrysocolla*

This was a name for Borax or Malachite and means Gold Solder.

TOXIC

Chrysocolla from Armenia is the best — considerably resembling leeks in colour; that from Macedonia is the second, then the Cyprian. The pure should be chosen, but that which is full of earth and stones must be refused. It is washed as follows: pound it, put it into a mortar, pour on water, and rub it strongly with the palm of your hand against the mortar. Allow it to settle, strain it, pour on other water, rub it again, and do this repeatedly until it is pure and unadulterated. Then dry it in the sun and put it in jars and use it. If you want to burn it, do it as follows. Pound as much of it as you need, put it in a platter, set it over light coals, and repeat the procedure previously explained about burning. *Chrysocolla* is able to wear off scars, and repress fleshy abnormal growths, and it is cleansing, astringent, warming, gently corrosive and a little biting. It is one of the medicines that cause vomiting and are strong enough to kill.

5-105. ARMENION

SUGGESTED: Armenian Stone — blue Copper Carbonate

Armenium must be chosen which is smooth, an azure [blue] colour, very even, without stones, and very brittle. It does the same things as *chrysocolla* [above], only it is not as strong. It is also increases hairs on the eyelids.

5-106. KUANOS

SUGGESTED: Cyanochroite — blue hydrous Sulphate of Copper and Potassium

Cyanus, formed from brass minerals, is found in Cyprus. The largest quantity is made from sand at the shore that is found near some hollow places of the sea, like burrows. This is also the best. That which has a full colour must be chosen. It is burnt like *chalcitis* [calcium carbonate] and washed like *cadmia* [5-84]. It has the ability to repress, is a little corrosive, forms scabs, and is ulcerating.

5-107. INDIKON

SUGGESTED: *Indigofera tinctoria*, *Indigofera indica*, *Indigofera linifolia*, *Indigofera viscosa* — Indigo Plant, Dyer's Indigo Plant

Indicum forms of its own accord because it seems to be the froth of Indian reeds. The other forms during the dyeing when the purple flowers collect on the dye vats. The workmen take them off and dry them. The best is azure [blue], juicy and smooth. It is gently astringent, breaks inflammation and oedema, and purges and represses ulcers.

5-108. OCHRA

SUGGESTED: Ochre

Ochre must be chosen which is light and yellow, with a rich colour, unstony, and brittle. That from

Athens is like this. We must burn and wash it like *cadmia* [5-84]. It is an astringent for putrefying sores, dissolves inflammation and small swellings, represses abnormal growths of flesh, fills up sores and wounds (used with wax ointments), and diminishes calluses.

5-109. KINNABARI

SUGGESTED: red crystalline Mercuric Sulphide — Cinnabar

Some think cinnabar is the same as that which is called *Ammium*, but are deceived in this. *Ammium* is made in Spain from a certain stone mixed with Arguritidic sand, and otherwise it is unknown. In the furnace it changes into a very lively and flaming colour. It has among metals a choking smell, and therefore the workmen there put bladders around their faces that they may see but not inhale the vapour. The painters use this for the sumptuous adornings of walls.

Cinnabar (which we speak of) is brought from Africa, and sold for so much and is so scarce that it is with difficulty enough for the painters for variety in their lines. It is also a heavy or deep colour, as a result some thought it was the blood of dragons. Cinnabar has the same properties as haematite, good for eye medicines and even more effectively, for it is more astringent and blood staunching. Taken with wax ointments it heals burns and pustules that break out.

5-110. UDRAGUROS

SUGGESTED: *Hydrargyrum* — *Argentum vivum*
— Mercury — Quicksilver

TOXIC

Hydrargyrum is made from *ammion*, which is also incorrectly called cinnabar [above]. They place an iron spoon containing *ammion* in a ceramic pot, cover the cup daubing it all around with clay, then make a fire underneath with coals. The soot that sticks to the pot is scraped off and cooled and becomes *hydrargyrum*. It is also found in places where silver is smelted, gathered together in drops on the roofs. Some say that *hydrargyrum*

is found by itself in the mines. It is kept in glass, lead, tin or silver jars for it eats through all other matter and runs out. It is destructive. Taken as a drink it eats through the internal organs by its weight. This is helped if a lot of milk is taken as a drink, or wine with wormwood [3-26], a decoction of smallage, seeds of *Salvia horminum*, origanum, or hyssop [3-30] with wine. (Gold dust, that is, the smallest scraping, is a miraculous help for *hydrargyrum* poisoning).

5-111. MILTOS SINOPIKE

SUGGESTED: Red Ochre from Sinope

The best *rubrica Sinopica* is thick and heavy, with a bright colour, without stones, and all one colour, spreading out much when dissolved. It is gathered in Cappadocia from certain hollows. It is purified, carried to the city Sinope (from which it has its name) and sold. It is drying and adhesive; as a result it is mixed with wound plasters and drying astringent tablets. Taken in an egg or as a suppository it stops the intestines. It is also given for liver disorders.

5-112. TEKTONIKE

SUGGESTED: Red Ochre

Tecktonic [red ochre] is inferior in every respect to the Sinopic. The Egyptian and Carthaginian are the best — without stones and brittle. It is also found in Spain towards the West. Ochre is burnt and turns into red ochre.

5-113. LEMNIA GE

SUGGESTED: Lemnian Earth

Lemnian earth is brought from the Island Lemnos out of a certain hollow cavern in a marshy place. It is gathered from there and mixed with goats' blood, and the men there make it into tablets, seal it with the figure of a goat and call it the seal of a goat. Taken as a drink

with wine it is a very powerful antidote against deadly poisons, and taken beforehand it forces one to vomit up poisons. It is good against strikes and bites from venomous or poisonous beasts. It is mixed with antidotes. Some use it for purifications, and it is also good for dysentery.

5-114. CHALKANTHON

SUGGESTED: *Calcanthum* — Limestone

There is a single type of *calcanthum* formed by moisture into a solid. It has three different forms. The moisture that strained by dripping into certain caves is formed into a solid from which those who work the Cyprian metals call *stillatitium*. Petesius calls it *pinarium*, and some call it *stalacticon* [coalesced, boiled, thin, long like a spear]. Some runs secretly in hollows, and afterwards is transported into ditches and thickens, and this is called *pecton*.

The third sort is called *coctile* and is made in Spain. It has the following method of manufacture, but is useless and the weakest. They dilute it in boiling water, and then pour it out into receptacles to let it stand. After some days this is thickened and divides into many cubic forms hanging together like grape bunches. The best is azure coloured [blue], heavy, compact and transparent, such as the *stillatitium* that is also called *lanceatum*. The next best is *concretitium*. *Coctile* is thought to be the fittest for dyeing and making colours black, but experience shows that it is the weakest for medicinal use. It is astringent — two teaspoonfuls are swallowed or licked with honey to warm, form scabs, and to kill broadworms. It causes vomiting and helps those who have eaten mushrooms, taken as a drink with water. Diluted with water and dropped into the nostrils through wool it purges the head. It is burnt, as we will show [below] in *calcitis*.

5-115. CHALKITIS

SUGGESTED: Calcite — Anhydrous Carbonate of Lime,
Calcium Carbonate

Calcitis is preferred which looks like brass, brittle, without stones, and is not old, and furthermore with somewhat long glittering veins. It is astringent, warming and scab forming, purging away filth around the eye corners and the eyes. It is one of those things that are mildly astringent. It is good (with the juice of a leek) for *erysipela* [streptococcal skin infection], *herpes* [viral skin infection], and discharges of blood from the womb and nostrils. The powder of it is good for repressing abnormal growths on the gums, and gangrenous ulceration of the cheeks and tonsils. Burnt, pounded into small pieces and mixed with honey, it is far more effective for eye medicines. It reduces and cleans rough eyelids that have grown hard, and put in like a suppository it takes away fistulas [ulcers].

5-116. PSORIKON

SUGGESTED: Calcium Carbonate & Cadmium Earth
— *Psoricum*

Psoricum is made of two parts of *calcitis* [calcium carbonate] mixed with one of *cadmia* [5-84], and pounded into small pieces with vinegar. It must be tightly shut up in a ceramic jar covered in dung for forty days, in the hottest days, so it becomes sharper, and it is good for whatever *calcitis* is. Some mix the materials in equal proportions, beat them in wine, and do the same as before. They burn it by placing it in a new ceramic jar and setting it over burning coals. Measure the burning this way: those full of moisture must become without bubbles and perfectly dry, and the rest must change into a more flourishing colour. When it is like blood (or red ochre) deep within, then it must be taken off. Blow off the filth on top of it and put it in jars. It is roasted on coals that are blown [with bellows] until it becomes a pale yellow, or in a ceramic pot over burning coals and turned often until it is on fire and changes colour.

5-117. MISU

SUGGESTED: *Misy* — Copiapite
— yellow translucent Hydrous Silicate of Iron

Cyprian *misy* must be chosen — looking like gold, hard, and if broken a golden colour, glistening like a star. It has the same strength as *chalcitis* [5-115], and is burnt the same way without *psoricum* [5-116] being produced from it, differing both in excess and defect. That from Egypt (compared to others) is the best and most effective, but for eye medicines it is not comparable to that previously mentioned.

5-118. MELANTHERIA

UNKNOWN

Melanteria grows together in the manner of salt at the mouths of mines out of which brass is dug, and some comes from the earthy upper surfaces of these places. Some is also found that is dug out in Cilicia and in certain other places. The best is a sulphurous colour [yellow], smooth, even and clear, and on touching water it quickly turns black. It is sharp like *misy* [above].

5-119. SORU

UNKNOWN

Some are deceived, supposing *sory* to be *melanteria* [above], for it is a different thing though not unlike. *Sory* is more poisonous and causes nausea. It is found in Egypt and in other places such as Africa, Spain and Cyprus. The Egyptian is considered the best — that which looks blackest when broken, has many holes, is somewhat fat, and also astringent and poisonous to taste or smell, overturning the stomach. That which does not glisten when broken (like *misy*) is thought to be another kind and weak. It has the same properties as those mentioned above and is burnt like them. It heals toothaches (put into their cavities) and strengthens loose teeth. Given as a suppository with wine it helps sciatica, and smeared on with water it extinguishes *varos*

[smallpox pustules]. It is mixed [with other ingredients] for dying hair black. As a general rule, for these and almost all others, those which are not burnt are considered to be stronger than the burnt; except for salt, wine sediment, saltpetre [potassium nitrate], chalk, and other similar things which are weak raw, but are more effective burnt.

5-120. DIPHRUGES

SUGGESTED: Pyrites — Disilphide of Iron

It is thought that there are three kinds of *diphryges*. One is a mineral and is found only in Cyprus. It is dirty and is taken out of the bottom of places there. After being taken out it is dried in the sun, then small brushy sticks are laid all around it and it is burnt. It is called *diphryges* because it is dried and burnt and (as it were) roasted in the sun amid the sticks.

Another is (as it were) the sediment and dregs of worked brass, for after pouring around the cold water (as we explained when discussing *flower of brass*) and after taking away the brass, there is found stuff such as this in the furnace sticking to the bottom of it, with both the astringent quality and taste of brass.

The third sort is made as follows. The supervisors place stones called *pyrites* into a furnace and they burn it (as they do chalk) for many days. When the colour becomes like red ochre they take it out and put it in jars. Some say that this sort is only made from by-products of purifying brass. This is heated in the furnaces, carried from there into the ditches and burnt there, for it is deposited around the ditches and is found after taking away the stones. The best of it is brassy to the taste, looks rusty, and is astringent and excessively drying to the tongue. This quality the burnt ochre does not possess, though some burn it and sell it instead of *diphryges*. It is astringent, cleans thoroughly, wipes away, dries, represses abnormal growths of the flesh, and forms new skins on malignancies and creeping sores. Taken with turpentine or wax ointments it dissolves abscesses.

5-121. ARSENIKON

SUGGESTED: Orpiment — Yellow Arsenic, Realgar
— Arsenic disulphide

POISONOUS

Arsenicum is found in the same mines as *sandaracha* [?] [5-122]. The best is crusty, gold in colour and with crusts like fish scales (as it were) lying one over another, and it is not mixed with any other material. That which is found in Mysia (which is in Hellespont) is like this.

There are two kinds: one as mentioned, and the other in clumps and like *sandaracha* in colour. It is brought from Pontus and Cappadocia. It is roasted as follows: place it in a new ceramic jar, set it over burning coals and stir it continuously; and when it is red-hot and has changed colour, cool it, beat it finely, and put it in jars. It is antiseptic, astringent, and scab forming with a burning, strong, biting strength, and it is one of those medicines that repress abnormal growths and make the hair fall out.

5-122. SANDARACHE

SUGGESTED: *Sandarac* — Arar Tree, Sandarach Tree
Callitris quadrivalvis, *Thuya articulata* — Juniper GumTree

5-121 indicates however, this *sandarac* is a mineral, not a gum.

Sandarac is most highly valued which is fully red, brittle, easily pounded into small pieces, and pure — looking like cinnabar [5-109] in colour, and also having a sulphurous smell. It has the same properties and method of roasting as arsenicum. Used with rosin it heals loss of hair [*alopecia*], and with pitch it removes leprous nails. It is good with oil for lice infestations, and with grease it dissolves small swellings. It is also good with *rosaceum* for ulcers in the nostrils and mouth, and for other pustules [1-53], as well as for venereal warts. It is given with mead [honey wine] to those who spit up rotten matter, and it is made into an inhalant with rosin for old coughs, the smoke drawn through a funnel into the mouth. Licked in with honey it clears the voice, and it is given with rosin in a *catapotion* [pill] to the asthmatic.

5-123. STUPTERIA

SUGGESTED: Aluminium Sulphate, Potassium Sulphate
— Alum

Almost every kind of *allom* is found in the same mines in Egypt, such as the scissile [capable of being cut or divided] (as it were) and the *flower* of Bolitis. It is also found in certain other places — in Melos, Macedonia, Sardinia, Liparis, and Hierapolis in Phrygia, in Africa, Armenia, and many other places (like red ochre). There are many kinds of it; but for medicinal use the scissile, the round, and the moist are taken. The scissile is the best — especially that which is new, white, without stones, with a strong smell, very astringent, and furthermore not compacted together like turf or slate, but opening its mouth wide like gray hairs spread-apart, such as that called *trichitis*, found in Egypt. A stone very like it is also found, discernable by its not astringent taste.

The round *allom* that is made by hand should not be taken. It is known by its shape; but that to be taken is naturally round, full of bladders, somewhat white, and strongly binding, and also has some paleness together with fattiness, and additionally it is both without stones and brittle, and it originates in Melia or Egypt.

Moist [alum] that is most transparent must be chosen — milky, even, and juicy throughout, and furthermore without stones and giving out a smell of fire. It is warming, astringent, and purges away those things that darken the eyesight and consume the flesh on the eyelids, and all other abnormal fleshy growths. They regard the scissile as more effective than the round. They are burnt and roasted like *chalcitis* [calcium carbonate]. With vinegar or honey they restrain creeping ulcers, stop bloody discharges, close moist gums, and they strengthen loose teeth. They are good with honey for *apthae* [aptylia — absence of saliva], and with juice of *polygonum* [knotgrass] for pustules and rheumatic discharges in the ears. They are good with *brassica* leaves (or boiled with honey) for leprosy; and are applied with hot cloths and water for itches, rotten nails, *pterygium* [membrane on eye], and chilblains. With vinegar sediment (rubbed on with the same amount of burnt galls [oak galls]) they are good for eating ulcers. They are used

with twice as much salt for gangrenous ulceration, and smeared on with *ervum* [2-129, 2-131] and moist pitch they wear off dandruff. Rubbed on with water it is a remedy for nits, lice and burns. They are smeared on for oedema and bad smells in the armpits and groins. *Allom* from Melos (laid at the mouth of the womb before sexual intercourse) also prevents conception and it is an abortifacient. It is expedient for abnormal growths on the gums, as well as for the uvula, tonsils, and the mouth, and is smeared on with honey for the ears and genitals.

5-124. THEION

SUGGESTED: Sulphur

The best sulphur is thought to have never felt fire and is glistening in colour, transparent, and without stones. The best of that which has felt the fire is green and very fat. It is abundant in Melos and Lipara. The first type of sulphur dissolves and ripens quickly. Taken in an egg (or else the smoke inhaled) it is good for coughs, those who spit rotten matter, and the asthmatic. Furthermore, the smoke is inhaled as an abortifacient; and mixed with *terminthos* [1-91] rosin it takes off leprosy, *lichen* [skin disease with red pustules] and rotten nails. Smeared on with vinegar it is also good for leprosy and takes away *vitiliges* [form of leprosy]. Mixed with rosin it heals scorpion strikes, and with vinegar it heals strikes from sea dragons [2-15] as well as scorpions. Rubbed on with saltpetre [potassium nitrate] it soothes itching all over the body. A spoonful sprinkled on the forehead (or taken with an undercooked egg) helps jaundice, and is good for the nose and catarrh. Sprinkled on, it keeps one from sweating, and smeared on with saltpetre [potassium nitrate] and water it is convenient for gout. The smoke from it drawn up (quickly) through a funnel cures hardness of hearing. The smoke is inhaled for lethargy, and it stops excessive discharges of blood. Smeared on with wine and honey it heals bruises on the ears.

5-125. KISSERIS

SUGGESTED: Pumice Stone

Pumice stone should be chosen which is very light, very hollow, easily cut, without stones, and furthermore both brittle and white. It is burnt as follows. Take as much of it as you wish, hide it in burning coals, and when it is red-hot, take it out, quench it with fragrant wine, then burn it and quench it again. The third time you take it off, leave it alone to cool, and put it in jars to use. It is able to tighten and cleanse the gums, purge away things that darken the eyesight with warming, fill up ulcers and form new skins on them, and furthermore, pounded to powder, it is able to repress abnormal growths and clean the teeth. It forms scabs over any sores on the body, and is a suitable medicine to remove hair. Theophrastus says that if one puts pumice stone into a jar of boiling wine that the boiling immediately stops.

5-126. ALES

SUGGESTED: Salts — Sodium Chloride, Ammonium Salts

Mineral salt is the most useful — usually that which is without stones, white, transparent, thick and equally compacted — as well as ammonia salts, which are easily cut and have straight edges. Thick sea salt must be taken, white and even. The best is from Salamine in Cyprus, Megara, Sicily, and Africa. Salt from the lakes in these places is considered the best. The Phrygian is the strongest, also called Tattaean. These salts all have similar properties — useful as an astringent, and to clean and dissolve, as well as repress, reduce the intensity of symptoms, and form scabs — only differing slightly. They are binding for rotten ulcers, mixed with sebaceous treatments for psoriasis, repress abnormal growths in the eyes, and consume *pterygium* [membrane on eye]. They take away other abnormal growths, are fit to put in suppositories, and smeared on with oil they remove weariness and oedema from dropsy. Warm packs are made from them in little bags to ease pain, and rubbed on by the fire with oil and vinegar (until the person sweats) they lessen itching. In the same way (rubbed on with

honey and vinegar) they lessen *lichen* [skin disease with red pustules], parasitical skin diseases, leprosy, and a synanchic [abscessed] throat. For the tonsils and adenoids they are roasted with honey, and for spreading ulcers, apthas [small ulcers], and moisture of the gums they are applied burnt with polenta. For the strikes of scorpions they are used with flax seed; for the bites of vipers with origanum, honey and hyssop [3-30]; for the horned viper with pitch, *cedria* [1-105] or honey; and for the bites of centipedes or millipedes with honey and vinegar. For wasp stings, gnawing worms, white pustules in the head, the thymus, and tubercles [growths] they take it with calves' suet. With raisins, swines' grease or honey they dissolve boils [inflammatory tumours]; and with origanum and fermented dough they ripen oedema of the genitals sooner. They help those bitten by crocodiles, pounded into small pieces and bound in a linen cloth dipped in vinegar and then bound to the wounds with bandages. With honey they help those bitten by venomous creatures, and bruises on the face. As an antidote for drinking the juice of poppy or eating mushrooms it is taken as a drink with vinegar and honey. They are used for dislocations with meal and honey; and applied with oil do not allow burns to blister. Salts are similarly applied to gout and earache with vinegar. Smeared on with vinegar (or applied as a poultice with hyssop [3-30]) they stop *erysipela* [streptococcal skin infection] and creeping ulcers. They burn salts by throwing them into an *ostracean* [clay] jar, carefully closed so that they may not leap out, and then hidden in live coals until fully burnt. Some wrap the *sales fossiles* [mineral salt] with dough, place it under hot coals, and leave it alone until the dough has burnt. You may burn common salts as follows; wash them once in water and allow them to dry, then put them into a corked ceramic pot and make a fire underneath, shaking the pot until the salt no longer leaps.

5-127. ALOS ACHNE

SUGGESTED: Sea Froth

Spuma salis are fragments of the foaming sea found on the little rocks, and it has the same properties as salt.

5-128. ALME

SUGGESTED: *Muriates* — Chloride Salts

Muria has the same action as ordinary salts in cleansing, and it is a suppository for dysentery with gangrenous ulceration, and those with a history of sciatica. It is good in warm packs where seawater is effective.

5-129. ALOS ANTHOS

SUGGESTED: Mineral Salts

Flowers of salt [precipitated solids] flow down from the river Nile and collect on certain lakes. That like saffron in colour must be taken. It has a somewhat bad scent like *garum* [Roman sauce made from fermented fish], sometimes smelling worse; more biting to the taste and somewhat fat. That coloured with red ochre (or has clots) is considered worthless. The pure salts are only dissolved by oil, the adulterated partly by water. It is good for malignancies, spreading erosive ulcers, gangrenous ulcers on the genitals, purulent ears, and dullness of sight, and it takes off scars and cataracts. It is mixed with plasters and ointments to colour them, as well as with *rosaceum* [1-53]. Taken with wine and water it promotes sweating, disturbs the intestines, and is bad for the stomach. It is also mixed with remedies for the removal of fatigue, and with sebaceous treatments for reducing the intensity of symptoms of the scalp, and in general it is as sharply burning as other salts.

5-130. NITRON

SUGGESTED: Saltpetre — Potassium Nitrate

Nitre is preferred which is smooth and rosy or white in colour, with holes through as though it were some spongy thing, like that which is brought from Buni. It has an ability to fetch fluids from the depths.

5-131. NITROU APHROS

SUGGESTED: Potassium Nitrate — Saltpetre — *Spuma Nitri*

The best *spuma nitri* is esteemed to be the lightest — crusty, brittle, and drawing to a purple, frothy, and moreover biting. Such as this is brought from Philadelphia in Lydia. Next to this is that from Egypt. It is also found in Magnesia which is in Caria, and both this and *nitre* [above] have a similar burning strength, like salt. Furthermore, pounded into small pieces with cumin, and taken as a drink with honey water (or *sapa* [syruped new wine], or some things to dissolve wind such as rue [3-52, 3-53, 4-98] or dill [3-67]) it soothes griping. It is a fit ointment for those troubled with recurrent fevers, given before the suspected time of the fit coming. It is mixed with dissolving and drawing plasters good for leprosy, and with things that relieve. Infused with warm water or wine it heals gaseousness, as well as noises in the ears and their suppurations. Dropped in the ears with vinegar it takes away their filth. With ass or swine grease it heals dog bites. It opens boils [inflammatory tumours] taken with *termininthos* [5-39]; and with figs it is a poultice for dropsy. Smeared on with honey it is a sight restorer, and it is good (taken as a drink with *posca* [hot drinks]) for the ingestion of mushrooms [antidote]. It is given against *bupressedis* [*buprestidae* — beetles, harmful to cattle] with water, and for bulls' blood with *silphium* [3-94]. It is an effective poultice for those in atrophy, and is used with wax ointment for tetanus sufferings that cause some weakening, and for purifying baths. It is effective mixed in their bread for those who have palsy in the tongue. Some burn these salts, setting them on burning coals (a new clay jar first placed under) until completely burnt.

5-132. TRUX

SUGGESTED: Sediment of Wine, Sediment of Vinegar

Especially that sediment from old Italian wine must be chosen, and if not some other like it, because that from vinegar is excessively strong. It is burnt like *alcyonium* [5-136] but first dried carefully. Some place it in new clay (jars) and burn it in a great fire until it is burnt

quite through. Similarly, others hide the mass (of sediment) in burning coals. It is a sign that it is completely burnt when it is white or the colour of air. This, applied to the tongue, burns it. The sediment of vinegar is burnt the same way. It is extremely burning, cleans and forms new skins; it is astringent, and extremely corrosive and drying. We must use sediment that is new, for it quickly evaporates and should be kept in jars — never uncovered, nor without a jar. It is washed the same as *pompholyx* [crude zinc oxide]. That which is not burnt restrains oedema (both by itself or with myrtle [1-155, 4-146]), and applied it stops the intestines and flowing stomach. It soothes women's excessive discharges [menstrual flow] applied to the lower part of the intestines and the genitals. It dissolves inflammation in bones and lesser swellings that are not yet ulcerated. Rubbed on with vinegar it reduces swollen breasts that run out with milk. Burnt with rosin it takes off rotten nails, and it is smeared on with *lentiscine* [1-90] oil for a whole night to make hair yellow. It is washed and mixed with eye medicines like *spodium* [calcinated powder], and this removes scars and darkness in the eyes.

5-133. ASBESTOS

SUGGESTED: Quicklime — *Calx Viva*

Asbestos refers to 'the unquenchable stone' — the action of cold water on quicklime.

C*alx viva* is made as follows. Take the shells of sea creatures called *buccinae* [whelks], cover them in the fire or place them into a thoroughly hot oven, and let them remain there all night and the next day. If they have turned very white take them out, but if not, repeat until they are white. Afterwards dip them in cold water and put them into a new pot, corked carefully with cloths. Leave them in there for one night and in the morning take them out, and after it has been refined, put it in jars. It is also made from flints or pebble stones that are burnt, and from common marble, which is also preferred. All *calx* in common is fiery, biting, burning and scab forming. Mixed with certain other things such as grease or oil, it

becomes digestive, softening and dissipating, forming new skins. They regard the newest and that which was never wet to be the most effective.

5-134. GUPPOS

SUGGESTED: Gypsum — Plaster of Paris

Gyptum is astringent, closes pores, and restrains bleeding and sweating. Taken in a drink it chokes by constriction.

5-135. TEPHRA KLEMATINE

SUGGESTED: Ash from twigs or prunings

Cinis *sarmentitius* is caustic. Smeared on with goose grease or oil it is good for bruised sinews, dislocated joints and knotted nerves. With saltpetre [potassium nitrate] and vinegar it represses fleshy abnormal growths in the scrotum, and smeared on with vinegar it heals the bites of snakes or dogs. It is mixed with scab-forming medicines. Lye is made from it, good for precipitations [antidotes to mercury poisoning], and [the effects of] mushrooms, used with vinegar, salt and honey.

5-136. ALKUONION

SUGGESTED: *Alcyonium* — Zoophyte — Bastard Sponge

There are five kinds of *alcyonium*. One kind is thick with a sour taste. It looks like a sponge, is poisonous and heavy, and smells of fish. A lot of this is found on the shores. The next is shaped like *pterygium* [membrane] of the eyes, and is light and hollow in many places, or like a sponge and with a smell like seaweed. The third is shaped like a little worm, a deeper purple in colour, and is called *milesium*. The fourth is like unwashed wool, hollow in many places, and light. The fifth is the shape of a mushroom, without smell, and rough, somewhat like a pumice stone within, but smooth and sharp outside. Quantities of it are found in Propontis around the island called Besbicum, in which country they call it the foam of

the sea. Of these, the first and second are included in sebaceous treatments for women, and for freckles, *lichen* [papular skin disease], leprosy, vitiliges [form of leprosy], black patches, and spots on the face and the rest of the body. The third is suitable to use for dysuria [frequent painful urination], those who gather gravelly stones in the bladder, kidney disorders, dropsy and spleen. Burnt and smeared on with wine it thickens the loss of hair [*alopecia*]. The last type is able to whiten teeth. It is mixed with salt and included in other sebaceous treatments and *psilothra* [treatments for loss of hair]. If you want to burn any of these put it with salt into an unfired clay pot, and having sealed around the mouth of it with clay, put it into a furnace. When the clay pot has baked enough take it out, put it in jars, and use it. It is washed like *cadmia* [5-84].

5-137. ADARKES

SUGGESTED: Potassium Sulphate — *Arcanum Duplicatum*

IRRITANT, CATHARTIC

That which is called *adarces* grows in Galatia and it is (as it were) a somewhat salty hardened fluid, coming out of moist and marshy places in times of drought and adhering to reeds and grass. It is like the *flower* [salt] of the stone of Asia in colour, but in its whole shape like *alcyonium* [5-136], soft and hollow in many places (and as it were) *alcyonium palustre* [bastard sponges of the marshes]. It suitable used for stripping off leprosy, freckles, *lichenae* [skin disease], and other similar things. In brief, it is sharp, drawing fluids from depths, and it is good for sciatica.

5-138. SPOGGOI

SUGGESTED: Sponges

Sponges are sometimes called males when they are thick and full of small holes. The hardest of these they have named *tragi*. The others are called females and are different. They are burnt the same way as *alcyonium* [5-136]. Those empty and without fat are good for

wounds, repress oedema, and with water or *posca* [hot drinks] they seal new wounds; boiled with honey they rejoin old wounds. Old sponges are of no use. Sponges open contracted ulcers and calluses, bound with a thread and put in dry like tents. They dry up flowing undermining ulcers and old ulcers, applied dry, new and empty; and they restrain excessive discharges of blood. Burnt with vinegar they are good for dry sore eyes, anywhere there is need to clean, and are astringent for anything. They are better for eye medicines if they are washed. Burnt with pitch they are good for excessive discharges of blood. The softest of them are whitened in the burning heat of summer, moistened with froth of salt standing on the rocks, and placed in the sun. But take care that the hollow side of them faces upward and the cut side is underneath. If it is clear summer weather they are also moistened with froth of salt or seawater and set out under the moon. These are the whitest.

5-139. KORALLION

SUGGESTED: Coral

Coral seems to be a sea plant which hardens when it is drawn out of the deep — taken out of the sea and as it were, dipped into the air flowing all around us. Great amounts of it are found in the promontory called Pachynum near Syracuse. The best is red like *sandarac* [5-122] or *sandyx* [ancient red pigment], a very intense colour. This is easy to pound; even [textured] throughout its whole concretion, with a mossy smell like little seaweed, and with many branches, imitating cinnamon in the form of little shrubs. That hardened like stone, rough, without colour, hollow and loose, is thought to be worthless. By its strength it is therapeutic for the bowels, cools gently, represses abnormal growths, takes off scars on the eyes, fills up hollow sores and cracks, works effectively against spitting up blood, is good for frequent painful urination, and (taken as a drink with water) reduces the spleen. Some have called it *lithodendron* [stone tree].

5-140. ANTIPATHES

SUGGESTED: Black Coral

Antipathes is thought to be coral with a specific difference: it is black in colour. This is also like a tree only more branched, and it has the same strength as that mentioned above.

5-141. PHRUGIOS LITHOS

UNKNOWN

The Phrygian stone the dyers in Phrygia use (hence its name) is found in Cappadocia. The best is pale and mildly heavy, not firm from compaction, with partitions of white in-between like *cadmia* [5-84]. The stone is burnt as follows. Moisten it with the best wine, cover it with live coals, and blow on it continuously. When it changes colour to a more deep yellow, take it out, quench it with the same wine, place it into the coals again, then do the same things and burn it a third time, taking care that it does not crumble and vanish into soot. Both raw and burnt it is effective with stiff ointment for binding, cleaning, forming scabs, and healing burns. It is washed like *cadmia* [5-84].

5-142. ASIOS LITHOS

UNKNOWN

Asian stone should be taken which is like pumice stone in colour — spongy, light and brittle, with yellowish partitions at the bottom. The *flower* [salt] of it is the yellowish salt fluid which gathers on the outside of the stones, which is thin in consistency and sometimes white in colour, sometimes like pumice stone, inclining to a yellow. Applied to the tongue it bites a little. Both of them are astringent, corrode gently, and dissolve small swellings used with *terminthos* [1-91] rosin or liquid pitch, and the *flower* [salt] is considered the strongest. Furthermore, dried, it heals old hard-to-close ulcers, represses abnormal fleshy growths, and with honey it cleans those like mushrooms, and wild ulcers. It fills the

hollow sores of ulcers and cleans them with honey, and mixed with wax ointment it stops feeding ulcers. For gout it is used in plasters with bean meal, and for the spleen with vinegar and unslaked lime [quicklime — *calx viva*]. The *flower* [salt] (licked in with honey) is good for tuberculosis of the lungs. Stone baths are made from this into which the gouty put in their feet and are helped, and coffins are made of it that dissolve flesh. It relieves very fleshy and thick bodies [weight loss] smeared on instead of saltpetre [potassium nitrate] in a bath. If you want to wash it do it in the same way as *cadmia* [5-84].

5-143. PURITES LITHOS

SUGGESTED: Pyrites — Iron Disilphide

Pyrites is a kind of stone from which brass is made. That with a look like brass and which readily sends out sparks should be taken. It is burnt as follows. Moisten it with honey, put it into a soft coal fire, and blow on it continuously until it becomes a yellowish colour. Some put the stone (well moistened with honey) into many hot burning coals, then when it begins to change to a tawny yellow they take it off, blow off the ashes, moisten it, and burn it again until it becomes very brittle throughout. For it is often burnt only on the outside. They burn it like this, dry it, and put it in jars. It should be washed like *cadmia* [5-84] if there is a need to wash it. Either burnt or raw it is warming and purging, cleaning away things that darken the sight, and dissolving and ripening hard lumps. Taken with rosin it represses abnormal fleshy growths by warming a little and by its astringency. Some call burnt pyrites, *diphryges* [above].

5-144. AIMATITES LITHOS

SUGGESTED: Haematite — Iron Sesquioxide

The best haematite stone is brittle and has a deep colour, or is black and hard and even, not containing any impurities or veins. It is astringent, somewhat warming, and reduces the intensity of symptoms. With honey it wears off scars and scabs on the eyes. With woman's milk it helps sore eyes and broken bloodshot

eyes. It is taken in a drink with wine for painful urination, and women's discharges [menstrual flow] with pomegranate juice, and for spitting-up blood. Eye salves are made of it, and suppositories and touchstones suitable for eye complaints. It is burnt like Phrygian [dyer's] stone, only the wine omitted. It is properly burnt when it is mildly light and swollen up with bubbles. Some counterfeit it as follows. They take a piece of *schistus* [crystalline laminated rock], thick and round (such as those called the roots of it) and cover it in a big-bellied earthen jar containing hot ash. Then they leave it a little while, take it out, and rub it on a touchstone testing whether it has taken the colour of *haematites*, and if it has they put it in jars. If not they cover it again, continuously looking at it and testing it, for if left too long in the ashes it changes colour and dissolves. That which is adulterated is confirmed first by the veins running through it, for this has straight veins but *haematites* does not; then by the colour for this has a bright colour, the *haematites* a deeper one like cinnabar [5-109]. It is also found in Sinopican red ochre, and *haematites* is made from lodestone [magnetic oxide of iron] burnt very well; but that which occurs naturally is dug out of mines in Egypt.

5-145. SCHISTOS LITHOS

SUGGESTED: Crystalline Laminated Rock

S*chistos* stone is found in Spain towards the west. That which looks like saffron in colour seems to be the best — brittle, easy to clean, compacted like *amoniaccum* salt, with similar veins. It has the same uses as *haematite* only with less strength. Diluted with women's milk it fills up hollow sores, and it is very effective for hernia, prolapse of the eyes, thickness of the eyelids, and *staphylomata* [protrusion of the cornea].

5-146. GAGATES LITHOS

SUGGESTED: *Gagate* — Jet or Agate

G*agates* is preferred which is kindled quickly and smells like bitumen. It is commonly black,

unattractive, crusty and very light. It softens and dissolves. If the smoke is inhaled it induces epilepsy and calms women who are hysterical. It is mixed with medicines for gout and those to remove fatigue, and smoke from it drives away snakes. It is found in Cilicia at a certain fall of the river flowing into the sea near the city called Plagiopolis. The place and the river at the mouth of which these stones are found are called Gagas. (They say that it discerns holy suffering, for if smelt when carried down to the earth they fall suddenly. Perfumed, it heals hidden disorders of women if they take in the vapour.)

5-147. THRAKIAS LITHOS

UNKNOWN

Thracius is found in Scythia near the river Pontus. It can perform the same cures as *gagates* [above] and it is said to be set on fire with water and quenched with oil, which is also done with asphalt [bitumen — asphalt — mineral pitch].

5-148. MAGNES

SUGGESTED: Magnetite — Magnetic Iron Oxide

That lodestone which draws iron easily is the best, with an azure colour [blue], and thick but not too heavy. It is able to draw out thick fluids if thirty grains are given with honey and water. (They say that this can discern a woman who is chaste from one that plays the adulteress with another man, for if it is placed secretly on the bed of a chaste woman who loves her husband, she when overcome with sleep, with a certain natural strength from the stone, opens her hands towards her husband and lies close to him. The other, troubled in dreams with foul labours, falls out of bed. When two men carry this, it frees them from all strife and causes harmony, and when worn on the chest it soothes people).

5-149. ARABIKOS LITHOS

UNKNOWN

Arabis stone is like a piece of ivory. Pounded into small pieces and smeared on it dries up haemorrhoids, and burnt it is a dentifrice for the teeth.

5-150. GALAKTITES LITHOS

UNKNOWN

This is called *galactites* because it exudes milky stuff. It is like ash in colour and sweet to the taste. It is good rubbed on for discharges and ulcers of the eyes. It is necessary that those who beat it in water put it in jars in a lead box because of its glueyness.

5-151. MELITITES LITHOS

SUGGESTED: Melelite — Calcium Silicate, Aluminum Silicate

Melitites is like *galactites* [above] in all respects, differing only in that it exudes a sweeter liquid. It is effective for the same things as *galactites*. It is also called *galactites* and *lethaeus* because men carrying it and going to their own masters find them well disposed and forgetful of wrongs (often committed). When the milk of goats and sheep dry up it helps the little flock if it is beaten finely and mixed with brine. They say that pounded and taken as a drink it can do the same for women to produce milk. They say that bound around the neck of an infant it keeps him free from envy and diseases, and keeps the infant from treachery, and that both kings and judges revere anyone that wears this, and that they seem grandiose to all men.

5-152. MOROCHTHOS LITHOS

SUGGESTED: Moroxis — crystallised form of Apatite
— Phosphate of Lime — Calcium Oxide

Morochthus stone (which some call *galaxia* or *leucographis*) is found in Egypt. Those who make

linen use it for whitening cloth as it is soft and melting. It is thought to close the pores, and is good taken as a drink with water for bloodspitters, the abdominal cavity, and disorders of the bladder. The same is given for the menstrual flows of women, and also in a pessary. It is mixed with softening eye medicines as it fills up hollow sores and stops discharges. Used with wax ointment it forms a scar on the tenderness of ulcers.

5-153. ALABASTRITES LITHOS

SUGGESTED: Alabaster — Lime Sulphate

Onyx-banded quartz similar to Agate

A*labastrites* stone (which is called onyx) used burnt with rosin or pitch dissolves hard lumps. With stiff ointment it eases disorders of the stomach, and it is therapeutic for the gums.

5-154. THUITES LITHOS

SUGGESTED: *Thyites* — Turquoise

T*hyites* is found in Ethiopia. It is greenish like jasper [previously this was green chalcedony], and when washed produces a milky colour. It is extremely biting, and is able to clean away things that darken the pupils.

5-155. IOUDAIKOS LITHOS

UNKNOWN

Judaican stone is found in Judaea, shaped like a *glans* [acorn], white, with a very handsome shape, and lines parallel to one another as if made by turning. When it is dissolved, it yields no taste. An amount like a *cicer* [2-126], dissolved like a cream on a whetstone and taken with three cupfuls of warm water as a drink can help painful urination, and break stones in the bladder.

5-156. AMIANTOS LITHOS

SUGGESTED: Amianthus — Asbestos, fibrous green Chrysolite

Amiantus stone is found in Cyprus. It is like *alumen scissile* [5-123] which the workmen make webs of cloth from for a show, because put into the fire they take flame, but come out more bright, not burnt by the fire.

5-157. SAPHEIROS LITHOS

SUGGESTED: Sapphire — previously Lapis Lazuli — Alumina

Sapphire stone is thought to be good (taken in a drink) for those touched by scorpions. It is also taken in a drink for internal ulcers and abnormal growths in the eyes; it represses adenoids [haemorrhoids?] and pustules, and rejoins herniated membranes.

5-158. MEMPHITES LITHOS

UNKNOWN

Memphitis stone is found in Egypt near Memphis — the size of a pebble, fat, and of various colours. It is said that this (pounded into small pieces and smeared on any place that shall be cut or burnt), causes numbness [anaesthetic] without danger.

5-159. SELENITES LITHOS

SUGGESTED: Selenite — Moonstone
— crystalline Lime Sulphate

Selenites stone some have called *aphroselenon* because it is found in the nighttime during the increase of the moon. It is found in Arabia and is white, transparent and light. They file it and give the dust in a drink to the epileptic. Women hang it about themselves as an amulet, and it is thought that bound to trees it makes them bear fruit.

5-160. IASPIS LITHOS

SUGGESTED: Jasper — previously name for green Chalcedony

Some *jaspis* stone is like emerald and some like crystal, resembling phlegm; some like the air and some *capnia* as we should say, smoky; and some called *assyrius* is glittering, with white middle partitions. Some is called *terebinthizusa* as it is coloured like *calais*. All are said to be amulets used as personal ornaments, and to speed delivery [in childbirth] tied to the thigh.

5-161. AETITES LITHOS

SUGGESTED: Eagle Stone — Iron Oxide

hollow nodule of argilaceous Iron Oxide with a loose nucleus

A*etites* stone when shaken sends out a sound as if it were pregnant with another stone. It prevents miscarriage when the wombs are slippery, tied around the left arm. At the time of delivery [in childbirth] take it from the arm and tie it around the thigh and she shall bring forth without pain. It exposes a thief if it is put into the bread offered him, for he that stole is not able to swallow down the things chewed. They say that *aetites* boiled together with meat will betray a thief, for he who stole shall not be able to swallow that which was boiled with it. Pounded into small pieces and used in a wax ointment made of *cyprinum* [1-65], *gleucinum* [1-67] or any of those things that warm, it helps epilepsy considerably.

5-162. OPHITES LITHOS

SUGGESTED: Serpentine

green metamorphic rock or marble

One kind of *ophites* stone is heavy and black, another an ashy colour distinguished with pricks, and another with white lines. Any of them (tied about the body) is good for snakebites and headaches. That with lines is reported to help lethargy and headaches in particular.

5-163. LITHOI SPOGGON

SUGGESTED: Stones found in Sponges

Stones found in sponges (taken as a drink with wine) break stones in the bladder.

5-164. LITHOKOLLA

SUGGESTED: *Lithocolla* — Marble & Glue

literally glue stone

L*ithocolla* — a mixture of marble or Parian stone and bulls glue — used as a probe made red-hot is able to turn back the eyelashes.

5-165. OSTRAKITES LITHOS

SUGGESTED: Fossilised Oyster Shells

O*stracites* stone is like a shell, crusty and easy to break. Women use it instead of pumice stone for taking off hair. A teaspoonful (taken as a drink with wine) stops the menstrual flow. If anyone drinks two teaspoons after the menstrual flow it prevents conception. Applied with honey it soothes inflamed breasts, and stops gangrenous ulceration of the cheeks.

5-166. SMURIS LITHOS

SUGGESTED: opaque crystallised Alumina
— Adamantine Spar— Emery, Corundum

Jewelers to polish their stones use *Smyris lapis*. It is good for antiseptic and caustic medicines, and for moist gums and cleaning the teeth.

5-167. AMMOS

SUGGESTED: Sand

Sand heated by the sun on the shores dries up the moisture of dropsy in bodies when they are covered all over with it, except the head. It is roasted for dry warm packs instead of millet or salt.

5-168. AKONE

SUGGESTED: Whetstone

fine grained stone for sharpening blades

That which comes off the Naxian whetstone (when iron is rubbed on it) fills up bald patches with hair, and prevents maidens' breasts growing big. Taken as a drink with vinegar it reduces the spleen, and is good for epilepsy.

5-169. GEODES LITHOS

SUGGESTED: Geodes

nodular stones with crystalline cavities

Geodes are astringent and drying, and take away things that darken the eyes. Smeared on [ground up] with water they soothe inflammation of the breasts, and that from stones [urinary, kidney].

5-170. GE

SUGGESTED: Earth

All earth that falls within the scope of medicinal use is supremely useful for cooling, and for closing the pores. There are various kinds, some good for other things in some preparations.

5-171. ERETRIAS

SUGGESTED: Alkaline Earths; Baryta — Barium monoxide;
Lime — Calcium oxide; Strontia — Strontium monoxide

Some Eretrian earth is considerably white and some is an ashy colour. The best is that which resembles ash in colour, and is very soft, and when drawn along brass yields a violet line. It is washed like *cerussa* [white lead ore] or as follows. Pound as much as you want of it into small pieces (first by itself and then with water) and let it settle. Then strain out the moisture gently, dry the earth in the sun, beat it again for a whole day (adding water) and allow it to settle all night. About the break of day strain it, pound it finely in the sun, and form it into tablets, as far as possible. If there is a need to roast it take (pieces) of earth the size of a *cicer* [2-126], put it into a clay jar of full of holes, and having corked the mouth carefully, put it among lighted coals and blow on it continuously. When the ashes have turned into sparks (or rather become an airy colour), take it out and put it in jars. It is astringent, cooling, and gently softening, filling up hollow sores, and closing open cuts and bleeding wounds.

5-172. SAMIA

SUGGESTED: Alkaline Earths; Baryta — Barium monoxide;
Lime — Calcium oxide; Strontia — Strontium monoxide;
Aster — Asteria — Asteriated Sapphire, Chrysoberyl

Samian earth is preferred which is very white and light, and on touching the tongue holds it fast like glue. Additionally it is full of liquid, soft and brittle, such as that which some call *collyrium* [eye salve, suppository]. There are two kinds; besides that previously mentioned there is one called *aster*, crusty and thick like whetstone. It has the same properties and is burnt and broken like *eretrias* [5-171]. It stops the spitting up of blood, and is given with flowers of wild pomegranate for women's menstrual flows. Smeared on with water it soothes inflammation from stones [urinary, kidney], and inflammation of the breasts. Taken in a drink of water it

represses sweating; it helps those bitten by venomous creatures, and those who have taken a deadly medicine [antidote].

5-173. LITHOS SAMIOS

UNKNOWN

Acertain stone is found in Samia that the goldsmiths use to polish and make the gold glistening. The best is white and heavy. It is astringent and cooling, good for stomach disorders in drinks, dulling the senses. It is good with milk for discharges and ulcers in the eyes, and it is thought to hasten delivery [childbirth], and prevent miscarriage in women that have conceived, tied around them.

5-174. CHIA

SUGGESTED: Chian Earth — ? Bicarbonate of Soda

Earth also means metallic oxides i.e. Magnesia, Alumina, Zirconia.

Chian earth which is white and almost an ashy colour like the Samian [above] should be used. It is crusty and white and differs in the shape of its particles. It has the same properties as Samian earth. It makes the face and the whole body without wrinkles and clear, and used in a bath instead of saltpetre [potassium nitrate] it scours.

5-175. SELINOUSIA

UNKNOWN

Selinusian earth does the same things [as those above]. The best glitters extremely, is white and brittle, and very quickly dissolved if it gets wet.

5-176. KIMOLIA

SUGGESTED: Cimolite — soft hydrous Alumina Silicate

Kome Cimolian earth is white, and some inclining to a purple with a certain fattiness to it, and somewhat cold to the touch. This is considered the best. Both sorts (diluted with vinegar) dissolve inflammation of the parotid gland, and the second type dissolves lesser tumours. They are good for burns, rubbed on by hand to keep the affected parts from blistering. They suppress hardness from stones [urinary, kidney], and inflammation on any part of the body; furthermore they withstand *erysipela* [streptococcal skin infection], and in brief the genuine are of much use if the bastard ones are not taken.

5-177. PNIGITIS

UNKNOWN

Pnigitis earth in a way resembles Eretrian earth [5-171] in colour. It is thickly crusted, cooling if touched by the hands, and adheres to the tongue very much so that it hangs on it. It has the same properties as fuller's earth [ammonium silicate] except for its strength. Some sell this as Eretrian earth.

5-178. OSTRAKA

Clay Tiles

The tiles in furnaces that are very burnt are crust-forming: as a result (rubbed on with vinegar) they heal itching and pustules breaking out, and are good for gout. Used with wax ointments they dissolve scrofulous tumours [glandular swelling] and goitres.

5-179. GE KAMINON

Burnt Red Earth

Well-burnt red earth from furnaces has the same qualities as the tiles [above].

5-180. GE MELIA

Earth from Melia

Melia is coloured like Eretrian earth (which is an ashy colour) but it is rough, and rubbed with the fingers it makes a creaking noise like pumice stone that is being grated. It is like *allom* [5-123] in quality but somewhat more weak, which is also shown by the taste. It dries the tongue gently. It is able to make the body clean and a good colour, thins hair, and wears off *alphos* [non-contagious leprosy] and psoriasis. It is useful for painters to make their colours more permanent, and it is helpful in green [herbal] plasters. Earth of any type should be chosen which is without stones, new, soft, brittle, and easily dissolved when it touches moisture.

5-181. GE AMPELITIS

SUGGESTED: Ampelite — Bituminous Earth

Ampelitis earth (also called *pharmacitis*) is found in Seleucia near Syria. The black should be chosen. It is like small coals from a pitch tree, adhering like a *lath* [?] and glistening the same. Furthermore, it is melted slowly if a little oil is poured on it while it is pounded into small pieces. That which is white, ashy and unmeltable is considered worthless. It dissolves and cools. It is used to make eyelids beautiful, for dyeing hair, and for rubbing the vines at the time of their sprouting, for it kills worms that breed in them.

5-182. ASBOLE

Soot from glass-making

Fuligio pictoria [soot] that the painters use is taken from the glassmakers, as that is the best. It is putrifying and sharp, and with a waxy ointment of *rosaceum* [1-53] it heals fractures.

5-183. MELAN

Black Ink

The ink with which we write is prepared from the soot gathered from torches, and to each ounce of gum is mixed three ounces of soot. It is also made from the soot of rosin, and the previously mentioned soot *pictoria*. Mix one pound of soot *pictoria*, half a pound of gum, half an ounce of bulls' glue, and half an ounce of *chalcanthum* [blue vitriol or copper sulphate]. It is good included in antiseptic medicines; and for burns it is rubbed on thickly with water and left alone until it forms new skins, for it falls off of its own accord when the sores have healed.

And so, most loving Areius, to have stored up well near as much as we thought suitable and to be of a large composition additionally and of information of matters medicinal and their uses, let this suffice.

AN END OF THE FIFTH AND LAST BOOK OF
MEDICINAL MATERIALS.

