

A CAREFUL INVESTIGATION OF THE NATURES OF SOL & LUNA

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So that the end and the beginning may agree in every way, let us enquire whether true gold can be made by the Art, or not; and at first it seems that it cannot, because gold being a perfect substance, requires its own proper place to be born in, namely the womb or veins of the earth, just as wine is made in the womb of the vine; therefore things can be made only in their own places.

Likewise, a physical form can only be brought into being where its own particular active and passive parts can be artificially introduced. However, the physical form of Sol is not produced by the heat of the sun, or of such fire as craftsmen use. But it is produced by the heat of Sol, therefore, etc.

In this matter the question to be answered is whether one can create artificially in any mineral, be it Sol or Luna, a reproductive ability that can at once harden Mercury to the hardness of Sol. Let us first declare that, supposing one found such an ability to reproduce, then it could properly be extracted from Sol, and extracting according to (the principles of sound) reasoning.

The second question to be answered is how Sol contains such a power of growth in itself.

The third question to be answered is how it is produced in the earth, and what sort (of earth) nourishes it, and what kind of seed must be sown to make it grow.

The fourth concerns the signs (identifying) the mineral power that these external events introduce into quicksilver.

Finally, all arguments are dealt with.

THE FIRST PART

Concerning the first (question), you should know that such a reproductive ability can properly be extracted from gold. This is proved by St. Augustine, writing on Genesis, where he says:- All the elements of the universe are present in physical substances, also certain hidden powers of fertility, which, at the right juncture of time and cause, burst forth into their destined states and shapes with their proper scope and limits; and just as one does not say that the Angels who called these forth were the creators of whatever crops in the earth, although they provide them with the right conditions and opportunities for sprouting.

God is in truth the one creator who plants in each substance its own condition and its method of procreation. This is in the book "*The City of God*", copied in chapter thirty one, in question five.

It is no wonder therefore, that philosophers have discussed those arguments in many different ways. Some call those powers that are attendant on fertility, heavenly. Everything has its pattern in the heavens, etc. Others call these powers elementary, for they suddenly burst into action, like fire, or some other element.

Others call them peculiar mineral powers, for they come into existence out of their own particular mineral. And others call these same powers the roots of Sol, for just as grain is fed by means of its roots, so gold is fed by means of these powers, as will be shown below.

We, however, call them fermented spirits, for they loosen up the substance, that is, the purified spirits, and ferment it; their most natural ability by far is to make other (things) like themselves, and if they are perfect they will ferment and tinge; you require nothing else of them. Should anyone object that the philosophers spoke very

figuratively, we (shall) prove that their fundamental purpose was this (type of) investigation.

For, following what all philosophers have plainly said, we maintain that the aforesaid mineral power is of a universal nature - I mean that it is not Mercury intrinsically, nor in its whole substance, but part of it is (Mercury).

He who sublimes, strives to remove the phlegmatic wetness and stinking substance from Mercury, and so it is killed, for if it were not killed like this, it could not complete the task, nor be fixed; it is for this that he who precipitates strives with such a strong heat. It also ought to be pourable, which is what the man who dissolves works towards, for if it cannot be poured, it does not enter, nor perfect; these (powers) are also removed by dissolving.

Gold is altogether mineral, as appears from its weight and the way it imbibes Mercury. This was therefore the philosophers' whole and entire purpose and desire, for it acquires these remarkable powers by means of heat and the inspiration of intelligences, with which error is impossible, except by chance. Nevertheless, all these things can appear in Mercury with the help of fire, mental ability and much hard work.

THE SECOND PART IDEAS ABOUT THE PRIMAL MATERIAL OF SOL & LUNA

As for the second question, you should realise that philosophers seeing the pure, fixed, fluxible, Mercurial material that is gold, and finding that it entered, but did not perfect, fell into a daze, and

many of them denied the Art. Some who were more careful considered the principles of philosophy, saw that it (gold) was neither born nor nourished, for the power of reproduction is excess of food, and tried to insert some sort of nourishing power into gold, so that in this way it could flourish and grow.

This, however, is merely enlivening those self-same reproductive abilities into a fundamental power. For a grain of corn is broken up by the power of Sol, this core being neither wheat, nor barley, nor stone, but more ready to receive the shape of wheat than that of stone. This readiness, which naturally tends towards forming wheat, ought to be converted into the fundamental power of Sol, just as they say.

Gold must be broken up in such a way as to reduce it to its primal material, so that it can then germinate; however, they said that this primal material was a certain Mercury and sulphur, for all metals are created from Mercury and sulphur.

This is false, for sulphur and Mercury are distinct minerals, and gold is never discovered where they are found.

Others said that the primal material of all metals is Mercury, because sulphureous particles are mixed in with it, according to Geber, and this does not seem to be true, for there is never any gold where the mineral Mercury is.

And others rightly said that the primal material of Sol is a moist greasy vapor that partakes of both natures and is found in rocks where the purest gold is found, and that it could not be generated there except by a coarse rising vapor, as the fourth chapter of (Aristotle's) "Meteorics" has it. Now such a vapor as we have mentioned must be raised as one and at the one time, but from the coarse part stone is made,

from the greasy part, metallic substances. This theory is true.

The reason why gold should be reduced to a vaporous substance is because we see that all metals are generated from Quicksilver, by means of which they are born. As they say: - A man is born of his father by means of sperm, and generates his son by means of sperm. We likewise see that wheat generates a grain like itself by means of the ear, and gold generates gold by means of a vaporous substance, for it is born as was said. Therefore the philosophers declared that gold ought to be broken up and converted into its primal material, sulphur and Mercury.

REDUCTION OF GOLD TO ITS PRIMAL MATERIAL

One should, however, use an established method, and certain determined ways and intermediates when reducing gold to its primal material, otherwise the substance is destroyed, and not improved. He who is considered a better philosopher than all the others is he who is closest to reason, and has understood the words of the philosophers concerning gold - although it can be worn away, and is earthy, and therefore belongs to the genus of cold, dry things, it may, because of its general composition, be called warm and moist with respect to other metals. It becomes a sort of burgeoning earth, so to say, as nails and hair become a definite part of human substance, for with respect to the whole terrestrial globe, gold is part of the earth, just as hair is part of the human body.

Consider this, moreover; gold is cold and dry, because it is of the earth, therefore, according to what has been said, it should be converted into a vapor that retains its mineral properties, for vapor

is moisture, both intrinsically and by pressure of external events, and therefore it should be altered in nature from its own characteristic nature into another material with its own characteristic nature, so that if it had been hot and moist, it would be artificially made into something that was cold and dry by nature.

It should moreover, be calcined carefully in the reverberatory furnace, and caused to imbibe sharp fiery waters; this operation, when prolonged, breaks up the moist surface of the gold, and produces dryness in its place; therefore it is hot and dry. But because earthy dryness cannot coexist with the heat of fire the first dryness is destroyed and another, black, greasier one is produced.

Therefore it is dried and calcinated gold, of whose workings Hermes has spoken elegantly, for the stone ascends from earth to heaven, that is, into fire, for that particular earth is fire par excellence. When explaining this in his book "De mineralibus", **Albertus** says that the stone ascends from the earth, that is, it is raised from the earth into heaven, that is, into fire, because gold acquires the qualities of fire from calcination, or roasting, or refining.

This operation is soon finished for the affinity hastens the transfer of properties, as we postulated, for earth has an affinity with fire and substitutes for it at once, because it descends from fire into earth once again.

This does not occur in one leap, for the dry calcined substance is broken up by means of our airy water, or the proper action of moisture, by frequent and repeated irrigation with its own water, so that the dry is broken up and an airy moisture produced. But because the fiery heat cannot coexist with such an airy moisture, it is destroyed and becomes

another kind of tempered heat. There is therefore nothing better than heat and moisture, for gold hidden in a mineral is found by means of heat and moisture and easily extracted thence as you know.

That heat must therefore be lessened, because part of it is airy and very sharp, and part watery, and therefore cold. Therefore the heat is lessened and made semi-cold, for which reason vapour is said to be the median between air and water, as the philosopher clearly says in "*Liber Physicorum*".

So the gold returns to its essence, that is, into a vaporous substance, and this is called the prime material of Sol, therefore Geber in Ch. 78 of "*Medicina*", speaking to the craftsman of the third order, says: You have treated or extracted the precious earth in such a way as to make it what Hermes claimed, when he said, Again it descends from the heaven, i.e., from the fire, to the earth, that is, the prime material (descends). He at once confirms this theory when he says that it acquires the qualities of the elements above and the elements below.

Then he declares that the four elements should be extracted; doing this is merely exciting the powers of reproduction or active and passive qualities; many have fallen into endless errors when explaining this.

Now the earthy substance which we have prepared, the earth of gold, is called by the names of all sorts of earths and it is called thirsty earth because it seeks food and drink in a manner of speaking, as we shall mention below, and it is called blessed earth because it gives all good things, and leafy earth, because it is fed like the leaves, and grows, and it has an infinite number of earthy names.

All the philosophers saw that the essence of gold was born of cal-

ination, and solution in water, and final hardening in the heat of the fire. Therefore we ought to complete the task by doing all the things we spoke of above.

WHY IT IS CALLED A STONE

Likewise they called this substance by the name of all sorts of salts, therefore some who did not understand properly, fell into various errors. It is rightly called a stone because it redeems the transitory ways of man. And the operation of converting the solid substance to a spirit is called "stone" by many wise philosophers.

We, however, call that inherent spirituous mineral quality by another name; and so it is clear how the means of reproduction that have been placed in gold can intensify and strengthen, which is the same as inserting the power of growing and germinating in gold, which was the second question. But because all spirits must be kept as "moist bubbles", philosophers have tried to convert this spirituous power into a moist, fatty one by frequent and repeated solution, as said before, and by calcination.

For the earth itself gives birth by continually drinking in the showers descending from heaven, as Isiah has it, and when it has been dried by heat, it becomes fatty. So all salts and crystals and fusible minerals are made in the same way; and therefore there is an oily fattiness which appears when the craftsman labouriously strives for it. Therefore it ascends from earth to heaven until it is converted and becomes a bubbly fat, and the aforesaid mineral quality is preserved in the bubbles.

According to Plato, however, this operation is not a natural one, for nature works to make composite things from simple ones, because composite elements are made from simple elements; but if it is an operation carried out by the will, which is a simple power that makes simple things of composites, which is the same as producing an infinite power from a finite one. So says *Plato* in his book "De quartis."

If however, it is objected that the true nature of things makes it impossible to turn gold into a vapor by such operations, Plato says in the same place that if one cannot make fire, that is, a perfect simple substance, one may make air. If one cannot make a circle, one may make a square, which is only to say that simpler substances either are made, or can possibly be made.

Experiment makes it plain that it acquires its qualities from such an operation, for you may dissolve an ounce of gold, once prepared, in a pound of any spirit, and it fixes it in a day. If you reiterate four or ten times, it fixes a pound in an hour. A man may do many wonderful things in this business, and we shall treat it as a philosophical question.

THE THIRD PART

As to the third question, how that power is implanted, you must know that a mineral earth is the more favourable, because we are made of such and are fed and nourished by them, as it says in the book "De anima":- But that (necessary for this task) is a mercurial power, therefore it ought to be sown in a mercurial earth.

Note, however, that the earth must first be cleansed of its thorns

and excrescences and sublimed with a fairly strong fire, but nevertheless its central core must be preserved; to do this and save it from being burnt, a slow and gentle fire is employed. Besides, such a fire conserves moisture and perfects fusibility.

Two operations are found necessary on this earth or humidity, for the aforesaid power is nourished; as *Hermes* says; The earth is its nurse, that is, a sublimed and moist mercury, or something able to penetrate mercurial spirits; it is something like this that fills the ampullae of the aforesaid power.

He adds immediately that the wind, i.e., the water, carries that very power in its womb, i.e., by means of that power's womb. The reason for this is that its light parts cannot be choked down and prevented from shattering its earth in a spirit of rage when it finds itself squeezed by cold. So that power which is called wind waits to receive its full nature from the strengthening heat of the fire when it is shut up in an ampulla, especially if the quantity of unfixed material is in any way excessive.

However, if the reproductive power is strong enough to hold those spirits in, it fixes, and immediately converts things to its own nature, for this is how the power that the art is seeking multiplies and grows; but if the lawless fire holds sway for any length of time they fly away at once and are expelled. Therefore all should be again dissolved and again roasted until additions no longer cause ferment and change, as Plato says in "De quartis", The fixed fixes and the coagulated coagulates.

It espouses itself and inseminates itself; there is nothing in the world more wonderful. So Plato, loc cit, says that the brain is the

seat of thought, or the thoughts of the mind, and the soul marries it because of its simplicity, according to (the work of Sol?). Therefore, he says, you ought to make the material as simple as possible, for it is then able to make use of simple materials and kill itself. So Maria, sister of the wise, said, Sow gold in leafy earth, not common gold, but philosophers' gold, which has been philosophically prepared, for it increases, grows and is fed like other plants.

So *Aristotle* confirms this, when he speaks to Alexander and says that the material is called the elementary stone, for the four elements, as previously said, are extracted from it. It is called the mineral stone because it is made from the minerals of the ground; and the vegetable stone because it is nourished and increased, which is the property of the vegetable soul; and the animal stone because it is made with an odour and broken up with a stench; and the rational stone because it remains in that natural state which was designed for it.

But a natural work is a work of divine intelligence and the material of the art arising from methods of natural occurrence and chance is here called by the name of all sorts of seed. When it is the animal stone it is called by the names of all sorts of flowers, fruits and liquids.

When you see the sign, that is, when it increases in amount, you may find out the secret, that is, the time when the mercurial substance retains its own nature, fusible, penetrating, entering, and performing all parts of the work that are sudden and complete, for it fixes by the power of its spirits, and remains moist and therefore able to perform fusion, entering and fixation.

But since not all sperm begets, it should be assimilated and digested

in nutritive spirit which is generated in the vital liver and becomes an animal spirit in the heart, and the longer those spirits are digested and revolved in the places mentioned, the readier they are to beget and the more perfect the effect to which they give birth, and the more their number is multiplied; sometimes two, sometimes seven and sometimes forty are made at a stroke.

Avicenna says that he himself saw a pregnant woman abort forty foetuses at once; the philosophers have considered that the seed does indeed enter and propagate, but the aforesaid spirits by themselves, as is clear from the philosopher's book "*De Animalibus*", begin the work closed in a glass vessel, and dissolved in water by use of (the heat of) dung, and afterwards are crystallized by a warm moist fire. If that vessel is opened, the substance is shattered, and the spirits vanish at once. They say that this should be repeated often, for according to *Rhasis*, solution and re-solution are the heart of the work, and its happy completion, and in that lies the whole secret.

For, as we said previously, the stone multiplies endlessly in quantity; as it says: At first one part will perfect ten; if dissolved and crystallized once, it perfects a hundred parts, if two or three times, two hundred parts, if twelve times then it perfects to infinity. Its nature is so powerful, as the philosophers have said, that some bodily or spiritual property of every creature is held and contained in the stone; such is the power of its effects.

When *Hermes* investigated it all, the power of the stone, and how it was of a higher grade than other natural things, he heard that it tried to reach the third heaven, but this was forbidden, for it is not right for any created thing to usurp the powers of its creator. So says

Plato in "De quartis". In another part of the same book he says that solution takes place in Luna and crystallization in Saturn; therefore the stone acquires the powers of all the planets.

Likewise, solution takes place in water and crystallization on the fire; therefore it acquires the powers of the elements above and the elements below; so it shares in the signs and fixed stars, in moisture, and compositions and limbs, and winds, and regions of the world. Likewise because the flying spirit is like the angels and because the dead part becomes volatile, it seems to hide the office and mystery of the resurrection. Although all these things may be taken metaphorically, they say that it is of the greatest efficacy. So much for Plato.

Its effects are, so to speak, like those of the animal seed that enters the belly again and there reduplicates the nutritive spirit. The same may be said for the vital spirits of the heart and the animal spirits of the brain. It is certain that the power of the seed may be multiplied and increased many times; and if the material is administered in sufficient quantity, a living creature is made out of it distinct in its species and nature, as we said.

As to the fourth question, when men seek to gather the foetus before time, they procure an abortion, therefore philosophers ought to await the proper time. So that it can be better perfected within its own boundaries, I shall clearly state the infallible signs of completion.

They are such as we have previously mentioned, for it is thinner than air and whiter than milk when it is at the white stage, and more glistening than red lead at the red stage. The white stone differs from the red stone only in the addition of a citrine color, which it

can receive only from a Mercury more liquid than the element, more bubbly than fine foam, more spiritual than a fierce wind, clearer than aqua viva, which is thickened by the attacks of fire, but which remains totally uncrystallizable by any cold however great or any heat however slight.

Careful sublimation and frequent separation through the filter produces the first sign of the white stage. The sharp point of calcining waters produces the sign of the red stage.

Repeated solution in sharp waters with successive roastings produces the second sign.

Solution as in the bed of a stream and gentle crystallization produce the third sign.

A careful purification, cleansing everything, produces the fourth sign.

A fire that causes strong precipitation gives the fifth sign.

The sixth sign destroys the nature of the previous ones; besides all the others are external signs of its great value. As they say, If you mix a grain of the elixir in clear wine it cures leprosy, scabies and impetigo, it immediately carries away all fevers and all heat, and removes all morbid moistures from the human body; it straightens every shrunken member and preserves youth. What else? No one who uses this as food or drink shall know infirmity at any time. He shall always be red-cheeked and cheerful.

There are other signs by which to recognize it. If you convert forty pounds of white or red mercury into water, and allow it to fume over a small fire, and project one ounce of the aforesaid elixir upon it, it converts it all into its own fixed state, and ferments it, and

will communicate its own powers equally to it, and will cause all the aforesaid signs to appear in that water.

So also it makes crystal or glass fusible; it is malleable and confers malleability. Likewise it will convert any precious stone to any color you like, for it receives all colors, such as red; it unifies with and hardens any body it is mixed with.

As to the fifth question, one must say that the inherent quality of that active power is the flowing quality of mercury, but it must be purified from its stinking earth for the nature of a solvent is to produce fine matter - and it ejects its coarse part when it is purified, and when heated it afterwards overcomes and immediately pierces itself, and in piercing it digests and hardens; thus it produces the qualities of gold in an hour, as the wise have said.

Geber is witness that the portion of it that fixed what the fire previously carried away is conserved; it renders malleable because it has acquired the nature of mercury; above all it is perfect when tested by fire, for only mercury has the ability to overcome and lie quiet on the fire - and some others.

Experiment proves that it hardens immediately, for the fumes coming off from Jupiter or Saturn harden it at once; and so any power which is infinite is more perfect. In the same way it has all the medicinal properties of gold.

To learn about this, one must first know how gold strengthens. Some have said that it does not strengthen by nourishing, like bread which strengthens the heart of man, for it is neither digested nor changed, nor does it loosen or bind like this food. It does not comfort the heart by modifying odours and spirits, like perfumes, nor by purging

excess, like laxative medicines. This is confirmed by the words of Dioscorides, who says that if any phlegm or moisture is weakening the spirits, gold wipes it away. But its cleansing power comes from its mercurial nature, as Avicenna says; so it can strengthen the heart in this way.

Others say that gold comforts the heart by its qualities, for gold is hard and the hard is strengthened by the hard, which is a saying of the great doctors, and Vincentius says in "In Speculis" that the harder something is, the better it works. Others have said that gold comforts the heart by separation from all its material nature, as a magnet attracts separated iron; but gold does it by its elements, that is the qualities of mercury and sulphur, which are the two basic elements of this natural species - and which, one may suppose, differ from each other as a man differs from a Franciscan; and so the powers of the whole species follow from the powers of its basic elements; moreover, it shares equally in what preceded it by reason of the powers instilled by heaven, and the heavenly powers themselves; and it flows into the composition of its passive complement, always and everywhere. Therefore a man generates another man, and so Sol, with its substance excellently arranged, and with more than natural power, will communicate such power. Therefore it is the same as it was before.

Others argue that it is pearls that strengthen the heart, therefore it does not abide by its own kind entirely. But one may reply that the heart is strengthened by special means, which are found only in gold. However, it is argued to the contrary that sapphire strengthens the heart by its own nature and therefore by special means. There are therefore special means that are special to both.

But pearls strengthen the heart and so does coral and many other things that are found in the world, therefore there is an infinite number of special ways. Therefore gold can indeed be prepared in certain ways and by fixed intermediaries, as was previously said. Thus the question is resolved and the true and certain answer given as regards the nature of Sol and Luna. Praise and glory to God through the ages for ever. AMEN.