

# Alchemy, Alchemists, and the Hunt for the Philosophers' Stone

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# POTIONS



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# WILLIAM OF MALMESBURY 1095-1143



If I keep  
staring  
straight ahead,  
no one will  
know I'm  
texting under  
my robe.

# GERBERT D'AURILLAC CA. 946-1003





I've got a face  
on my butt!  
How do YOU  
think it feels!?

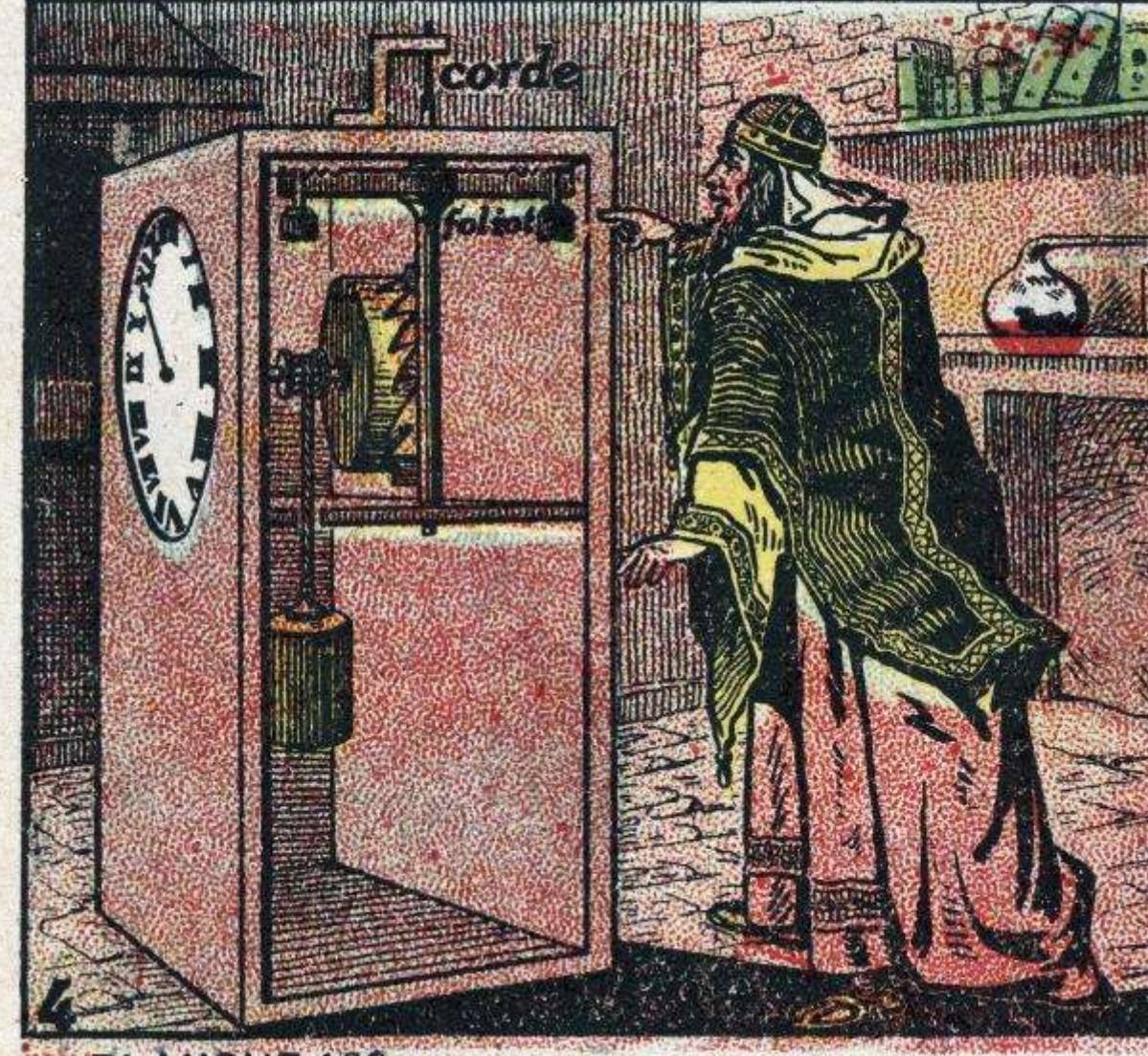


PLOT  
TWIST!!

**POPE  
SYLVESTER II**



# GERBERT invente le FOLIOT



# PARACELSIUS

1493-1541

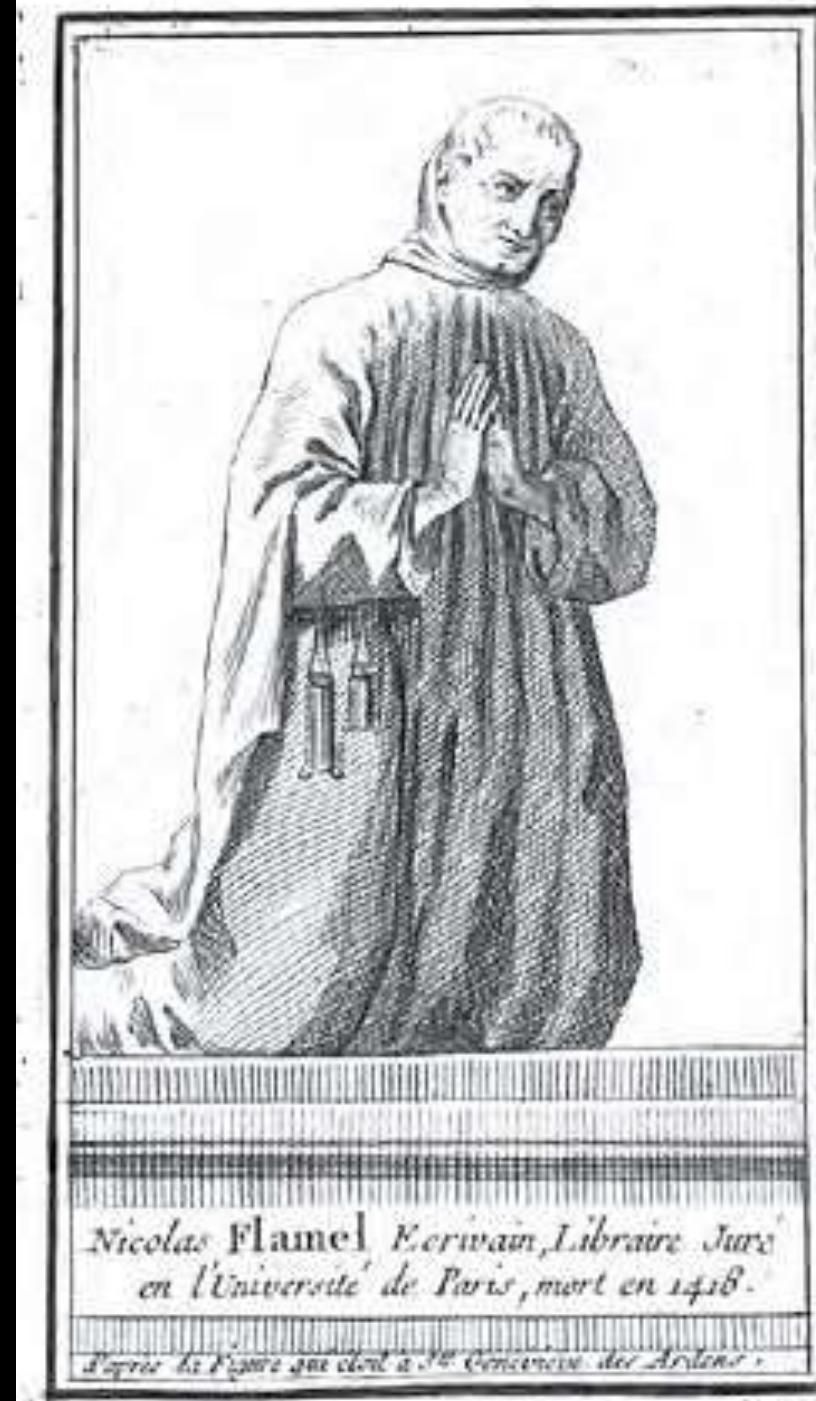


# JOHN DEE

1527-1609



# NICHOLAS FLAMEL 1330-1418



Nicolas Flamel *Herwain, Libraire Jure  
en l'Université de Paris, mort en 1418.*

*D'après la Figure qui est à l'Estampe des Ardens.*

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# ROBERT BOYLE

1627-1691



# ALBERTUS MAGNUS

1200-1280

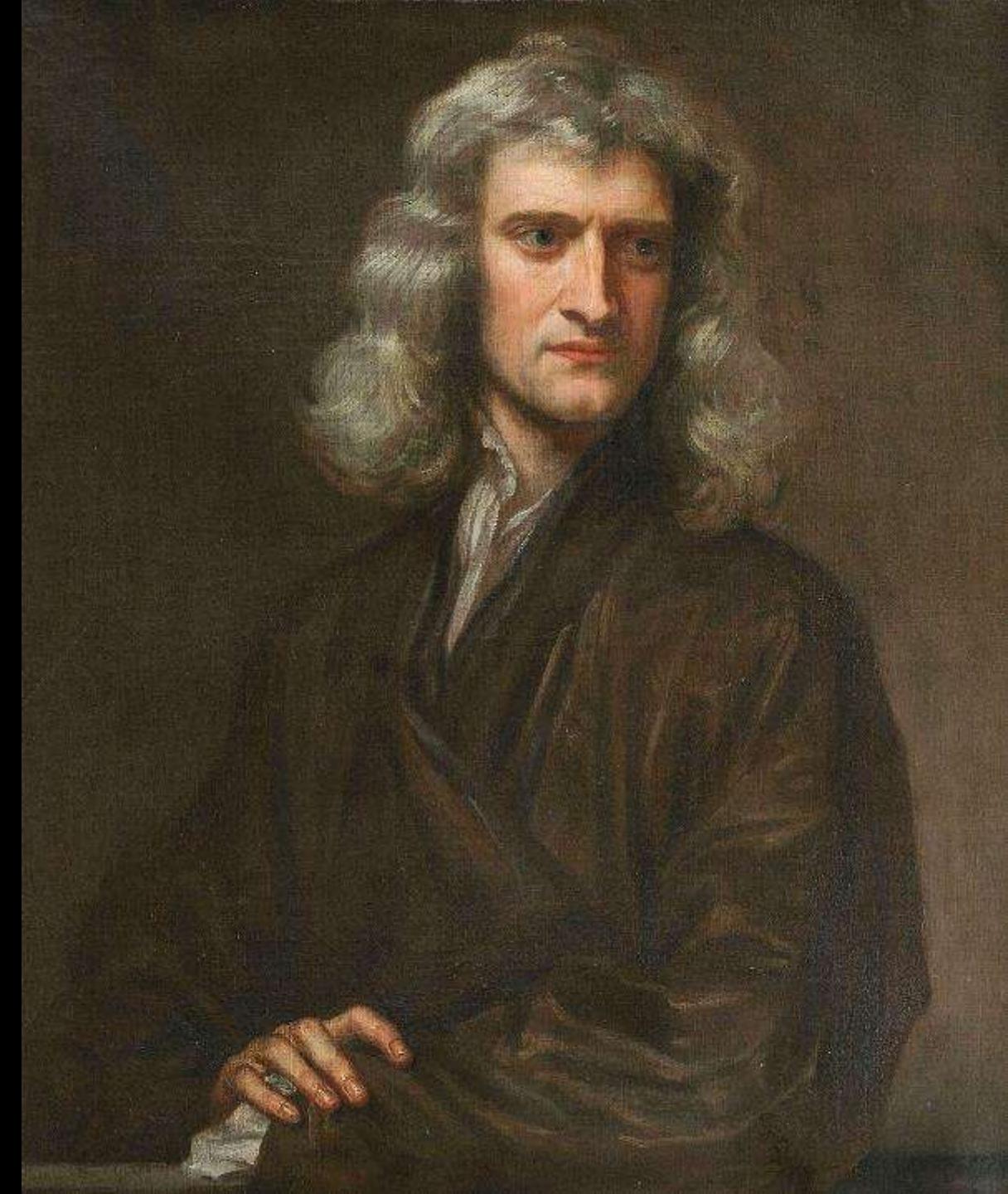


**AUGUST  
STRINDBERG  
1849-1912**



# ISAAC NEWTON

## 1643-1727



# CHAUCER'S CANON CA. 1390

remain his talk w

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nd gay

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nd read

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to



# BEN JOHNSON, THE ALCHEMIST 1610



# Harry Potter

AND THE  
PHILOSOPHER'S  
STONE

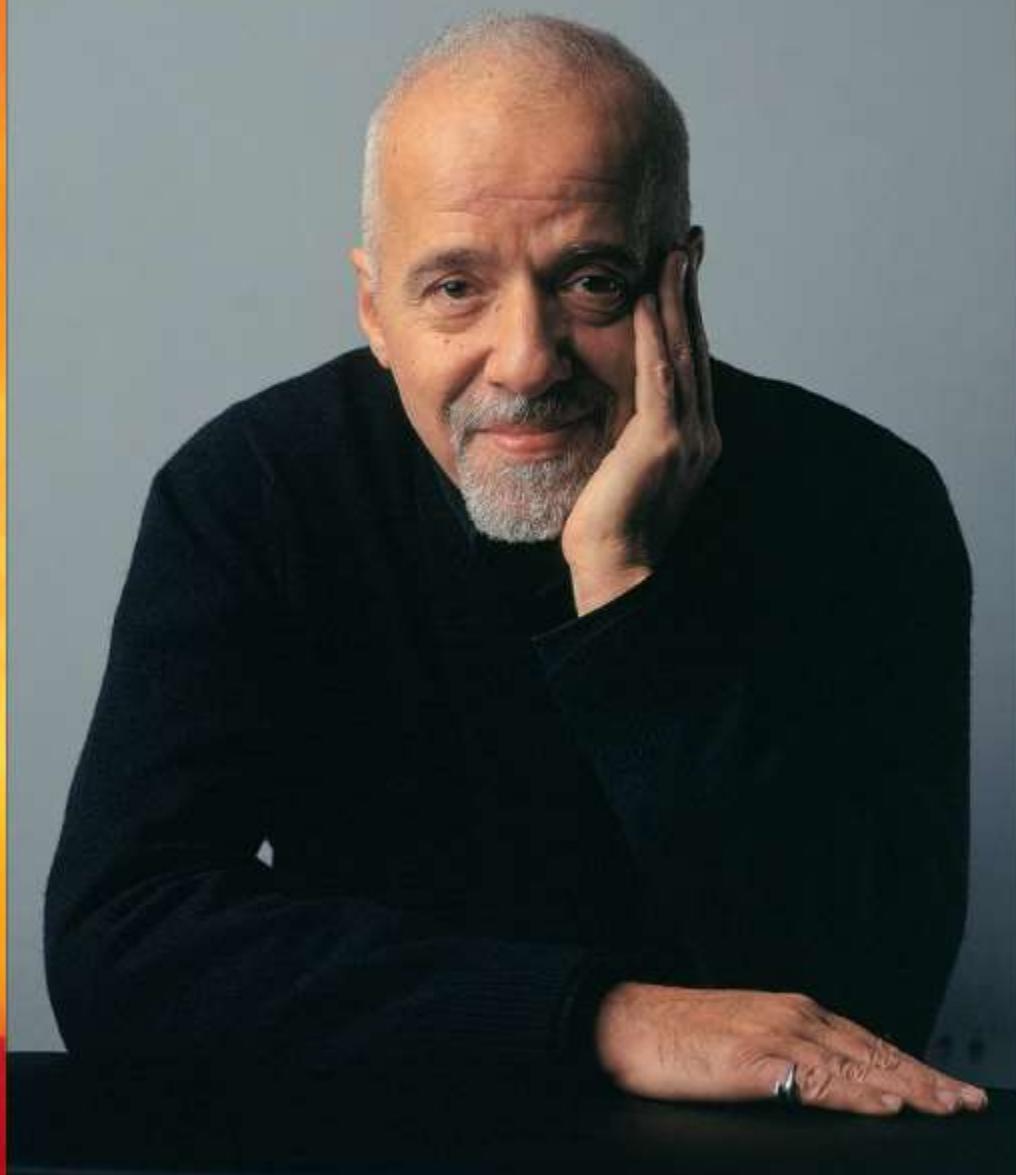


65 MILLION COPIES SOLD

# THE ALCHEMIST

A FABLE ABOUT FOLLOWING  
YOUR DREAM

Paulo Coelho



It's the  
possibility  
of having  
a **DREAM**  
come true  
that makes  
life  
interesting.

Paulo Coelho



*khēmeia*

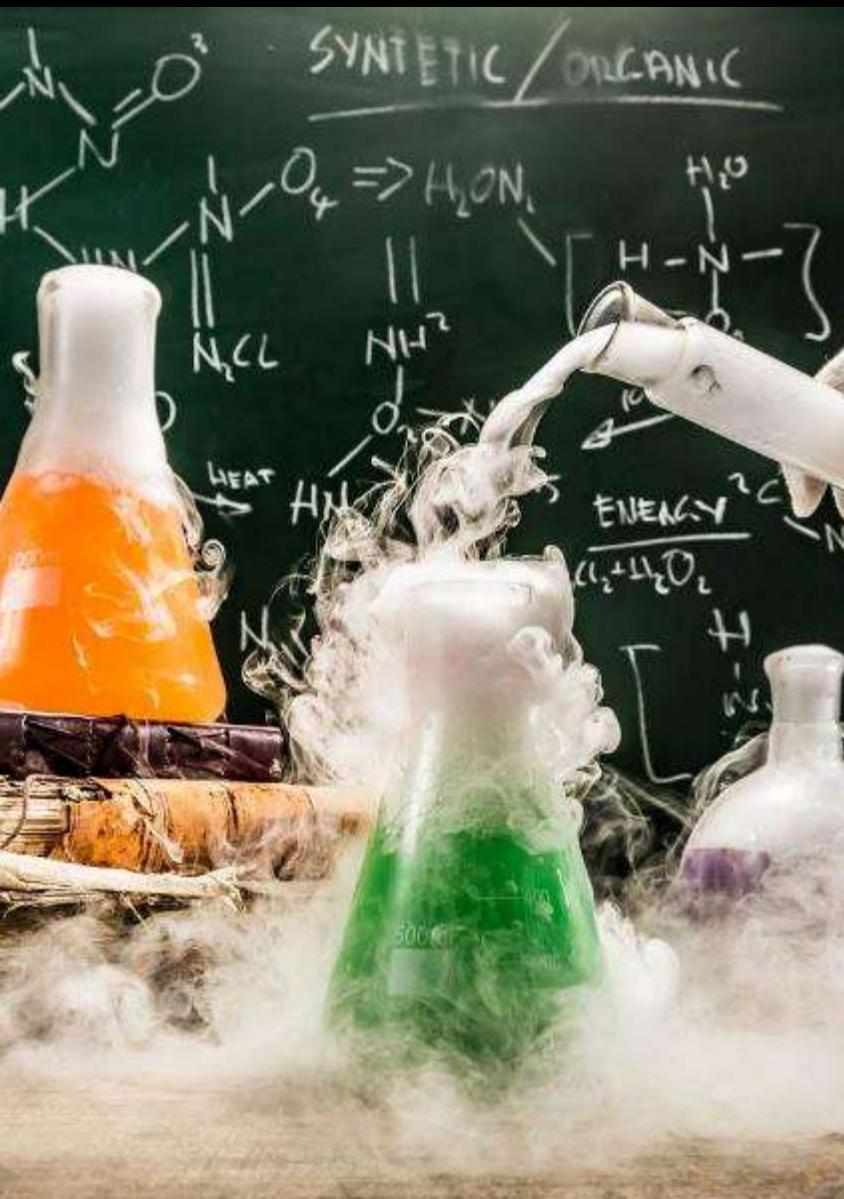
الكيمياء (al-*kīmiyā'*)

Alchemy



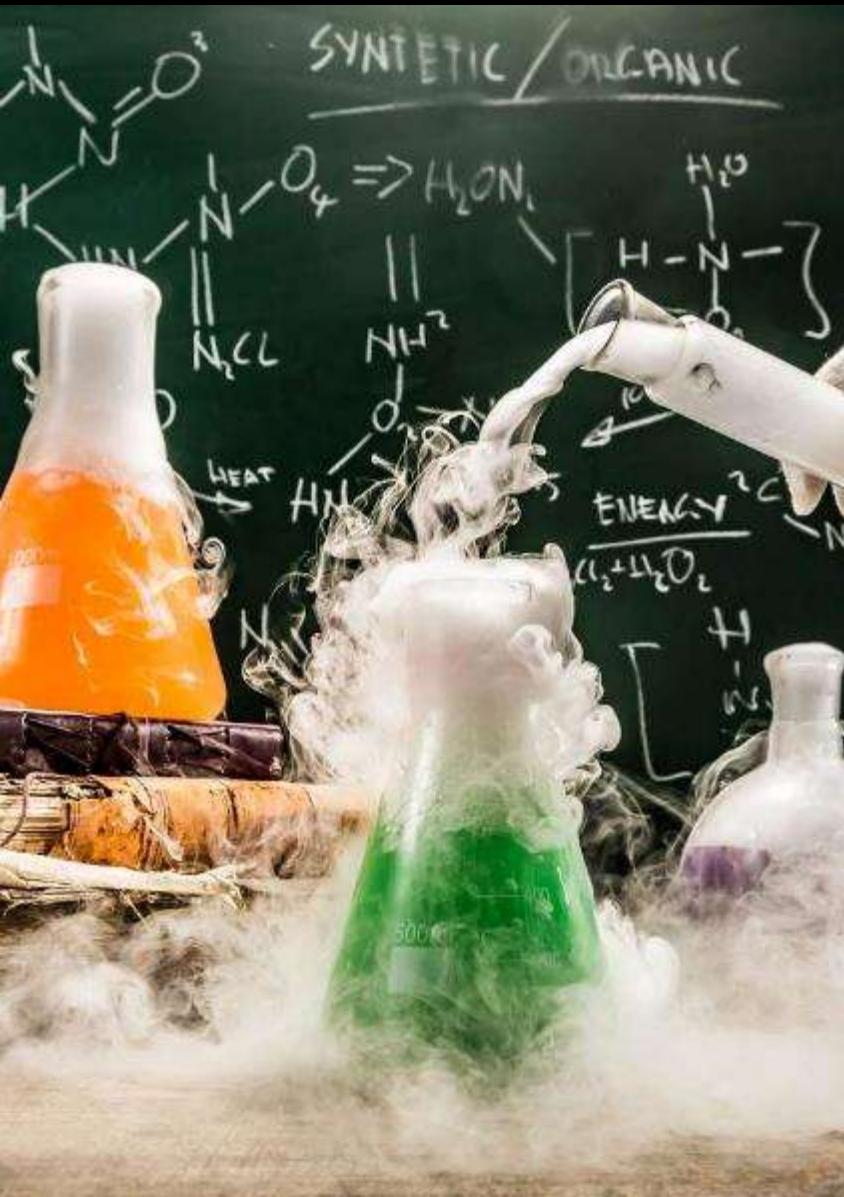
# METALLURGY

# CHEMISTRY

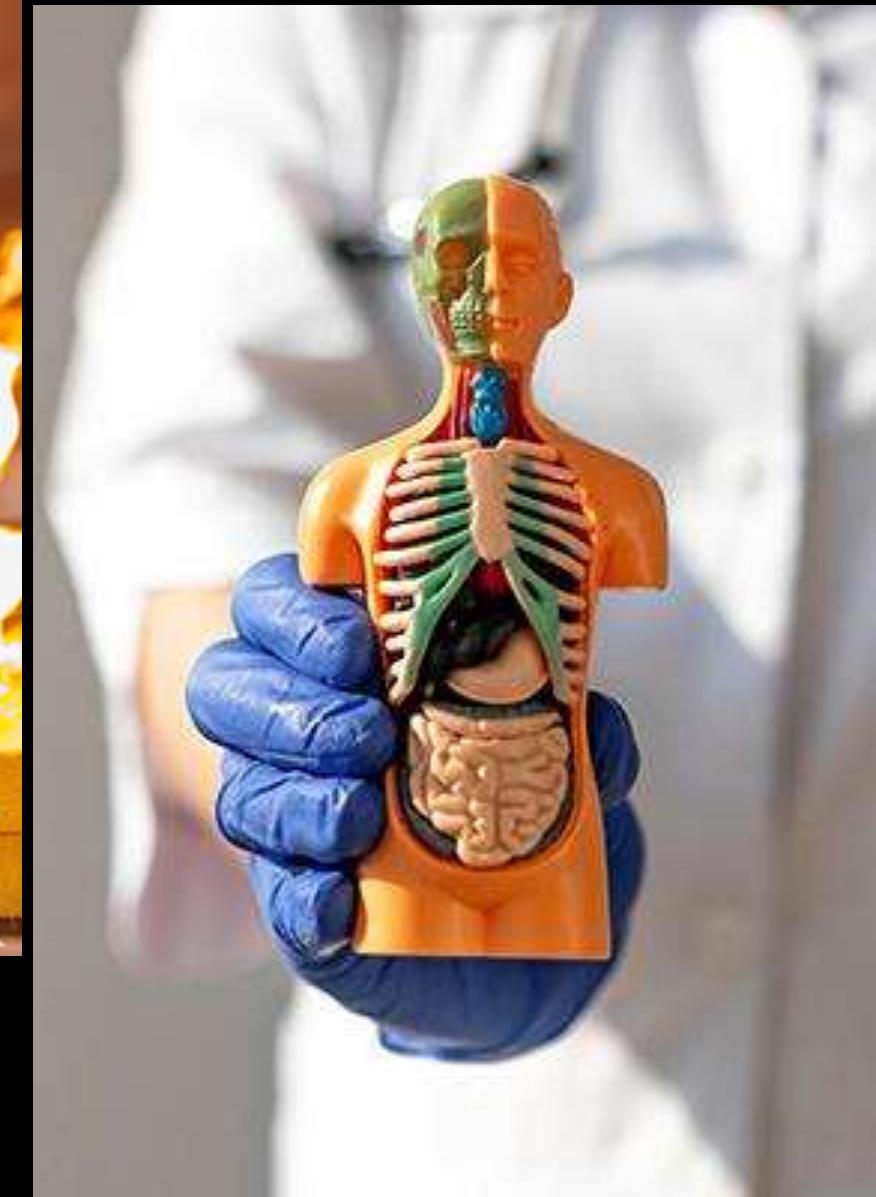


# METALLURGY

# CHEMISTRY



# MEDICINE



# METALLURGY

# Principles of Alchemy

N<sup>o</sup> De materia lapidis

# Principles of Alchemy

- Everything is made up of a combination of four elements (earth, air, fire, water)



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- These elements have specific characteristics (fire=hot and dry; earth=cool and dry; air=hot and moist; water=cool and moist)



N.B. De materia lapidis

superiorum lixivium ac, L. O. - l. n. 14

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- *nigredo, albedo, citrinitas, rubedo*

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- *nigredo, albedo, citrinitas, rubedo*
- If done properly, you will finally reach...

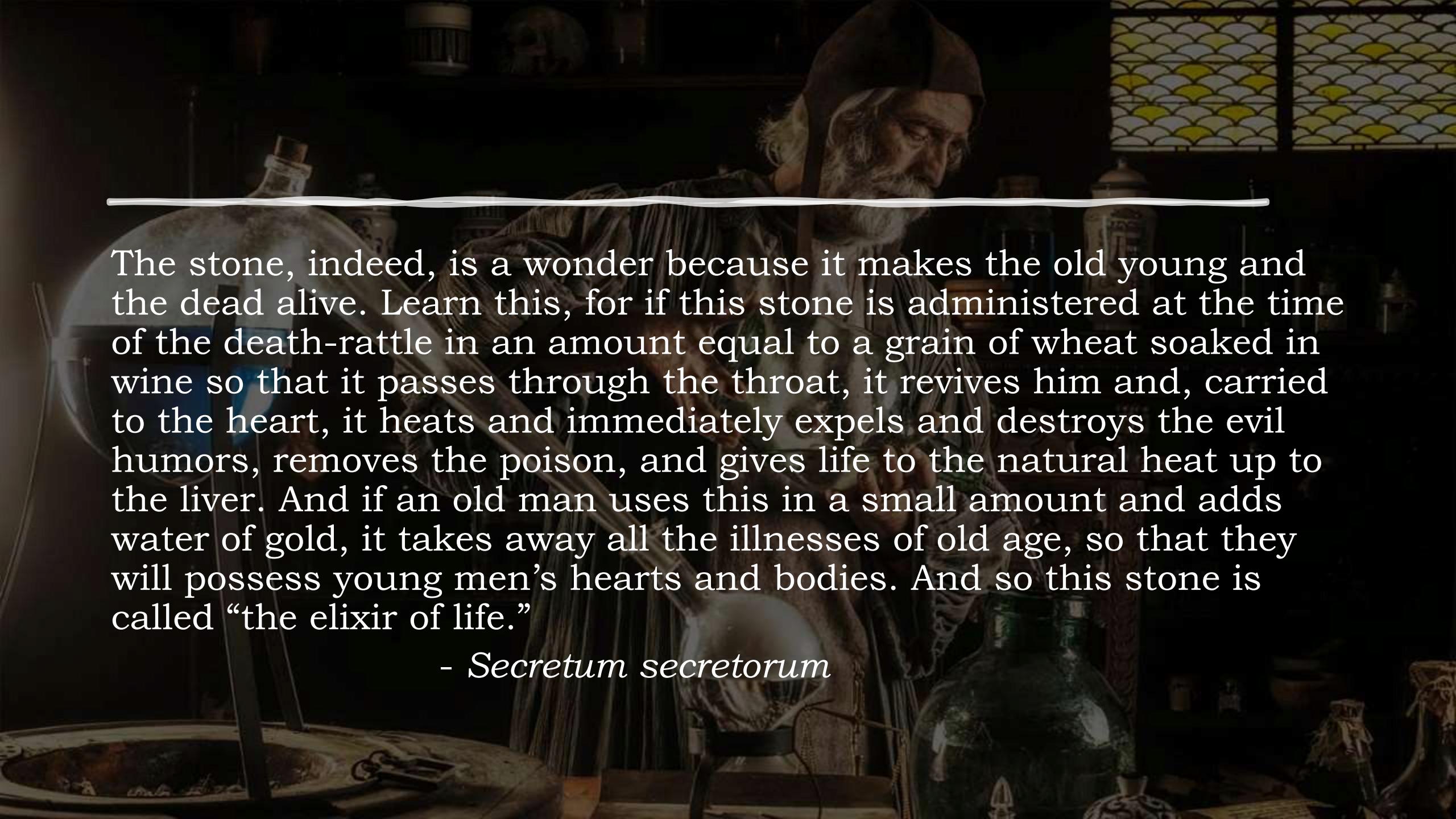


I'd rather  
be gaming!

BEHOLD THE  
PHILOSOPHER  
S' STONE!



WITH THIS PHILOSOPHER'S  
STONE I CAN TRANSMUTE  
ANY ELEMENT INTO ANY  
OTHER.



---

The stone, indeed, is a wonder because it makes the old young and the dead alive. Learn this, for if this stone is administered at the time of the death-rattle in an amount equal to a grain of wheat soaked in wine so that it passes through the throat, it revives him and, carried to the heart, it heats and immediately expels and destroys the evil humors, removes the poison, and gives life to the natural heat up to the liver. And if an old man uses this in a small amount and adds water of gold, it takes away all the illnesses of old age, so that they will possess young men's hearts and bodies. And so this stone is called "the elixir of life."

- *Secretum secretorum*

But fools, have not well understood the sayings of philosophers speaking obscurely. And surely the philosophers have done well, because if they had expressed it clearly they would have acted evilly for many reasons: First, because all would have known it. Secondly, because **THE WORLD WOULD HAVE BEEN DESTROYED!**

*-De secretis naturae*





OOPS!!



# The Alchemical Table of Symbols



universus	water													ether			
$\oplus$	$\text{H}_2$																
iodine	magnesium	$\text{D}_2$															
potassium	chalc	fire	wind	glass	day	heat	iron	colts	nicks	copper	stone	burnt alum	tears	anemic	anemic solifer	stones	rock salt
vinegar	distilled vinegar	quicklime	calcined lime	wood	ashes	carbon	steel	mercuric	verdigriss	silver	tin	spurts tin	tin	antimony	nitric acid	aqua fortis	aqua nigra
oil	oil of vitriol	violet	egg shell	corporal	rock	yellow	pearl	cuprum	platinum	gold	mercury	spirit mercury	lead	blowfish	salgar	aque vitriol	winter bath
resin	resinifer	pitch	pine	serpentine	drum	ether	period	hour	night	week	month	year	spring	summer	autumn	winter	
$\text{O}_2$	$\text{N}_2$	$\text{P}_2$	$\text{O}_3$	$\text{E}_1$	$\text{Z}_1$	$\text{Z}_1$	$\text{H}_1$	$\text{X}_1$	$\text{O}_1$	$\text{E}_1$	$\text{Z}_1$	$\text{Q}_1$	$\text{X}_1$	$\text{Z}_1$	$\text{H}_1$		

## Elements

$\Delta$	$\nabla$
air	earth

$\Delta$	$\nabla$
air	earth

## Zodiac Signs and Processes

## Other Processes

aries	taurus	gemini	cancer	leo	virgo	libra	scorpio	capricorn	aries	taurus	gemini	leo	virgo
calcination	coagulation	fusion	solution	digestion	distillation	sublimation	separation	crystallization	composition	coagulation	fusion	digestion	distillation

# Decknamen

- Sol (gold)
- Luna (silver)
- Woman pregnant with girl (albedo)
- Venus (copper)
- Six Nations (the planets)
- Saturn (lead)
- Salamander/Blood of the Green Lion (the *prima materia*)
- Father (sulfur)
- Mars (Iron)
- King of the Six nations (gold/sol)
- Jupiter (tin)
- Four Spirits (arsenic, sulfur, mercury, sal ammoniac)
- Chemical Wedding (the joining of male and female elements, i.e. fire and air, water and earth)

## DECKNAMEN FOR MERCURY

**ARGENT VIVE**

**AZOCHE**

**BLOOD**

**DRAGON**

**FIERY WATER**

**FUGITIVE**

**MILK**

**PURE MOTHER**

**QUICKSILVER**

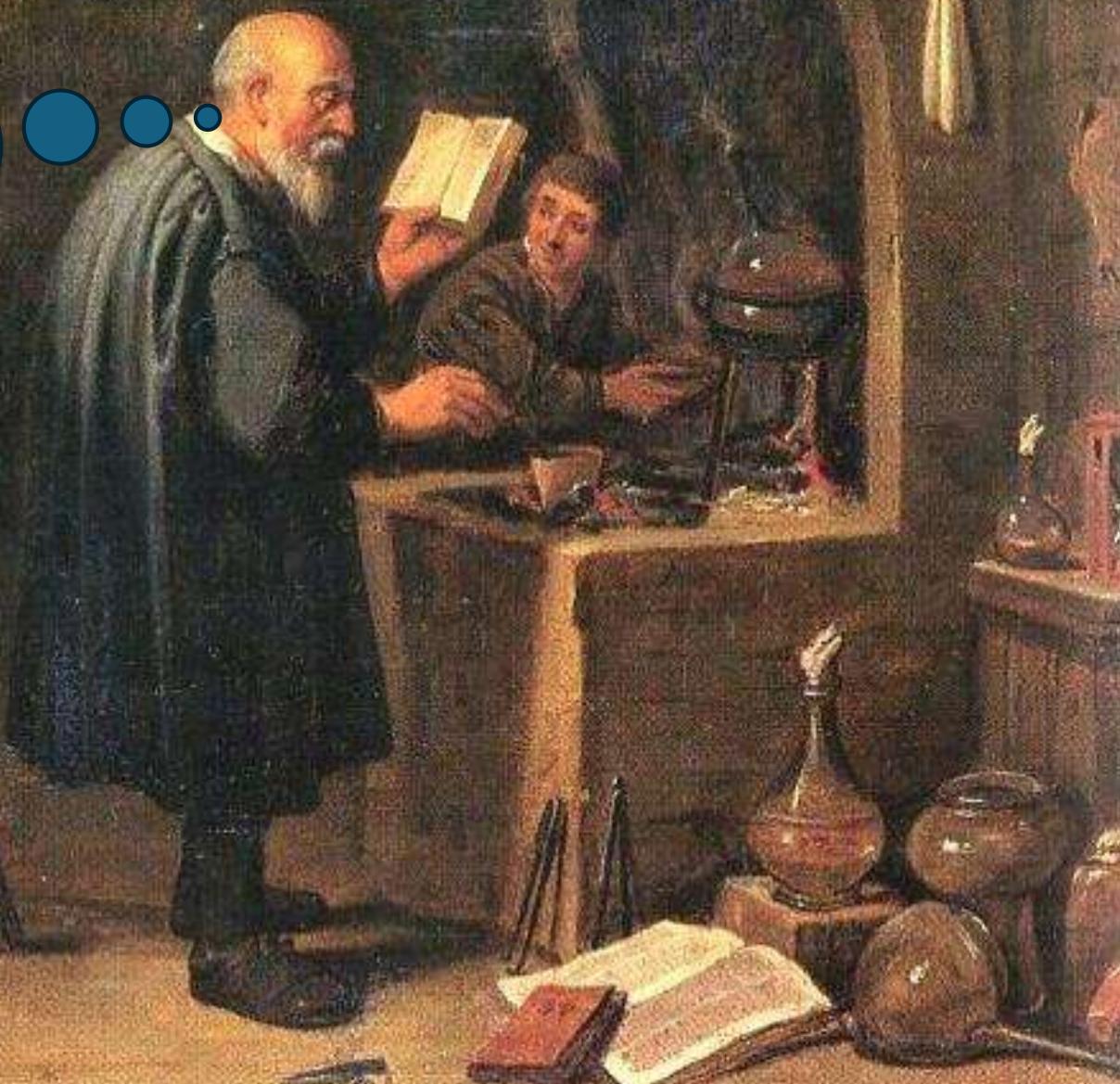
**SHE-DOG**

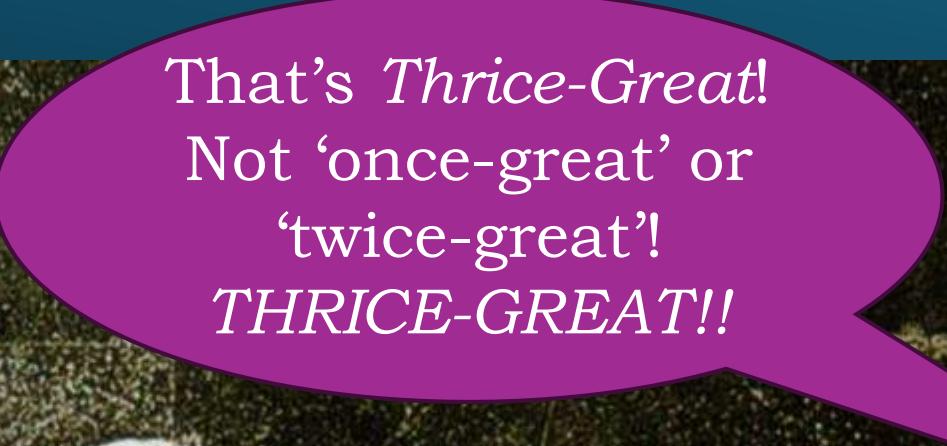
**SLAVE**

**SOUL**

**WATER**

Couldn't they  
have just  
stuck with  
Mercury?





That's *Thrice-Great!*  
Not 'once-great' or  
'twice-great'!  
**THRICE-GREAT!!**





Thoth



Hermes Trismegistus



MERCURY.

VERA SECRE  
TORVM HERMETI

VERUM SINE MENDA

CIO CERTVM & VERISSI

MVM, QVOD EST INFERI, E.S.P. S.

CUT QVOD EST SVPERIUS, & QVOD EST IN

FERIUS, EST SICUT QVOD EST INFERIUS AD PERI

TRANDA MIRACVL A REI VNI, ET SICUT OMNES RES

ERVNT AB VNO, MEDITATIONE VNIUS, SIG OMNES RES

SAB & EVERVNT AB HAC VNA RE, ADAPTATIONE. PATER EI

EST SOL, MATER EIUS LUNA, PORTAVIT ILLUD VENTVS IN VEN

GENITRIX EIUS TERRA EST. PATER OMNIS/TELESMI TOTI, MUNDI

EST HIC. VS EI, INTEGRA EST. SI VERSA EVERIT IN TERRAM, SEPARABIS

TERRAM AB IGNE, SVB TILE A SPISSO, SVAVITER. GVM MAGNO INGENIO, ASCEN

DIT, TERRA IN COELVM, ITERVMQVE DESCENDIT IN TERRAM, & RECIPIT VIM

SVPERIORVM & INFERIORVM. SIG HABEBIS GLORIAM TOTI, MUNDI! IDEO FVG

AT TE OMNIS OBSCVRITAS. HIC EST TOTIVS FORTITVDINIS FORTITVDO, FORTIS

QVIA VINCET OMNEM REM SVB TILE, OMNEMQVE SOLIDAM PENETRABIT. SIG MUNDVS

CREATVS EST. HING ERVNT ADAPTATIONES MIRABILES, QVARVM MODVS HIC EST. ITAQVE

VOCATVS SVM HERMES TRISMEGISTVS, HABENS TRES PARTES PHILOSOPHIE. IN IUVS MUNDI

COMPLETVM EST QVOD DIXI DE OPERATIONE SOLIS.

Stuff Deutsch:

Wahrhaftig, sonder Liegen gewis und auß das aller wahrhaftigste, ist so UNTERN ist, ist gleich dem OBERN. Und das so OBEN ist, ist gleich dem UNTERN: damit man kann erlangen und verrichten Miracul oder wunderlichen EINES EINIGEN DINGES. Und gleich wie ALLE DINGE von EINEM DINGE ALLEINE geschaffn, durch den wahrn und Geboth EILIES EINIGEN, der es bedacht, also entspreisen und kommen ALLE DINGE von denselben EINEM DINGE, durch schenkung und Vereinigung zusammen: die SONNE ist so VATER, und der MOND ist seine Mutter; der WINDT hat in getragen in seinem Bruch: seine ERNEHRERIN oder Amme ist die ERDE. Dieser ist der VATER ALLER VOLKOMMENHEIT dieser ganzen Welt. SEINE Macht ist VOLKOMMEN, wann es vorwandelt wird in ERDE. So lohnt das Erwach von FEUER, Schieders, und das Subtile vom Dickem oder groben ganz Liedlich mit großer besttheidheit und verschande. Es stehet von der ERDEN in HIMMEL, und vom HIMMEL wieder zur ERDEN, und gewinnet alle die Kraft der Osten und Westen. ALSO WARTV HABEN ALLE HERRLIGKEIT DER GANTZEN WELT. Derhalbem weicht von der aller Vorsicht und Vorsorgtheit. Dass ist von aller STERCKE die STERKESTE / STERCKE; Daum es kann überwinden alle Subtiligkeit, und durchdringen alle Vest. ALSO IST DIE WELT GESCHAFFEN. Dabey geschehen selzame Vereinigungen, und werden MANCHERLEY WUNDER gewirkt; Welcher Weg, dieselben zu erwirken, dieser ist. Und bin davumbenad HERMES TRISMEGISTVS, habende dreij theill der WEISHEIT der gantzen Welt, er ist er fuller alles weis. Ich erstaunt habe von dem WERCKE der SONNEN.

MERCURIUS TRISMEGISTUS. in PIMANDRO.

Cum de RERVM NATVRA cogitare, ac MENTIS actus in SVPERNA erigere, lophi iam corporis fruibus, quoniam modum, aci-  
dere solet ips, qui ob latitudinem, vel defatigationem, somno quaesiunt; libido mibi vltus sum censere quendam immensam ma-  
tudinem corporis, qui me somni vocans in hunc modu clamaret: Quid es? si o Mercuri, quod AVDIRE & INTVERI desideras? Quid  
es? quod DISCERE, ob INTELLIGERE cupis? Tim ego, Quisnam es, inquit. Sim, inquit ill. PIMANDER, MENS DIVINAE, PO-  
TENTIA, ac hi vide quid vols, IPSE vero TIBI VBT ADERO. Capio, inquit RERVM NATVRAM DISCERE, DEVM COGNO-  
SCERE. Ad huc ill: TVA ME MENTE COMPLECTERE, ET EGO TE IN CVNTIS, QVAE OPTARIS, ERUDIAM. Cum  
luc dixisset, militavit herman, et UNIVERSA SVBITO REVELAVIT.

Sic et CVM DOCTRINA  
filio fidei. AMEN.

- True it is, without falsehood, certain and most true. That which is above is like to that which is below, and that below is like to that which is above, to accomplish the miracles of one thing.
- And as all things were by a certain contemplation of one, so all things arose from this one thing by a single act of adaptation.
- The father thereof is the Sun, the mother the Moon.
- The wind carried it in its womb, the earth is the nurse thereof.
- It is the father of all works of wonder throughout the world.
- The power thereof is perfect.



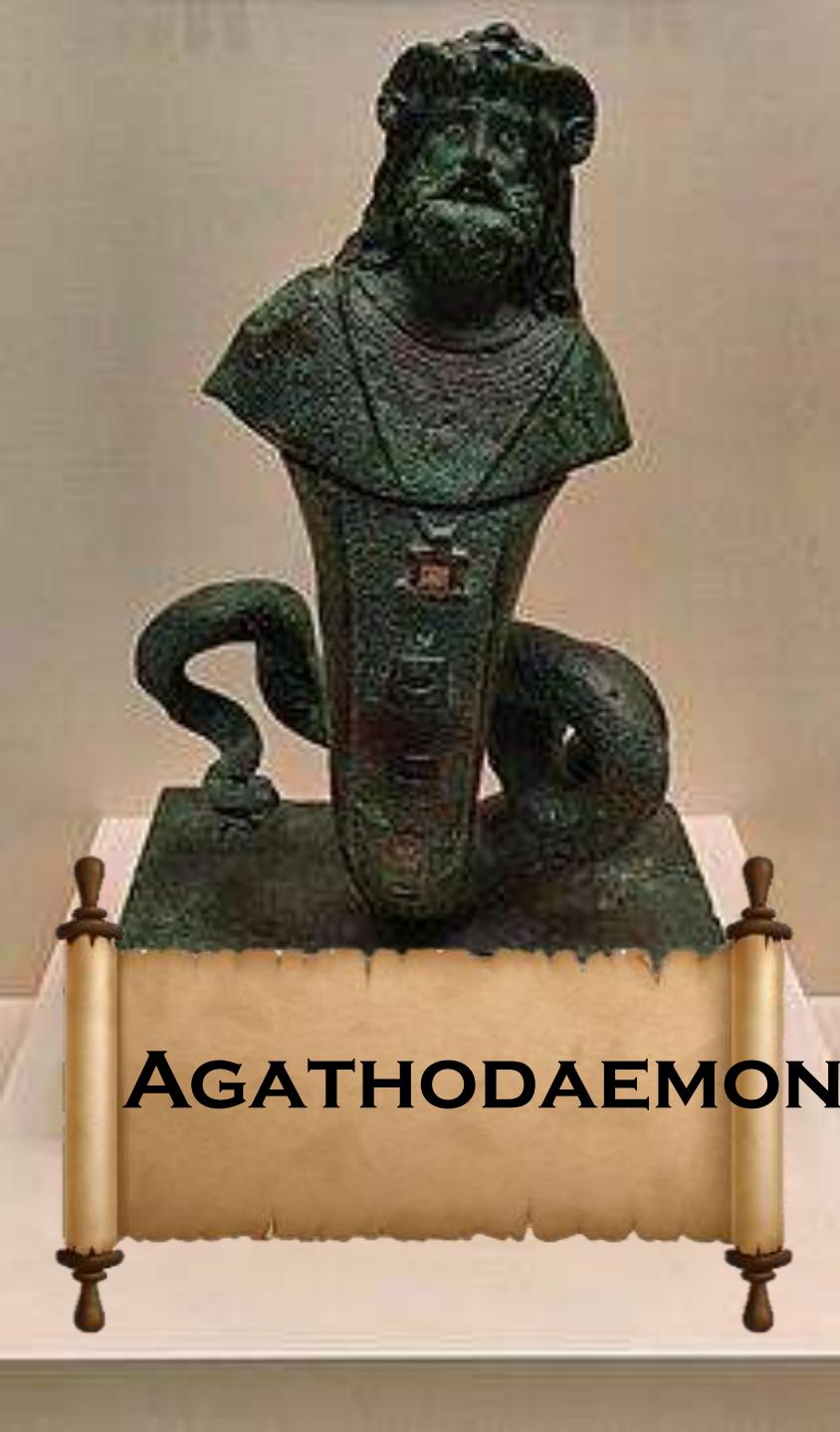
**OSTANES**



**AGATHODAEMON**



**OSTANES**



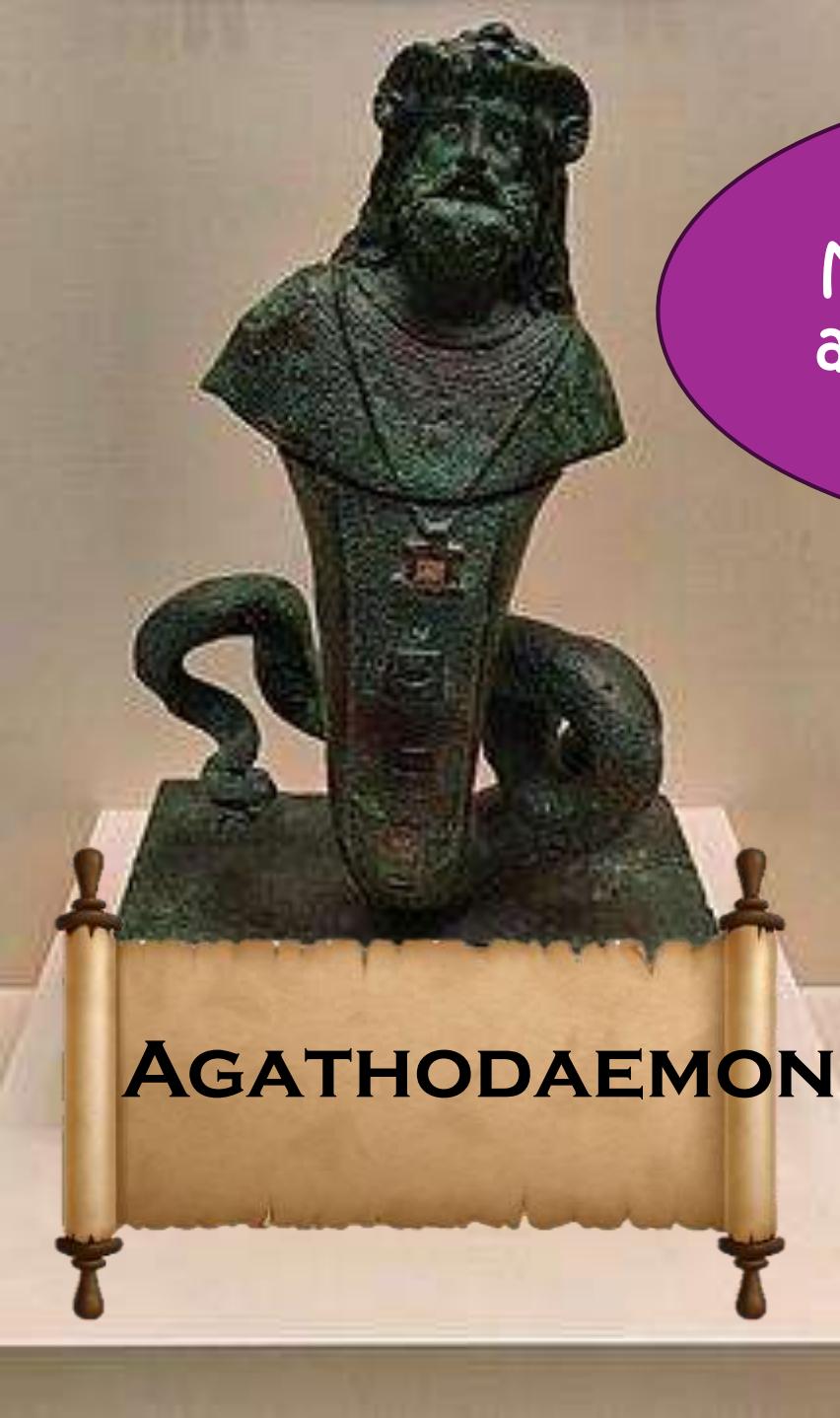
**AGATHODAEMON**



**OSTANES**

I have had it  
with these  
motherflippin'  
snakes in this  
motherflippin'  
alchemy!!

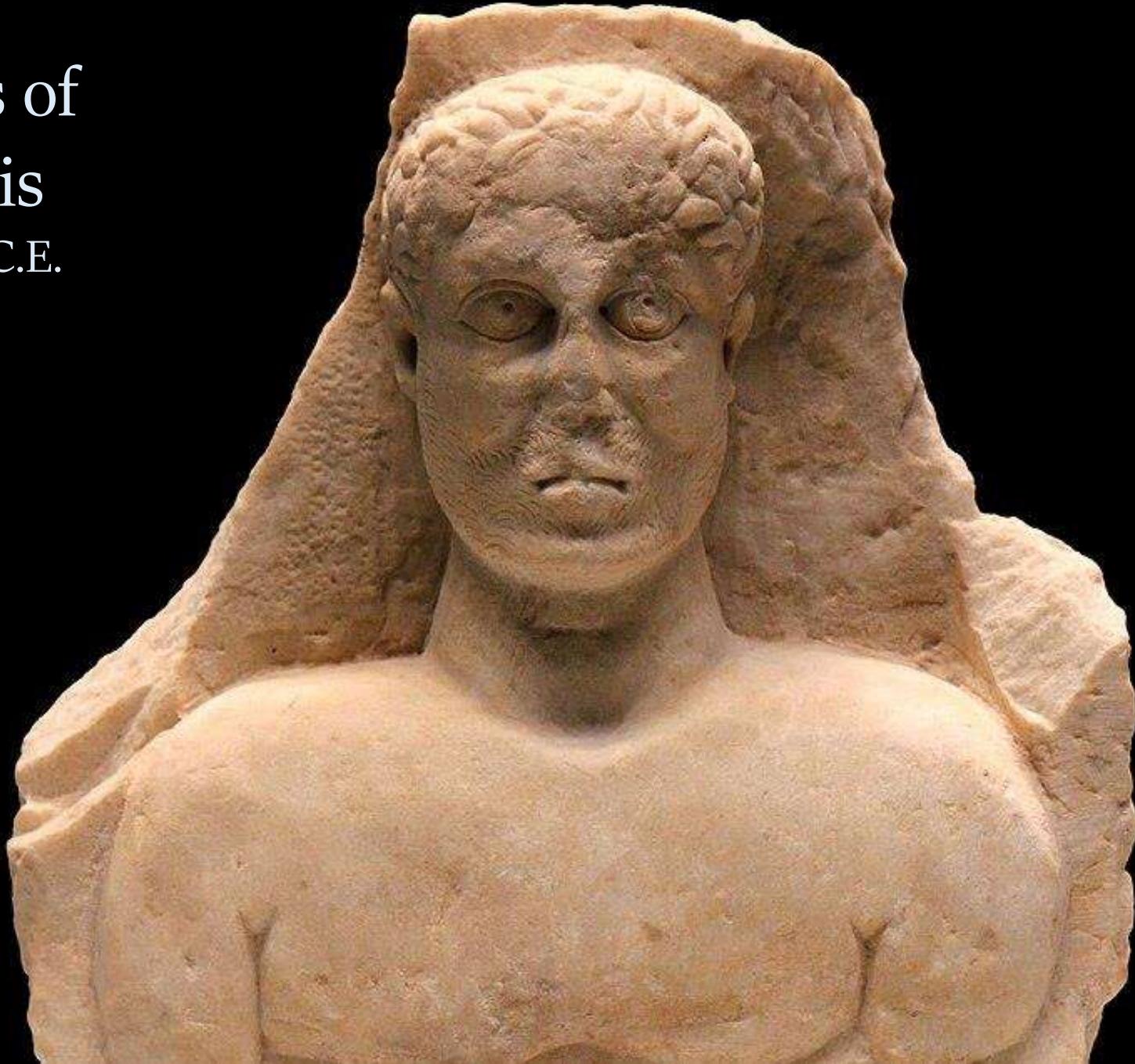




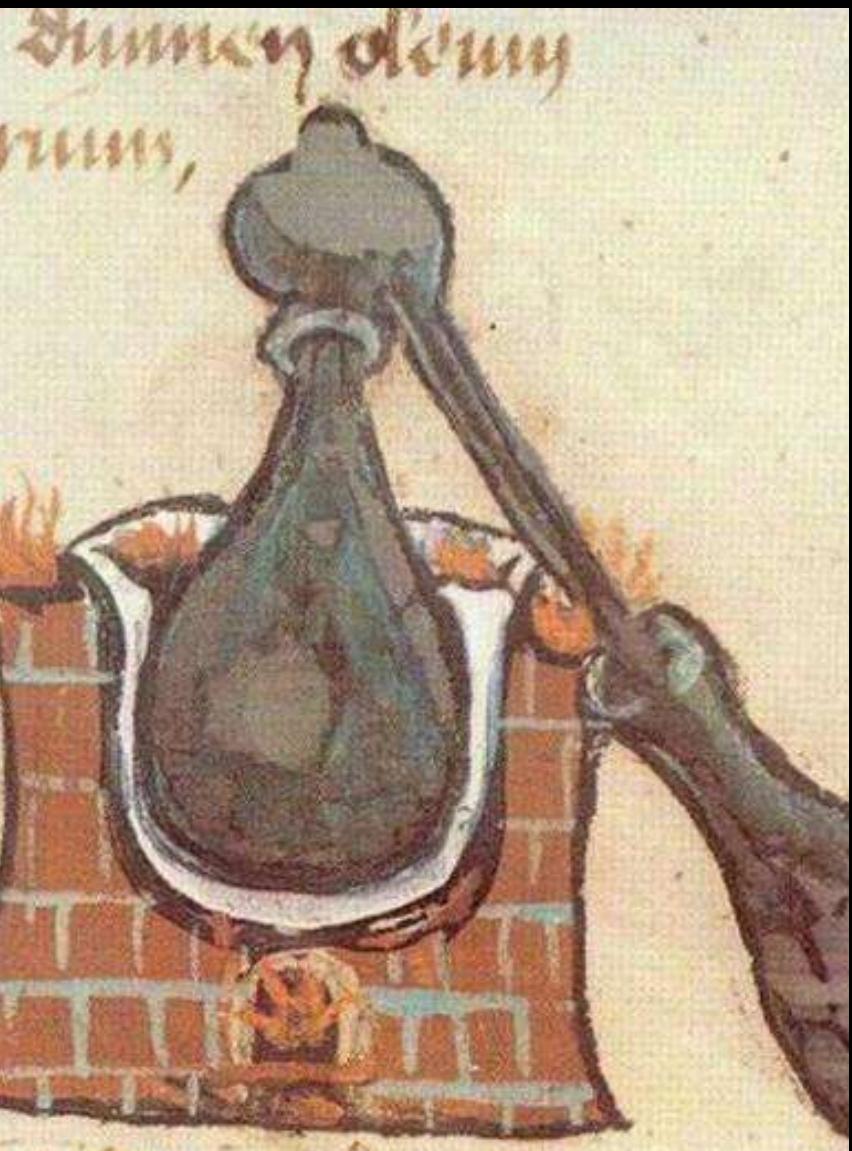
I'm Craaaaazy  
Moses and I've got  
all the alchemy you  
need right here!!!



Zosimos of  
Panopolis  
4<sup>th</sup> century C.E.



Mary the Jewess



Kleopatra the Alchemist

Paphnuntia  
the Virgin



Why do I  
have to be  
the virgin?



Avicenna  
ibn Sina



Abū Bakr al-  
Rāzī



Jābir  
ibn Hayyān

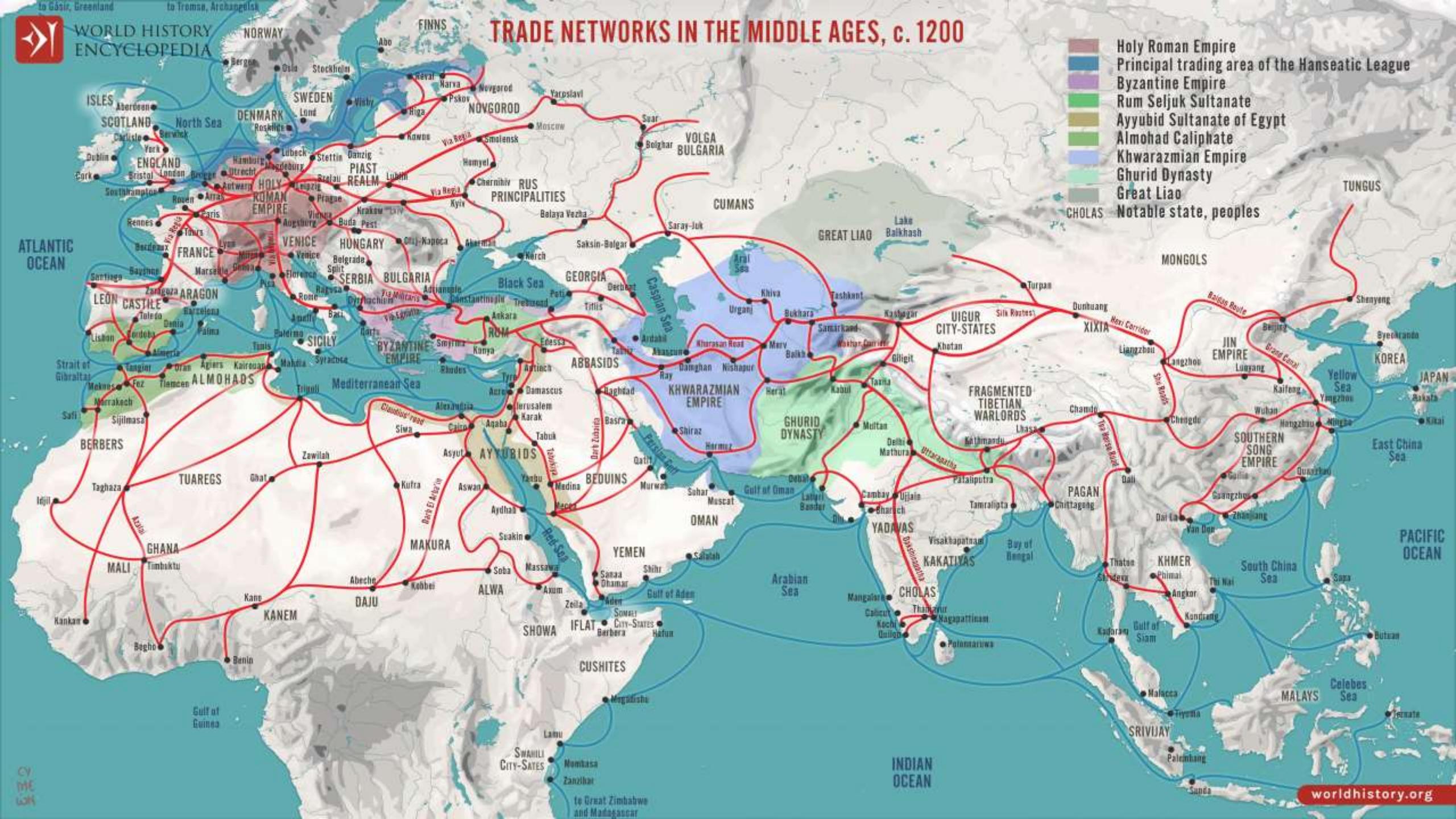


- Tools and Glassware (alembic, thermometers, forceps, scalpels)
- Methodologies (crystallization, calcination, filtration, and oxidation)
- Purification of Sulfuric, Hydrochloric, and Nitric Acids
- Distillation of alcohol, ammonia, arsenic, and potassium chloride
- Pharmacology
- Scientific/Experimental Method



# TRADE NETWORKS IN THE MIDDLE AGES, c. 1200

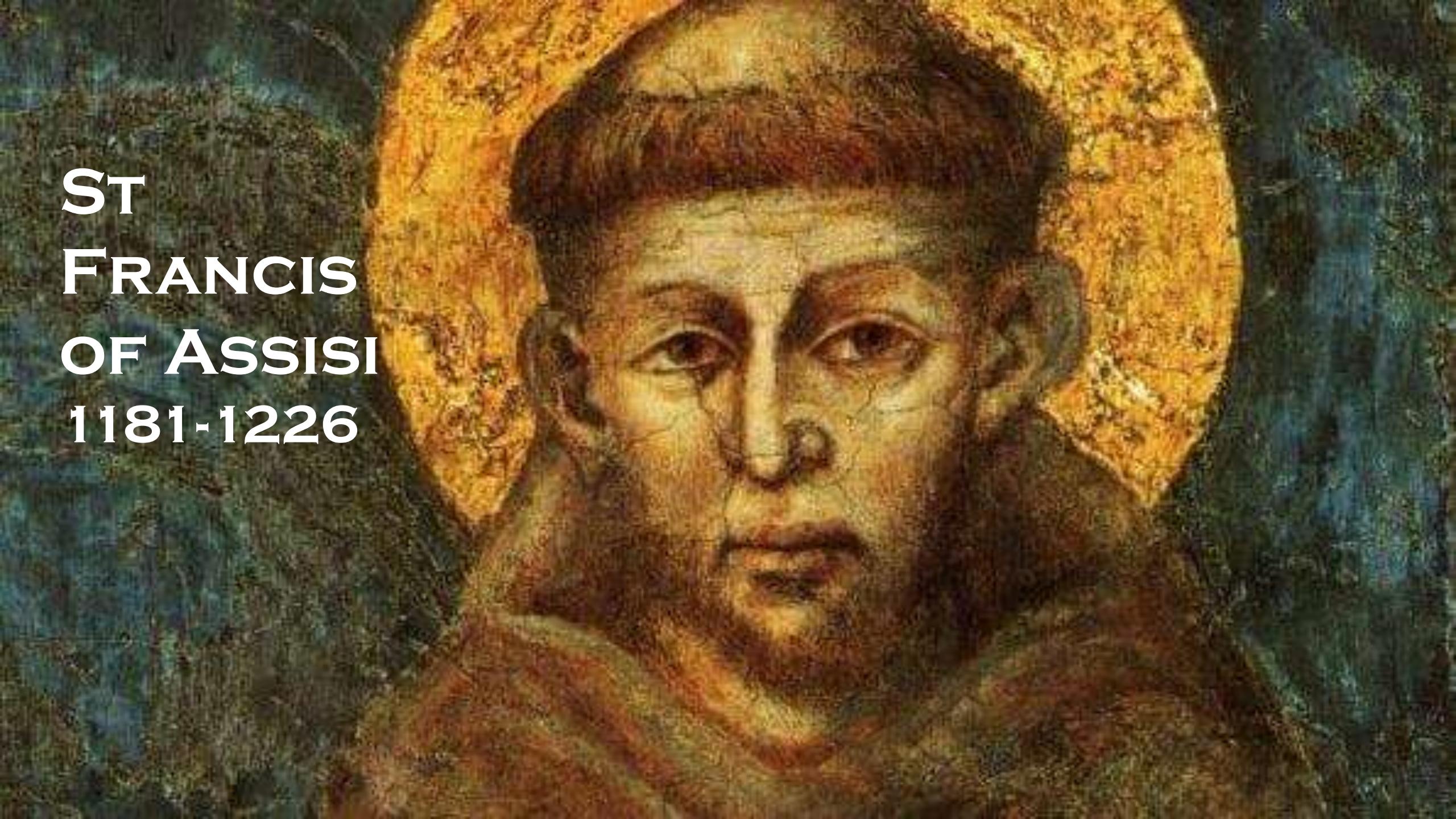
- Holy Roman Empire
- Principal trading area of the Hanseatic League
- Byzantine Empire
- Rum Seljuk Sultanate
- Ayyubid Sultanate of Egypt
- Almohad Caliphate
- Khwarazmian Empire
- Ghurid Dynasty
- Great Liao
- Notable state, peoples



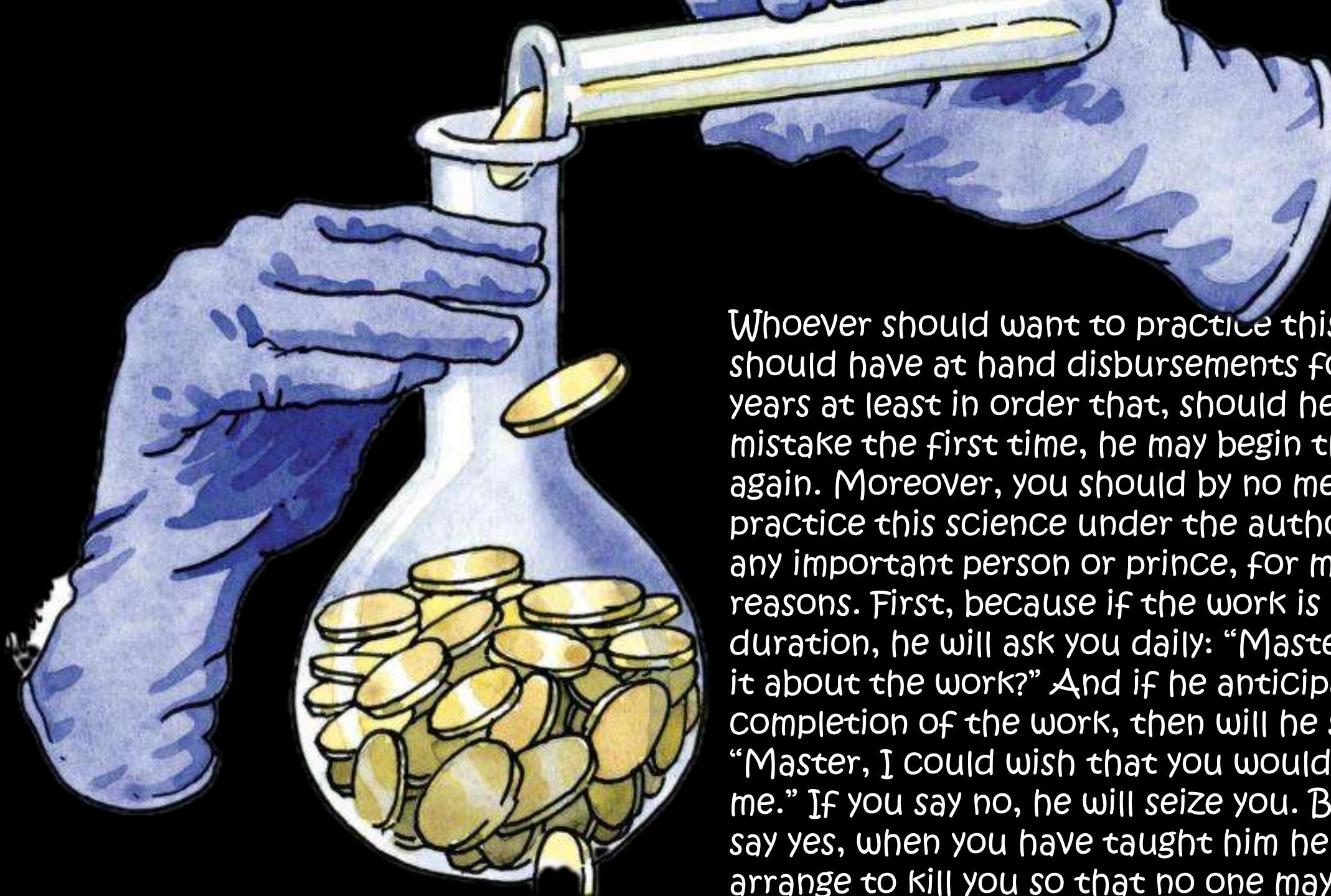




In 800 years,  
teenagers are  
going to be really  
bored by this!



ST  
FRANCIS  
OF ASSISI  
1181-1226



Whoever should want to practice this science should have at hand disbursements for two years at least in order that, should he make a mistake the first time, he may begin the work again. Moreover, you should by no means practice this science under the authority of any important person or prince, for many reasons. First, because if the work is of long duration, he will ask you daily: "Master, how is it about the work?" And if he anticipates completion of the work, then will he say: "Master, I could wish that you would teach me." If you say no, he will seize you. But if you say yes, when you have taught him he will arrange to kill you so that no one may know



# *Spondent quas* “The Crime of Falsification”

They dissimulate [their failure] so that finally, though there is no such thing in nature, they pretend to make genuine gold and silver by a sophistic transmutation; to such an extent does their damned and damnable temerity go that they stamp upon the base metal the characters of public money for believing eyes, and it is only in this way that they deceive the ignorant populace as to the alchemic fire of their furnace.

# ROGER BACON

1219-1292



# ROGER BACON

## 1219-1292

- **GREGORIAN CALENDAR**



# ROGER BACON

1219-1292

- **GREGORIAN CALENDAR**
- **ANATOMY OF THE EYE**



# ROGER BACON

1219-1292

- GREGORIAN CALENDAR
- ANATOMY OF THE EYE
- GUNPOWDER







# The Brazen Head

## The Brazen Head

Ireland's  
Oldest Pub  
Music & Food  
Function Room  
Available  
Tel : 6779549

Tel : 6779549

Brazen Head  
TEELING

JAMESON

J

TEELING  
WHISKEY

BS

TEELING  
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# NICHOLAS FLAMEL 1330-1418

NICOLAVS FLAMELLA

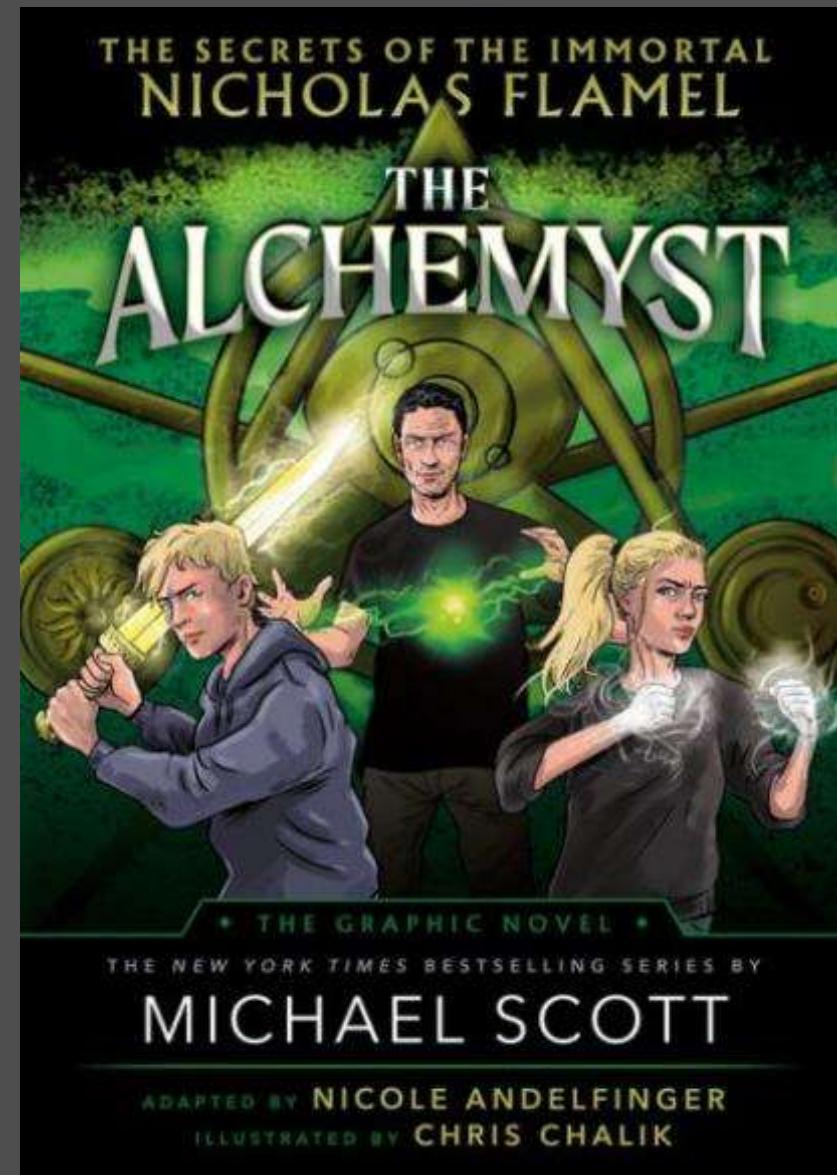
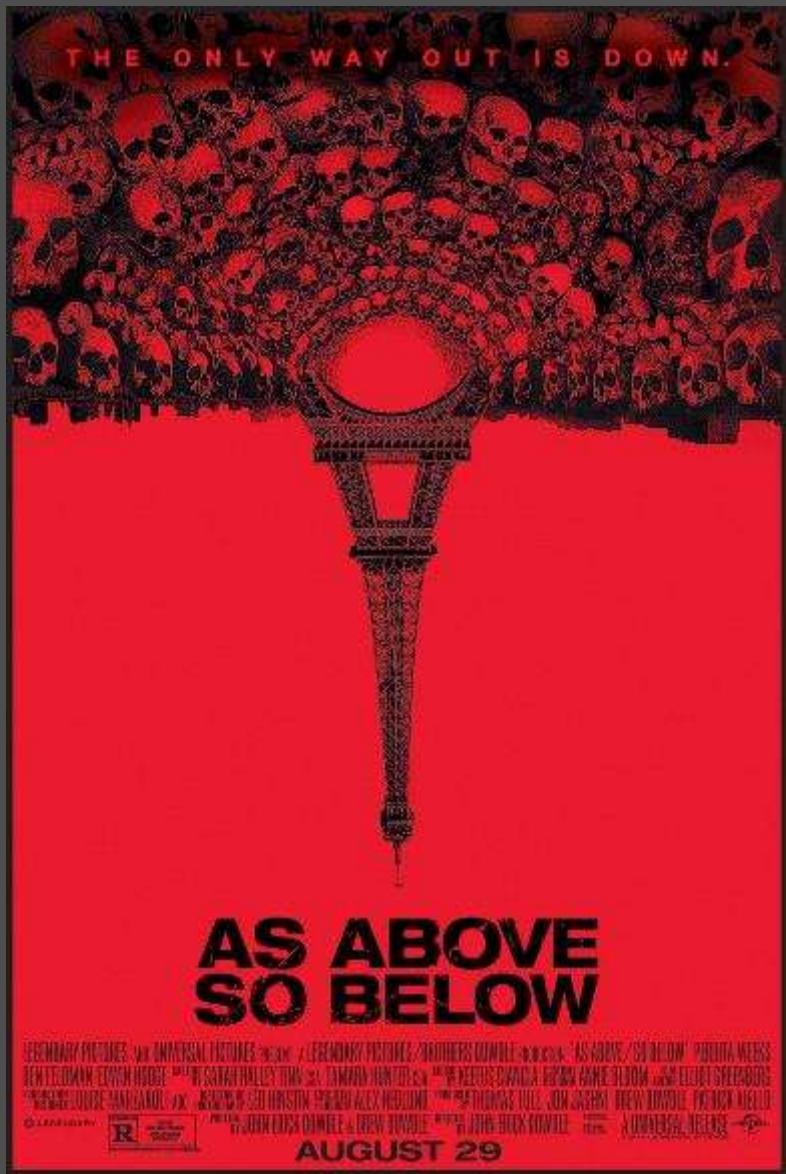
*Pontisatensis;*

Vixit circa finem XIV et incepit  
XV. Sculpsit apud Parisiensem ornatam  
donacium. Erat insignis in patre lingua  
Portu, egregius Hector, sculpsit Philosopha  
et Mathematica et Alchemista celebri.  
Bar. <sup>opus</sup>  
Est collectione friderici X. Scholae

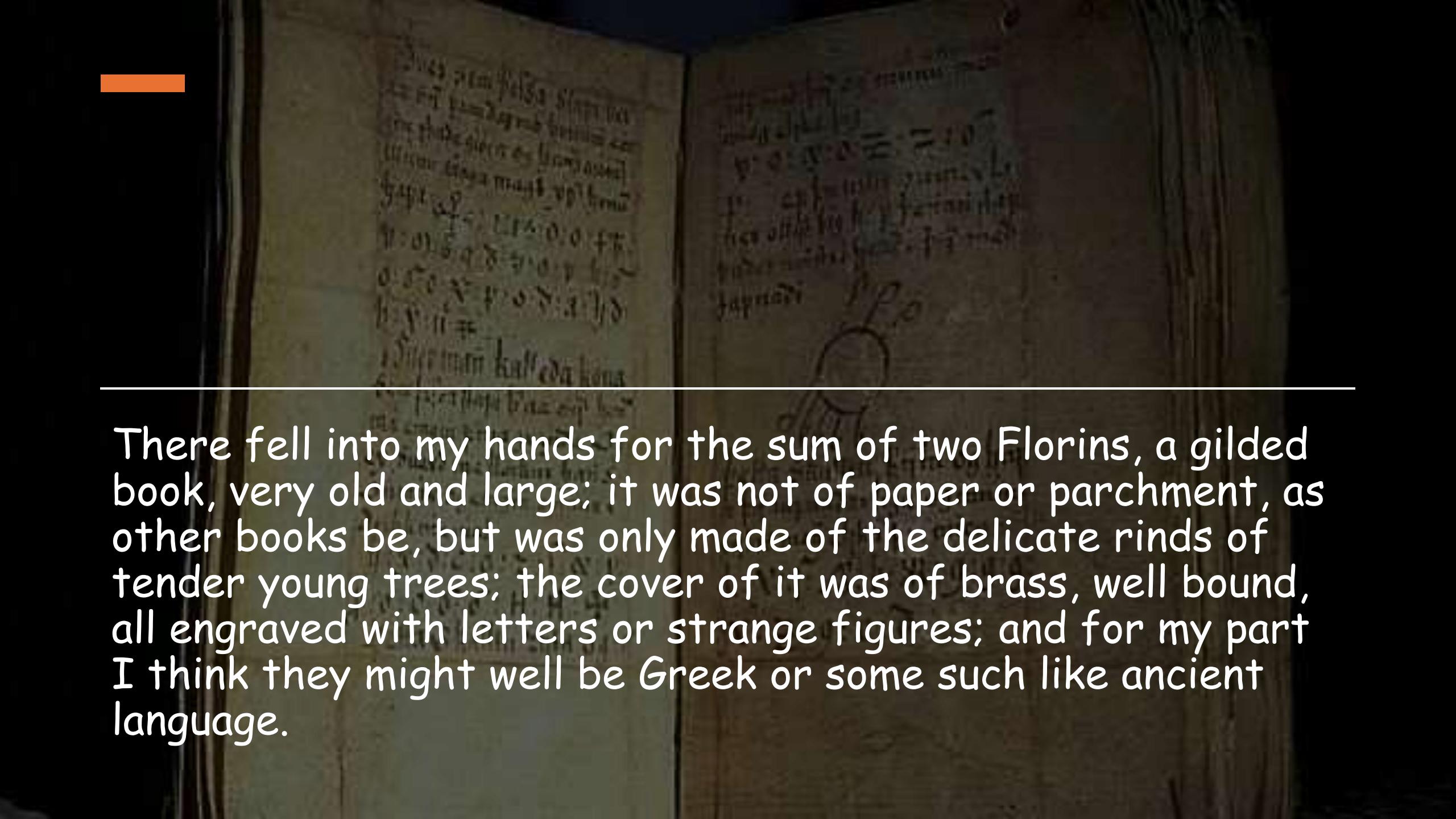


THE  
“OTHER  
”  
NICHOL  
AS  
FLAMEL





N I C H O L A S F L A M M E L,  
His Exposition of the Hiero-  
glyphicall Figures which he caused  
to bee painted vpon an Arch in  
*St. Innocents Church-yard,*  
in P A R I S.



There fell into my hands for the sum of two Florins, a gilded book, very old and large; it was not of paper or parchment, as other books be, but was only made of the delicate rinds of tender young trees; the cover of it was of brass, well bound, all engraved with letters or strange figures; and for my part I think they might well be Greek or some such like ancient language.



Upon the first of its leaves was written in great capital letters of gold, ABRAHAM THE JEW PRINCE, PRIEST, LEVITE, ASTROLOGER, AND PHILOSOPHER, TO THE NATION OF THE JEWES, BY THE WRATH OF GOD DISPERSED AMONG THE GAULS, SENDETH HEALTH. After this it was filled with great execrations and curses (with this word MARANATHA, which was often repeated there) against every person that should cast his eyes upon it, if he were not Sacrificer or Scribe.

He that sold me this book  
knew not what it was worth,  
no more than I when I bought  
it; I believe it had been  
stolen or taken from the  
miserable Jews, or found hid  
in some part of the ancient  
place of their abode. Within  
the book, on the second leaf,  
he comforted his Nation,  
counseling them to flee vices,  
and above all *Idolatry*,  
attending with sweet patience  
the coming of the messiah.





My wife *Perrenelle*, whom I loved as myself, and had lately married, was much astonished at this, comforting me, and earnestly demanding, if se could by any means deliver me from this trouble. I could not possibly hold my tongue, but told her all and showed her this fair book, whereof at the same instant she saw it, she became as much enamored as myself, taking extreme pleasure as myself.



I resolved to myself to be painted in the fourth arch of the churchyard of the *Innocents*, as you enter in the great gate in S Denis street, and taking the way by the right hand, the most true and essential marks of the Art, yet under Veils and Hierographical Covertures [...] which may represent two things, according to the capacity and understanding of them that behold them: first, the mysteries of our future and undoubted Resurrection on the day of judgment. And secondly, all the principal and necessary operations of the Mastery.



FRANKENST  
EIN  
1818



FRAHNK-UND-  
SHTEEN!!!!

Next week:  
 Spells,  
 Charms, and  
 Divination

