# The Voynich Manuscript Folio Astronomical 68v3 

Abstract: The Voynich Manuscript astronomical folio 68v3 resembles a drawing found in an Armenian manuscript. The decoded hieroglyphs provide the names of a number of constellations and contrary to medieval teachings proposes that the Earth orbits the Sun and the Moon orbits the Earth.

'The painter has the Universe in his mind and his hands' - Leonardo da Vinci

## Introduction

William R. Newbolt suggested that the VM's folio 68v3 may represent the Andromeda galaxy (i). This suggestion is considered unlikely, the galaxy is difficult to see without the aid of a telescope which had yet to be invented. Folio 68v3 is similar to, but the mirror image, of a drawing in an Armenian manuscript by the mathematician and astronomer Anania Sirak (ii). The Anania Sirak illustration is similar to an illustration in an Armenian astronomy manuscript, written in Armenian in 1416 (see f.2) (iv). The Armenian astronomers came from Cilicia (Lesser Armenia ca.1199-1375) a prosperous state on the Eastern shores of the Mediterranean near Cyprus. Cilicia, a cradle of ancient science and astronomical knowledge, fell to the Mameluks of Egypt in 1375. Many merchant families fled westward and founded or joined with their scattered communities in France, Italy, the, Netherlands, Poland, and Spain(iii). They took their manuscripts and knowledge of astronomy with them. Leonardo da Vinci or the author of the VM, may have seen the Armenian drawings and documents related to astronomy.

## Plate 1: The Voynich Manuscript Folio 68v3



Plate 2: A comparison of Folio $68 v 3$ with 7 th and 14 th century Armenian drawings


Folio 68v3


7th C. Armenian drawing


14th C. Armenian drawing Plate 2

The decoded hieroglyphs around the two circles are as follows:
Outer circle: The Earth turns about the heaven. By the Earth as pulled whether it be by such like the Sun is for the secret mysteries. It is disannul it is oval and it is there for there is a planetary world not named yet meant from foolishness in taking. It is both as a round circle about a star, or the sun as it is the Earth or whether it be it is there or and it is for the Earth it turn the Earth moreover there with the Earth turn a mass. Moreover to thee he knoweth as there the Earth for if it is there and he knoweth well it is belonging to the sun as well and it is about the Earth, the air from the Sun, even as the earth is there or the world it is as he knoweth and it is.

Inner circle: Gathering in as Sun beam shaking and placed the Earth for it is as I reported, now the Sun or as well as turn around as in a wheel the Earth such like, a round circle about a star only such like

Within the inner circle: What to forget I or he had very little. I am glad to brag, father, he mock to be silent. It is as the Earth is by sunbeam shaking for it is then, where it is from the Greek secret mysteries.

The hieroglyphs of the spiral curves are decoded in the order given in Plate 1.

## 1. Constellation family

2. Cetus, the whale star. 'Oh it is in this place as a kind of egg or round knob belt. Cetus the whale star or it resembles a cauldron'. The following drawing confirms that Cetus is a type of oblong belt. Cetus, a sea monster in Greek mythology, is located just south of the ecliptic and is visible at night during the months around September.

3. Bootes: The name Bootes comes from the Greek word for herdsman the fourth brightest star Acturus. It is visible in the months around May. 'resembling a mass where in this place stars like the Boote, Charlemain's star.

4. Leo: Leo is a constellation representing a lion and contains many bright stars. Gamma Leonis is a gold-yellow giant star in the lion's tail, the reason for the comparison to

the sun. It is a large equatorial constellation and appears highest in the midnight sky in the months around February. The drawing below is from a scientific Western manuscript c~ 1000 (iv). 'Such like thee Leo and much to say about heavenly matters. Take hold it is about beauty or it is such like the sun.'
5. Triangulum, delta a triangle: Triangulum is a small constellation highest in the night sky in October. In May it appears in the sky in about the same place as Boote, but at different times of the night. Ancient Greeks called Triangulum Deltoton due to its resemblance to the upper-
 case Greek letter delta ( $\Delta$ ). 'Oh by choice it is Triangle and a little beyond the Bootes.'
6. Serpens, a serpent: An equatorial constellation which appears highest in the evening sky in the months around June. It has the Eagle Nebula, active in new star formation that is responsible for the constellation's activity and soliciting the comment, 'breath quietness.'(v) 'The serpent thou turn a path. There is and to what end breath quietness.'

7. Milky Way: The milky way galaxy contains our solar system, 'it hath the Earth'. The milky way can be seen in the northern hemisphere between June and August. 'It hath the milky way is after the Earth.'

8. Ursa: The big dipper: Ursa Major and Ursa Minor are the greater and lesser bears, better known as the big and little dipper. Ursa major is always the largest constellation viewable in the northern night sky. 'And there is resembling both a many headed monster buttocks is placed the orsa bear star.' (VI)


## Discussion

In an earlier article (vi) I discuss the possibility that Leonardo, at the age of about 10, began writing the VM. He had just returned from a trip with Captain Noli to Cabo in West Africa and had observed Captain Noli using the stars for navigation. This would have encouraged a savant like Leonardo to study the stars, planets, moon and the sun and consider their relationship to the earth. In his statement 'the Earth is rotating in the heavens, pulled around an oval path by the Sun', he was proposing the heliotropic solar system. The Roman Catholic Church supported Ptolemy's geocentric model of the universe, a stationary Earth with all celestial bodies orbiting it. The VM was written during a period in history known as the dark ages, the Roman Catholic Church dominated all intellectual thought and astronomy. The heliocentric model of the universe was discarded due to the inability:

1. To feel motion as the Earth as it orbits the Sun.
2. To measure parallax. Parallax is due to the position of nearby stars to shift relative to distant stars. Friedrich Bessel in 1838 made the first successful measurement of stellar parallax.

Sometime before 1514, the Polish mathematician and astronomer, Copernicus, wrote an initial outline of his heliocentric theory, that the Sun and not the Earth was at the center of the universe. To link the heliocentric system to Ptolomy's geocentric universe the Danish astronomer, Tycho Brache (1546-1601), proposed that the Moon orbited Earth, the Planets orbited the Sun, but was incorrect in suggesting that the Sun orbited the Earth (iii). It was Johannes Kepler (1571-1630), the German mathematician and astronomer who used astronomical measurements to show that the Earth and planets travel about the Sun in elliptical orbits. When Galileo promoted a heliocentric solar system and the ideas of Copernicus, he was put on trial in 1633 by the Roman Catholic Church. His defense was that the scriptures were not wrong, only the theologian's interpretations of the scriptures was wrong (iii). The Catholic Church's support of the geocentric solar system continued until 1992. The Vatican finally admitted that Galileo was correct, the Earth did orbit the Sun (iii).

Folio 68v3 follows the astronomical folios 68v1 and 2. Folio 68v1 proposed that the Sun is a star and $68 v 2$ that the Earth turns, producing shaking sunbeams as it turns, confirmed by the Apollo 1 space flight in 1967.

The heliocentric solar system described in folio 68 v 3 was proposed about 150 years before Galileo used a telescope to prove that the Earth orbits the Sun. A remarkable observation made about 159 years before Nicholas Copernicus. In 1543, just before he died, Copernicus published "De revolutionibus orbium celestium" in which he proposed a heliocentric solar system (iii).

Leonardo was scornful of people like his father, who believed in a geocentric universe or that an oval Sun could account for the changing seasons. The statement in this folio, 'the Earth rotates like a wheel around the Sun' was recorded about 100 years before Copernicus and Galileo proposed the heliotropic solar system. It was a remarkable observation. Had the authorities been able to read the VM, he would have been in very serious trouble.

Leonardo's use of the word ABBA for father is surprising. ABBA is a word the Jewish people still use today for father. Leonardo's father was Italian, the nationality of his mother is uncertain, but if she was Jewish, this could account for him using ABBA for father.

I have always believed that what Leonardo wrote at the top of a page had nothing to do with the drawing on the page. He used any free space in the manuscript to record other ideas. What he was trying to say, assuming that my decoding is correct, is unclear.

## Conclusion

Later in life Leonardo's interest in astronomy stemmed primarily from his interest in vision and optics. He provided the correct explanation of Earthshine. His drawing of the moon in f.68r1, without the face, is very similar to his drawing of the moon in his article on Earthshine in the Leicester Codex. Leonardo owned a copy of Ptolemy's "Cosmography", as well as a book by the 9th century Persian astronomer Abu Mashar (vii). It is easy to believe that a boy of his intellect and powers of observation wrote the VM, he or whoever wrote the VM was the Galileo of the $15^{\text {th }}$ century.

## Appendix

The Hieroglyphs were transposed using my AVA alphabet (vii), decoded using anagrams and translated into English using Florio's 1611 Italian English dictionary (viii).

## Spiral Curves

## Constellation names

| No. | Hierogly ${ }^{\text {a }}$ | Transcripion | Decoding | Transation using florios 1611 Italian dictionary |
| :---: | :---: | :---: | :---: | :---: |
| 1 | $9^{404 n}$ og cult diras | asani oi cet <br> otlcas |  | I', the <br> Coftellatióne, confellation Cáfa, familie |
| 2 | creorse | ceota | $\begin{array}{\|l\|l\|} \hline \text { cato } \\ \text { ceto } \end{array}$ | Là, the <br> Ceto, Whale farre |
| 3 | $\operatorname{lin}^{2} \omega d a$ | Otleoba | boote | Là, the <br> Boóte, cl.arleswaine farre |
| 4 | olleos | oleoi | 。 <br> leo | $\begin{aligned} & \mathbf{O}, \text { or } \\ & \mathbf{I}^{\prime}, \text { the } \\ & \text { Leo } \end{aligned}$ |
| 5 | 0nesido | Deeta | deta | $E^{3}$, and Dêta, Triangle |


| ${ }^{6}$ | 2, Fifing | ${ }_{\text {dao }}$ | ${ }_{\text {pleade }}^{0}$ | O,or <br> Pléiade, the feuen Starres about the Bull |
| :---: | :---: | :---: | :---: | :---: |
| ' | 674) quition | thea | $\begin{aligned} & \text { to } \\ & \text { valate } \end{aligned}$ | Le, the <br> Vía lattẻa,milke may |
| 8 | Sout | sar | Usa | V'rfa, O'rfa, Beare Star |

Spiral Curve \#1


| No | Hieroglyphs | Transcription | Decoding | Translation using Florio's 1611 Italian dictionary |
| :---: | :---: | :---: | :---: | :---: |
| 1 | A Davir og crail ongego | asani oi cetl otlcas | constellatio <br> n <br> casa | I', the <br> Coftellatióne, conffellation <br> Cáa, familie |

Spiral Curve \#2


| No | Hieroglyphs | Transcriptio <br> n | Decodin <br> g | Translation using Florio's 1611 Italian Dictionary |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 0-3608 | Oceoi | 0 <br> E <br> Ci <br> 0 | $0, o b$ <br> $E$, it is <br> Ci, is thisplace |
| 2 | 48663 | Voua | A <br> Vou | A. 15 <br> Vóns, anykind of egge or round knob |
| 3 | $7_{60} 89$ | Tleoba | Balteo | Balteo,belt |
| 4 |  | Ceotla | La <br> Ceto | Là, the <br> Ceto, Whale farre (cetus) |
| 5 | onciser | Otleea | $0$ <br> E <br> Tale | O, or <br> $E^{\prime}$, it is <br> Tále, reftmbling |


| 5 | 25 , JFing | Taolenp | Pentola | Péntola, a Cauldron |
| :--- | :--- | :--- | :--- | :--- |

"Oh it is in this place as a kind of egg or round knob belt Cetus the whale star or it is resembling a cauldron"

## Spiral Curve \#3



| No | Hierogyphs | Transcripion | Decoding | Translation using florio's 1611 Italian Dictionary |
| :---: | :---: | :---: | :---: | :---: |
| 1 | *ax | Tai | Tai | Tái, refembling |
| 2 | aram | cbavi | Bica | $\begin{aligned} & \text { Bica, a maffe } \\ & \text { V? wolere: } \end{aligned}$ |
|  | 2eccifos | Seetoi | $\begin{aligned} & \mathrm{Ci} \\ & \text { Stelo } \end{aligned}$ | $\mathrm{Cl}_{1}$, in this place <br> Stelleo, Aarres like |
| 4 | Atiocia | otteoba | $\begin{array}{\|l\|} \hline \text { La } \\ \hline \text { Boote } \end{array}$ | Là, the <br> Boóte, cl.arleswain: farre |

"resembling a mass where in this place stars like the Boote, Charlemain's star"

Spiral Curve \#4


| No | Hieroglyphs | Transcription | Decoding | Translation using Florio's 1611 Italian Dictionary |
| :---: | :---: | :---: | :---: | :---: |
| 1 |  | Otleoi | To i Leo | O, fach life <br> Ti,thee <br> Leo |
| 2 | $5 \operatorname{ten} 9$ | Ceoba | E <br> baco <br> Be | $E^{3}$, and <br> Bacco, much to fay a mafter of beauenly my/teries |
| 3 | $\rightarrow \operatorname{ag} 964$ | Veootleea | A <br> et <br> leo <br> e <br> ou | A, for <br> E't, morcower <br> Leo <br> $E^{\prime \prime}$, itis <br> O'ue, where |
| 4 | $0-\sin \text { ही }$ | Oteetla | Et <br> a <br> telo | $E^{3}$, and <br> TÒ, hold <br> Leo |
| 5 | c\&opgh | Eeoba | Be <br> E <br> A | Bè ? well $E^{\prime}$, it is A., for |


| 6 | olfocedo | otteba | $\left\lvert\, \begin{aligned} & \text { Telo } \\ & \stackrel{0}{e} \end{aligned}\right.$ | Téllo, the earth <br> $E^{\prime}$, and <br> $\mathrm{A} b$, from |
| :---: | :---: | :---: | :---: | :---: |
| 7 | Olfo | 010 | $0$ | $\begin{aligned} & \text { O, fuch like } \\ & \text { Lo , the } \end{aligned}$ |
| 8 | - M1ac. | olees | sole <br> E | Sóle, Sunne <br> E', and |

"Such like thee Leo and much to say about heavenly matters. Take hold it is about beauty or it is such like the sun and"

Spiral Curve \#5


| No | Hieroglyphs | Transcription | Decoding | Translation using Florio's 1611 Italian Dictionary |
| :---: | :---: | :---: | :---: | :---: |
| 1 | exalh seteg | Deotleao | 0 <br> a <br> eletto | $O_{2}$ as <br> $A, b y$ <br> Elêtta, a clocife |


| 2 | cized? | Deotla | Delta | $E^{\prime}$, it is <br> Dêta, Triangle <br> Is |
| :---: | :---: | :---: | :---: | :---: |
| 3 | Moxceen | Otloieua | Et <br> Aiuolo | E't, and <br> Aiuóla, a little |
| 4 | otozno of | Otloiboep | Pi <br> เo <br> Boote | Pi, as Più. forther, beyund <br> Lo , the <br> Boóte, cl.arleswoaine ftarre |

"Oh by choice it is Triangle and a little beyond the Bootes."

Spiral Curve \#6


| No | Hieroglyphs | Transcription | Decoding | Translation using Florio's 1611 Italian Dictionary |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Aelioo in | Votloba | La <br> Boa <br> tu | Li, $t h e$ <br> Boasferpent <br> Tu, thon |
| 2 | © | Otlua | Volta | Volta, turne |


| 3 | Fectheres | Cetta | $\begin{aligned} & \text { calt } \\ & \text { ce } \end{aligned}$ | Cálto, a path C'é, there is |
| :---: | :---: | :---: | :---: | :---: |
| 4 | crotea | Cenea | $\left\lvert\, \begin{array}{\|l\|} \hline \text { Eche } \end{array}\right.$ | $E^{\prime}$, and <br> A ché, to mbat end |
| 5 | dfasusa | Ottaioba | Alito <br> Boa | Bóa ${ }_{2}$ erpent <br> A'lito,breath |
| 6 | secóg | Cepa | Pace | Páce, quietneffe |

"The serpent thou turn a path. There is and to what end serpent breath quietness."


| No | Hieroglyphs | Transcription | Decoding | Translation using Florio's 1611 Italian Dictionary |
| :---: | :---: | :---: | :---: | :---: |
| 1 | D) Pride | Aceio | Cio <br> Ae | Cios, it <br> $A^{\prime} \mathrm{e}$, hath |
| 2 | Fin9 coits, | tleea votlai | Lo <br> Via lattee | Lo , the Vía lattèa,milke moy |


| 3 | Olisect | Otleeop | Ee | E'c, vjed of Dante for $\mathrm{E}^{\prime}$, is |
| :--- | :--- | :--- | :--- | :--- |
|  |  | Pò, as Pói, after |  |  |
| Téllo,the earth |  |  |  |  |

"It hath the milky way is after the Earth."
Spiral Curve \#8


| No | Hieroglyphs | Transcription | Decoding | Translation using Florio's 1611 Italian Dictionary |
| :---: | :---: | :---: | :---: | :---: |
| 1 | retiñec) | Cetleea | E <br> Ce <br> Tale | $E^{3}$, and C'é, there is <br> Tále, refımbling |
| 2 | difsecg | Btleeep |  | E't, both <br> Plabe, the many-beaded-monfter |
| 3 | (arecsite6) | Cutlea | Culate | Culáte, bsttocks |
| 4 | coxip | Leotleocea | Ee ;ocato Le | E'c, ved of Dantefor $E^{\prime}$, is Locáto, flaced <br> Lo , the |
| 5 | cevilt | Saur | Ursa | V'ra, $^{\prime} \mathrm{rf}$, Beatestat |

"And there is resembling both a many headed monster buttocks is placed the orsa, bear star."

## Outer circle

| No | Hierogyphs | Transcriptio | Decodin | Transation using florio's 1611 talian Dictionary |
| :---: | :---: | :---: | :---: | :---: |
| 1 | qoccollalií | voeetacd | Telo <br> Auece <br> da <br> E | Téllo, the earth <br> Auéce, turne <br> Da, about |
| 2 | atleweg | Olcea | celo | A, inthe Celo, as Cillo, Heamen |
| 3 | 8 Sag | ${ }_{\text {вai }}$ | Ab | $\begin{aligned} & \mathbf{A b}, \text { by } \\ & \mathbf{I}, \text { the } \end{aligned}$ |
| 4 | - esforg | Oeta | Telo | Téllo, earth |
| 5 | golloces | Aotlep | Peato | Peláto, pulled |
| 6 | -08 dut | Soiaa | osia | O fia, whither it be A,by |


| 7 | ,thocer | Attoees | Ta <br> Sole <br> Еe | Ta', fuch like <br> Sóle, the Sunne <br> $E^{\prime} c$, $v$ fed of Dante for $E^{\prime}$, is |
| :---: | :---: | :---: | :---: | :---: |
| 8 | gitg | Ala | ${ }_{\text {a }}^{\text {La }}$ | A, for <br> Là, the |
| 9 | 2, 39 | Bas sea | Saba <br> E | Saba, fecret mifteries $\mathrm{E}^{\prime}$, it is |
| 10 | dics 8 ar | Olabar | Abolar | Abboll re, difanull |
| 11 | quticeq | Volea | E <br> ovale | $E^{\prime}, \text { it is }$ <br> Ouále, ouale |
| 12 | elfers | Elea |  | E', and <br> $\mathrm{E}^{\prime}$, it is <br> Là, there |
| 13 | CTEG | cea | ${ }_{\text {A }}$ | A, for C'é, there is |
| 14 | IfeSai | Tlasar | Astral | Aftrále, a planetary |


| ${ }^{15}$ | En | Barce | orbe | O'rbe, worrld <br> Cá, Cáfa, not named and yet ment |
| :---: | :---: | :---: | :---: | :---: |
| ${ }^{16}$ | 84) | ${ }^{\text {Ba }}$ | ${ }^{\text {ab }}$ | Ab, from |
| ${ }^{17}$ | $\operatorname{sicco} 2$ | Does | sed | Scèda, foohlfon $\iint_{i}$ intakng $\mathrm{E}^{\prime}$, $i$ is |
| 18 | $80+10$ | ${ }_{\text {sam }}$ | Amb | A mbc, boti: |
| 19 | Otheongh | Dluad | $\left.\right\|_{\text {Aioloab }}$ | O, as <br> Aiuóla, as $\mathrm{A}^{\prime i a}$ a round circle |
| ${ }^{20}$ | - flanozor | ${ }^{\text {oteass }}$ |  | O,or <br> I, the <br> Sóle, Sunne <br> $\mathrm{O}_{\mathrm{a}}$ as <br> $\mathrm{E}^{\prime}$, $i$ is |
| ${ }^{21}$ | 04 | ${ }^{\circ}$ | - | $\begin{aligned} & \mathbf{O}, \text { as } \\ & \mathbf{I}, \text { the } \end{aligned}$ |

\begin{tabular}{|c|c|c|c|c|}
\hline 22 \&  \& Otloi \& \begin{tabular}{l}
Loti \\
o
\end{tabular} \& Loti, as Tèlo. Téllo, earth,
, OF \\
\hline 23 \& \[
\text { oge } \theta^{3}
\] \& Oisea \& \begin{tabular}{l}
Osia \\
e
\end{tabular} \& fia, whither it be \(E\), it is \\
\hline 24 \&  \& Loi \& \begin{tabular}{l}
Li \\
o
\end{tabular} \& Li, there

, OF <br>

\hline 25 \&  \& Eaeoi \& | 0 |
| :--- |
| e |
| o |
| a |
| i | \& | $E^{3}$, and |
| :--- |
| $\mathrm{O}_{2}$ as |
| $E^{\prime}$, it is |
| $A$, for |
| 1, the | <br>


\hline 26 \&  \& Otleea \& | Telo *** |
| :--- |
| e | \& \[

$$
\begin{aligned}
& \text { Téllo, earth } \\
& \mathrm{E}^{\prime} \text {, it }
\end{aligned}
$$
\] <br>

\hline 27 \&  \& Coetleeua \& | Auece |
| :--- |
| Telo | \& | Auéce,twrne |
| :--- |
| Téllo,the earth | <br>


\hline 28 \&  \& Otlcea \& | Et |
| :--- |
| la |
| co | \& | E't, morcower |
| :--- |
| Là, there |
| Co., with | <br>

\hline
\end{tabular}

| allfusto | Votceeas | $\begin{array}{\|l\|} \hline \text { Telo } \\ \text { Auece } \end{array}$ | Téllo,the earth <br> Auéce, turne |
| :---: | :---: | :---: | :---: |
| ${ }^{30}$ Sctos | ${ }^{\text {soci }}$ | ${ }_{\text {Bico }}$ | Bica, a mafe |
| ${ }^{31}$ Frathe | Eteent | $\begin{array}{\|l\|l\|} \substack{\text { ee } \\ \text { en }} \\ \hline \end{array}$ | E't, moreower <br> Tel, to thee it <br> $E^{\prime} c, ~ v j e d$ of Dante fir $E^{\prime}$, is |
| $32<1$ | ${ }^{59}$ | sa | Sa, hee knoweth, |
|  | ${ }^{\text {obi }}$ | ${ }^{10}$ | $\begin{aligned} & \mathbf{O}_{1} \text { as } \\ & \text { Là, there } \\ & \mathbf{I}, \text { the } \end{aligned}$ |
| ${ }^{34} \text { alfor }$ | Otiea | Telo | Téllo, eateth $\mathbf{A}, \text { for }$ |
| ${ }^{35}$ krel | tes | se | $\begin{aligned} & \text { Sè, if } \\ & \mathrm{E}^{\prime}, i t i s \end{aligned}$ |
|  | ${ }^{\text {coab }}$ | ${ }^{\text {coas }}$ | Colà, there |


| 37 |  | Eeebas | E <br> Sa <br> Be <br> e | $E^{3}$, and <br> Sa, hee knoweth <br> Bè, mell <br> $E$, it is |
| :---: | :---: | :---: | :---: | :---: |
| 38 | ${ }^{41}\left(x s_{y} y+2 \pi\right.$ | Oleebasar | Solare <br> a be | Soláre, belonging to the Sunne $\begin{aligned} & \mathbf{A}_{\mathrm{g}} \text { ( } \\ & \text { Bè, well } \end{aligned}$ |
| 39 | $\cos \operatorname{sicsc}$ | Oetlaeed | E <br> e <br> Da <br> Telo | $E^{3}$, and <br> $E^{\prime}$, it is <br> Da,abont <br> Téllo,the earth |
| 40 | $p i f e x \cdot 8 y+a \delta$ | Oleebasar | Aere** <br> Ab <br> Sole | A'cre,the air Ab, from <br> Sole, the Sunne |
| 41 | $0 \cdot \mathrm{Pincse}$ | Oetlaeed | Ad telo <br> Ee <br> A | Adt, ewent as <br> Téllo, the earth. <br> $E^{\prime} c$, vfed of Dante for $E^{\prime}$, is |


| ${ }^{42}$ STH.08 dos, | Oleoliar |  | $\begin{aligned} & \text { Là, there } \\ & \text { O,or } \\ & \text { I, the } \\ & \text { O'rbe, worrdd } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| ${ }^{43}$ Seck | ${ }^{\text {Eeas }}$ | ${ }_{\text {E }}^{\text {E }}$ | $\mathrm{E}^{3}$, it <br> $E^{\prime} c$, rfed of Dantefir $E^{\prime}$, is <br> A, ar |
| 44 10.2 | Ges |  | $\begin{aligned} & \text { Sa, hee knoweth: } \\ & E^{\prime}, \text { and } \\ & E^{\prime}, \text { it is } \end{aligned}$ |

"The Earth turns about the heaven. By the Earth as pulled whether it be by such like the Sun is for the secret mysteries, It is disannul it is oval and it is there for there is a planetary world not named yet meant from foolishness in taking. It is both as a round circle about a star, or the sun as it is the Earth or whether it be it is there or and it is for the Earth it turns the Earth moreover there with the Earth turn a mass. Moreover, to thee he knoweth as there the Earth for if it is there and he knoweth well it is belonging to the sun as well and it is about the Earth, the air from the Sun, even as the earth is there or the world it is as he knoweth and it is."

## Inner circle

| No | Hieroglyphs | Transcription | Decoding | Translation using Florio's 1611 Italian Dictionary |
| :--- | :--- | :--- | :--- | :--- |
| 1 | Otla | Colta | Cós, atisy |  |


| 2 | ofos | Otoi | o <br> loti | O, as <br> Lotì, as Tèlo, Sunne beames faaking |
| :---: | :---: | :---: | :---: | :---: |
| 3 | -206thy | Cotea | $\begin{array}{\|l\|} \hline \text { E } \\ \text { Locat } \end{array}$ | $E^{\prime}$, and Locato, placed |
| 4 | Athoscong | Atloeeea | $\begin{aligned} & \text { A } \\ & \text { Telo } \\ & \text { e } \\ & \text { Ee } \\ & \text { A } \end{aligned}$ | $\begin{aligned} & \text { A, for } \\ & \text { Téllo, the earth } \\ & E^{\prime}, \text { it } \\ & E^{\prime} c, ~ v f e d ~ o f ~ D a n t e ~ f o r ~ \\ & E^{\prime}, \text { is } \\ & A_{,}, r \end{aligned}$ |
| 5 | 08 | oi | 1 | $\mathrm{I}^{\prime}, \mathrm{I}$ |
| 6 |  | Attoer | Relato | Reláto, reported |
| 7 | Ala.ro? | Olaeros | $\begin{array}{\|l\|} \hline \text { ora } \\ \text { sole } \end{array}$ | $O^{\prime}$ ra, now <br> Solle, the Sunne |
| 8 | $0208$ | osoi | $\left\lvert\, \begin{aligned} & \text { si } \\ & 0 \\ & \hline 0 \\ & 0 \end{aligned}\right.$ | O,or <br> Sì, as socli $\mathbf{O}_{\mathbf{2}} \text { as }$ |
| 9 | - 2ใruce | Ortleea | Rota <br> telo | Roteare, turne roisnd as in s croleel <br> Téllo, the earth |


| ${ }^{10}$ | -stricose | Oituos |  | Tái, fuchloke Aiuóla, as $\mathrm{A}^{\prime} \mathrm{ia}$, round circle about a ftarte |
| :---: | :---: | :---: | :---: | :---: |
| 11 | -fioct | Oilosa | Solo | Sôto, onely <br> Ta', fuch like |

"Gathering in as sun beam shaking and placed the Earth for it is as I reported, now the Sun or as well as turn around as in a wheel the Earth such like, a round circle about a star only such like"

Within the inner circle

| No | Hieroglyphs | Transcription | Decoding | Translation using Florio's 1611 Italian Dictionary |
| :---: | :---: | :---: | :---: | :---: |
| 1 |  | Olaboi | 0 <br> a <br> obli | what $A, t 0$ <br> oblire, forget |
| 2 | $\text { eiseng } 8 \hat{1}$ | Opeeoibp ? | Io <br> o <br> ebe <br> pop | I'o, I <br> O,or <br> E'bbe, le bad <br> Popò, a very very litile |
| 3 | Ssen | Oons | Sono | Sono, I am |
| 4 | $n_{1}^{1-68 \%}$ | Atleoi | Lieto <br> A | Liêto, giad $A, t o$ |


| 5 | Raros | Baoi | Boria | Bóriáre, brag |
| :---: | :---: | :---: | :---: | :---: |
| ${ }^{6}$ | Soka | ${ }_{\text {Baba }}$ | Abba | A'bba, father |
| 7 | 20rany | Soieer | ${ }_{\text {Soare }}^{\mathrm{E}}$ | E', be <br> Soiáre, as Sogliäre, mocke |
| 8 | ches | Eteca | Tace | Le, in's <br> Tacére, to be flent |
| 9 | exclifus | Detelea | $\qquad$ | A,a, <br> I, the <br> Téllo, earth <br> $E^{\prime} c$, $v$ fed of Dante fir $\mathrm{E}^{\prime}$, is |
| 10 | 69 | ${ }^{89}$ | ${ }^{\text {Ab }}$ | Ab,by |
| 11 | $\text { Alog } 2$ | Atooi | $\begin{array}{\|c} \text { Lont } \\ \text { Ai } \\ \text { E } \end{array}$ | Lo ti, as Tè lo, Sunneb bames Saxking <br> A, for <br> $\mathrm{E}^{\prime}$, $i$ is |
| 12 | The utios |  | $\begin{aligned} & \text { che } \\ & \text { ou } \\ & \text { Le } \\ & \text { A } \end{aligned}$ | Chè, then O'ue, where Le, in's A.frcm |


| ${ }^{13}$ | Sas | Bas | sab | Saba, Greek fecret misteries |
| :--- | :--- | :--- | :--- | :--- |

"What to forget I or he had very very little. I am glad to brag, father, he mock. It is to be silent. as the earth is by sunbeam shaking for it is then where it is from the Greek secret mysteries."

## Text above circles

From it you are capable of childish wit. Knoweth there is both take and fairness it is in a lottery and I knoweth it is where he knoweth there is or is glad as they take it where it is thine own logic. As here they take it to both or it is from them a promise and he was and he is now in that place. He is what it he taketh it with between thou art what is now such like from both, as if he is from and as they or else he is ignorant for with it there is from a report he hath from family.

Line 1


| No | Hieroglyphs | Transcription | Decoding | Translation using Florio's 1611 Italian Dictionary |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Hecoda | Lceba | Ab <br> Cel | Ab, from $C c^{2} l, t t$ |
| 2 | costexg | Eupca | Auec <br> Cape | $V, y o s$ <br> Cápe, $s$ capable of |
| 3 | $8 \cdot w+89$ | Bamba | Bamba | Bámba, childifh |
| 4 | $\frac{9}{4} 08$ | Teoi | Iote | Iót, whit |


| 5 | है त- (0) | Scea | Sa <br> Ce | Sa, Hee knoweth C'é, there is |
| :---: | :---: | :---: | :---: | :---: |
| 6 | Trodnuis | Teobam | Et <br> Amb <br> o | E't, morcower A mbc, bot: $g 4 s$ |
| 7 | crotheress | Celteeba | Ce <br> Belta <br> E | C'é, there is <br> Beltà, faireneffe E, it is |
| 8 | $4 \int_{1}^{2}$ | Olteo | Lotto <br> E | Lótto, clance in a lotterie $E^{\prime}$, and |
| 9 | 4004fo?scce | Voolo seeea | Solo <br> Ee <br> Ue <br> 0 <br> a | Sóllo, I know it <br> $E^{\prime} c$, vjed of Dante fur $E^{\prime}$, is <br> V2, whers |

"From it you are capable of childish wit. Knoweth there is both take and fairness it is in a lottery and I knoweth it is where"

Line 2

| No | Hieroglyphs | Transcription | Decoding | Translation using Florio's 1611 Italian Dictionary |
| :--- | :--- | :--- | :--- | :--- |
| 1 | $c, 9$ |  |  |  |
|  |  | Scea | Sa | Sa, Fise finoweth |


| 1b | Hozcor | Tloeeoi | $\begin{array}{\|l\|l} 0 \\ \text { se } \\ \text { rieto } \end{array}$ | O. or <br> $E^{\prime} c$, $v$ fed of Dante for $E^{\prime}$, is <br> Liêto, giad |
| :---: | :---: | :---: | :---: | :---: |
| 2 a | feren | Teea |  | A, ar <br> E', they <br> Tè, take <br> $\mathrm{E}^{\prime}$, it |
| 2 b |  | vela | $\begin{gathered} \text { ve } \\ \text { ta } \end{gathered}$ | $\begin{aligned} & \text { Vथ, where } \\ & \text { L,à, it } \end{aligned}$ |
| 3 | Sreco | Teea | Ee | $\begin{aligned} & \mathrm{E}^{\prime} \mathrm{c} \text {, vfed of Dante for } \mathrm{E}^{\prime} \text {, is } \\ & \mathrm{A}, \text { ar } \\ & \mathrm{Ta}, \text { thine owne } \end{aligned}$ |
| 3b | ding | Olai | Loica | Lóica,as Lógica, Logike |
| 4 | cas | cai | $\begin{aligned} & \mathrm{A} \\ & \mathrm{Ci} \end{aligned}$ | $\begin{aligned} & \text { A,ar } \\ & \text { Ci, here } \end{aligned}$ |


| 4b | $\cos ^{2} \operatorname{ccc} \theta$ | Teeea | E <br> Te <br> E <br> A | $E^{3}$, they <br> Tè,take <br> $E^{3}$, it <br> A, to |
| :---: | :---: | :---: | :---: | :---: |
| 5 | down | Bam | Amb | Ambc, boti: |
| 6 | $\operatorname{cecod}$ | Eeeoba | E <br> Ee <br> ab | O. $\%$ <br> $E^{3}$, it <br> $E^{\prime} c$, vjed of Dante for $E^{\prime}$, is Ab, from |
| 6b |  | Votloi | Li <br> Voto | $\mathbf{L}$, lhem <br> Vóto, apromife |
| 7 | $61002$ | Aeer | E <br> E | $E^{3}$, and <br> E'ra, he was |
| 8 | $\operatorname{ces} p$ | Eeor | Ee <br> Or | $\begin{aligned} & \mathrm{E}^{\prime}, \text { and } \\ & \mathrm{E}^{\prime} \text {, he is } \\ & O r^{\prime}, \text { as O'ra, now } \end{aligned}$ |
| 9 | $c \substack{1 \\ c a}$ | Ceola | Cola <br> e | Colà, ins that place $E^{\prime}$, be is |


| 10 |  | Ola | La <br> 0 | Là, there $y 45$ |
| :---: | :---: | :---: | :---: | :---: |

"He knoweth there is or is glad as they take it where it is thine own logic. As here they take it to both or it is from them a promise and he was and he is now in that place he is there as"

Line 3

| No | Hieroglyphs | Transcription | Decoding | Translation using Florio's 1611 Italian Dictionary |
| :---: | :---: | :---: | :---: | :---: |
| 1 |  | Teo | To E | $\begin{aligned} & \text { To, be taketh } \\ & E^{3}, \text { it } \end{aligned}$ |
| 2 | $5+8,5-9 x$ | Cotlar | Col <br> Tra | Col, with <br> Trà, betweene |
| 3 a | $20$ | Soe | Se <br> 0 <br> E | SE, thou art what |
| 3b | $\cos$ | Eeor | Ee <br> Or | $E^{\prime} c$, voed of Dante for $\mathrm{E}^{\prime}$, is $\mathrm{Or}^{\prime}$, as $\mathrm{O}^{\prime} \mathrm{ra}$, nown |
| 4 | $6 \rightarrow \in \frac{1}{6}$ | Cetla | Ta <br> Cel | $\begin{aligned} & T a^{3}, \text { fuch like } \\ & {C c^{2}}^{2} \text { it from } \end{aligned}$ |
| 5 | $\cos +$ | Bam | Amb | A mbc, bot: |


| 6 | 2n? | Basaed | $\begin{array}{\|l\|} \hline \mathrm{A} \\ \text { sed } \\ \mathrm{E} \\ \mathrm{E} \\ \mathrm{Ab} \end{array}$ | A, ar <br> Séd, if <br> $E^{\prime}$, be is <br> Ab , from |
| :---: | :---: | :---: | :---: | :---: |
| 7 | कीटy | Alea | ${ }_{\mathrm{a}}^{\mathrm{La}}$ | Là, there <br> E', and <br> A, ars |
| 8 | T108 | Loi | $\begin{aligned} & 1 \\ & 0 \end{aligned}$ | $\begin{aligned} & I^{\prime}, \text { they } \\ & \text { ol, orels } \end{aligned}$ |
| 9 | Euifforos | ceeelcoi | $\begin{array}{l\|l\|} \hline \text { El } \\ \text { eco } \end{array}$ | El, as Ei, as Egli è, be is Cièo, ignorant |
| 10 | 2abf | Eap | $\begin{aligned} & \mathrm{Pe} \\ & \mathrm{~A} \end{aligned}$ | Pe', for <br> A, with |

Line 4

| No | Hieroglyphs | Transcription | Decoding | Translation using Florio's 1611 Italian Dictionary |
| :---: | :---: | :---: | :---: | :---: |
| 1 | $86-56 e+5$ | Bceea | E <br> Ce <br> ab <br> Ce | $E^{3}$, it C'E, there is Ab, from |


| 2 | 40 कher | Vochea | $\begin{aligned} & \text { Voce } \\ & \mathrm{Ha} \end{aligned}$ | Vóce, a report Hà, hee hath |
| :---: | :---: | :---: | :---: | :---: |
| 3 | $\operatorname{cog} 89$ | Caba | $\begin{array}{\|l\|} \hline \mathrm{Ab} \\ \mathrm{Ca} \end{array}$ | Ab, from <br> Cá, Cáfa, familie |

"He taketh it with between thou art what is now such like from both, as if he is from and as they or else he is ignorant for with it there is from a report he hath from a (the) family."

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