

Isaac Newton



“Truth Seeker”

Renee Moore

Newton Manuscript — Yahuda Ms. 1.1, The National Library of Israel, Jerusalem, Israel

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(This booklet has been a “labour of love” and is provided **free of charge, for educational and private study** purposes **only**. My grateful thanks go to all my dear family & friends who supported this project with such helpful suggestions and input and so much kind encouragement.)

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Acknowledgments

The majority of the Newton manuscripts shown in this booklet are Yahuda manuscripts, and the owning institution of these manuscripts is the **National Library of Israel, Jerusalem, Israel**. Scanned copies of the original Yahuda manuscripts are available to view on the National Library of Israel website and can be accessed at:

<https://www.nli.org.il/en/discover/humanities/newton-manuscripts>

The William Andrews Clark Memorial Library, UCLA, hold one of the Newton manuscripts shown, entitled “Paradoxical Questions concerning the morals & actions of Athanasius & his followers” and the Library has uploaded a scanned copy of this document to their website, stating that it is in the public domain with no restrictions on use. It is available to view at:

<https://calisphere.org/collections/26887>

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Part 1: Why is Isaac Newton so famous?

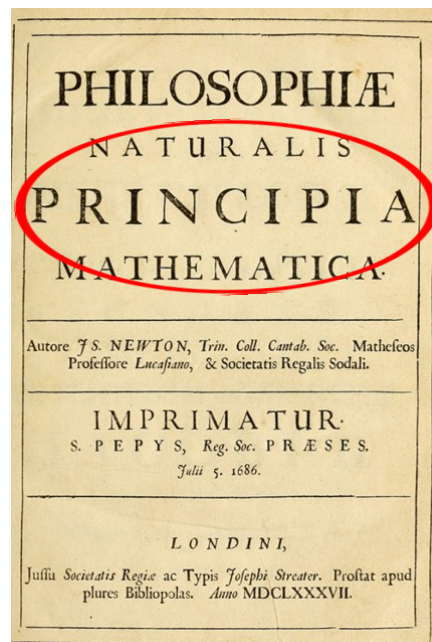
Isaac Newton is famous due to his discoveries in the physical sciences. He is internationally recognized as one of the greatest scientists who ever lived.

In 1687 Newton published the *Principia* which outlined his discoveries relating to the three laws of motion and the law of universal gravitation. (Pask,2019) Three hundred years later, Stephen Hawking described the *Principia* as:

“the most important single work ever published in the physical sciences” (Hawking,1987)



NASA StarChild image of Stephen Hawking



Newton's 3 laws of motion and mathematical discoveries were used by NASA with the Apollo moon landings. (NASA, 2021)

Principia was the name given to British astronaut Tim Peake's six-month mission on the International Space Station, from Dec 2015 to June 2016. (The European Space Agency, 2021)

Newton scholar Bernard Cohen wrote:

“Newton's *Principia* is a book of mathematical principles applied to nature insofar as nature is revealed by experiments and observation. As such, it is a treatise based on evidence. Never before had a treatise on natural philosophy so depended on an examination of numerical predictions and numerical evidence.” (Cohen, 1999)

Nobel laureate Steven Weinberg wrote:

“All that has happened since 1687 is a gloss on the Principia.” (Weinberg, 1987)

Isaac Newton is also famous for inventing the first reflecting telescope.

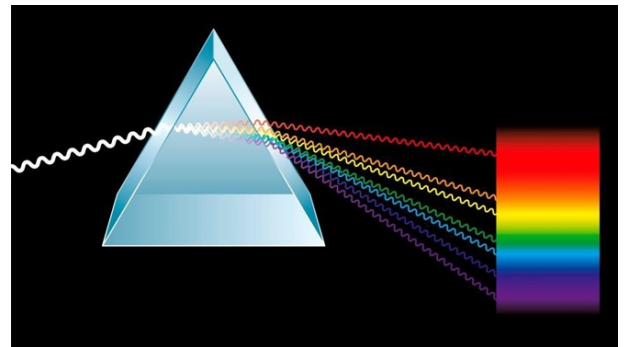
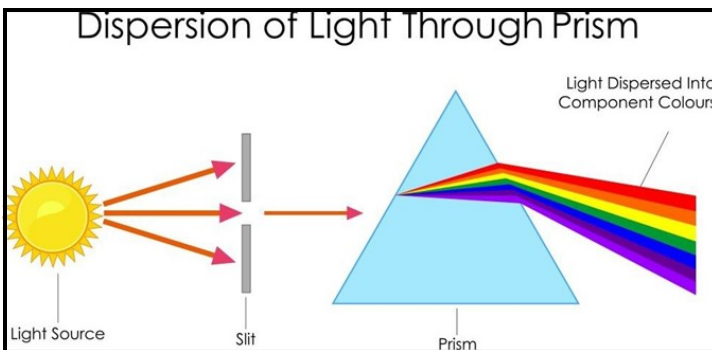
In Newton's time telescopes were often about 40 feet long (12 metres). One famous telescope was 150 feet long! (45 metres). They used glass lenses and were not very clear. So instead of using a glass lens, Newton used a polished *metal mirror*, an alloy of tin and copper. (Rankin, p.97)

Newton's telescope was only 6 inches long (15 cm) but it magnified by 40 diameters. Through his telescope four moons of Jupiter were clearly seen. (Rankin, p.97)

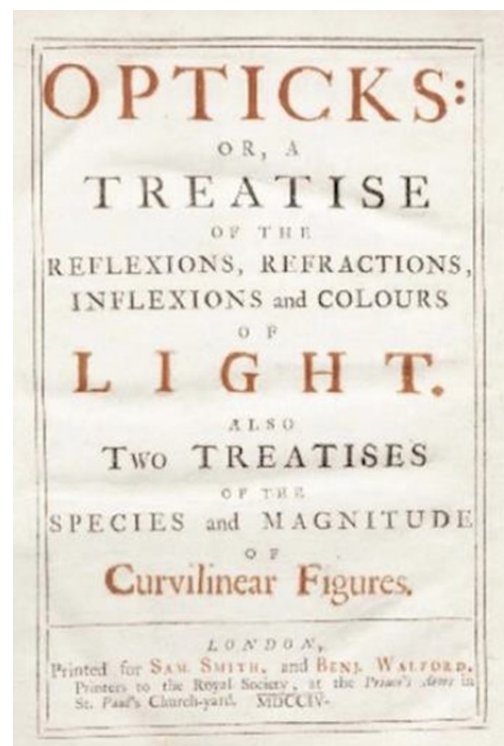
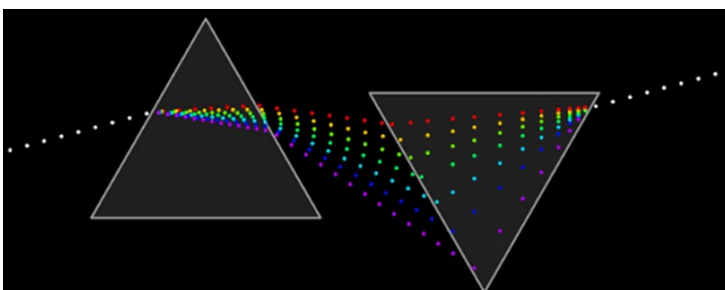
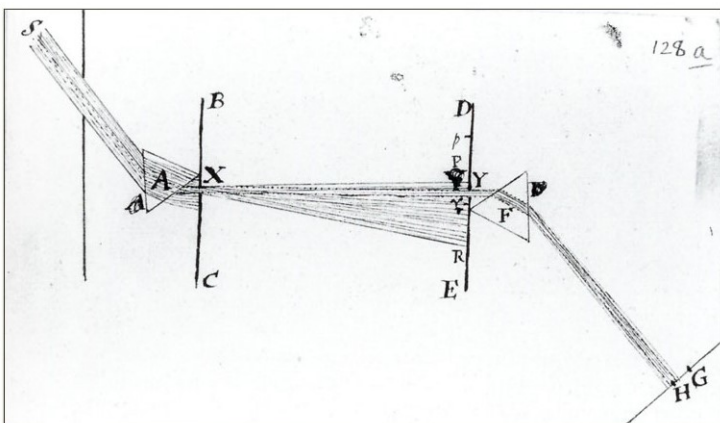


Isaac Newton is also famous for discovering the nature of light & colour.

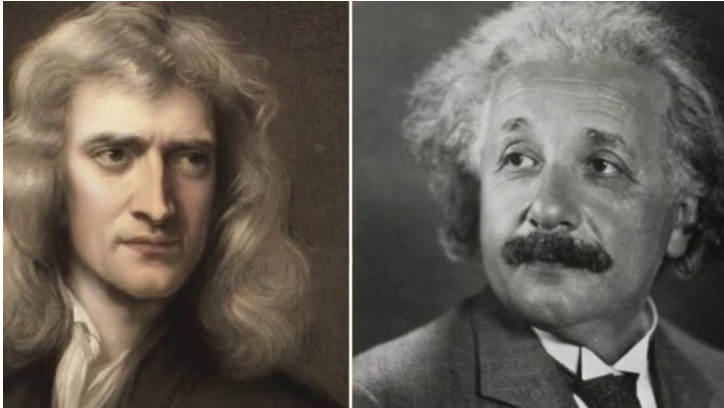
Newton discovered that white light is made up of all the colours that we see.



In his experiment he used two glass prisms. (A copy of his drawing is shown below.) The first prism separates the light into all its colours & the second prism reconstitutes the colours back into white light. He published his findings in his other famous work, *Opticks*, in 1704.



Albert Einstein — on Isaac Newton



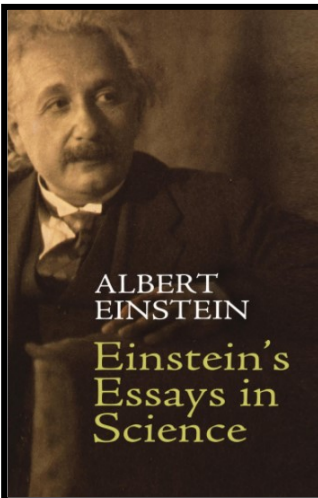
Albert Einstein described Newton as:

“this brilliant genius, who determined the course of western thought, research and practice like no one else before or since.”

(Einstein, 1927)

In 1919 Albert Einstein wrote an article about his Theory of Relativity. The final sentence of the article was:

“No one must think that Newton’s great creation can be overthrown in any real sense by this [Theory of Relativity] or by any other theory. His clear and wide ideas will for ever retain their significance as the foundation on which our modern conceptions of physics have been built.” (Einstein, 1919)



“In order to put his system into mathematical form at all, Newton had to devise the concept of differential quotients and propound the laws of motion in the form of total differential equations—perhaps the greatest advance in thought that a single individual was ever privileged to make.” (1934, p.42)

Albert Einstein, "Clerk Maxwell's Influence on the Evolution of the Idea of Physical Reality" *Essays in Science* (1934)

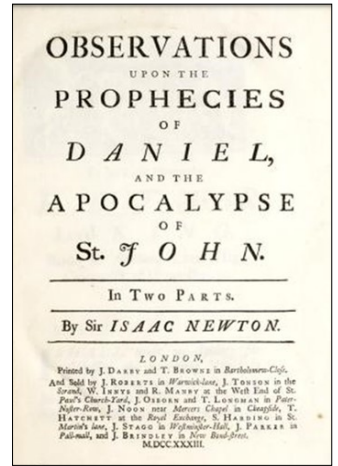
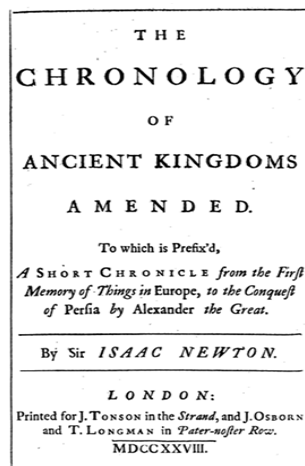
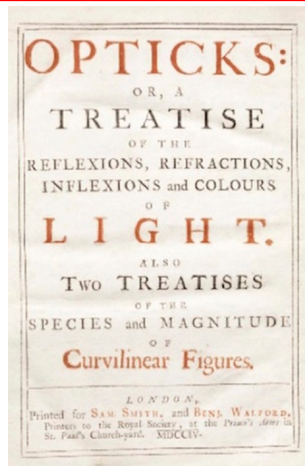
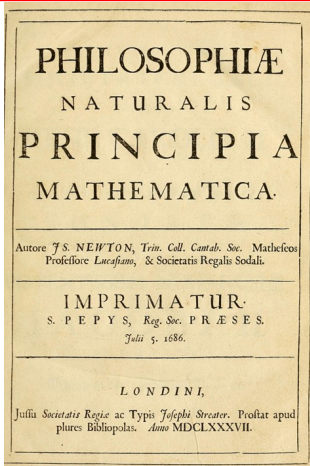
THE
ROYAL
SOCIETY

In 2005 the Royal Society conducted polls of both scientists and the public, asking who they believe had a greater impact on both science and humankind—Isaac Newton or Albert Einstein.

According to the results of both polls, Isaac Newton is considered to have had a greater impact on both science and humankind than Albert Einstein.

When asked who made the bigger overall contribution to science, the public voted 61.8% for Newton and 38.2% for Einstein and scientists voted 86.2% for Newton and 13.8% for Einstein. When asked who made the bigger positive contribution to humankind the public voted extremely closely with 50.1% for Newton & 49.9% for Einstein and the scientists voted 60.9% for Newton and 39.1% for Einstein. (The Royal Society, 2005)

Part 2: Newton's Writings: Transcripts & Original Manuscripts



During his lifetime Newton published 2 major works:

- *Principia* in 1689
- *Opticks* in 1704

After Newton died, he left behind thousands of unpublished papers.

From these papers the executors of Newton's estate published 2 further books:

- The Chronology of Ancient Kingdoms Amended (1728)
- Observations upon the Prophecies of Daniel & the Apocalypse of St John (1733)

Newton's remaining unpublished manuscripts were kept at the Earl of Portsmouth's property, as Newton's great-niece married into the family in 1740.

In 1872 most of Newton's scientific papers were donated to Cambridge University.

In 1936 the unpublished Newton manuscripts were sold at auction. Among the buyers were John Maynard Keynes and Abraham Yahuda.

When Keynes died, he left his papers to the Cambridge University. When Yahuda died, he left his collection of Newton papers to the National Library of Israel, Jerusalem..

The National Library of Israel has uploaded its Newton manuscripts to its website.



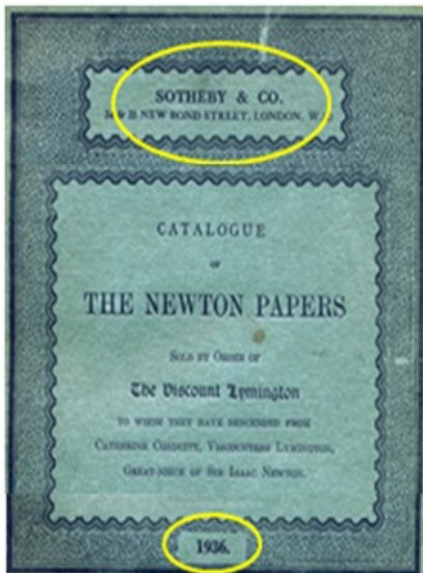
John Maynard Keynes (famous economist) bought 39 lots.

Keynes Manuscripts



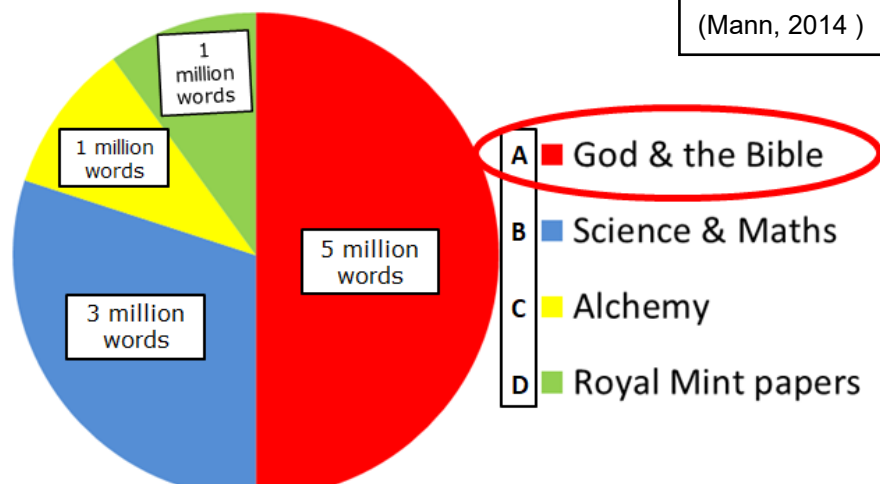
Abraham Yahuda bought 3,400 pages.

Yahuda Manuscripts



It is estimated Newton left approximately **10 million words**.

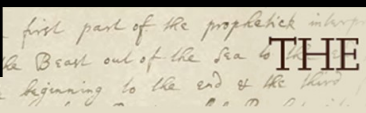
(Mann, 2014)



Part 2: Newton's Writings: Transcripts & Original Manuscripts

1. The Newton Project website publishes **transcripts** of Newton's writings—<https://www.newtonproject.ox.ac.uk>
2. The National Library of Israel website has **original** copies of Newton's manuscripts—**the Yahuda papers**.
3. The University of Cambridge Digital Library has **original** copies of scientific papers and the Keynes manuscripts.
4. The William Andrews Clark Memorial Library, UCLA, has the **"Paradoxical Questions"** manuscript.

1



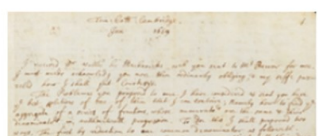



THE NEWTON PROJECT

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Welcome to the Newton Project

The Newton Project is a non-profit organization dedicated to publishing in full an online edition of all of Sir Isaac Newton's (1642–1727) writings — whether they were printed or not. The edition presents a full (diplomatic) rendition featuring all the amendments Newton made to his own texts or a more readable (normalised) version. We also make available [translations](#) of his most important Latin religious texts.

Although Newton is best known for his theory of universal gravitation and discovery of calculus, his interests were much broader than is usually appreciated. In addition to his celebrated [scientific](#) and [mathematical writings](#), Newton also wrote many [alchemical](#) and [religious texts](#) and he left many [administrative papers](#) in his role as Warden and then Master of the Mint.



2




Newton Manuscripts

The Newton Manuscripts at the National Library

Among the many manuscripts preserved at the National Library there are works by the man considered to be the greatest physicist of all time, Sir Isaac Newton. Contrary to what one might expect to find amid Newton's works, these papers cover topics such as interpretations of the Bible, theology, the history of ancient cultures, the Tabernacle and Temple, calculations dealing with the end of time.

<https://www.nli.org.il/en/discover/humanities/newton-manuscripts>

3




Cambridge Digital Library

Newton Papers


“Plato is my friend,
Aristotle is my friend,
but my greatest friend is truth.”

— Sir Isaac Newton
(MS Add.3996, 88r)
Trinity College, Cambridge.



Early Papers (MS Add. 3958)

Ms. Add. 3958 is a gathering of notes and short essays that Newton composed from the mid 1660s until the early 1670s. These ... more



4



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Part 3: Why can Newton be described as a “truth seeker”?



Plato is my friend, Aristotle is my friend, but my greatest friend is **truth**.

~ Isaac Newton

Ms Add. 3996, 88r, Trinity College, Cambridge.



Truth is ever to be found in simplicity, and not in the multiplicity and confusion of things.

(Isaac Newton)

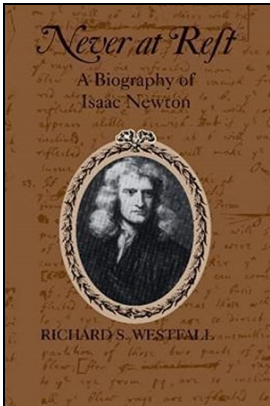
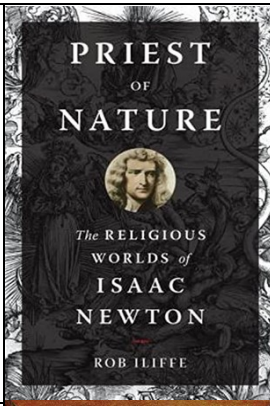
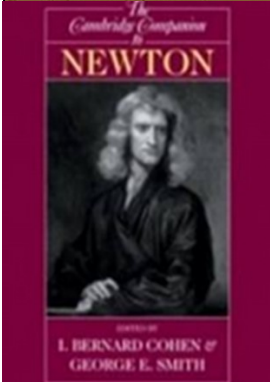
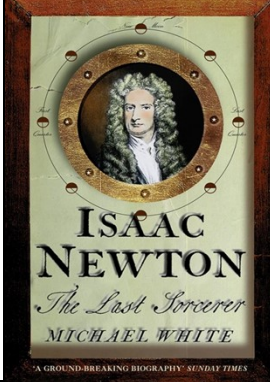
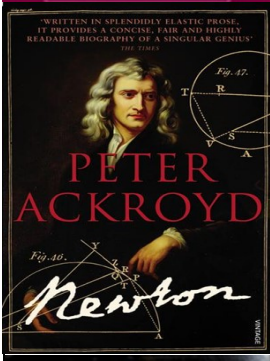
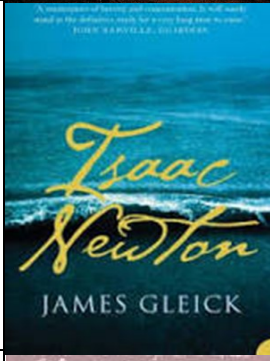
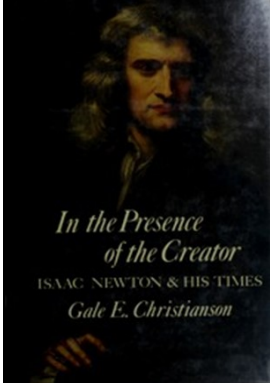
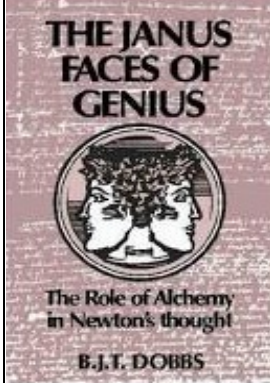
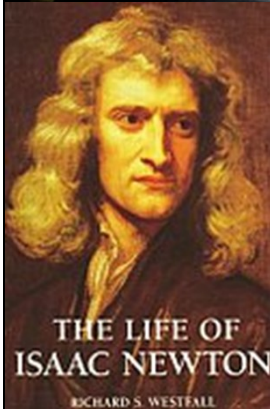
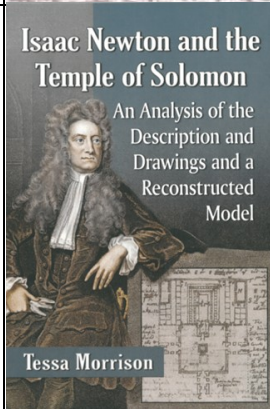
Yahuda Ms 1.1, folio 14r, The National Library of Israel, Jerusalem.



I do not know what I may appear to the world, but to myself I seem to have been only like a boy playing on the sea-shore, and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of **truth** lay all undiscovered before me.

Brewster, D. (1855). *Memoirs of the Life, Writings, and Discoveries of Sir Isaac Newton*, vol. II, Ch. 27.

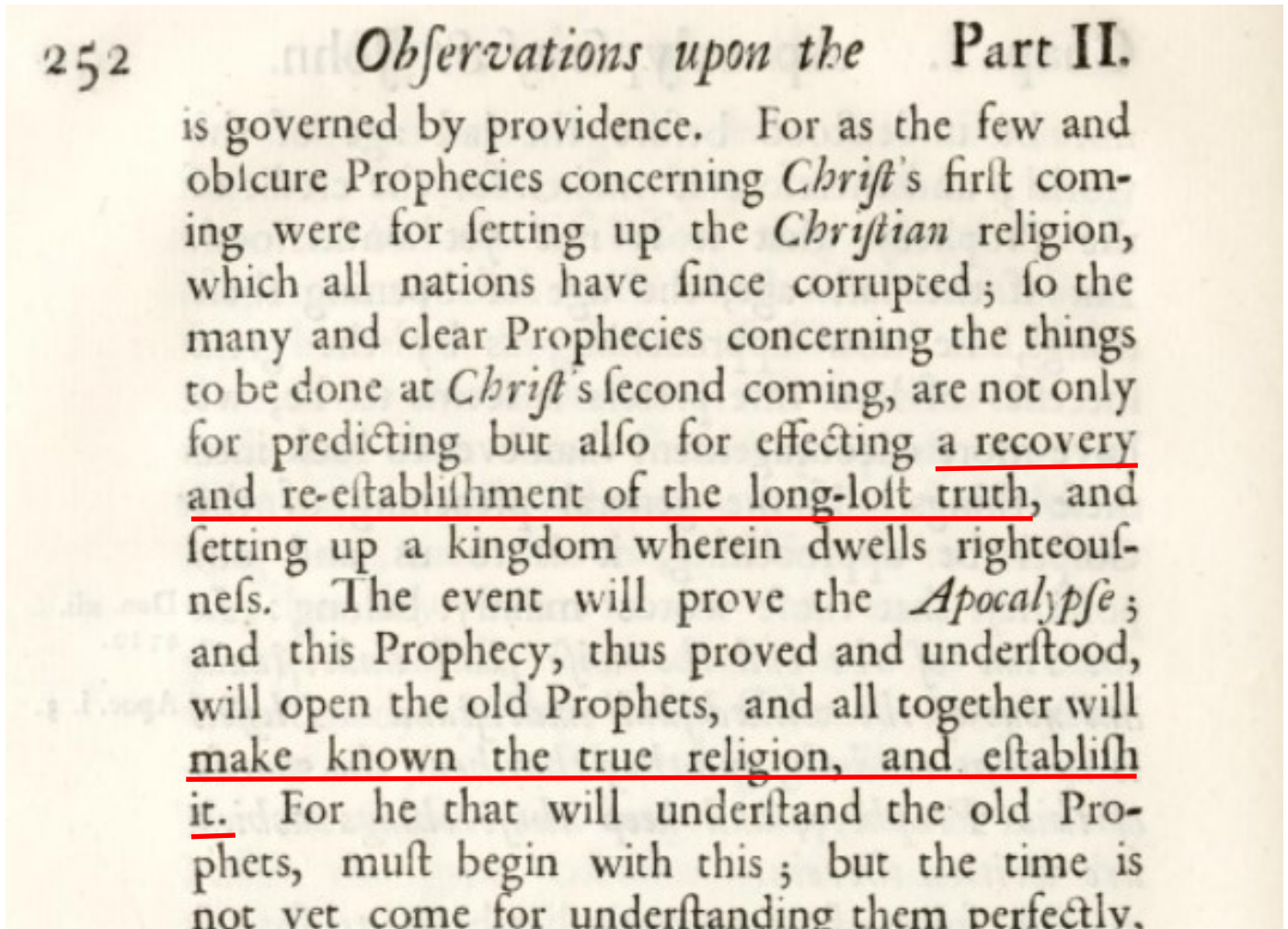
Biographers' comments about Newton's "search for truth"

	<p>"The pursuit of truth expressed the essence of his life."</p> <p>Richard Westfall, <i>Never At Rest, A Biography of Isaac Newton</i>, p. 301.</p>		<p>"An earnest seeker of truth" ... "whose calling was to use his intelligence to discern the truth in whatever field he studied."</p> <p>Rob Iliffe, <i>Priest of Nature, The Religious Worlds of Isaac Newton</i>, pp. 233 & 23</p>
	<p>"Newton never abandoned his search for a method by which truth could be established, no matter what the field of knowledge."</p> <p>The Cambridge Companion to Newton, p. 390</p>		<p>"Money was not as important to him as the unearthing of universal truth."</p> <p>Michael White, <i>Isaac Newton, The Last Sorcerer</i>, p. 122</p>
	<p>"He was in search of eternal truth."</p> <p>Peter Ackroyd, <i>Newton</i>, p. 52</p>		<p>"He was questing for ancient truths."</p> <p>James Gleick, <i>Isaac Newton</i>, p. 113</p>
	<p>"his search for universal truth."</p> <p>Gale Christianson, <i>In the Presence of the Creator, Isaac Newton & His Times</i>, p. 256</p>		<p>Newton's "goal was considerably more ambitious than a knowledge of nature. His goal was Truth, and for that he utilized every possible resource."</p> <p>B.J.T. Dobbs, <i>The Janus Faces of Genius</i>, p. 7.</p>
	<p>"It was never money that kept him from his meals and drove him to distraction. It was truth and truth alone held that power over him."</p> <p>Richard Westfall, <i>The Life of Isaac Newton</i>, p.199</p>		<p>"Above all, and throughout his life Newton searched for the truth, and for Newton that truth began and ended with God."</p> <p>Tessa Morrison, <i>Isaac Newton and the Temple of Solomon</i>, p. 101</p>

Part 3: Why can Newton be described as a “truth seeker”?

In his work, *Observations upon the Prophecies of Daniel and the Apocalypse of St John*, (p.252, shown below) Newton wrote that he believed at a future time there would be:

“a recovery and re-establishment of the long-lost truth” and this recovery would “make known the true religion and establish it.”



Transcription of p. 252 of *Observations* (with modern spelling):

“... is governed by providence. For as the few and obscure Prophecies concerning Christ’s first coming were for setting up the Christian religion, which all nations have since corrupted, so the many and clear Prophecies concerning the things to be done at Christ’s second coming, are not only for predicting but also for effecting a recovery and re-establishment of the long-lost truth, and setting up a kingdom wherein dwells righteousness. The event will prove the Apocalypse; and this Prophecy, thus proved and understood, will open the old Prophets, and all together will make known the true religion, and establish it. For he that will understand the old Prophets, must begin with this; but the time is not yet come for understanding them perfectly.”

1. What did Newton write about— *a Creator?*

Summary: Newton believed in a Creator.

In 1713 Newton wrote an essay to be appended to the *Principia*. The essay was called the “General Scholium.” In this essay he described “the Supreme God” as a “Being, eternal, infinite, absolutely perfect” and as “an intelligent and powerful being.”

“This most beautiful System of the Sun, Planets and Comets, could only proceed from the counsel and dominion of an intelligent and powerful being. And if the fixed Stars are the centers of other like systems, these being form'd by the like wise counsel, must be all subject to the dominion of One; especially, since the light of the fixed Stars is of the same nature with the light of the Sun, and from every system light passes into all the other systems. And lest the systems of the fixed Stars should, by their gravity, fall on each other mutually, he hath placed those Systems at immense distances one from another.”

“This Being governs all things, not as the soul of the world, but as Lord over all: And on account of his dominion he is wont to be called *Lord God* παντοκράτωρ or **Universal Ruler.**”

“The supreme God is a Being eternal, infinite, absolutely perfect; but a being, however perfect, without dominion, cannot be said to be Lord God; for we say, my God, your God, the God of *Israel*, the God of Gods, and Lord of Lords; but we do not say, my Eternal, your Eternal, the Eternal of *Israel*, the Eternal of Gods; we do not say, my Infinite, or my Perfect: These are titles which have no respect to servants.

The word God usually signifies *Lord*; but every lord is not a God. It is the dominion of a spiritual being which constitutes a God; a true, supreme or imaginary dominion makes a true, supreme or imaginary God. And from his true dominion it follows, that **the true God is a Living, Intelligent and Powerful Being; and from his other perfections, that he is Supreme or most Perfect.** “

(emphasis added)

On the following pages are copies of the original published pages of the 'General Scholium' from *The Mathematical Principles of Natural Philosophy*, vol. 2, published in London in 1729.



388 *Mathematical Principles* Book III.

Bodies, projected in our air, suffer no resistance but from the air. Withdraw the air, as is done in Mr. Boyle's vacuum, and the resistance ceases. For in this void a bit of fine down and a piece of solid gold descend with equal velocity. And the parity of reason must take place in the celestial spaces above the Earth's atmosphere; in which spaces, where there is no air to resist their motions, all bodies will move with the greatest freedom; and the Planets and Comets will constantly pursue their revolutions in orbits given in kind and position, according to the laws above explain'd. But though these bodies may indeed persevere in their orbits by the mere laws of gravity, yet they could by no means have at first deriv'd the regular position of the orbits themselves from those laws.

The six primary Planets are revolv'd about the Sun, in circles concentric with the Sun, and with motions directed towards the same parts and almost in the same plane. Ten Moons are revolv'd about the Earth, Jupiter and Saturn, in circles concentric with them, with the same direction of motion, and nearly in the planes of the orbits of those Planets. But it is not to be conceived that mere mechanical causes could give birth to so many regular motions: since the Comets range over all parts of the heavens, in very eccentric orbits. For by that kind of motion they pass easily through the orbs of the Planets, and with great rapidity; and in their aphelions, where they move the slowest, and are detain'd the longest, they recede to the greatest distances from each other, and thence suffer the least disturbance from their mutual attractions. This most beautiful System of the Sun, Planets and Comets, could only proceed from the counsel and dominion of an intelligent and powerful being. And if the fixed Stars are the centers of other like Systems, these being form'd by the like wise counsel, must be all subject to the dominion of

of One; especially, since the light of the fixed Stars is of the same nature with the light of the Sun, and from every system light passes into all the other systems. And lest the systems of the fixed Stars should, by their gravity, fall on each other mutually, he hath placed those Systems at immense distances one from another.

This Being governs all things, not as the soul of the world, but as Lord over all: And on account of his dominion he is wont to be called *Lord God παντοκράτωρ*, or *Universal Ruler*. For *God* is a relative word, and has a respect to servants; and *Deity* is the dominion of God, not over his own body, as those imagine who fancy God to be the soul of the world, but over servants.

The supreme God is a Being eternal, infinite, absolutely perfect; but a being, however perfect, without dominion, cannot be said to be Lord God; for we say, my God, your God, the God of *Israel*, the God of Gods, and Lord of Lords; but we do not say, my Eternal, your Eternal, the Eternal of *Israel*, the Eternal of Gods; we do not say, my Infinite, or my Perfect: These are titles which have no respect to servants. The word *God* usually * signifies *Lord*; but every lord is not a God. It is the dominion of a spiritual being which constitutes a God; a true, supreme or imaginary dominion makes a true, supreme or imaginary God. And from his true dominion it follows, that the true God is a Living, Intelligent and Powerful Being; and from his other perfections, that he is Supreme or most Perfect. He is Eternal and Infinite, Omnipotent and Omniscient; that is, his duration reaches from Eternity to Eternity; his

* Dr. *Pacock* derives the Latin word *Deus* from the *Arabic di*, (in the oblique case *di*,) which signifies *Lord*. And in this sense Princes are called *Gods*, *Psal.* lxxii. ver. 6. and *Jobs* x. ver. 35. And *Moses* is called a *God* to his brother *Aaron*, and a *God* to *Pharaoh* (*Exod.* iv. ver. 16. and vii. ver. 8. And in the same sense the souls of dead Princes were formerly, by the Heathens, called *gods*, but falsely, because of their want of dominion.

1. What did Newton write about— **a Creator?**

Summary:

Newton describes atheism as: “senseless & odious”. He attributes the uniformity in animal shapes as due to the “counsel & contrivance of an Author.”

Newton refers to the existence of the refraction of light and the way in which the eyes make use of light as demonstrating that this could not be due to blind chance.

Keynes Ms. 7 “A Short Scheme of the True Religion”

Of Atheism

Atheism is so senseless & odious to mankind that it never had many professors. Can it be by accident that all birds beasts & men have their right side & left side alike shaped (except in their bowels) & just two eyes & no more on either side the face & just two ears on either side the head & a nose with two holes & no more between the eyes & one mouth under the nose & either two fore legs or two wings or two arms on the shoulders & two legs on the hips one on either side & no more? Whence arises this uniformity in all their outward shapes but from the counsel & contrivance of an Author?

Whence is it that the eyes of all sorts of living creatures are transparent to the very bottom & the only transparent members in the body, having on the outside an hard transparent skin, & within transparent juices with a crystalline Lens in the middle & a pupil before the Lens all of them so truly shaped & fitted for vision, that no Artist can mend them?

Did blind chance know that there was light & what was its refraction & fit the eyes of all creatures after the most curious manner to make use of it?

These & such like considerations always have & ever will prevail with mankind to believe that there is a being who made all things & has all things in his power & who is therefore to be feared.

(The original handwritten manuscript is held by Cambridge University Library)



1. What did Newton write about — *a Creator?*

Summary:

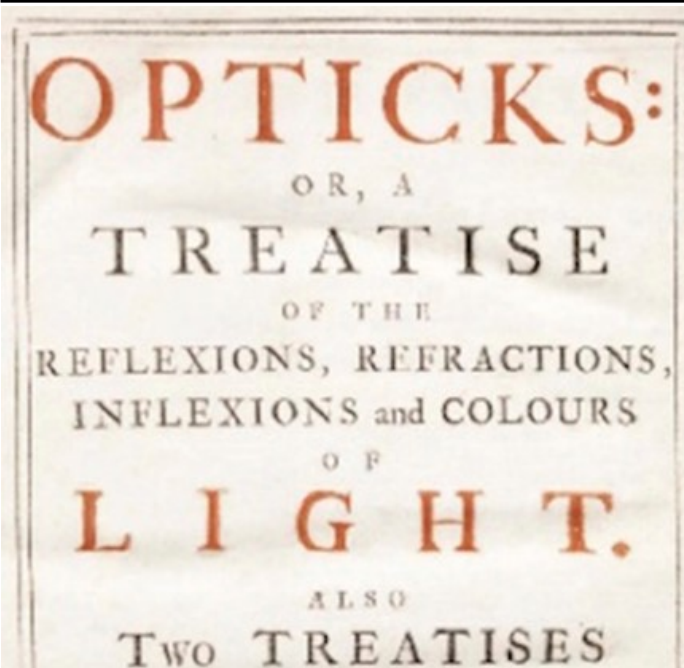
At the end of his work *Opticks* (1704) Newton concludes by asking a series of questions relating to the beauty, art and design in nature and the existence of: “a Being ... living intelligent” who made all things.

Whence is it that Nature doth nothing in vain & whence arises all that beauty that we see in the world?

How come the bodies of animals to be contrived with so much art, & for what ends were their several parts? Was the eye contrived without skill in *Opticks* or the ear without the knowledge of sounds? How do the motions of the body follow from the will, and whence is the instinct in animals?

Does it not appear from phenomena that there is a Being incorporeal living intelligent, omnipresent, who in infinite space, as it were in his sensory, sees the things themselves intimately & thoroughly perceives them and comprehends them wholly by their immediate presence to himself ... And tho' every true step made in this Philosophy brings us not immediately to the knowledge of the first cause, yet it brings us nearer to it, & on that account is to be highly valued.

The original handwritten copy of Newton's *Opticks* can be accessed at the [Cambridge Digital Library website](#).



2. What did Newton write about — *the Bible?*

Summary:

Newton wrote: “search the scriptures ... to find the truth.” He stated that a person who found the truth of the scriptures would value this truth “above all other treasures in the world” and that it would give “steady satisfaction to thy mind.”

Yahuda Ms 1.1, folio 1r and 2r,
The National Library of Israel, Jerusalem, Israel

מאוסף הספרייה הלאומית

none of y^e wicked
Let me therefore beg of thee not to trust to y^e opinion
of any man concerning these things, for so it is great odds but
thou shalt be deceived. Much less oughtest thou to ~~trust~~ rely upon

the judgment of y^e multitude, for so thou shalt certainly
be deceived. But search the scriptures thy self & that by fre-
quent reading & constant meditation upon what thou readest &
earnest prayer to God to enlighten thine understanding if thou
desirest to find the truth. Which if thou shalt at length attain
thou wilt value above all other treasures in y^e world by reason
of y^e assurance & vigour it will add to thy faith, & steady
satisfaction to thy mind which he only ^{can} know how to estimate who
shall experience it

Transcription of Yahuda Ms 1.1, 1r & 2r:

“Let me therefore beg of thee not to trust to the opinion of any man concerning these things, for so it is great odds but thou shalt be deceived. Much less oughtest thou to rely upon the judgment of the multitude, for so thou shalt certainly be deceived. But search the scriptures thy self and that by frequent reading & constant meditation upon what thou readest & earnest prayer to God to enlighten thine understanding if thou desirest to find the truth. Which if thou shalt at length attain thou wilt value above all other treasures in the world by reason of the assurance & vigour it will add to thy faith and steady satisfaction to thy mind, which he only can know how to estimate who shall experience it.”



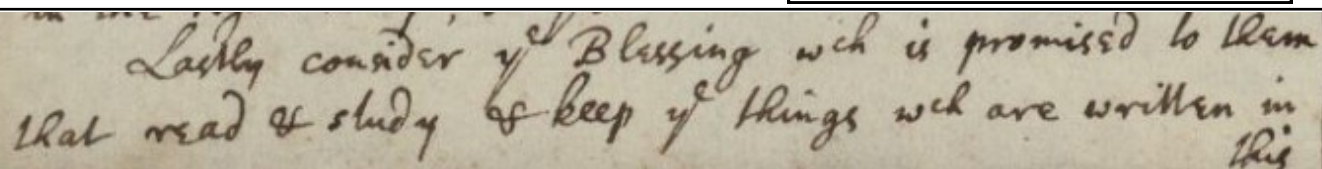
2. What did Newton write about — *the Bible*?

Summary:

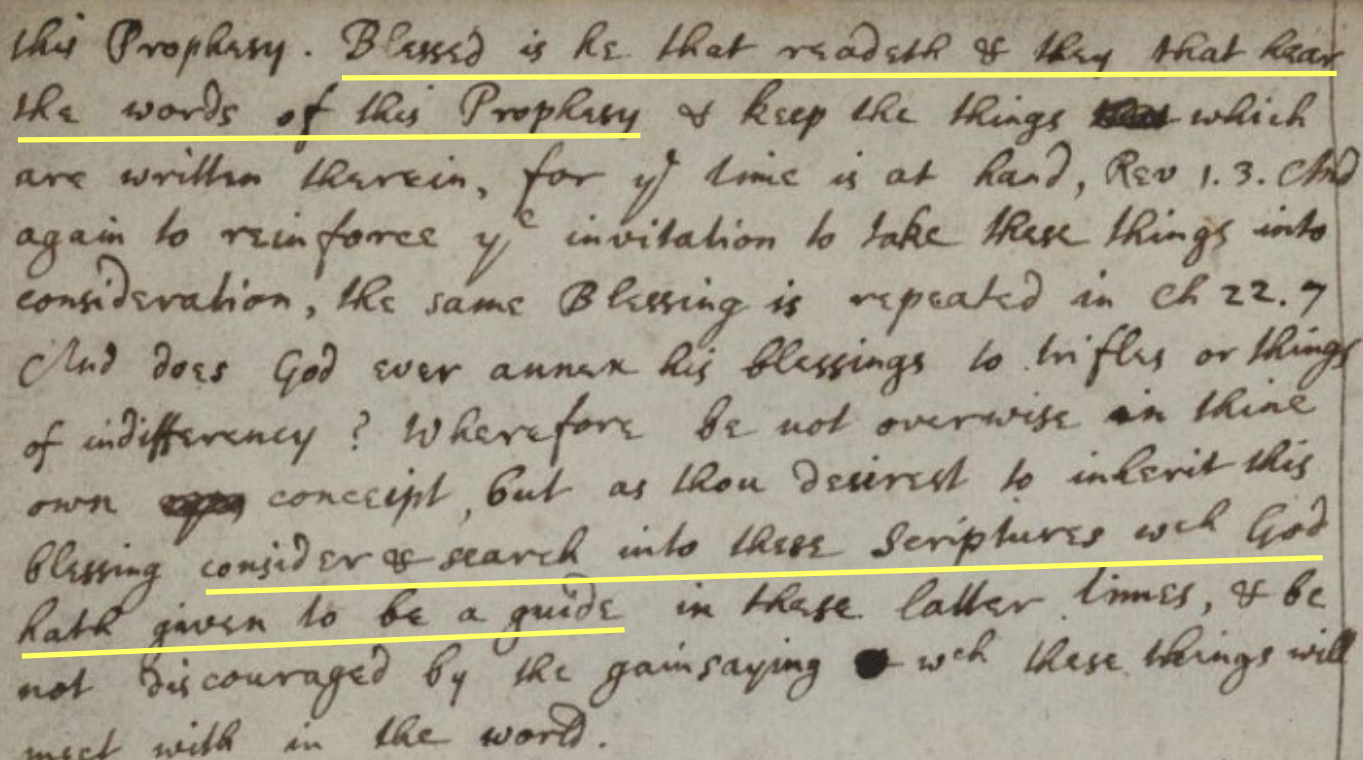
Newton wrote that those who “read & study” the scriptures will receive many “blessings”.

Yahuda Ms 1.1 (folio 4r & 5r)

מאוסף הספרייה הלאומית



Lastly consider y^e Blessing wch is promised to them
that read & study & keep y^e things wch are written in
this



this Prophecy. Blessed is he that readeth & they that hear
the words of this Prophecy & keep the things ~~that~~ which
are written therein, for y^e time is at hand, Rev 1.3. And
again to reinforce y^e invitation to take these things into
consideration, the same Blessing is repeated in ch 22.7
And does God ever annex his blessings to trifles or things
of indifferency? Wherefore be not overwise in thine
own ~~own~~ conceit, but as thou desirest to inherit this
Blessing consider & search into these Scriptures wch God
hath given to be a guide in these latter times, & be
not discouraged by the gainsaying • wch these things will
meet with in the world.

Transcript of Yahuda Ms 1.1 (folio 4r & 5r):

“Lastly consider the Blessing which is promised to them that read & study & keep the things which are written in this Prophecy. Blessed is he that readeth & they that hear the words of this Prophecy & keep the things which are written therein, for the time is at hand, Rev. 1.3. And again to reinforce the invitation to take these things into consideration, the same Blessing is repeated in Ch 22.7 And does God ever annex his blessings to trifles or things of indifferency? Wherefore be not overwise in thine own conceit, but as thou desirest to inherit this blessing consider & search into these Scriptures which God hath given to be a guide in these latter times, & be not discouraged by the gainsaying which these things will meet with in the world.”



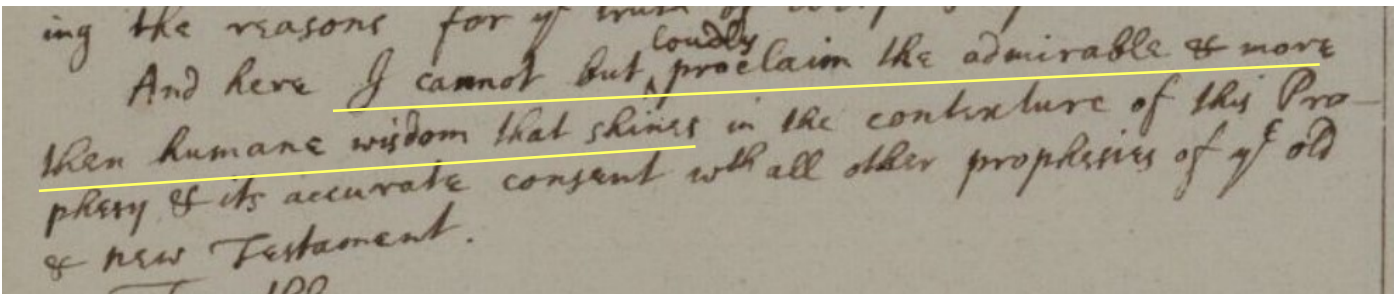
2. What did Newton write about — *the Bible*?

Summary:

Newton states he wants to “loudly proclaim the admirable & more than human wisdom that shines” in the prophecy of Revelation.

Yahuda Ms 1.1, folio 10r

מאוסף הספרייה הלאומית



ing the reasons for of wisdom of
And here I cannot but ^{loudly} proclaim the admirable & more
than humane wisdom that shines in the contexture of this Pro-
phesy & its accurate consent with all other prophecies of of old
& new Testament.

Transcription of Yahuda Ms. 1.1, folio 10r:

“And here I cannot but loudly proclaim the admirable & more than human wisdom that shines in the contexture of this Prophecy & its accurate consent with all other prophecies of the old & new Testament.”



Historians have commented on Newton’s knowledge of the Bible:

“He knew extended passages by heart and had memorized a vast number of texts” (Ilfie, 2016, p.505)

“He achieved a mastery of the Bible equaled by few theologians, enabling him to string out citations like a concordance.” (Christianson, p.250)

“To Newton’s mind the Bible was essential; he had studied it solemnly from his undergraduate days at least, and ... knew it as few men before or since.” (Hall, p.371)

Further comments on Newton's knowledge of the Bible

In a letter to his second cousin, the famous philosopher John Locke wrote:

“Mr. Newton is really a very valuable man, not only for his wonderful skill in Mathematics, but in divinity too, and his great knowledge of the Scriptures, wherein I know few his equals.”



John Locke



Dr. William Stukeley, a friend & biographer of Newton, wrote:

“No man in England read the Bible more carefully than he did; none study'd it more, as appears by his printed works, by many pieces he left which are not printed; & even by the Bible which he commonly used, thumb'd over, as they call it, in an extraordinary degree, with frequency of use.” (p. 70)

In 1700 Newton was offered the mastership of Trinity if he would take “holy orders.” The Archbishop of Canterbury asked Newton why he would not take a position in the church, stating: “You know more divinity than all of us put together.” (Keynes Ms.130.07,1v)

Newton had a collection of over 30 Bibles in his personal library. (Harrison, 1978)

In 1940 Albert Einstein wrote a letter to his friend, Abraham Yahuda:

“My Dear Yahuda

Newton's writings on biblical subjects seem to me especially interesting because they provide deep insight into the characteristic intellectual features and working methods of this important man. The divine origin of the Bible is for Newton absolutely certain, a conviction that stands in curious contrast to the critical skepticism that characterizes his attitude toward the churches.”



(Original letter in Albert Einstein Archives, the Hebrew University)

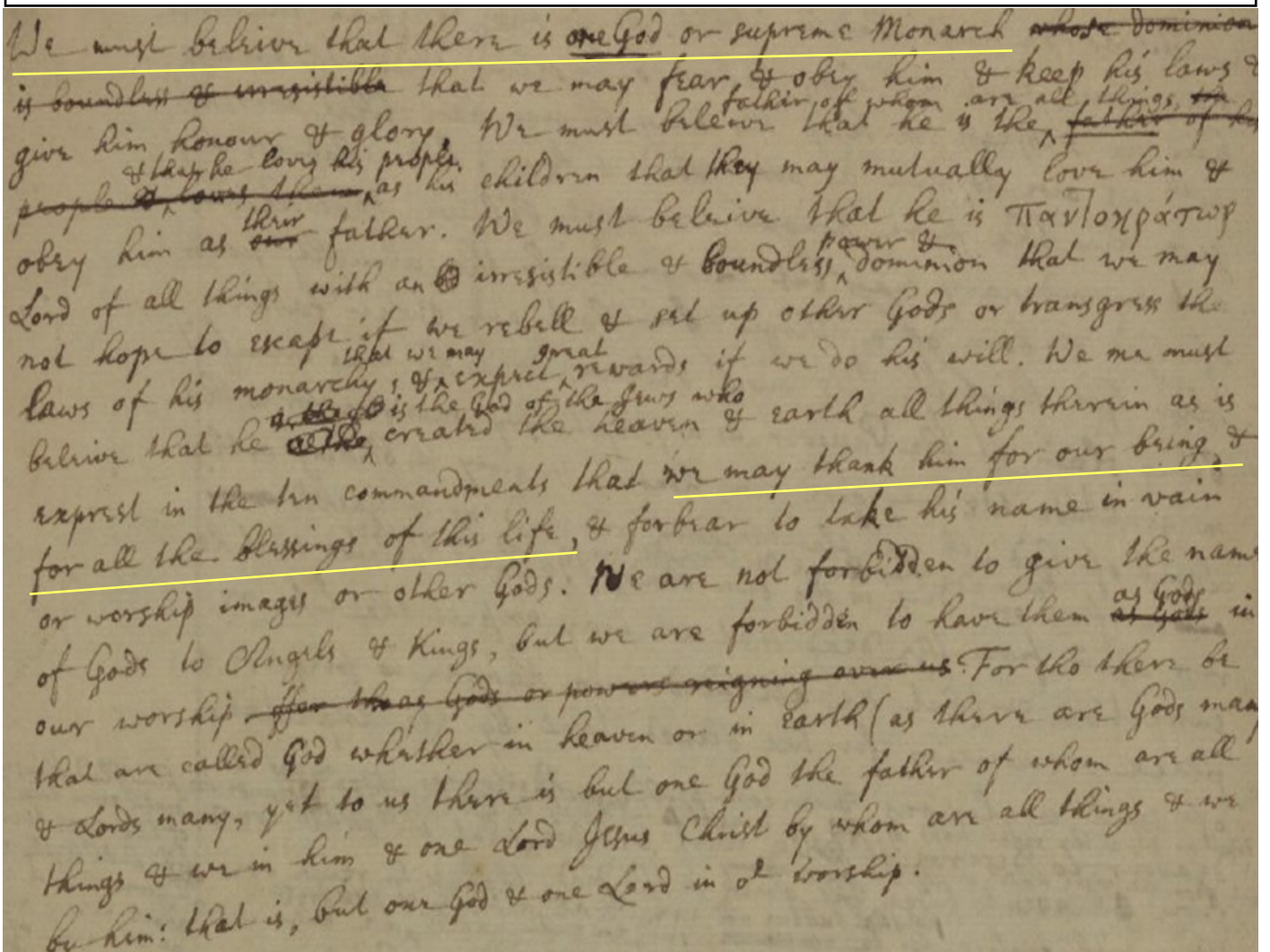
(3) What did Newton write about — God?

Summary:

Newton wrote that “we must believe that there is one God or supreme Monarch ... that he is the father ... & that he loves his people as his children that they may mutually love him & obey him as their father.... We may expect great rewards if we do his will. We must believe that he is the God of the Jews ...”

Yahuda Ms. 15.3, folio 45r,
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית



We must believe that there is one God or supreme Monarch ~~whose dominion~~
~~is boundless & irresistible~~ that we may fear & obey him & keep his laws &
give him honour & glory. We must believe that he is the ^{father of whom are all things,} ~~father~~ of the
people ^{& that he loves his people,} ~~of the Jews~~ as his children that they may mutually love him &
obey him as ~~our~~ ^{their} father. We must believe that he is ΠΑΝΤΟΚΡΑΤΩΡ
Lord of all things with an ~~irresistible & boundless~~ ^{power &} dominion that we may
not hope to escape if we rebel & set up other Gods or transgress the
laws of his monarchy; ^{that we may expect great} ~~we may expect great~~ rewards if we do his will. We must
believe that he ~~is the God of the Jews who~~ ^{is the God of the Jews who} created the heaven & earth all things therein as is
expressed in the ten commandments that we may thank him for our being &
for all the blessings of this life, & forbear to take his name in vain
or worship images or other Gods. We are not forbidden to give the name
of Gods to Angels & Kings, but we are forbidden to have them ^{as Gods} ~~at home~~ in
our worship ~~for these Gods or powers reigning over us.~~ For tho there be
that are called God whether in heaven or in earth (as there are Gods many
& Lords many, yet to us there is but one God the father of whom are all
things & we in him & one Lord Jesus Christ by whom are all things & we
live by him: that is, but our God & one Lord in our worship.

Transcript of Yahuda 15.3, folio 45r:

“We must believe that there is one God or supreme Monarch that we may fear and obey him and keep his laws and give him honour and glory. We must believe that he is the father of whom are all things, and that he loves his people as his children that they may mutually love him and obey him as their father. We must believe that he is PANTOCRATOR Lord of all things with an irresistible and boundless power and dominion, that we may not hope to escape if we rebel & set up other Gods or transgress the laws of his monarchy, that we may expect great rewards if we do his will. We must believe that he is the God of the Jews who created the heaven and earth all things therein as is expressed in the ten commandments, that we may thank him for our being & for all the blessings of this life, & forbear to take his name in vain or worship images or other Gods.

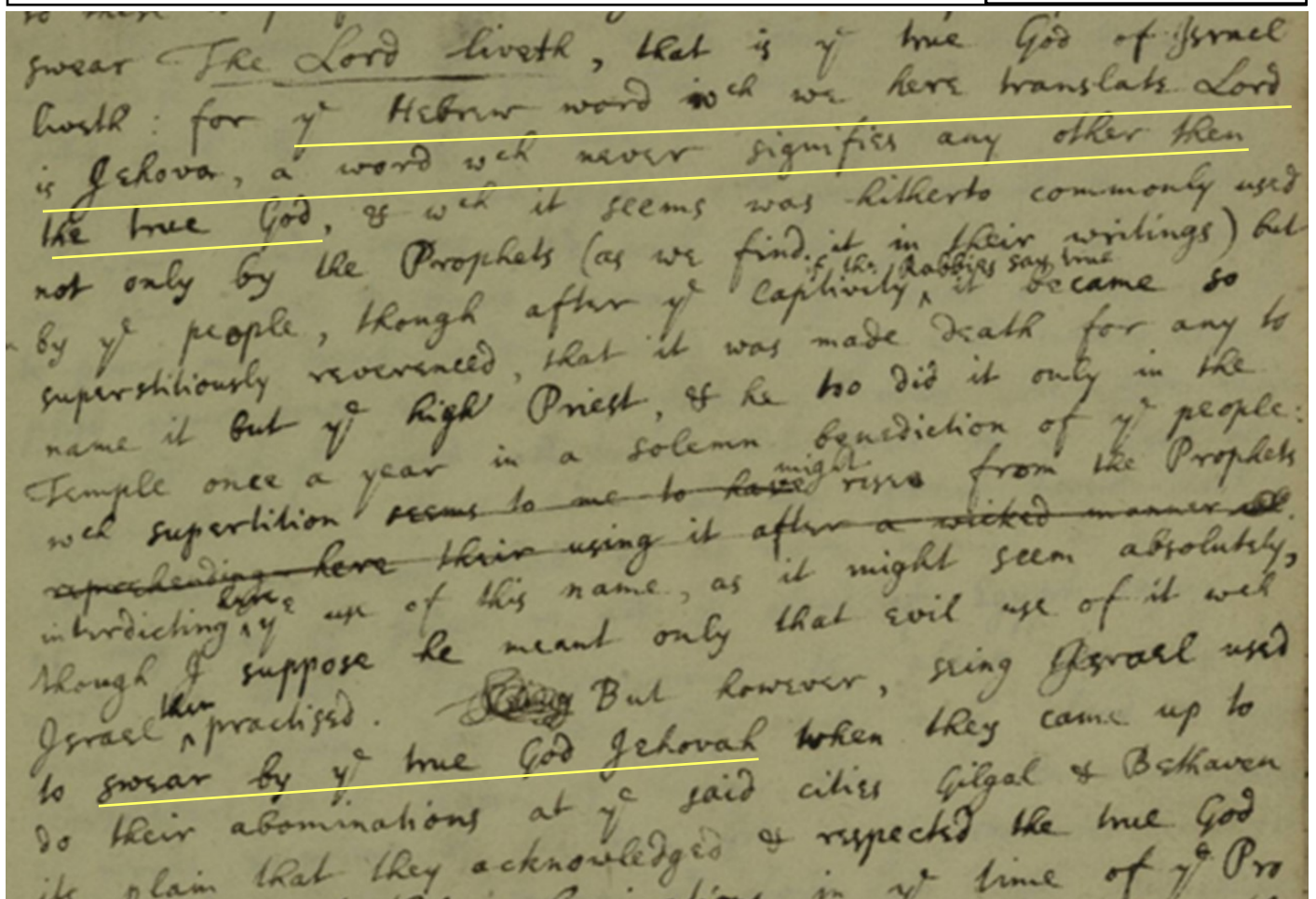
(3) What did Newton write about — God?

Summary:

Newton wrote that “the Hebrew word which we here translate Lord is Jehova, a word which never signifies any other than the true God.... Israel used to swear by the true God Jehovah ... they acknowledged and respected the true God.”

Yahuda Ms. 21, “Exposition on 2 Kings 17:15,16,” folios 4r, 5r
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית



swear The Lord liveth, that is of true God of Israel
liveth: for of Hebrew word which we here translate Lord
is Jehova, a word which never signifies any other than
the true God, & which it seems was hitherto commonly used
not only by the Prophets (as we find it in their writings) but
by of people, though after of captivity, ^{if the Rabbis say true} it became so
superstitiously revered, that it was made death for any to
name it but of High Priest, & he too did it only in the
Temple once a year in a solemn benediction of of people:
which superstition seems to me to have ^{might} rise from the Prophets
~~interdicting~~ ^{interdicting} here their using it after a wicked manner ~~all~~.
though I suppose he meant only that evil use of it which
Israel ^{then} practised. ~~But~~ But however, seeing Israel used
to swear by of true God Jehovah when they came up to
do their abominations at of said cities Gilgal & Bethaven
it's plain that they acknowledged & respected the true God

Transcript of Yahuda Ms. 21, folios 4r & 5r (with modernized spelling):

“swear The Lord liveth, that is the true God of Israel liveth: for the Hebrew word which we here translate Lord is Jehova, a word which never signifies any other than the true God & which it seems was hitherto commonly used not only by the Prophets (as we find it in their writings) but by the people, though after the captivity, if the Rabbis say true, it became so superstitiously revered, that it was made death for any to name it but the High Priest, & he did it only in the Temple once a year in a solemn benediction of the people which superstition might rise from the Prophets interdicting the use of this name as it might seem absolutely though I suppose he meant only that evil use of it which Israel then practiced. But however, seeing Israel used to swear by the true God Jehovah when they came up to do their abominations at the said cities Gilgal & Bethaven it’s plain that they acknowledged & respected the true God....”

(3) What did Newton write about — God?

Summary:

Newton used the name Jehovah in his writings. He wrote that the name is given to none but the “true God” and is “the name of the eternal and supreme God”.

Yahuda Ms. 21, “Exposition on 2 Kings 17:15,16,” folio 5r
The National Library of Israel, Jerusalem, Israel.

מאוסף הספרייה הלאומית

ליו
ליונים whome they carried away from thence. Now the
Lord which these nations were here taught to fear was most
plainly ye true God: first because ye name by which he
is called in ye hebrew is Jehovah a name given to none
but ye true God: for in vers 28 it is said that one of
ye Priests whome they carried away from Samaria
came & dwelt in Samaria & taught them how they should
fear Jehovah, & in vers 32 So they feared Jehovah & made
unto themselves of ye lowest of them priests, & in vers 33
they feared Jehovah & served their own Gods & lastly in vers
41 So these nations feared Jehovah & served their graven
images

Transcript of Yahuda Ms. 21, folio 5r:

“... whom they carried away from thence. Now the Lord which these nations were here taught to fear was most plainly the true God: first because the name by which he is called in the Hebrew is Jehovah a name given to none but the true God: for in verse 28 it is said that one of the Priests whom they carried away from Samaria came & dwelt in Samaria & taught them how they should fear Jehovah, & in verse 32 So they feared Jehovah & made unto themselves of the lowest of them priests, & in verse 33 they feared Jehovah & served their own Gods & lastly in verse 41 So these nations feared Jehovah & served their graven images.”

Yahuda Ms. 16.2, The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית

Jam vero cum Jehovah quum Graeci dixerunt Iao, Latini
Jao-pater seu Jupiter dixerunt ~~et~~ nomen esset Dei ~~supremi~~
aeterni et supremi; gentes autem imperantibus humani generis in
aeribus suis habitantibus hominibus Genios

Translation of above sentence written in Latin in Yahuda Ms 16.2:

“Jehovah, whom the Greeks called Iao and the Latins Jao-pater or Jupiter, was the name of the eternal and supreme God”.

(3) What did Newton write about — God?

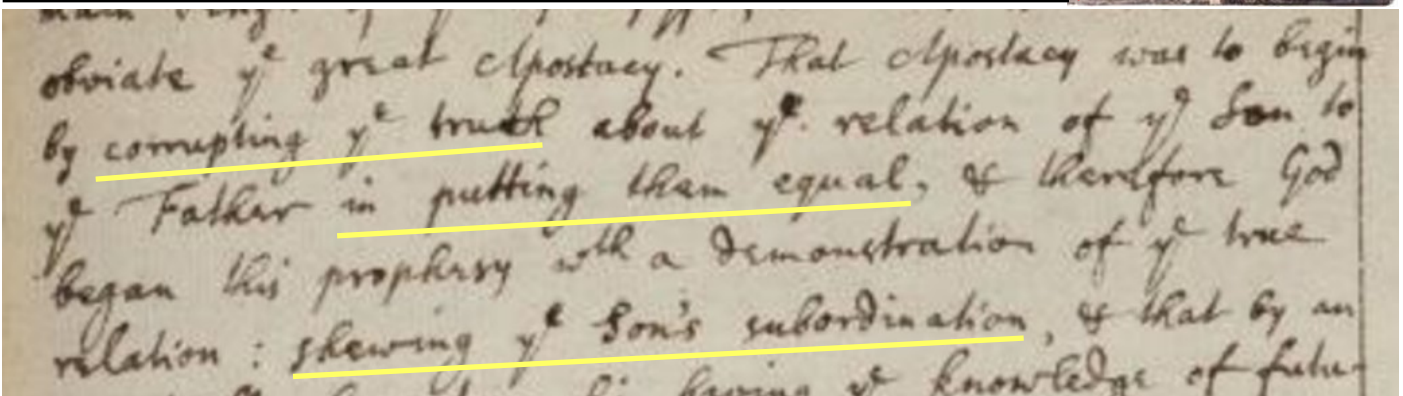
Summary:

Newton did not believe in the doctrine of the Trinity. He wrote that the Trinity came from Platonic philosophy and only entered the Church in the 4th Century.



Yahuda Ms. 1.4, folio 158r
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית

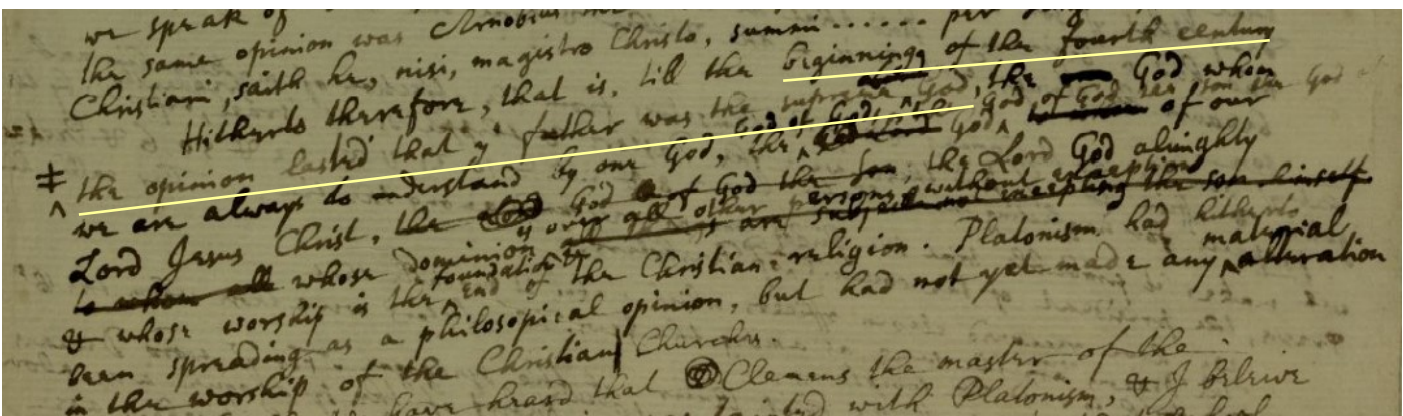


Transcription of Yahuda Ms. 1.4, folio 158r (with modernized spelling):

“obviate the great Apostacy. That Apostacy was to begin by corrupting the truth about the relation of the Son to the Father in putting them equal, & therefore God began this prophesy with a demonstration of the true relation: showing the Son’s subordination, & that by an

Yahuda Ms. 15.5, folio 90r
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית



Transcription of Yahuda Ms. 15.5, folio 90r:

“Hitherto therefore, that is, til the beginning of the fourth century the opinion lasted that the father was the supreme God, the God whom we are always to understand by one God, the God of Gods, the God of our Lord Jesus Christ, the Lord God almighty whose dominion over all other persons without exceptions and whose worship is the foundation & end of the Christian religion. Platonism had hitherto been spreading as a philosophical opinion but had not yet made any material alteration is the worship of the Christian Churches.”

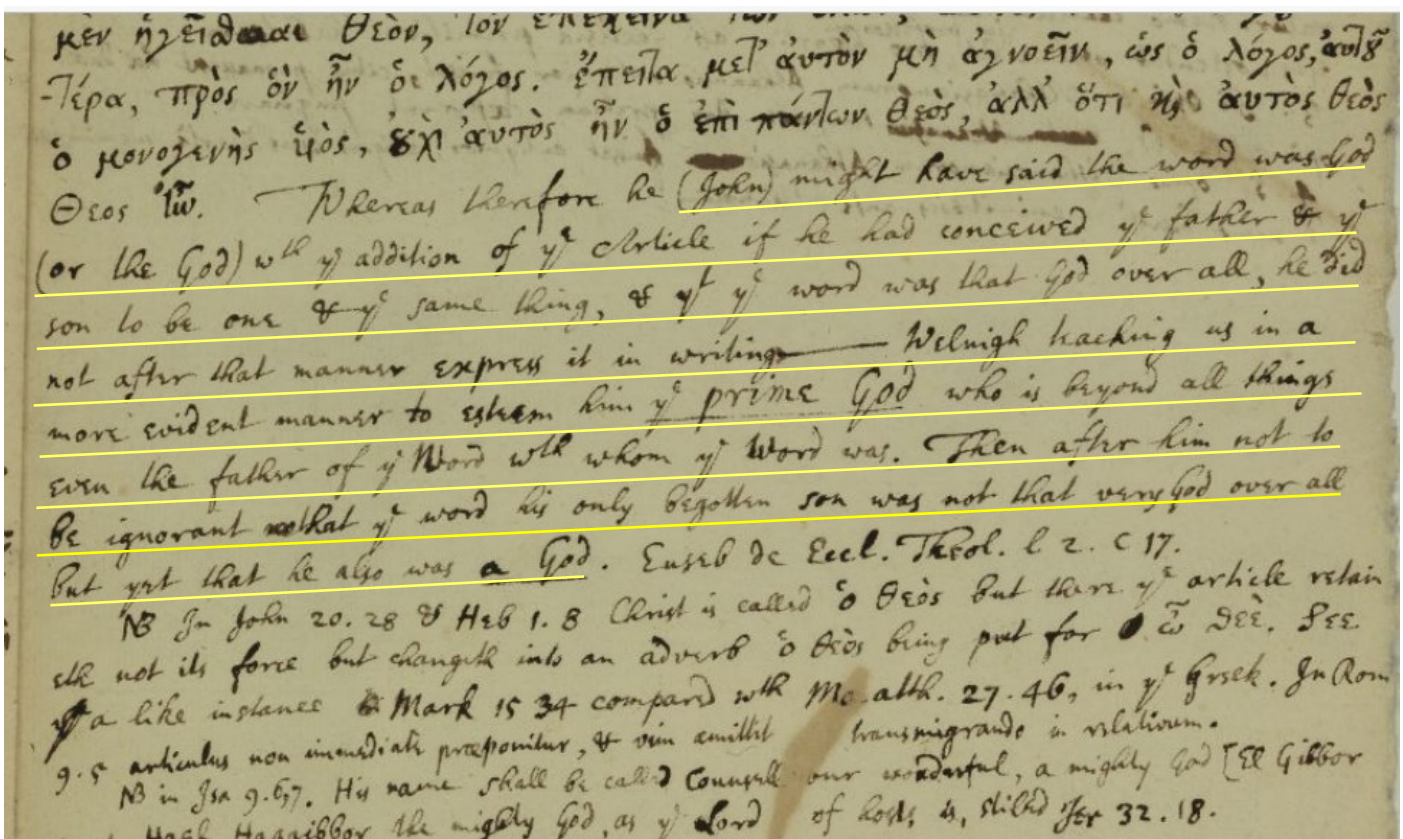
(3) What did Newton write about — God?

Summary:

Newton commented on the grammar of John 1:1, saying that if John had believed the father and the son to be one and the same, he would “have said the word was God (or *the* God)” with the definite article, but “he did not”. Rather, John taught that the Word was not “very God” but “a God”.

Yahuda Ms. 14, folio 194r
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית



Transcription of Yahuda Ms. 14, folio 194r:

“Whereas therefore he (John) might have said the word was God (or the God) with the addition of the Article if he had conceived the father & the son to be one & the same thing, & that the word was that God over all, he did not after that manner express it in writing ——— Welnigh teaching us in a more evident manner to esteem him the prime God who is beyond all things even the father of the Word with whom the Word was. Then after him not to be ignorant that the word his only begotten son was not that very God over all but yet that he also was a God. Euseb de Eccl. Theol. l 2. c 17.

NB In John 20.28 & Heb 1.8 Christ is called ο θεος but there the article retaineth not its force but changeth into an adverb ο θεος being put for ω θεε. See a like instance Mark 15 34 compared with Mat. 27.46, in the Greek. In Rom 9.5 articulus non immediatè præponitur, & vim amittit transmigrando in relativum.

NB in Isa 9.6,7. His name shall be called Counsellour wonderful, a mighty God [El Gibbor & not Hael Haggibbor the mighty God, as the Lord of hosts is stiled Jer 32.18.”

Isaac Newton & *the Trinity*

Newton wrote “*An Historical Account of Two Notable Corruptions of Scripture*” which was published some years after his death.

In this work Newton argues that two Bible verses (1 John 5:7 and 1 Timothy 3:16, often described as the “Trinity proof texts”) had in fact been tampered with, and that spurious phrases had been added to these verses in an attempt to support the Trinity doctrine.

Newton’s historical research proved, he believed, that the earliest Christian manuscripts did not have these Trinitarian phrases.

Newton’s motivation for writing this:

“There can be no better service done to the truth than to purge it of things spurious.”

Historical Account of Two Notable Corruptions of Scripture

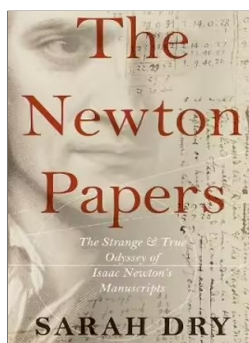
In a Letter to a Friend

o

Isaac Newton

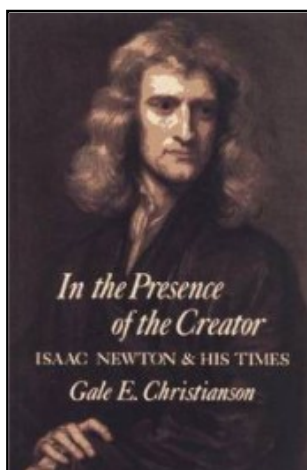
With his heretical theological opinions—he was an Arian who thought that worshipping Christ as God was idolatry—and as a bachelor don, Newton was isolated in the many years he was resident in Trinity College, a solitary man with few friends.¹⁹ These were years when he would work not for personal advantage but in the ceaseless pursuit of truth.

(Keynes, 2008)



Sarah Dry wrote that when an early biographer (Brewster) read the Newton papers:

“it was already very clear to him that the papers revealed that Newton was ‘more a monotheist than a Trinitarian.’ In some parts of the manuscripts, Newton himself had concluded that ‘Jehovah is the unique god.’ (p.160)



Professor Christianson, author of “*In the Presence of the Creator, Isaac Newton & His Times*,” wrote:

“he also devised an alchemical pseudonym for himself: ‘Jeova sanctus unus,’ an anagram derived from the Latinized *Isaacus Neutonus*. Whether the anagram was significant to Newton for reasons other than secrecy is a fascinating question. It could also have been a private declaration that Jehovah is the one and perfect God, a scarcely veiled expression of his well-documented antitrinitarianism.” (p. 220)

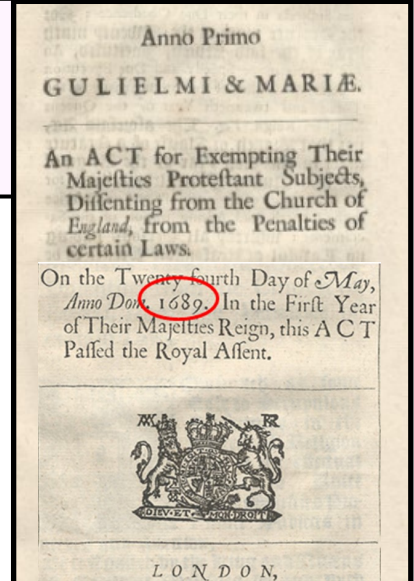
The Trinity in 17th & early 18th Century England



In **1612** Edward Wightman and Bartholomew Legate were both burned alive for denying the Trinity.

In **1677** in the reign of King Charles II an Act was passed for the “*takeing away the Writ De Heretico Cumberendo.*” Heresy was now no longer a burning offence—but it was still a criminal offence. (Statutes of the Realm: Volume 5, 1628-80, p. 850)

The Act of Toleration 1689— while offering toleration to nonconformists, enacted penalties (imprisonment and fines) for those who denied the eternity and deity of the Son, and who denied, in preaching or writing, the doctrine of the Trinity.

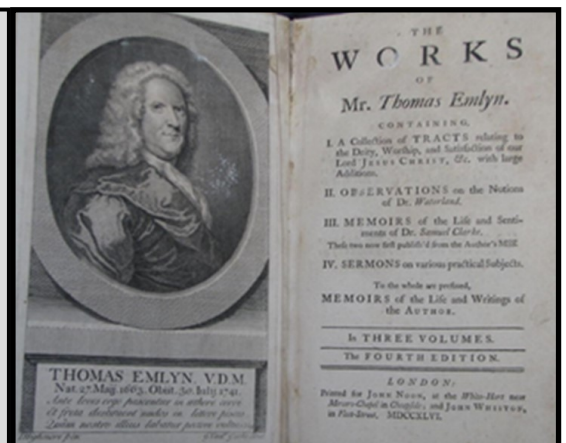


In **1697** Thomas Aikenhead in Scotland was hanged for speaking against the Trinity.

In **1694** an Oxford-educated barrister, William Freke, wrote “A Brief but Clear Confutation of the Doctrine of the Trinity” and boldly sent copies to both Houses of Parliament. He was fined and his books were burnt. The next year something similar happened to John Smith, a clockmaker who had written a similar pamphlet.



In **1703** Thomas Emlyn was fined £100 and spent two years in prison in Ireland for publishing a book about the Trinity.



From **1708** William Whiston began to publicly state that he did not believe in the Trinity, and he lost his position at Cambridge University in 1710.

(4) What did Newton write about — Jesus?

Yahuda Ms. 14, folio 25r
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית

1. ~~The name of God~~ ^{is} ~~is~~ ^{no where in} ~~is~~ ^{of scriptures used to signify more than one} of the three persons at once.
2. The word God without particular restriction to of Son or Holy ghost ~~doth~~ ^{doth} always signify the Father from one end of the scriptures to of other.
3. When ever it is said in the scriptures that there is but one God, it is meant of ~~of~~ ^{of} Father
4. When, after some heretiques ~~have~~ ^{had} taken Christ for a mean man of others for the supreme God, St John in his Gospel ^{indavour'd} ~~to state~~ ^{his nature so} of men might have from thence a right apprehension of him, ^{by those heresies} & so that he calls him of word or Logos: ~~we must suppose that he intended that~~ ^{we} ~~we~~ ^{must suppose that it was understood & taken in} of words before ^{he used it} when applied in like manner applied to an intelligent being. ^{for otherwise} how could he expect that men ~~we~~ ^{if the Apostles had not used words as they} found them how could they expect to ^{be} ~~be~~ ^{rightly} understood. Now the word term Logos before St John wrote, was generally used but in of sense of the Platonists, ~~when applied to an intelligent being, & they Christians understood~~ ^{that sense of} ~~that sense of~~ ^{Christians understand it in of same sense, & therefore this} is the true sense of St John.
5. The son in several places confesseth his dependance on the will of the father.
6. The son ~~calls himself~~ ^{confesseth himself less} ~~less~~ ^{of} father greater than him
7. The Son acknowledgeth the ^{original} ~~original~~ ^{of} future things to be in the breast of the father only.
8. There is no where made mention of a humane soul in of saviour besides the word, by the radiation of wch of word should be incarnate. But of word it self was made flesh & took upon him of form of a servant.
9. ~~It was~~ ^{It was} of son of God wch he sent into of world & not a ~~human~~ ^{humane} soul of suffered for us. If there had been such a humane soul in of saviour it would have been a thing of too great consequence to have been wholly omitted by the Apostles.
10. It is a proper epithet of of father to be call'd almighty. For by God almighty we ^{always understand of Father.} ~~but that we must not~~ ^{limit} the power of of Son, For he doth what soever he will of Father do; but to ~~say~~ ^{acknowledg} ^{all} power is originally in of Father of that of son hath no power in him but wch he derives from of father for of himself he can do nothing.
11. The son in all things submits his will to of will of the father, wch would be unreasonable if he were equal to of father.
12. The union between him & the father he interprets to be like of of of saints one with another. That is in agreement of will & counsel.

Transcript of Yahuda Ms. 14, folio 25r (with modernized spelling):

1. The word God is nowhere in the scriptures used to signify more than one of the three persons at once.
2. The word God put absolutely without particular restriction to the Son or Holy ghost doth always signify the Father from one end of the scriptures to the other.
3. Whenever it is said in the scriptures that there is but one God, it is meant of the Father.
4. When, after some heretics had taken Christ for a mere man & others for the Supreme God, Saint John in his Gospel endeavoured to state his nature so that men might have from thence a right apprehension of him & avoid those heresies & to that end call him the word or λογος: we must suppose that he intended that term in the same sense that it was taken in the world before he used it when in like manner applied to an intelligent being. For if the Apostles had not used words as they found them how could they expect to have been rightly understood. Now the term λογος before Saint John wrote, was {generally} used in the sense of the Platonists, when applied to an intelligent being, & the Arians understand it in the same sense, & therefore theirs is the true sense of Saint John.
5. The son in several places confesseth his dependance on the will of the father.
6. The son confesseth the father greater than him calls him his God, &c
- 7 The Son acknowledgeth the original prescience of all future things to be in the father only.
- 8 There is nowhere made mention of a human soul in our saviour besides the word, by the mediation of which the word should be incarnate. But the word itself was made flesh & took upon him the form of a servant.
9. It was the son of God which he sent into the world & not a human soul that suffered for us. If {there} had been such a human soul in our Saviour it would have been a thing of too great consequence to have been wholly omitted by the Apostles.
10. It is a proper epithet of the father to be called almighty. For by God almighty we always understand the Father. Yet this is not to limit the power of the Son, For he doth whatsoever he seeth the Father {do}, but to acknowledge that all power is originally in the Father & that the son hath no power in him but what he derives from the father for he professes that of himself he can do nothing.
- 11 The son in all things submits his will to the will of the father, which would be unreasonable if he were equal to the father.
- 12 The union between him & the father he interprets to be like that of the saints one with another. That is in agreement of will & counsel.

(4) What did Newton write about — Jesus?

Summary:

Newton wrote that Jesus is not equal to God but had a prehuman existence and was “beloved of God before the foundation of the world.” Newton lists several titles in the Bible which he believes applies to Jesus, including “the seed of the woman.” One historian wrote about Newton’s view of Jesus, that “he had a sophisticated understanding of his nature and office.” (Iiffe, 2016: 491)

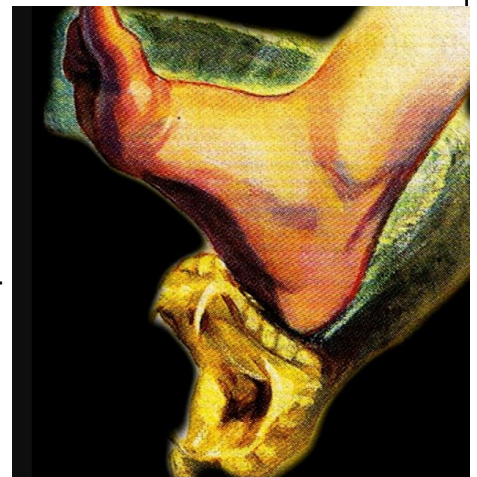
Yahuda Ms.15.4, folio 67r,
The National Library of Israel, Jerusalem, Israel

מאוסף הספרייה הלאומית

knowledge may be...
subscribed by teachers. As for instance
1 That God the father is an infinite, eternal, omniscient, immortal & invisible spirit whom no eye hath seen nor can see, & all other spirits are sometimes visible.
7 That Jesus was beloved of God before the foundation of the world & had glory with the father before the world began & was the principle of the creation of God, the Agent by whom God created this world & who is now gone to prepare another place or mansion for the blessed; for in Gods house there are many mansions, & God does nothing by himself which he can do by another.
8 That Jesus is the seed of the woman who should bruise the serpent's head, the Shiloh predicted by Jacob, the Prophet predicted by Moses, the Paschal Lamb, the son of David whose throne should be established for ever, the son of God mentioned in the Psalms, the son of Man predicted in Daniel's prophesy of the four Beasts, the Messiah predicted in Daniel's prophesy of the weeks, the Prince of Princes predicted in Daniel's prophesy of the Ram & He Goat, the great Prince Michael mentioned in the end of Daniel & in the Apocalypse, & the Word or Oracle of God whose testimony is the spirit of prophesy.
...at the right hand of God, being equal to him in dignity, ... his footstool, for when he will ...

Transcription of Yahuda Ms. 15.4, folio 67r:

- 1 That God the father is an infinite, eternal, omniscient, immortal & invisible spirit whom no eye hath seen nor can see, & all other spirits are sometimes visible.
- 7 That Jesus was beloved of God before the foundation of the world & had glory with the father before the world began & was the principle of the creation of God, the Agent by whom God created this world & who is now gone to prepare another place or mansion for the blessed; for in Gods house there are many mansions, & God does nothing by himself which he can do by another.
- 8 That Jesus is the seed of the woman who should bruise the serpent's head, the Shiloh predicted by Jacob, the Prophet predicted by Moses, the Paschal Lamb, the son of David whose throne should be established for ever, the son of God mentioned in the Psalms, the son of Man predicted in Daniel's prophesy of the four Beasts, the Messiah predicted in Daniel's prophesy of the weeks, the Prince of Princes predicted in Daniel's prophesy of the Ram & He Goat, the great Prince Michael mentioned in the end of Daniel & in the Apocalypse, & the Word or Oracle of God whose testimony is the spirit of prophesy.



(5) What did Newton write about — the corruption of Christianity?

Summary:

Newton wrote that Christianity was corrupted by the end of the fourth century, that this Apostasy had been foretold by Paul, would continue until Christ's coming, and was "now in being."

Yahuda Ms. 7.3e, folio 5r
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית

The placing of
monies & things consecrated
of dead men, be abominable actions of the same kind with
~~the~~ charms & magic & sorcery & ~~the~~ idolatry, & if Christi-
an sorcerers & Christian idolaters be the worst of heretics: then the
Roman Empire before the end of the fourth century became very
heretical, that is, in the language of Cyprian & the primitive
Christians it became very antichristian. Which change of religion
from heathen to Christian & from Christian to Antichristian being
one of the greatest revolutions which ever happened in the Roman
Empire deserved here to be explained. For this is that Apostasy
which St Paul calls ye man of sin & ye son of perdition, telling us
that so soon as that which hindered ~~should be created~~ (namely the
heathen Roman empire) should be taken out of the way, it should be
revealed & appear by a strong delusion with all power & signs &
lying wonders & with all deceivableness of unrighteousness in them
that perish, & at length be destroyed by the brightness of Christ's
second coming. It began to work in the Apostles days, & was
to continue till the second coming of Christ & therefore is
now in being.

The men who chiefly promoted these superstitions were

Transcript of Yahuda Ms. 7.3e, folio 5r:

"the Roman Empire before the end of the fourth century became very heretical, that is, in the language of Cyprian & the primitive Christians it became very antichristian. Which change of religion from heathen to Christian & from Christian to Antichristian being one of the greatest revolutions which ever happened in the Roman Empire deserved here to be explained. For this is that Apostasy which St Paul calls ye man of sin & ye son of perdition It began to work in the Apostles days, & was to continue till the second coming of Christ & therefore is now in being."



"Apostle Paul Preaching on the Ruins" by Giovanni Paolo Pannini
(Hermitage Museum)

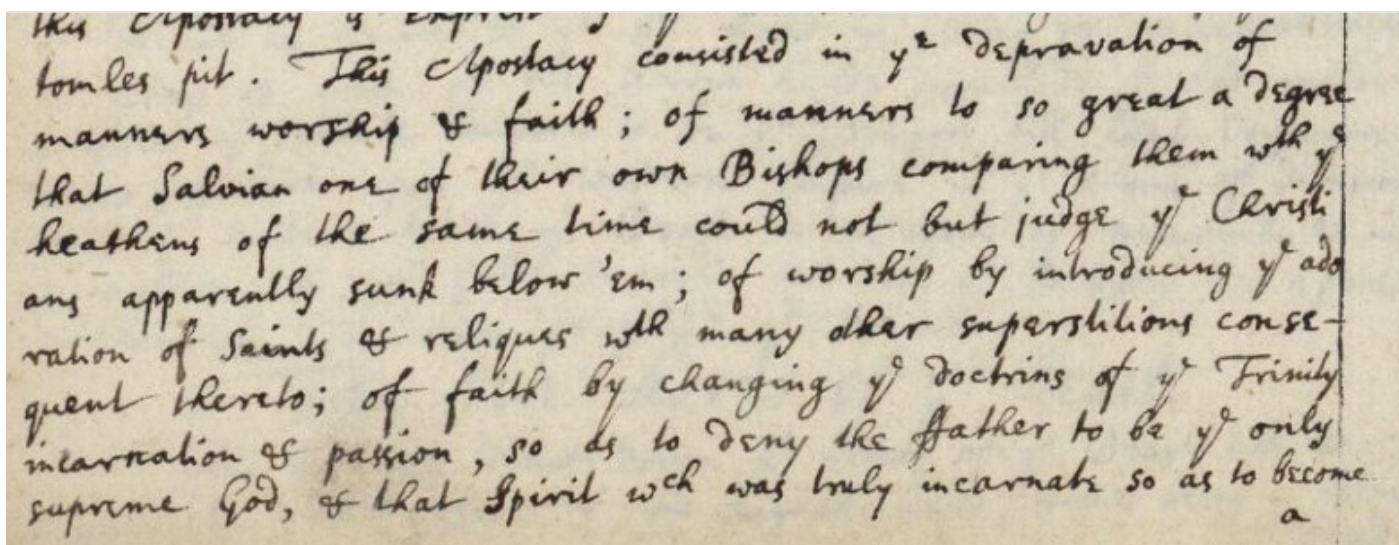
(5) What did Newton write about — the corruption of Christianity?

Summary:

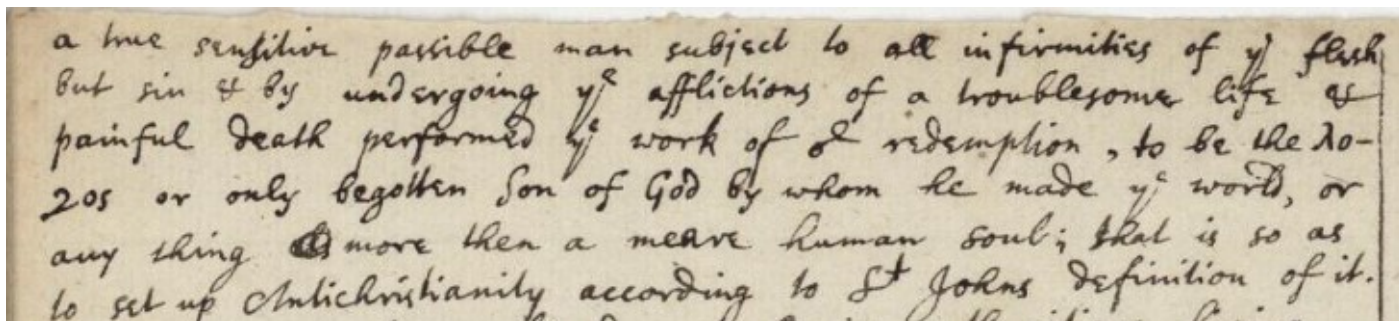
Newton wrote that the major corruption to Christianity was introducing the veneration of saints and relics and the doctrine of the Trinity, denying "the father to be the only supreme God".

Yahuda Ms. 1.5 folio 11r & 12r
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית



This Apostacy consisted in y^e depravation of manners worship & faith; of manners to so great a degree that Salvian one of their own Bishops comparing them with y^e heathens of the same time could not but judge y^e Christians apparently sunk below 'em; of worship by introducing y^e adoration of Saints & reliques with many other superstitions consequent thereto; of faith by changing y^e doctrine of y^e Trinity incarnation & passion, so as to deny the father to be y^e only supreme God, & that Spirit wch was truly incarnate so as to become a



a true sensitive passible man subject to all infirmities of y^e flesh but sin & by undergoing y^e afflictions of a troublesome life & painful death performed y^e work of y^e redemption, to be the λόγος or only begotten Son of God by whom he made y^e world, or any thing more than a mere human soul; that is so as to set up Antichristianity according to St Johns definition of it.

Transcription of Yahuda Ms. 1.5, 11r & 12r

This Apostacy consisted in the depravation of manners worship & faith; of manners to so great a degree that Salvian one of their own Bishops comparing them with the heathens of the same time could not but judge the Christians apparently sunk below 'em; of worship by introducing the adoration of Saints & reliques with many other superstitions consequent thereto; of faith by changing the doctrine of the Trinity incarnation & passion, so as to deny the father to be the only supreme God, & that Spirit which was truly incarnate so as to become

<12r> a true sensitive passible man subject to all infirmities of the flesh but sin & by undergoing the afflictions of a troublesome life & painful death performed the work of our redemption, to be the λόγος or only begotten Son of God by whom he made the world, or any thing more than a mere human soul; that is so as to set up Antichristianity according to Saint Johns definition of it.

(5) What did Newton write about — the corruption of Christianity?

Summary:

Newton wrote that some of the superstitions brought in were: doctrines of Ghosts, punishment in Purgatory, using the sign of the cross, pilgrimages, celibacy of the clergy, and prayer beads.

Yahuda Ms. 7.1n, folio 27r
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית

Christum
& not by the lamp
Church Catholick during the three
V The Cataphrygians brought in also several other
superstitions, such as were the doctrines of Ghosts, & of their
punishment in Purgatory, with prayers & oblations for mitigat
ing that punishment, as Tertullian teaches in his books
De anima & De Monagamia. They used also the sign of
the cross as a charm. So Tertullian in his book de Corona
ad omnem progressum alq; promotum, ad omne
ad calceatum, ad lavacra, & acunq; nos

Transcript of Yahuda Ms. 7.3e, folio 27r:

"The Cataphrygians brought in also several other superstitions, such as were the doctrines of Ghosts, of their punishment in Purgatory, with prayers & oblations for mitigating that punishment, as Tertullian teaches in his books De anima & De Monagamia. They used also the sign of the cross as a charm. So Tertullian in his book de Corona".



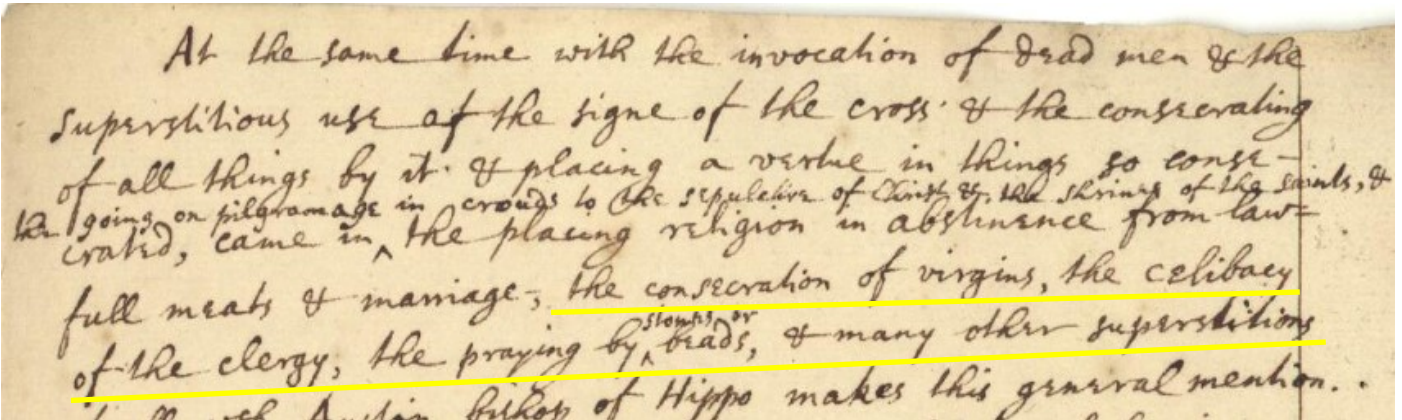
(5) What did Newton write about — the corruption of Christianity?

Summary:

Newton wrote that some of the superstitions brought in were: doctrines of Ghosts, punishment in Purgatory, using the sign of the cross, pilgrimages, celibacy of the clergy, and prayer beads.

Yahuda Ms. 7.3e, folio 4r
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית



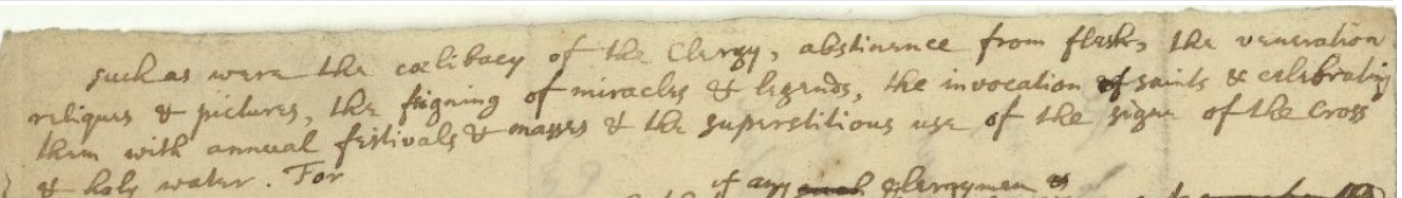
At the same time with the invocation of dead men & the
superstitious use of the signe of the cross & the consecrating
of all things by it & placing a vertue in things so conse-
crated, came in the going on pilgrimage in crowds to the sepulcher of Christ & the shrines of the saints, &
the placing religion in abstinence from law-
full meats & marriage, the consecration of virgins, the celibacy
of the clergy, the praying by ^{stones or} beads, & many other superstitions
... in which the Bishop of Hippos makes this general mention.

Transcript of Yahuda Ms. 7.3e, folio 4r:

“At the same time with the invocation of dead men & the superstitious use of the sign of the cross & the consecrating of all things by it & placing a virtue in things so consecrated, came in the going on pilgrimage in crowds to the sepulcher of Christ & the shrines of the saints, & the placing religion in abstinence from lawful meats & marriage, the consecration of virgins, the celibacy of the clergy, the praying by stones or beads, & many other superstitions....”

Yahuda Ms. 14, folio 46v
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית



such as were the celibacy of the clergy, abstinence from flesh, the veneration
of relics & pictures, the feigning of miracles & legends, the invocation of saints & celebrating
them with annual festivals & masses & the superstitious use of the sign of the cross
& holy water. For

Transcription of Yahuda Ms. 14, folio 46v:

“such as were the celibacy of the clergy, abstinence from flesh, the veneration of relics & pictures, the feigning of miracles & legends, the invocation of saints & celebrating them with annual festivals & masses & the superstition use of the sign of the cross & holy water.



(5) What did Newton write about — the corruption of Christianity?

Summary:

Newton wrote that in order to convert the heathens, their principal festivals were succeeded by “Christian” festivals, such as the keeping of Christmas “in the room of the Bacchanalia & Saturnalia”, the celebrating of May Day and many other festivals. All these “Christian” festivals were originally heathen festivals.

Yahuda Ms. 7.2j, folio 68r
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית

God; he permitteth ...
they might make merry & delight themselves, ...
joy. The heathens were delighted with the festivals of their Gods
& unwilling to part with those delights; & therefore Gregory,
to facilitate their conversion, instituted annual festivals to the
saints & martyrs. Hence it came to pass, that for exploding
the festivals of the heathens, the principal festivals of the Christians
succeeded in the room of the principal festivals of the heathens; as
the keeping of Christmas with ivy & feasting, & playing & sports, in
the room of the Bacchanalia & Saturnalia; the celebrating of
May-day with flowers in the room of the floralia; & the keeping
of festivals to the Virgin Mary, John the Baptist, & divers of the
Apostles in the room of the solemnities at the entrance of the
signs of the Zodiac in the old Julian Calendar.

Transcript of Yahuda Ms. 7.2j, folio 68r:

“The heathens were delighted with the festivals of their Gods & unwilling to part with those delights; & therefore Gregory, to facilitate their conversion, instituted annual festivals to the saints & martyrs. Hence it came to pass, that for exploding the festivals of the heathens, the principal festivals of the Christians succeeded in the room of the principal festivals of the heathens; as the keeping of Christmas with ivy & feasting, & playing & sports, in the room of the Bacchanalia & Saturnalia; the celebrating of May-day with flowers in the room of the floralia, & the keeping of festivals to the Virgin Mary, John the Baptist, & divers of the Apostles in the room of the solemnities at the entrance of the signs of the Zodiac in the old Julian Calendar.”



(6) What did Newton write about —
the condition of the dead?

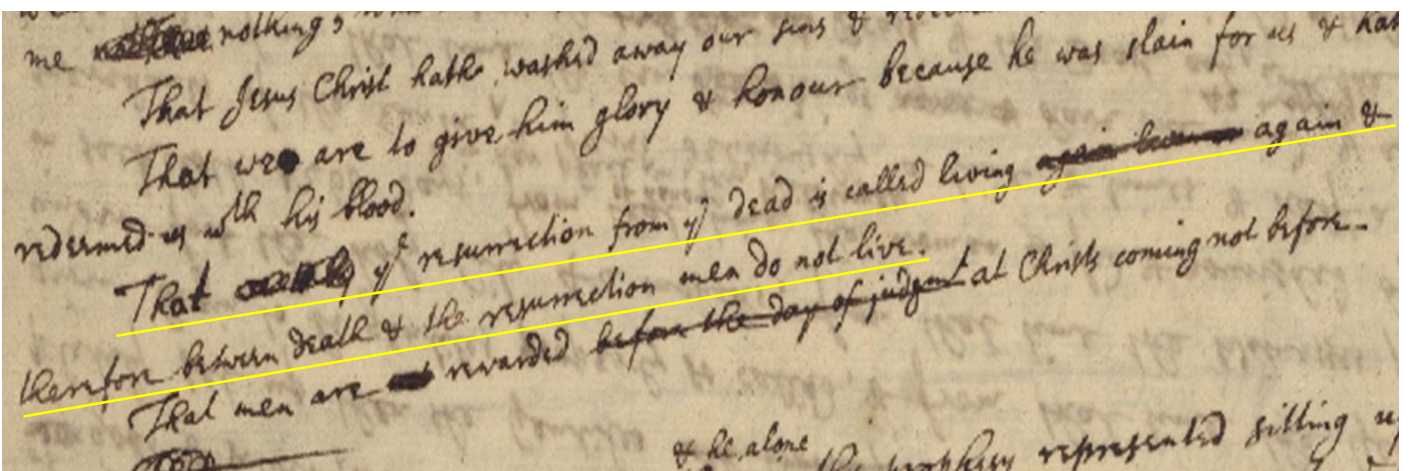
Summary:

Newton did not believe in the immortality of the soul. He wrote that “between death & the resurrection men do not live.”

He wrote about a resurrection to life “at Christ’s coming not before.”

Yahuda Ms. 7.2e, folio 4v
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית



me ~~nothing~~ nothing
That Jesus Christ hath washed away our sins & redeemed us with his blood.
That we are to give him glory & honour because he was slain for us & has
That ~~resurrection~~ of resurrection from y^e dead is called living again & therefore
between death & the resurrection men do not live.
That men are rewarded before the day of judgment at Christ's coming not before.

Transcript of Yahuda Ms. 7.2e, folio 4v:

“That the resurrection from the dead is called living again & therefore between death & the resurrection men do not live. That men are rewarded at Christ’s coming not before.”

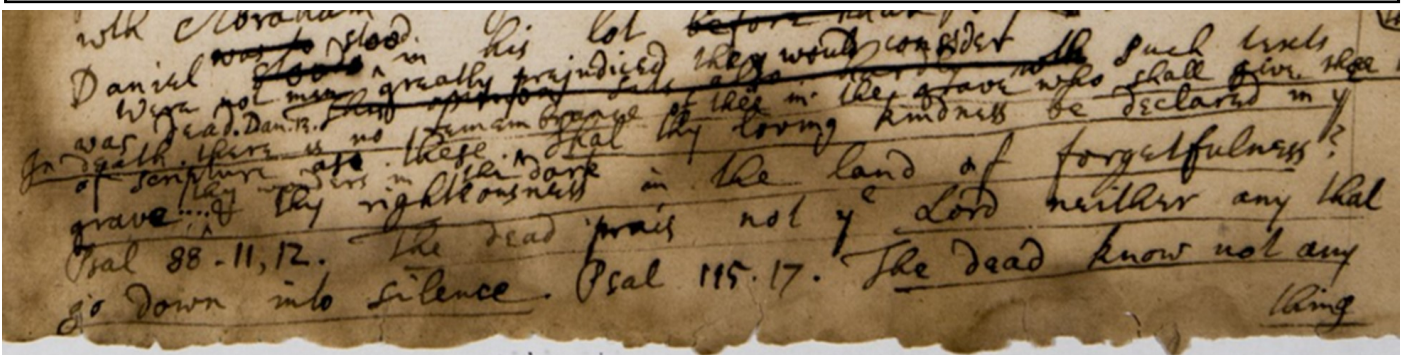


(6) What did Newton write about — the condition of the dead?

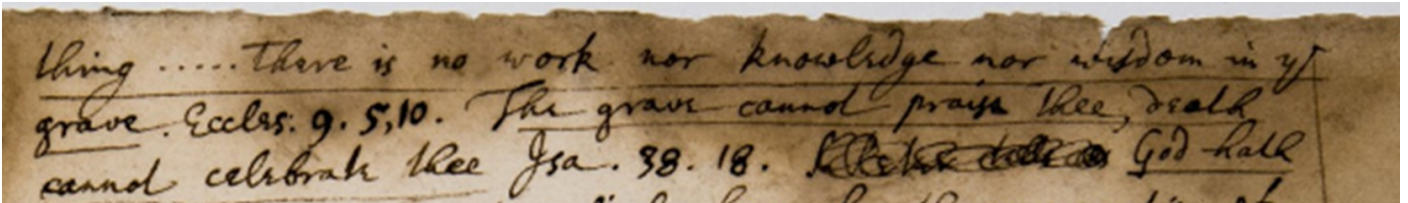
Summary:

Historians acknowledge that Newton was a “mortalist” who did not believe in the immortality of the soul. (Force 1999; Dempsey 2011) Newton wrote: “Were not men greatly prejudiced they would consider such texts of scripture as these” and then listed several scriptural texts that refer to death as a state of unconsciousness or sleep.

“Paradoxical Questions concerning the morals & actions of Athanasius & his followers”
William Andrews Clark Memorial Library, UCLA



with coronation
Daniel was ~~to~~ ⁱⁿ his lot before ~~him~~ ^{himself}
Were not men greatly prejudiced they would consider such texts
of scripture as these: In death there is no remembrance of thee, in the grave who shall give thee thanks? Ps. 6.
Shall thy loving kindness be declared in the grave & thy wonders in the dark and thy righteousness in the land of forgetfulness? Psal. 88-11,12.
The dead praise not the Lord neither any that go down into silence. Psal. 115-17. The dead know not any thing



thing there is no work nor knowledge nor wisdom in y^e
grave. Eccles. 9. 5,10. The grave cannot praise thee, death
cannot celebrate thee Isa. 38. 18. ~~Let the dead~~ God hath

Transcription of “Paradoxical Questions”:

Were not men greatly prejudiced they would consider such texts of scripture as these:
In death there is no remembrance of thee, in the grave who shall give thee thanks? Ps. 6.
Shall thy loving kindness be declared in the grave & thy wonders in the dark and thy righteousness in the land of forgetfulness? Psal. 88.11,12.
The dead praise not the Lord neither any that go down into silence. Psal. 115.17.
The dead know not anything There is no work nor knowledge nor wisdom in the grave. Eccles. 9.5,10. The grave cannot praise thee, death cannot celebrate thee Isa. 38.18.

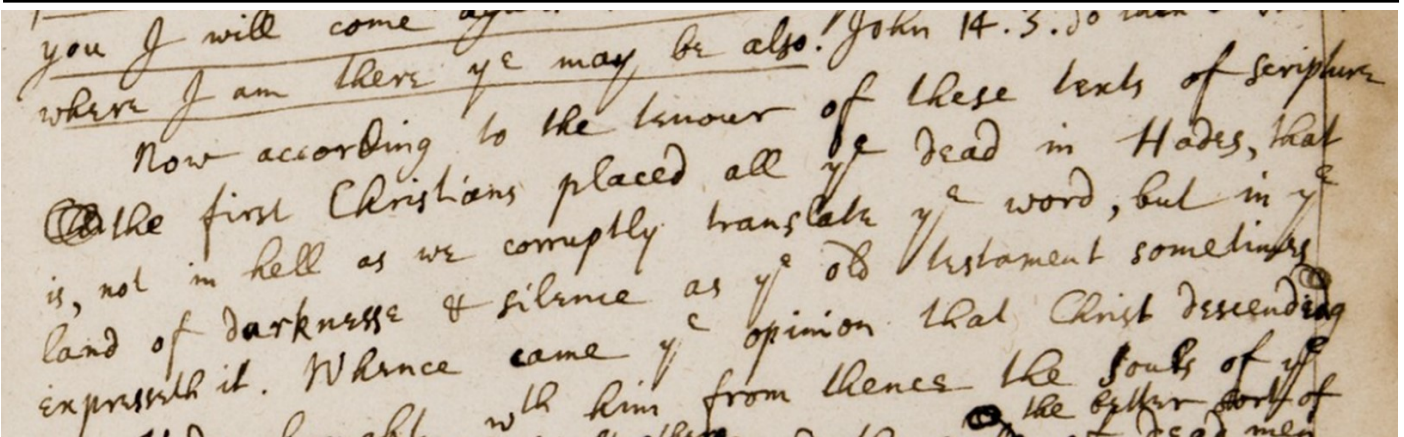


(6) What did Newton write about —
the condition of the dead?

Summary:

Newton wrote that: “the first Christians placed all the dead in Hades ... the land of darkness & silence.” He also wrote that for “them that sleep” the “interval between death and the resurrection” will seem like it was just “a moment” when they are eventually resurrected.

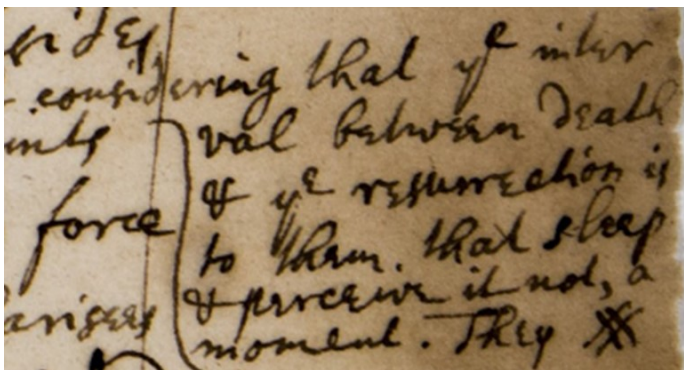
“Paradoxical Questions concerning the morals & actions of Athanasius & his followers”
William Andrews Clark Memorial Library, UCLA



you I will come again where I am there ye may be also. John 14.3. So now
Now according to the tenour of these texts of scripture
the first Christians placed all the dead in Hades, that
is, not in hell as we corruptly translate the word, but in the
land of darkness & silence as the old Testament sometimes
expresseth it. Whence came the opinion that Christ descending
with him from thence the souls of the
the other sort of
the dead men

Transcription of “Paradoxical Questions”

“Now according to the tenour of these texts of scripture the first Christians placed all the dead in Hades, that is, not in hell as we corruptly translate the word, but in the land of darkness & silence as the old testament sometimes expresseth it.”



side
- considering that the interval
between death
force of the resurrection is
to them that sleep
arise & perceive it not, a
moment. They X

**Transcription of “Paradoxical Questions”
(marginal note):**

“considering that the interval between death & the resurrection is to them that sleep & perceive it not, a moment.”



(7) What did Newton write about — the law of abstaining from blood?

Summary:

In *The Chronology* (original handwritten copy held by Cambridge University) Newton wrote that the law of abstaining from blood was given to Noah, long before Moses, and that the Apostles declared that this early law is imposed on **all nations**.

in *Chaldea*, and spread every way from thence; but did not yet reach into the land of *Canaan*. Several of the laws and precepts in which this primitive religion consisted are mentioned in the book of *Job*, chap. i. ver. 5, and chap. xxxi. viz. *not to blaspheme God, nor to worship the Sun or Moon, nor to kill, nor steal, nor to commit adultery, nor trust in riches, nor oppress the poor or fatherless, nor curse your enemies, nor rejoyce at their misfortunes: but to be friendly, and hospitable and merciful, and to relieve the poor and needy, and to set up Judges*. This was the morality and religion of the first ages, still called by the *Jews*, *The precepts of the sons of Noah*: this was the religion of *Moses* and the *Prophets*, comprehended in the two great commandments, of *loving the Lord our God with all our heart and soul and mind, and our neighbour as ourselves*: this was the religion enjoyned by *Moses* to the uncircumcised stranger within the gates of *Israel*, as well as to the *Israelites*: and this is the primitive religion of both *Jews* and *Christians*, and ought to be the standing religion of all nations, it being for the honour of God, and good of mankind: and *Moses* adds the precept of *being merciful even to brute beasts, so as not to suck out their blood, nor to cut off their flesh alive with the blood in it, nor to kill them for the sake of their blood, nor to strangle them: but in killing them for food, to let out their blood and spill it upon the ground*, *Gen. ix. 4*, and *Levit. xvii. 12, 13*. This law was ancients than the days of *Moses*, being given to *Noah* and his sons long before the days of *Abraham*: and therefore when the *Apostles* and *Elders* in the Council at *Jerusalem* declared that the *Gentiles* were not obliged to be circumcised and keep the law of *Moses*, they excepted this law of *abstaining from blood, and things strangled* as being an earlier law of God, imposed not on the sons of *Abraham* only, but on all nations, while they lived together in *Shinar* under the dominion of *Noah*: and of the same kind is the law of *abstaining from meats offered to Idols or false Gods, and from fornication*. So then, *the believing that the world was framed by one supreme God, and is governed by him; and the loving and worshipping him, and honouring our parents, and loving our neighbour as ourselves, and being merciful even to brute beasts*, is the oldest of all religions: and the *Original* of letters, agriculture, navigation, music, arts and sciences, metals, smiths and carpenters, towns and houses, was not older in *Europe* than the days of *Eli, Samuel* and *David*; and before those days the earth was so thinly peopled, and so overgrown with woods, that mankind could not be much older than is represented in Scripture.

Isaac Newton, *The Chronology of Ancient Kingdoms* (1728), Ch. I.

CHAP. II

(7) What did Newton write about — the law of abstaining from blood?

It was recounted by John Conduitt:

“William Whiston has spread about that Sr I abstained from eating rabbits because strangled & from black puddings because made of blood.” (Conduitt, Keynes 130.07)

Newton’s niece, Catherine Conduitt, told her husband that “this was a matter of ethics rather than taste.” (Conduitt, Keynes 130.07)



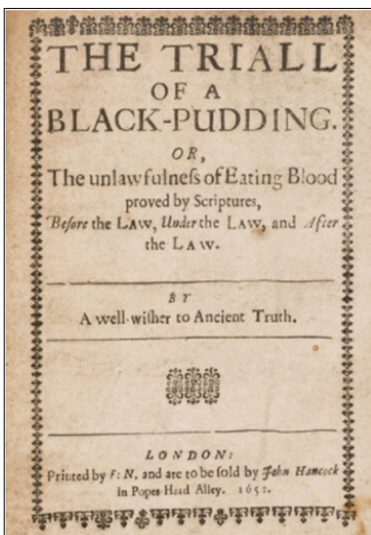
Strangled rabbit

“Lapin” Edouard Manet,
Collection: Musée Angladon, Avignon



Black pudding

“Stilleben mit Trauben, Wurst, Gurke, Brot und Kohlmeise”
(Italian School) 17th century



In the 17th century the issue of whether it was unscriptural to eat blood was a controversial one.

The pamphlet on the left (published in 1652) was written by Thomas Barlow, who later became the Bishop of Lincoln. He wrote that black pudding was a “violation of both Jewish law and the Christian exemptions as dispensed by the Apostles.”

This was a minority view; most people, including the very religious Puritans, had no objection to eating blood.

Newton stated: “animals should be put to as little pain as possible” and that “eating blood inclined man to be cruel.” (Conduitt, Keynes 130.07)

An historian noted:

“Such sensitivity towards cruelty to animals was most unusual in the eighteenth century.” (Keynes 1995)

The 17th Century & blood transfusion experiments

Starting in the 1660s many scientists (notably Richard Lower and Robert Boyle, but also many others, including Robert Hooke) were experimenting with blood transfusions, and live animal experimentation. No anesthetic was used in these experiments and the animals suffered greatly. (Christianson, p.155)

(353) Numb. 20.

PHILOSOPHICAL TRANSACTIONS.

Monday December 17. 1666.

The Contents.

The Method observed in Transfusing the Blood out of one live Animal into another. And how this Experiment is like to be im-

The Method observed in Transfusing the Blood out of one Animal into another.

THis Method was promised in the last of these Papers. It was first practised by Doctor Lower in Oxford, and by him communicated to the Honourable Robert Boyle, who imparted it to the Royal Society, as follows ;
 First, Take up the Carotid Artery of the Dog or other Animal, whose Blood is to be transfused into another of the
A a fame

“The Method Observed in Transfusing the Blood out of One Animal into Another.” *Philosophical Transactions (1665-1678)*, vol. 1, The Royal Society, 1665, pp. 353–58.

(537) Numb. 30

PHILOSOPHICAL TRANSACTIONS.

Monday, December 9. 1667.

The Contents.

An Account of the Experiment of Transfusion, practised upon a Man in London. A Narrative of some Trials of Transfusion, lately made in France. Some New Experiments of Injecting

An Account Of the Experiment of Transfusion, practised upon a Man in London.

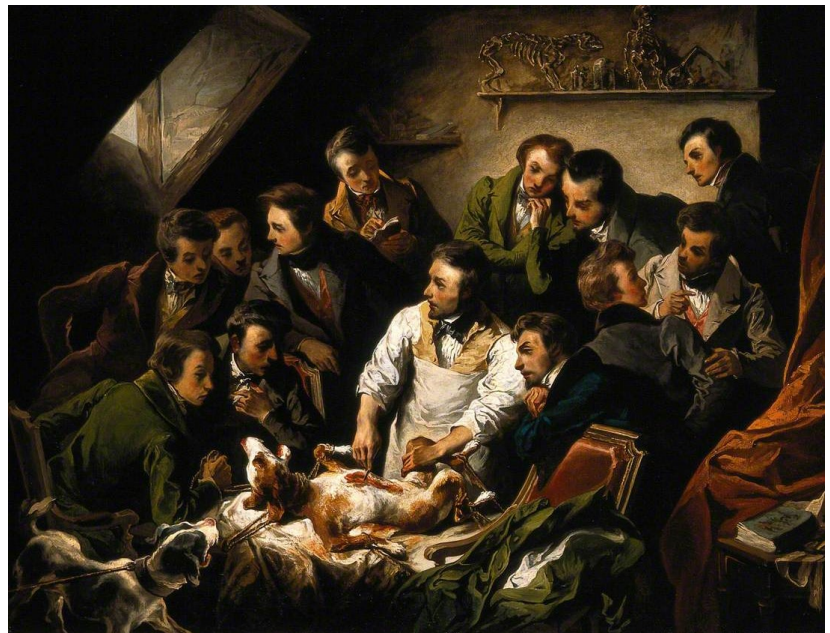
This was perform'd, Novemb. 23. 1667. upon one Mr. Arthur Coga, at Arundel-houſe, in the preſence of many conſiderable and intelligent perſons, by the management of thoſe two Learned Phyſicians and dextrous Anatomiciſts Dr. Richard Lower, and Dr. Edmund King, the latter of whom communicated the Relation of it, as followeth.

THE Experiment of Transfusion of Blood into an humane Vein was made by Us in this manner. Having prepared the
M m the

Coga, Arthur. “An Account of the Experiment of Transfusion, Practised upon a Man in London.” *Philosophical Transactions (1665-1678)*, vol. 2, The Royal Society, 1666, pp. 557–59.



Christopher Wren Injecting Animal
Photo credit: Wellcome Collection



“A Physiological Demonstration with the Vivisection of a Dog”
by Émile Édouard Mouchy Photo credit: Wellcome Collection

Gottfried Leibniz founded the Berlin Society of Sciences, and “proposed **blood transfusions, autopsies & animal experimentation.**” (Bobro, 2014)



Leibniz

“The blood of one animal was transfused into another. This last experiment was a favourite of Hooke’s, as Pepys noted in his diary entry of November 16, 1666.” (Christianson, p.155)



Robert Hooke

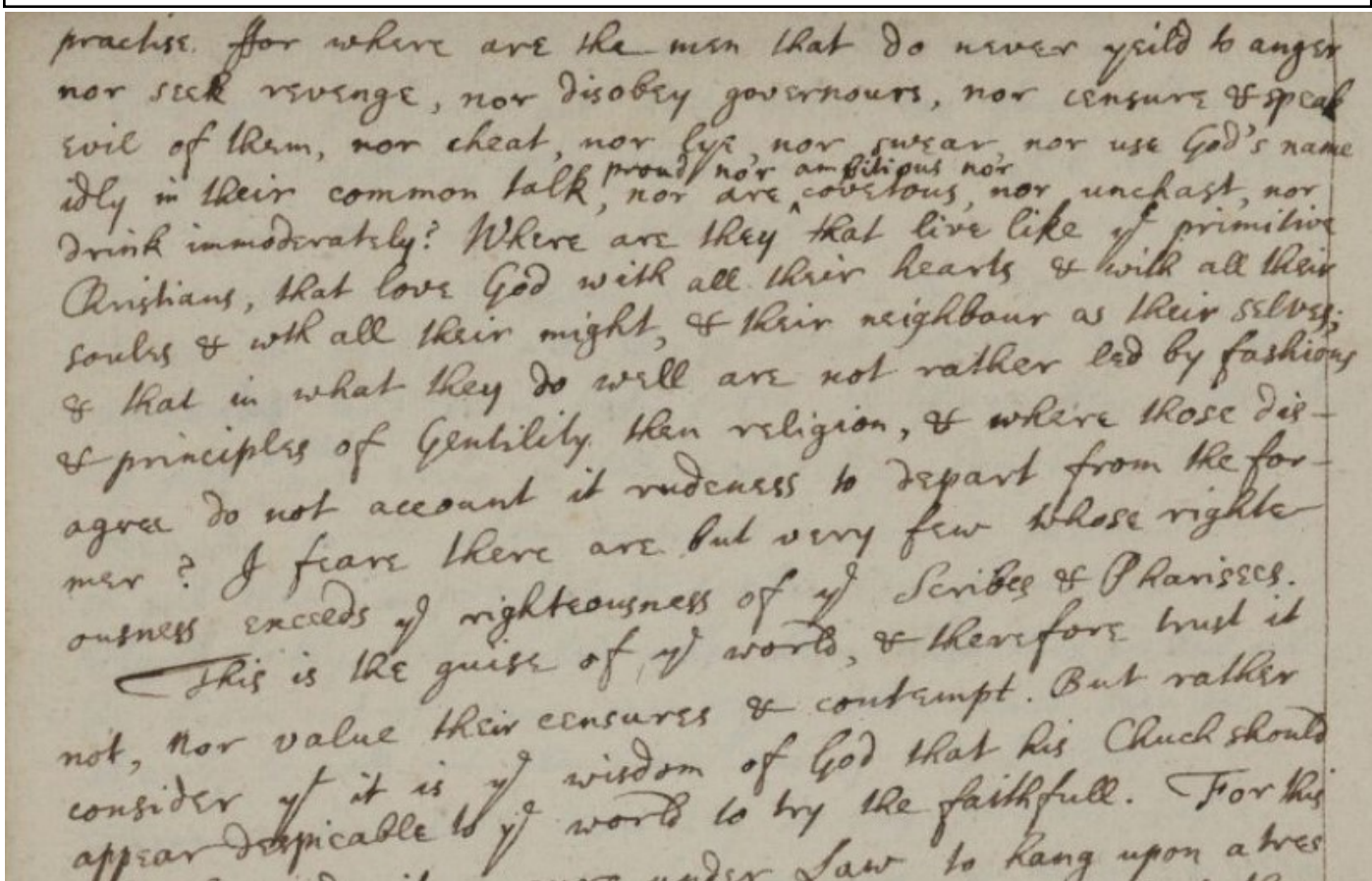
(8) What did Newton write about — the true religion?

Summary:

Newton believed that observing the 2 greatest commandments was fundamental to true religion, asking: “where are they that live like the primitive Christians, that love God with all their hearts & with all their souls & with all their might & their neighbor as their selves.” He also asked: “where are the men that do never yield to anger nor seek revenge, nor disobey governors, nor censure & speak evil of them, nor cheat, nor lye, nor swear” etc.

Yahuda Ms. 1.1, folio 6r
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית



practise. for where are the men that do never yield to anger
nor seek revenge, nor disobey governours, nor censure & speak
evil of them, nor cheat, nor lye, nor swear, nor use God's name
idly in their common talk, nor are ^{proud} nor ^{ambitious} nor
drink immoderately? Where are they that live like of primitive
Christians, that love God with all their hearts & with all their
soules & with all their might, & their neighbour as their selves;
& that in what they do well are not rather led by fashions
& principles of Gentility than religion, & where those dis-
agree do not account it rudeness to depart from the for-
mer? I feare there are but very few whose righteous-
ness exceeds of righteousness of of Scribes & Pharisees.
This is the guise of of world, & therefore trust it
not, nor value their censures & contempt. But rather
consider of it is of wisdom of God that his Church should
appear despicable to of world to try the faithfull. For this
under Law to hang upon a tree

Transcript of Yahuda Ms. 1.1, folio 6r (modernized spelling):

“... for where are the men that do never yield to anger nor seek revenge, nor disobey governors, nor censure & speak evil of them, nor cheat, nor lye, nor swear, nor use God’s name idly in their common talk, nor are proud, nor ambitious, nor covetous, nor unchaste, nor drink immoderately? Where are they that live like the primitive Christians, that love God with all their hearts & with all their souls & with all their might, & their neighbor as their selves; & that in what they do well are not rather led by fashions & principles of Gentility than religion, & where those disagree do not account it rudeness to depart from the former? I fear there are but very few whose righteousness exceeds the righteousness of the Scribes & Pharisees. This is the guise of the world, & therefore trust it not, nor value their censures & contempt. But rather consider that it is the wisdom of God that his Church should appear despicable to the world to try the faithful.”

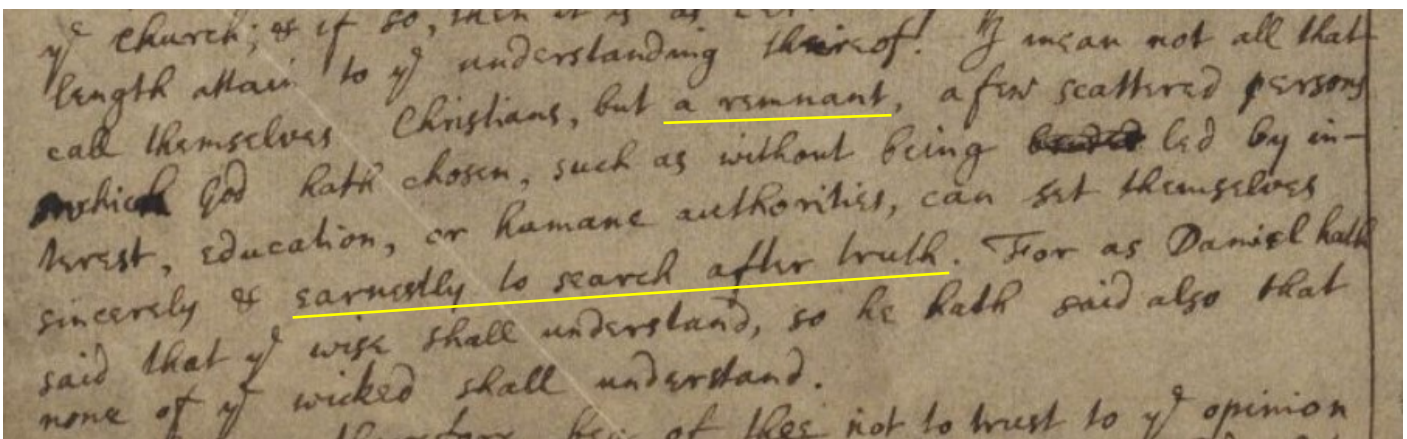
(8) What did Newton write about — the true religion?

Summary:

Newton wrote that “not all that call themselves Christians,” are in fact Christian, “but a remnant ... without being led by interest, education set themselves sincerely & earnestly to search after truth.”

Yahuda Ms. 1.1, folio 1r
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית



of Church; & if so, men in as a
length attain to y^e understanding thereof. I mean not all that
call themselves Christians, but a remnant, a few scattered persons
which God hath chosen, such as without being ~~led~~ led by in-
terest, education, or humane authorities, can set themselves
sincerely & earnestly to search after truth. For as Daniel hath
said that y^e wise shall understand, so he hath said also that
none of y^e wicked shall understand.

Transcript of Yahuda Ms. 1.1, folio 1r (modernized spelling):

“... length attain to the understanding thereof. I mean not all that call themselves Christians, but a remnant, a few scattered persons which God hath chosen, such as without being led by interest, education, or human authorities, can set themselves sincerely & earnestly to search after truth. For as Daniel hath said that the wise shall understand, so he hath said also that none of the wicked shall understand.”



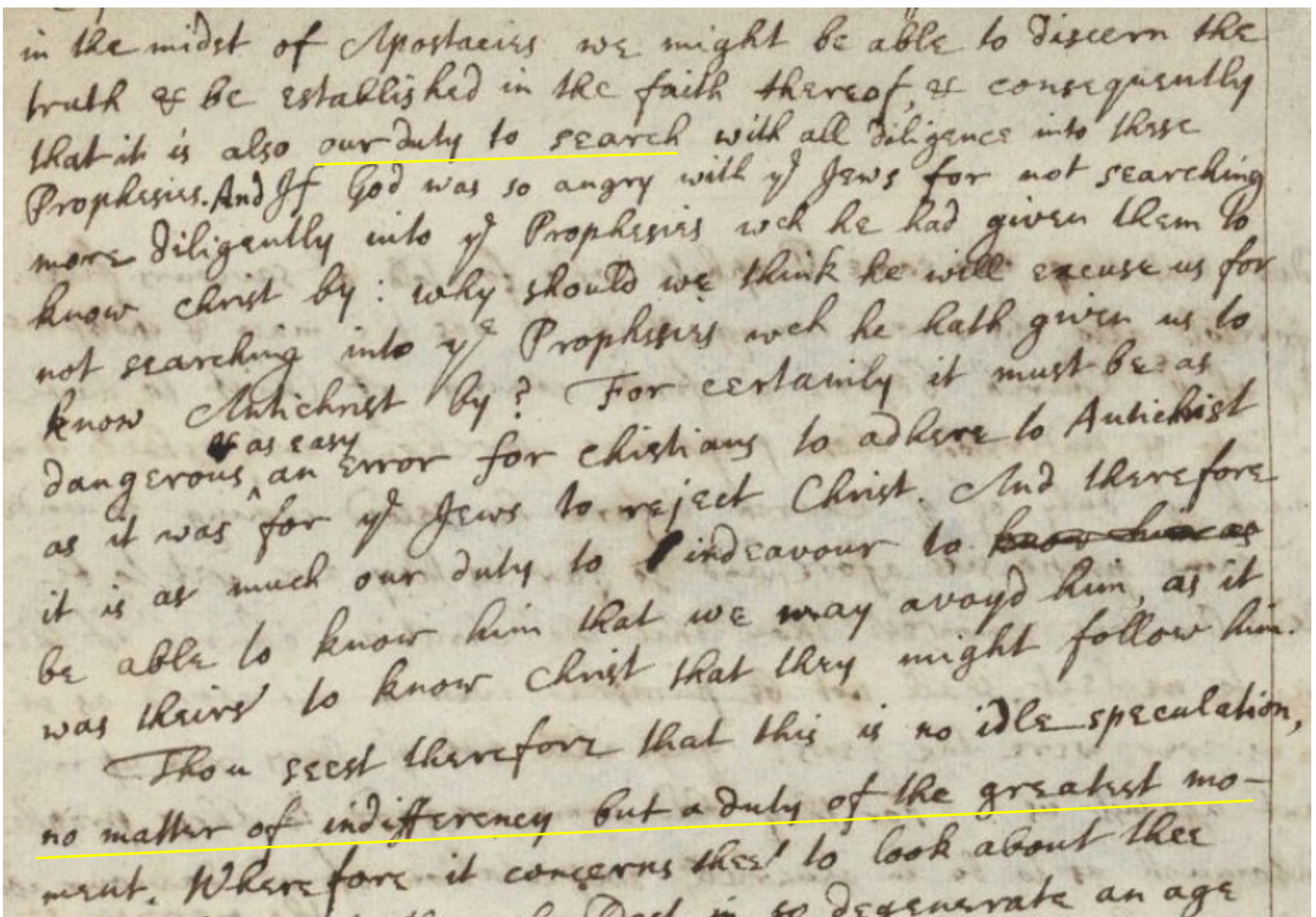
(8) What did Newton write about — the true religion?

Summary:

Newton wrote that it is important to “discern the truth & be established in the faith”, that it is “our duty to search with all diligence into these Prophecies” ... “a duty of the greatest moment”.

Yahuda Ms. 1.1, folio 3r
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית



in the midst of Apostacies we might be able to discern the truth & be established in the faith thereof, & consequently that it is also our duty to search with all diligence into these Prophecies. And if God was so angry with y^e Jews for not searching more diligently into y^e Prophecies wch he had given them to know Christ by: why should we think he will excuse us for not searching into y^e Prophecies wch he hath given us to know Antichrist by? For certainly it must be as dangerous, ^{as easy} an error for Christians to adhere to Antichrist as it was for y^e Jews to reject Christ. And therefore it is as much our duty to endeavour to know him that we may avoid him, as it was theirs to know Christ that they might follow him. Thou seest therefore that this is no idle speculation, no matter of indifferency but a duty of the greatest moment. Wherefore it concerns thee to look about thee

Transcript of Yahuda Ms. 1.1, folio 3r:

“... in the midst of Apostacies we might be able to discern the truth & be established in the faith thereof & consequently that it is also our duty to search with all diligence into these Prophecies. And if God was so angry with the Jews for not searching more diligently into the Prophecies which he had given them to know Christ by, why should we think he will excuse us for not searching into the Prophecies which he hath given us to know Antichrist by? For certainly it must be as dangerous & as easy an error for Christians to adhere to Antichrist as it was for the Jews to reject Christ. And therefore it is as much our duty to endeavor to be able to know him that we may avoid him as it was theirs to know Christ that they might follow him. Thou seest therefore that this is no idle speculation, no matter of indifferency but a duty of the greatest moment...”

(8) What did Newton write about — the true religion?

Summary:

Newton wrote that that the truth of religion is not obvious (as a mathematical demonstration) but that the scriptures are framed so as to discern between the good and the bad.

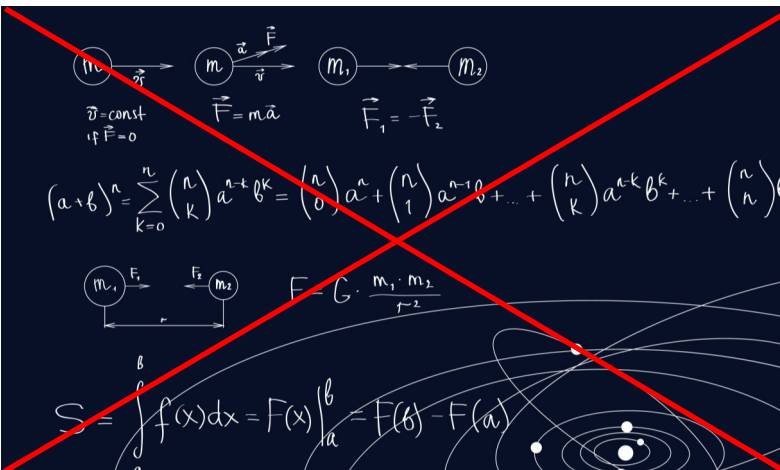
Yahuda Ms. 1.1, folio 19r
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית

ed. ~~I~~ I could wish they would consider how contrary
it is to God's purpose y^t of truth of his religion should
be as obvious & perspicuous to all men as a mathe-
matical demonstration. Tis enough that it is able to
move y^e assent of those wch he hath chosen; & for y^e
rest who are so incredulous, it is just that they should
be permitted to dy in their sins. Here then is y^e wisdom
of God, that he hath so framed y^e Scriptures as to dis-
cern between y^e good & y^e bad, that they should be
demonstration to y^e one & foolishness to y^e other.

Transcript of Yahuda Ms. 1.1, folio 19r (modernized spelling):

"I could wish they would consider how contrary it is to God's purpose that the truth of his religion should be as obvious & perspicuous to all men as a mathematical demonstration. Tis enough that it is able to move the assent of those which he hath chose; & for the rest who are so incredulous, it is just that they should be permitted to die in their sins. Here then is the wisdom of God, that he hath so framed the Scriptures as to discern between the good & the bad, that they should be demonstration to the one & foolishness to the other."



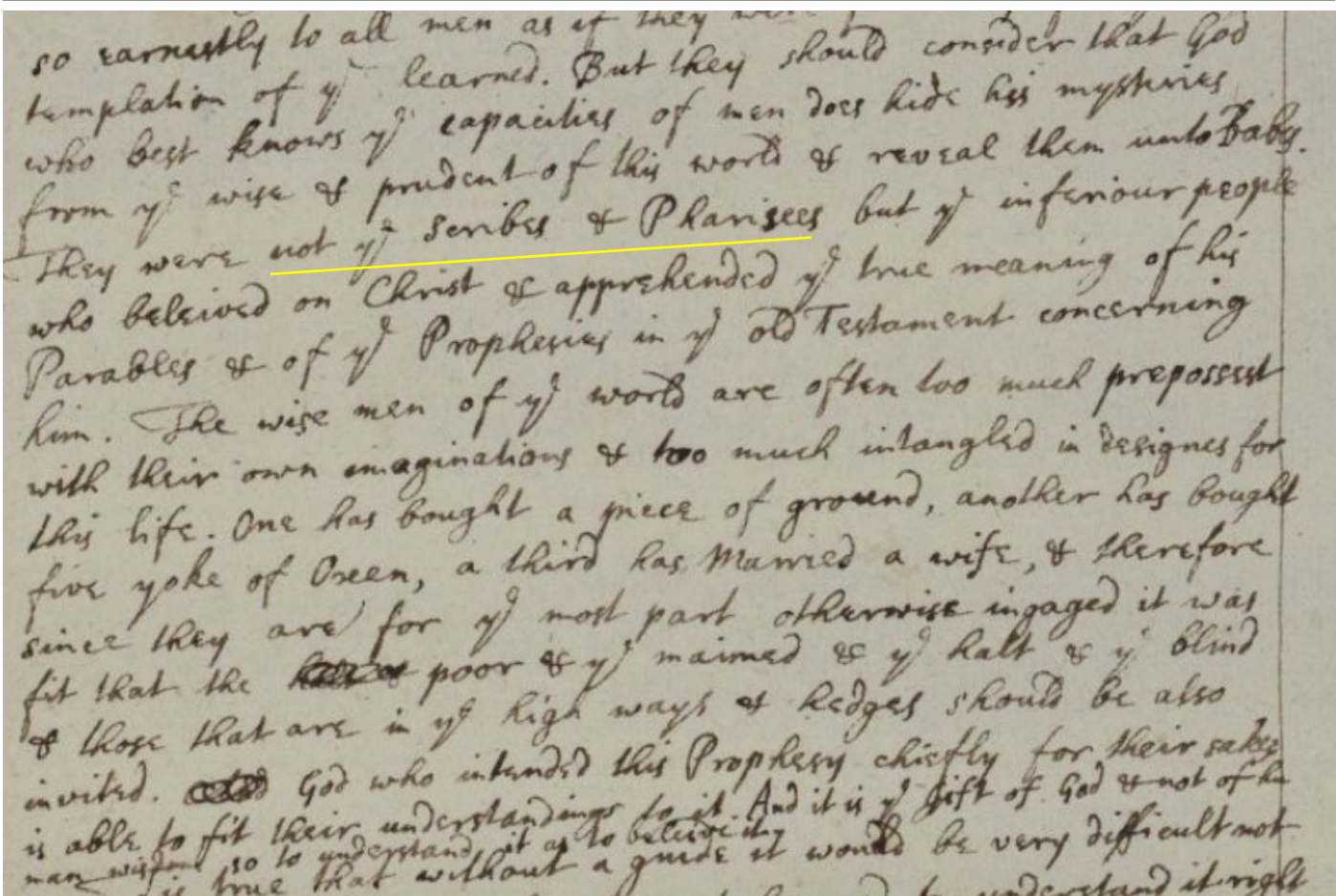
(8) What did Newton write about — the true religion?

Summary:

Newton wrote that it was not the “Scribes & Pharisees” who believed in Christ, but the “inferiour” or lowly people at that time. He wrote that God, who intended the prophecies for the sake of the humble, is able to help them understand and “it is the gift of God and not of human wisdom so to understand it as to believe it.”

Yahuda Ms. 1.1, folio 7r
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית



so earnestly to all men as if they were
temptation of y^e learned. But they should consider that God
who best knows y^e capacities of men does hide his mysteries
from y^e wise & prudent of this world & reveal them unto babes.
They were not y^e Scribes & Pharisees but y^e inferiour people
who believed on Christ & apprehended y^e true meaning of his
Parables & of y^e Prophecies in y^e old Testament concerning
him. The wise men of y^e world are often too much prepossessed
with their own imaginations & too much intangled in designs for
this life. One has bought a piece of ground, another has bought
five yoke of Oxen, a third has married a wife, & therefore
since they are for y^e most part otherwise engaged it was
fit that the ~~poor~~ poor & y^e maimed & y^e halt & y^e blind
& those that are in y^e high ways & hedges should be also
invited. ~~God~~ God who intended this Prophecy chiefly for their sakes
is able to fit their understandings to it. And it is y^e gift of God & not of
man wisdom so to understand it as to believe it would be very difficult not
is true that without a guide it would be very difficult not to understand it right

Transcript of Yahuda Ms. 1.1, folio 7r (modernized spelling):

“... temptation of the learned. But they should consider that God who best knows the capacities of men does hide his mysteries from the wise & prudent of this world & reveal them unto babes. They were not the Scribes & Pharisees but the inferior people who believed on Christ & apprehended the true meaning of his Parables & of the Prophecies in the old Testament concerning him. The wise men of the world are often too much prepossessed with their own imaginations & too much entangled in designs for this life. One has bought a piece of ground, another has bought five yoke of oxen, a third has married a wife, & therefore since they are for the most part otherwise engaged it was fit that the poor & the maimed & the halt & the blind & those that are in the highways & hedges should be also invited. God who intended this Prophecy chiefly for their sakes is able to fit their understandings to it. And it is the gift of God & not of human wisdom so to understand it as to believe it.”

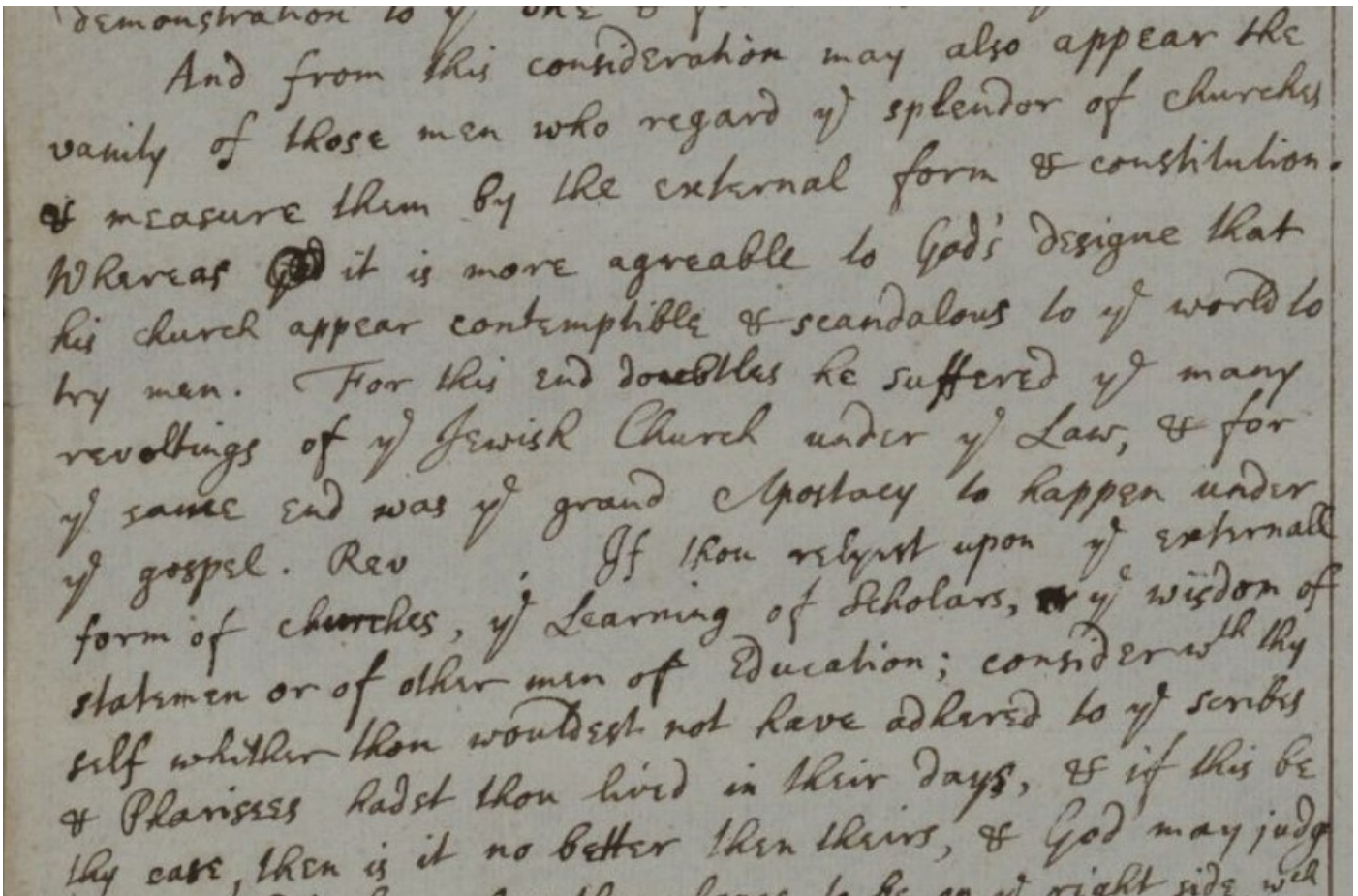
(8) What did Newton write about — the true religion?

Summary:

Newton again mentions the Scribes & Pharisees and warns his readers not to “relyest upon the wisdom of statesmen or of other men of education” and not to “regard the splendor of churches & measure them by the external form”.

Yahuda Ms. 1.1, folio 19r
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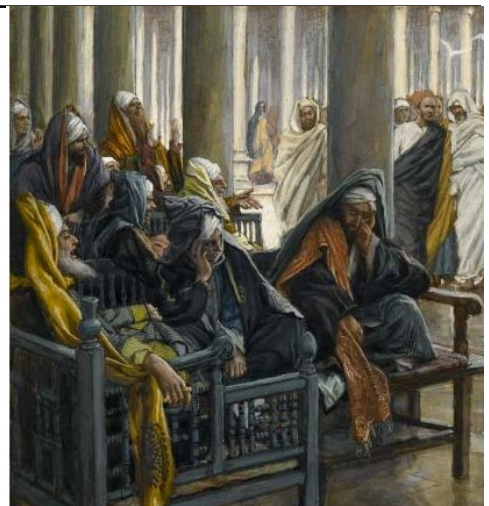
מאוסף הספרייה הלאומית



And from this consideration may also appear the vanity of those men who regard y^e splendor of churches & measure them by the external form & constitution. Whereas ~~it~~ it is more agreeable to God's designe that his church appear contemptible & scandalous to y^e world to try men. For this end doubtles he suffered y^e many revoltings of y^e Jewish Church under y^e Law, & for y^e same end was y^e grand Apostacy to happen under y^e gospel. Rev. If thou relyest upon y^e external form of churches, y^e Learning of Scholars, ~~or~~ y^e wisdom of statesmen or of other men of Education; consider with thy self whether thou wouldest not have adhered to y^e scribes & Pharisees hadst thou lived in their days, & if this be thy case, then is it no better then theirs, & God may judge

Transcript of Yahuda Ms. 1.1, folio 19r:

“And from this consideration may also appear the vanity of those men who regard the splendor of churches & measure them by the external form & constitution. Whereas it is more agreeable to God’s design that his church appear contemptible & scandalous to the world to try men. For this end doubtless he suffered the many revoltings of the Jewish Church under the Law & for the same end was the grand Apostasy to happen under the gospel. Rev. If thou relyest upon the wisdom of statesmen or of other men of education; consider with thyself whether thou wouldest not have adhered to the Scribes & Pharisees hadst thou lived in their days & if this be thy case then is it no better than theirs & God may judge.”



“Woe unto You, Scribes and Pharisees” by James Tissot (Brooklyn Museum)

(8) What did Newton write about — the true religion?

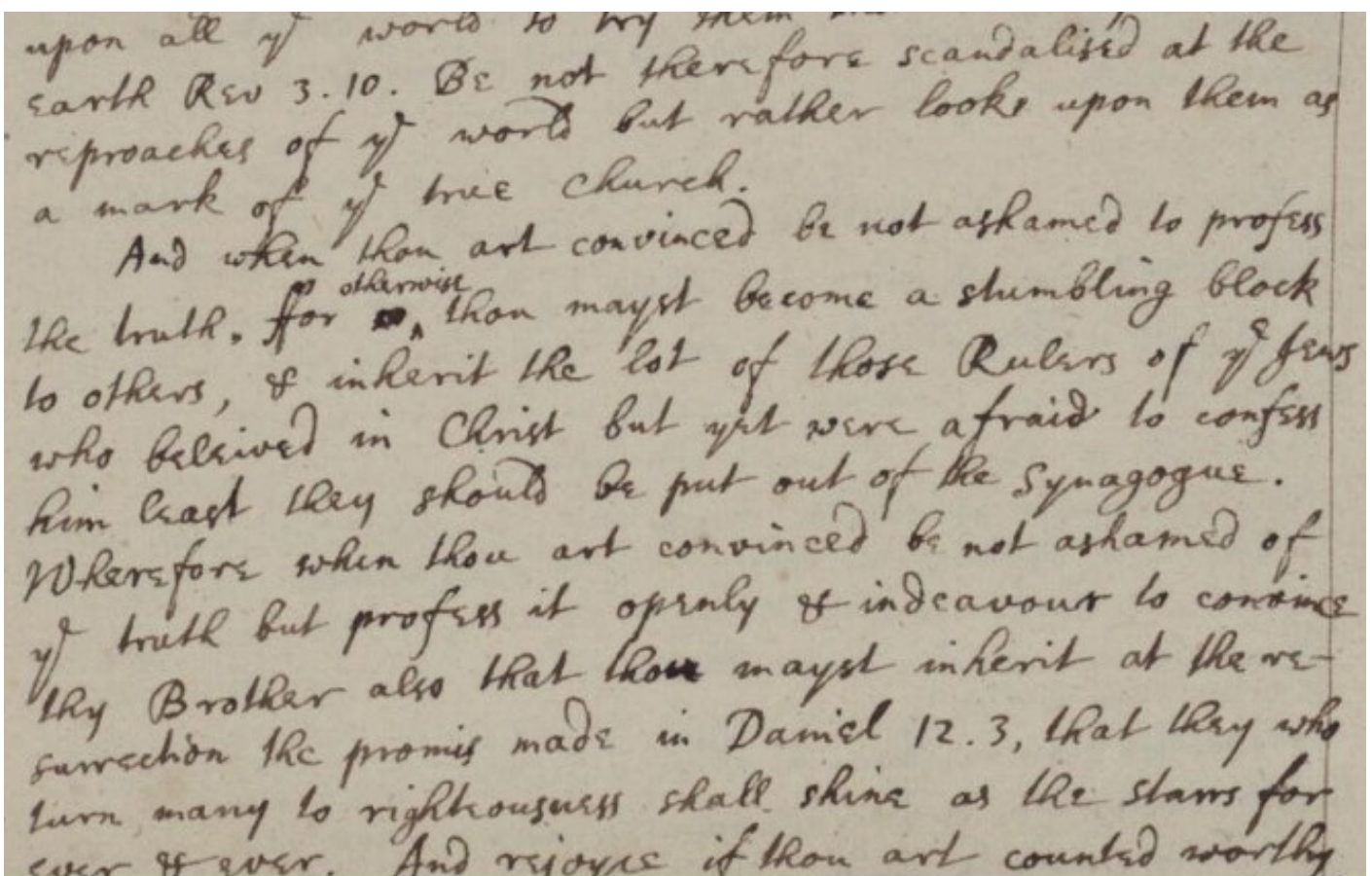
Summary:

Newton wrote: “Be not therefore scandalized by the reproaches of the world but rather look upon them as a mark of the true church.”

“When thou art convinced be not ashamed of the truth but profess it openly & endeavor to convince thy brother also.”

Yahuda Ms. 1.1, folio 6r
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית



upon all of words to try them
earth Rev 3.10. Be not therefore scandalized at the
reproaches of of words but rather looks upon them as
a mark of of true church.
And when thou art convinced be not ashamed to profess
the truth, for ^{otherwise} thou mayst become a stumbling block
to others, & inherit the lot of those Rulers of of Jews
who believed in Christ but yet were afraid to confess
him least they should be put out of the Synagogue.
Wherefore when thou art convinced be not ashamed of
of truth but profess it openly & endeavour to convince
thy Brother also that thou mayst inherit at the re-
surrection the promise made in Daniel 12.3, that they who
turn many to righteousness shall shine as the stars for
ever & ever. And rejoice if thou art counted worthy

Transcript of Yahuda Ms. 1.1, folio 6r:

“earth Rev. 3:10. Be not therefore scandalized by the reproaches of the world but rather look upon them as a mark of the true church.

And when thou art convinced be not ashamed to profess the truth, for otherwise thou mayst become a stumbling block to others, & inherit the lot of those Rulers of the Jews who believed in Christ but were afraid to confess him least they should be put out of the Synagogue.

Wherefore when thou art convinced be not ashamed of the truth but profess it openly & endeavor to convince thy brother also that thou mayst inherit at the resurrection the promise made in Daniel 12.3, that they who turn many to righteousness shall shine as the stars forever & ever. And rejoice if thou art counted worthy to suffer in thy reputation or any other way for the sake ...”

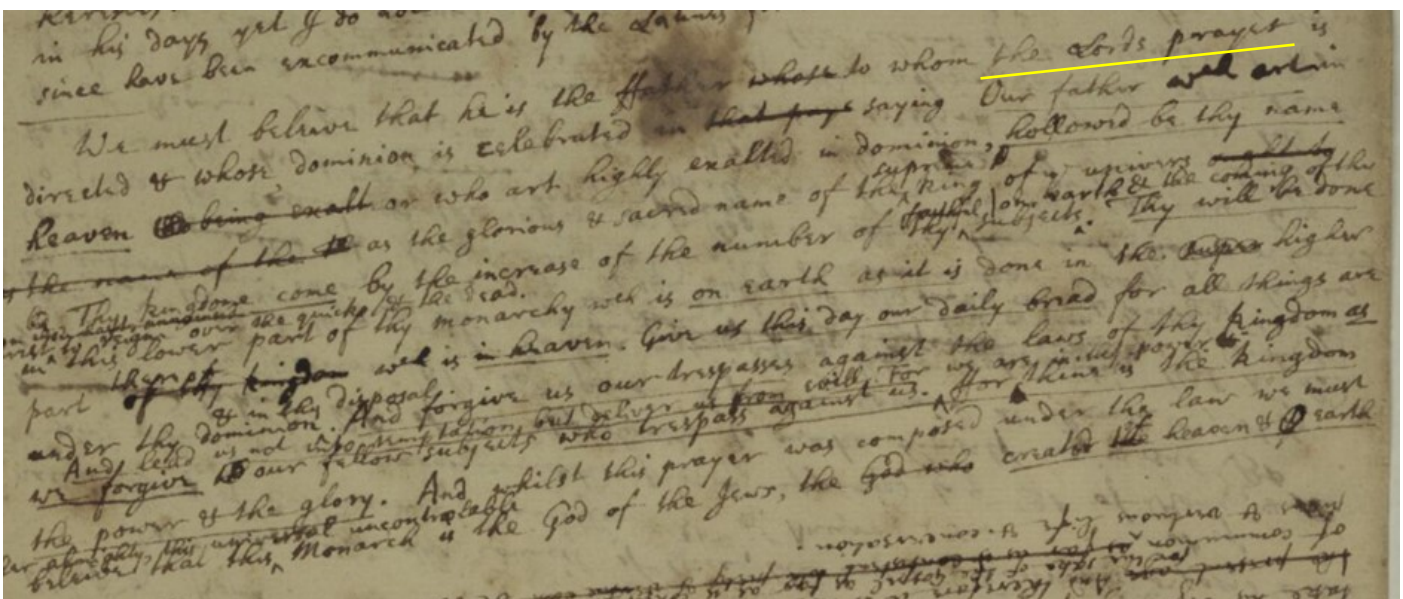
(8) What did Newton write about — true religion?

Summary:

Newton wrote about the Lord's prayer and commented on each aspect of it, as he understood it to apply to Christian belief.

Yahuda Ms. 15.3, folio 65r
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית



Transcription of Yahuda Ms. 15.3, folio 65r (with modernized spelling & punctuation)

"We must believe that he is the father to whom the Lord's prayer is directed & whose dominion is celebrated saying Our father which art in heaven or who art highly exalted in dominion, hallowed be thy name as the glorious & sacred name of the supreme king of the universe. Thy kingdom come by the increase of the number of thy faithful subjects on earth & the coming of thy Christ whom thou hast anointed to reign over the quick & the dead. Thy will be done in this lower part of thy monarchy which is on earth as it is done in the higher part thereof which is in heaven. Give us this day our daily bread for all things are under thy dominion & in thy disposal. And forgive us our trespasses against the laws of thy kingdom as we forgive our fellow subjects who trespass against us. And lead us not into temptation but deliver us from evil. For we are in thy power for thine is the kingdom, the power & the glory. And whilst this prayer was composed under the law we must believe that this father almighty, this universal uncontrollable Monarch is the God of the Jews, the creator of heaven & earth"

The Lord's Prayer

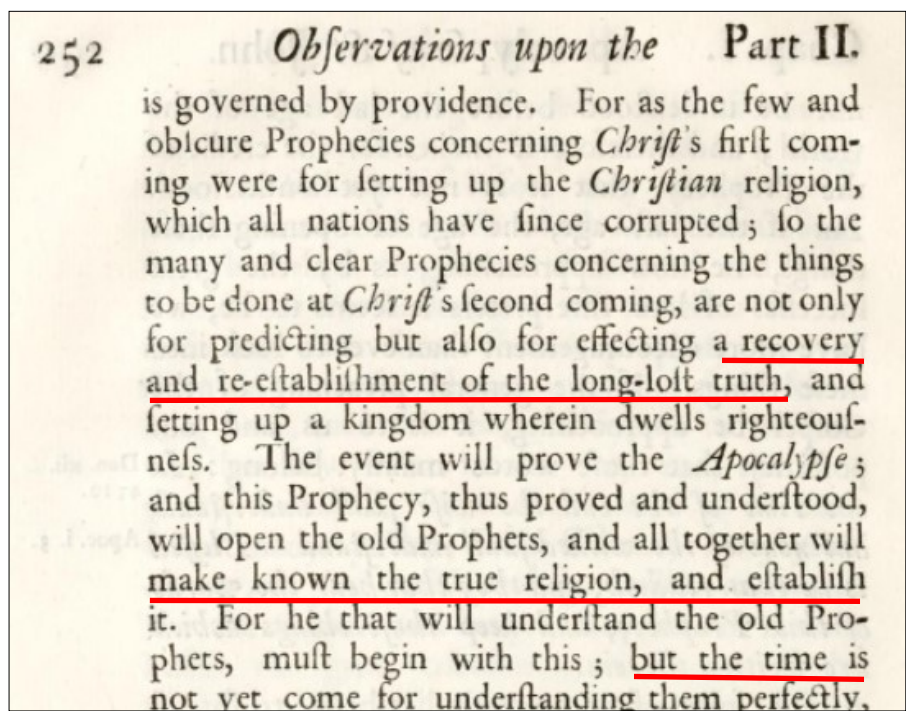
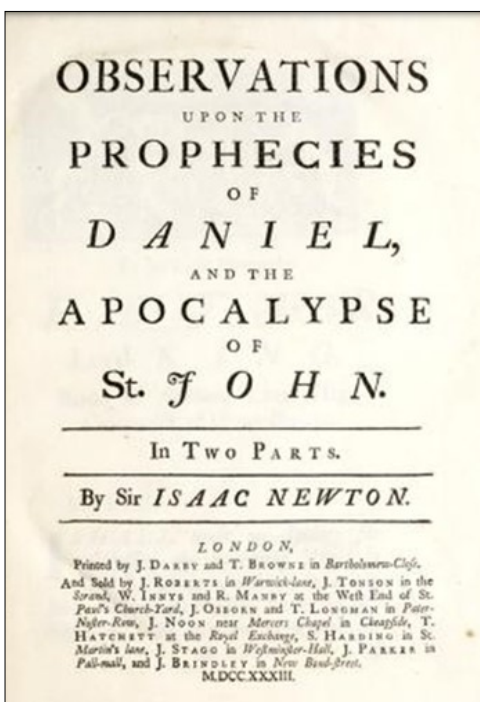
(8) What did Newton write about — the true religion?

Summary:

In his work, *Observations Upon the Prophecies of Daniel & the Apocalypse of St John*, Newton wrote that in the future there would be “a recovery and re-establishment of the long-lost truth”.

He also wrote that the “Prophecy, thus proved and understood, will open the old Prophets and all together will make known the true religion, and establish it.”

He added that the time had not yet come (in his day) for understanding the prophecies perfectly.



Transcription of page 252 of *Observations* (with modernized spelling):

“For as the few and obscure Prophecies concerning *Christ's* first coming were for setting up the *Christian* religion, which all nations have since corrupted; so the many and clear Prophecies concerning the things to be done at *Christ's* second coming, are not only for predicting but also for effecting a recovery and re-establishment of the long-lost truth, and setting up a kingdom wherein dwells righteousness. The event will prove the *Apocalypse*; and this Prophecy, thus proved and understood, will open the old Prophets, and all together will make known the true religion, and establish it. For he that will understand the old Prophets, must begin with this; but the time is not yet come for understanding them perfectly.”

(9) What did Newton write about —
preaching?

Summary:

In his work, *Observations*, Newton wrote that “the gospel must be preached in all nations before the great tribulation & end of the world”.

He also stated that a “universal preaching of the Gospel” had not yet been done “and therefore it is to come.”

250 *Observations upon the* Part II.

For the Gospel must be preached in all nations
before the great tribulation, and end of the
world. The palm-bearing multitude, which
come out of this great tribulation, cannot be
innumerable out of all nations, unless they be
made so by the preaching of the Gospel before it
comes. There must be a stone cut out of a



Yahuda Ms. 1.4, folio 2r
The National Library of Israel, Jerusalem

3 After the greatest decay of religion there is to be an
universal preaching of the Gospel immediately before y^e seventh
Trumpet. But this is not yet fulfilled; there has been nothing
done in y^e world like it, & therefore it is to come.

Transcription of Yahuda Ms. 1.4, folio 2r

“3 After the greatest decay of religion there is to be an universal preaching of the Gospel immediately before the seventh Trumpet. But this is not yet fulfilled; there has been nothing done in the world like it, & therefore it is to come.”

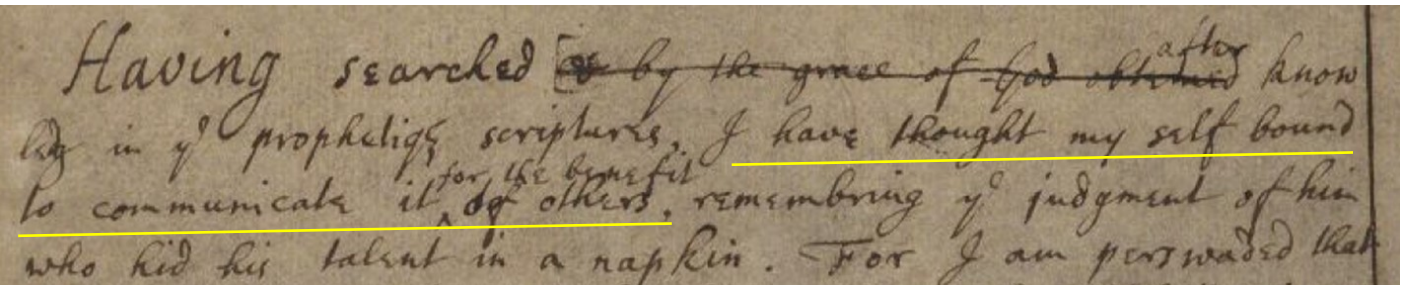
(9) What did Newton write about — preaching?

Summary:

It seems Newton took seriously his personal responsibility to preach, writing: “I have thought myself bound to communicate it for the benefit of others.” (He then alludes to Luke 19:20—the unfaithful man who hid the mina in a cloth.)

Yahuda Ms. 1.1, folio 1r
The National Library of Israel, Jerusalem

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Having searched ~~by~~ by the grace of God ~~after~~ ^{after} knowledg in y^e prophetick scriptures, I have thought my self bound to communicate it ^{for the benefit} of others, remembering y^e judgment of him who hid his talent in a napkin. For I am persuaded that

Transcription of Yahuda Ms. 1.1, folio 1r:

“Having searched after knowledge in the prophetic scriptures, I have thought myself bound to communicate it for the benefit of others, remembering the judgment of him who hid his talent in a napkin.”

In *Keynes Ms. 3*, Newton wrote: “When we have learnt any of these things we are not to impose them upon our neighbours. We may teach them to him in a friendly manner, but if he is weak & unable to receive them we are not to fall out with him about them; much less are we to pronounce him damned or tax him with heresy or break communion with him, or to hurt him in his body or goods on that account.”

After Newton’s death, his friend Nick Wickins wrote that Newton had set up:

“a Charitable Benefaction, which has privately pass’d from Him through My Fathers & since his Death through my own hands. We have been y^e Dispersers of many Dozens of Bibles sent by him for poor people, & I have now many by me sent from Him for y^e same purpose”... “my Thoughts dwell with wonderful delight upon the Memory of this Great, & Good Man”. (Wickins:1727)



Did Newton speak to others about the Bible?



William Whiston

Mathematician, Professor, Historian & Theologian

Whiston wrote that Newton had opened a discussion about the trinity with him and Dr Clarke. He said Newton's words "at that time a little shocked us both" but he and Clarke went on to become vocal anti-Trinitarians. (Whiston, 1711, p.ix)



Dr Samuel Clarke

Author, Philosopher & Clergyman (chaplain to Queen)

Voltaire wrote that Queen Caroline was prevented from appointing Clarke as Archbishop of Canterbury by Bishop Gibson who said Clarke was "the most honest and learned man in her dominion but with one defect—he was not a Christian"! (Voltaire, 1752)



Colin Maclaurin

Scottish Mathematician— invented Maclaurin series.

Maclaurin told others that Newton had spoken to him about the falseness of the Trinity teaching. Maclaurin described his friendship with Newton as "the greatest honour and happiness of his life." (Maclaurin, p. iv)

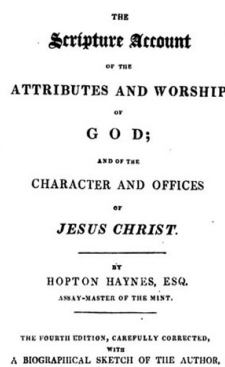


John Locke

Famous philosopher

Newton was invited by Locke to "consider the pedigree of two central Trinitarian proof-texts, 1 Tim 3:16 and 1 John 5:7-8.... In 1690 Newton sent Locke a lengthy discussion of the two texts in question, arguing both were examples of forgery". (Iliffe 2016, p.506)

Hopton Haynes worked with Newton for many years at the Royal Mint. After Newton's death he published this book in which he argues against the Trinity and writes that "Jehovah is the proper name of God". (Haynes 1790)



Chap.	Page
i. Axioms or rules for understanding the scriptures .	1
ii. That there is, and can be, but one Supreme Being, &c. &c.	2
iii. The several senses of the word God	5
iv. God one	9
v. God styled a spirit, i. e. one spirit	11
vi. God one person	12
vii. Jehovah the proper name of God among the Jews; and the only object of worship to them, to Christ, and his apostles, &c. &c.	16
viii. The Father, the only true God	21
ix. God the Father, and the God of our Lord Jesus	



Queen Caroline, wife of King George II, grandmother of King George III

"George II and Queen Caroline showed Newton favour and often admitted him to their royal presence for hours together. The Queen liked to hear arguments on matters of Philosophy & Divinity, and frequently desired to see him and always expressed great satisfaction in his conversation. She expressed a great regard for everything that concerned his honour & memory and thought it a happiness to have lived at the same time & have known so great a man."

(Conduitt, 1727)

(10) What did Newton write about — the “end of the world” and prophecy?

Summary:

Newton wrote about the vision of the “Image composed of four metals” and that this image represents the “four great nations which should reign over the earth successively ... Babylonia, the Persians, the Greeks & the Romans.” He wrote that the stone that breaks all the four metals to pieces represents “a new kingdom” that would rule over the earth forever, and identified it as God’s Kingdom.

Yahuda Ms. 7.3p , folio 3v
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית

For this religion is governed by
Now in this vision of the Image composed of four metals the foundation
of all Daniels prophecies is laid. It represents a body of four great nations
which should reign over the earth successively: vizt the people of Baby-
lonia, the Persians, the Greeks, & the Romans. And by a stone cut out without
hands, which fell upon the feet of the image, & brake all the four metalls
to pieces & filled the earth, it further represents that a new kingdom
should arise after the four & conquer all those nations & grow very great
& last to the end of ages.



Transcription of Yahuda Ms. 7.3p, folio 3v

“Now in this vision of the Image composed of four metals the foundation of all Daniel’s prophecies is laid. It represents a body of four great nations which should reign over the earth successively: viz, the people of Babylonia, the Persians, the Greeks, & the Romans. And by a stone cut out without hands, which fell upon the feet of the image, & break all the four metals to pieces & filled the earth, it further represents that a new kingdom should arise after the four & conquer all those nations & grow very great & last to the end of ages.”

Yahuda Ms. 7.2g, folio 5r
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית

until the coming of the Kingdom for which we daily pray.

“until the coming of the Kingdom for which we daily pray.”

Historians have commented on this statement, that Newton was praying for the Kingdom to come “daily.”



(10) What did Newton write about — the “end of the world”?

Summary:

Newton wrote that the earth shall be inhabited forever by “mortals” and that Christ will reign over the earth and this reign would be “invisible to mortals”.

Yahuda Ms. 6, folio 12r & 19r
The National Library of Israel, Jerusalem

מאוסף הספרייה הלאומית

difficult to be over-
observe of following particulars.
first that this earth shall continue to be inhabited ^{by mortals} after
the day of judgment & that not only for a 1000 years but
even for ever. For at the sounding of the 7th Trumpet of Kingdoms
of Lord & of his Christ & he

Transcription of Yahuda Ms. 6, folio 12r:

“first that this earth shall continue to be inhabited by mortals after the day of judgment & that not only for a 1000 years, but even forever.”

mortal & immortal, we are not to conceive that Christ & the Children
of the resurrection shall reign over ^{the nations} ~~mortals~~ after the manner
of mortal kings or converse with mortals as mortals do with one another;
but rather as Christ after his resurrection continued for some time
on earth invisible to mortals unless ~~upon~~ upon certain occasions when
he thought fit to appear to ~~his~~ his disciples: so it is to be con-
ceived that at his second coming he and the children of the re-
surrection shall reign invisibly unless when they shall think fit upon
any extraordinary occasions to appear. And as Christ after some

Transcription of Yahuda Ms. 6, folio 19r:

“mortal & immortal, we are not to conceive that Christ & the Children of the resurrection shall reign over the nations after the manner of mortal kings or converse with mortals as mortals do with one another, but rather as Christ after his resurrection continued for some time on earth invisible to mortals unless upon certain occasions when he thought fit to appear to his disciples, so it is to be conceived that at his second coming he and the children of the resurrection shall reign invisibly unless when they shall think fit upon any extraordinary occasions to appear.”



(10) What did Newton write about —
the “end of the world” and prophecy?

Summary:

Newton did not believe the “end” would come in his lifetime, but possibly in the 20th or 21st Century. However, when writing this, he stated that he mentioned this **“not to assert when the time of the end shall be”** but to put a stop to those who were frequently predicting various end dates, which then failed. He emphasized that “Christ comes as a thief in the night and **it is not for us to know** the times and seasons which God hath put into his own breast.”

Yahuda Ms. 7.3g folio 13v
The National Library of Israel, Jerusalem

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conquest of the world
may end later, ^{and} but see no reason for its ending sooner.
this I mention not to assert when the time of the end shall be,
but to put a stop to the rash conjectures of fancifull men who
are frequently predicting the time of the end, & by doing so bring
the sacred prophecies into discredit as often as their predictions
fail. Christ comes as a thief in the night, & it is not for us to
know the times & seasons which God hath put into his own breast.

Transcription of Yahuda Ms. 7.3g, folio 13v:

“This I mention not to assert when the time of the end shall be, but to put a stop to the rash conjectures of fanciful men who are frequently predicting the time of the end, & by doing so bring the sacred prophecies into discredit as often as their predictions fail. Christ comes as a thief in the night & it is not for us to know the times and seasons which God hath put into his own breast.”

world become the kingdoms of *Christ*. 'Tis
therefore a part of this Prophecy, that it should
nc^r

Chap. I. *Apocalypse of St. John.* 251

not be understood before the last age of the
world; and therefore it makes for the credit of
the Prophecy, that it is not yet understood.

Modern Transcription of “Apocalypse of St John,” p.251:

“Tis therefore a part of this Prophecy, that it should not be understood before the last age of the world; and therefore it makes for the credit of the Prophecy that it is not yet understood.”

Part 5: Timeline of Major Events in Newton's Life

1642	25 December: Birth of Isaac Newton in Woolsthorpe, Lincolnshire.
1646	27 January: Hannah Newton leaves 3 year-old Isaac in the care of her mother and marries Barnabas Smith, rector of North Witham (the next village about 1½ miles away)
1653	Barnabas Smith dies and Hannah returns to Woolsthorpe with her three children.
1654	Newton is enrolled at King's School, Grantham, and boards with the local apothecary, Mr. Clark, and his family.
1661	5 June: Enrolled at Trinity College, Cambridge, as a subsizar (a type of scholarship student who acts as a servant to wealthier students).
1665-7	Graduates BA. Outbreak of plague in Cambridge and so Newton remains in Woolsthorpe until March 1667.
1667	Made Fellow of Trinity College. The college rules require him to take a vow of celibacy, and to promise to take holy orders within seven years of receiving his MA.
1668	Awarded an MA.
1672	Elected Fellow of the Royal Society. His 'Theory about Light and Colors' is published in the Royal Society's journal, <i>Philosophical Transactions</i> on 30 Jan
1675	Receives a dispensation from taking holy orders (which college rules require him to do).
1679	Returns to Woolsthorpe in the spring to nurse his dying mother (buried 4 June).
1684	August: Halley visits Newton to discuss the inverse square law and the notion of gravity.
1687	July: <i>Principia</i> is published (due to Edmond Halley's financial & moral support)
1689	Elected MP for Cambridge University.
1693	Suffers a nervous breakdown (July/August). Has recovered by the end of the year.
1696	Appointed Warden of the Royal Mint and settles in London the next month.
1699?	About 1699 Catherine Barton (b. 1679), the daughter of Newton's half-sister Hannah, comes to live with him in London.
1700	Newton transfers from being Warden to Master of the Mint.
1701	Elected MP again for Cambridge University. Resigns as Lucasian Professor, and is succeeded by William Whiston.
1703	Elected President of the Royal Society.
1704	Publishes <i>Opticks</i> .
1705	Knighthood.
1727	Presides over his last Royal Society meeting on 19 Feb. Dies, having refused the last rites, on 20 March.

Part 5: The Life of Isaac Newton (1642—1727)

(A) Newton's Early Life (1642—1661)

Isaac Newton was born on 25 December 1642 in Woolsthorpe, Lincolnshire, England.

(In Europe the new Gregorian calendar had been adopted and so that date was 4 January 1643 in Europe; however, in England the Julian calendar was still in use at Newton's birth, so the date in England was 25 December.)



Isaac's father had died three months before he was born. Newton was a small, premature baby, and not expected to live. In fact, his mother, Hannah, said he was "so little he could have fit inside a quart mug" (Conduitt, 1726, p.1r) such as this antique quart tankard on the right.



Photo credit: Doug Murray

Newton was born on
25 December 1642,
— **Christmas Day.**

PUBLICK NOTICE

The Observance of CHRISTMAS having been deemed
a Sacrilege, the exchanging of Gifts and Greetings,
Dreſſing in Fine Clothing, Feaſting and ſimilar
Satanical Practices are hereby

FORBIDDEN

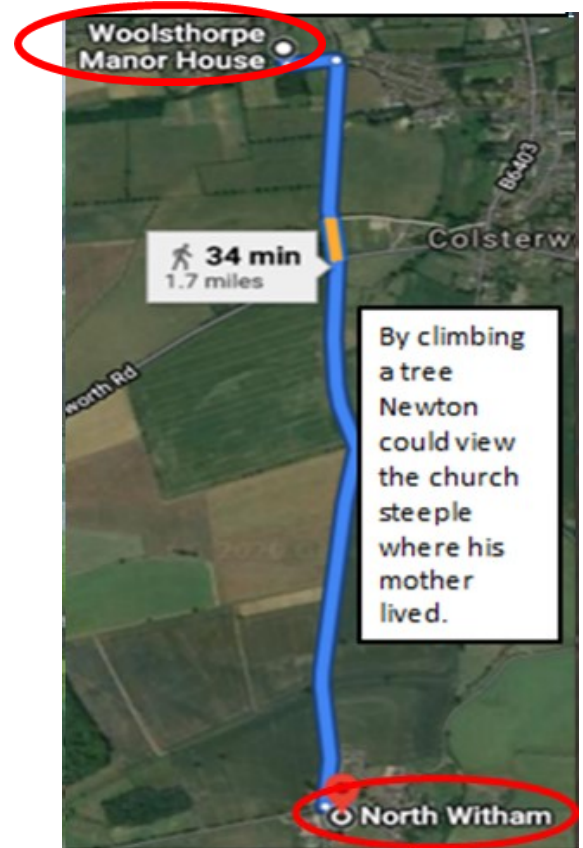
However, at that time in England there were strict restrictions on the celebration of Christmas— and most people did not celebrate their own birthdays.

From 1644 to 1660 it was **against the law** to celebrate Christmas. So until Newton was 18 years old, it would have been illegal for him to celebrate Christmas (or his own birthday).

There is no record that Newton ever celebrated either event, even later in his life. His writings indicate he always viewed such celebrations as pagan.

Newton's Early Life (1642—1661)

On 27 January **1646** Hannah Newton left 3 year-old Isaac at Woolsthorpe Manor, in the care of her mother, and married Reverend Barnabas Smith, the Rector of North Witham, and went to live in that village, 1.7 miles (2.7 kilometres) away from where Newton continued to live.



In **1651**, when Newton was only 9 years old, he carved this sun dial, (shown on the left) which can still be seen at Colsterworth Church.

In **1653** Barnabas Smith died and Hannah returned to Woolsthorpe with her three children from her second marriage, Newton's stepsisters and stepbrother: Mary, six years; Benjamin, three years; Hannah, not yet one year old.

Newton was born and grew up in a time of civil war in England (1642-1651). Battles between the Royalists and the Parliamentarians were fought all over England, including in Lincolnshire.

King Charles I was executed by Parliament in 1649 and the Puritans ruled England under the protectorate of Oliver Cromwell, until the restoration of the monarchy with King Charles II in 1660.



King Charles I



Oliver Cromwell

Newton's Early Life (1642—1661)



The King's School, Grantham, Lincolnshire. Image © Acabashi CC-BY-SA 4.0

In **1654**, when he was 12, Newton's mother enrolled him at King's School, Grantham, and sent him to board with the Clarke family for about 5 years.

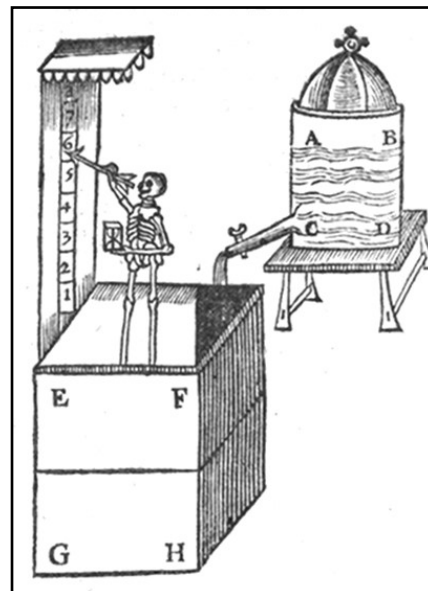
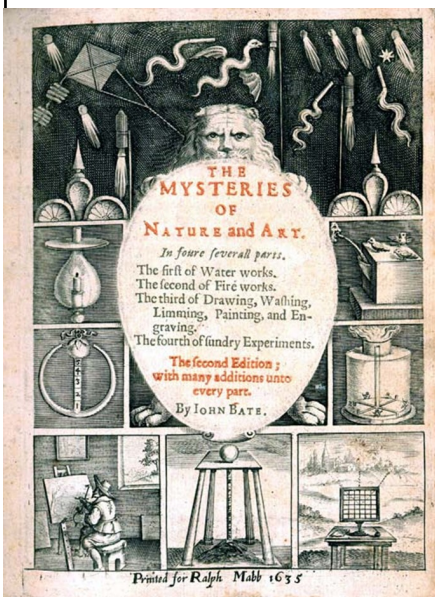
A childhood friend of the time, Katherine Storer, described Newton as a "sober, silent thinking lad" who would "make little tables, cupboards and other things for the girls' play." (Stuckeley, p.45)

Mrs Clarke was a friend of Hannah Newton, and Mr Clarke was the local apothecary (chemist) in Grantham. (Stuckeley, p.45)

Newton spent hours watching Dr Clarke at work in his shop, mixing chemicals and making medicines. Historians note that "living in an apothecary shop" was the beginning of his lifelong interest in "chymistry" and experimentation with a wide range of metals and chemicals. (Westfall 1980, p.63)



During this time in Grantham, Newton discovered John Bate's booklet, "The Mysteries of Nature and Art" and did many of the experiments shown in the booklet, including making kites, lanterns, and water clocks. Newton even "made a cart with four wheels, wherein he would sit, and by turning a winlass about, he could make it carry him where he pleased." (Stuckeley, pp.38-42)



When Newton was 17 years old, his mother Hannah told him to come back home and start being a farmer. Newton did not “take to country affairs and managing his own estate”. (Stuckeley, p. 43) In fact, the Lincolnshire Archives record that in 1659 Isaac Newton received fines for letting his sheep stray into the neighbours’ corn” and for his fences “being out of repair”. The accounts of the time tell of Newton being distracted by books or by “building gadgets”. (Westfall1980 pp.63,64)

(B) Newton’s Life at Trinity College (1661—1696)

Newton’s uncle (who had studied at Trinity College some years earlier) and his schoolmaster, Henry Stokes, finally convinced Hannah to let Newton go to Cambridge University.

In **1661** on 5 June, Newton enrolled at Trinity College, Cambridge, as a subsizar (a type of scholarship student who acted as a servant to wealthier students).



Below is a photograph of Newton’s rooms where he lived and worked for about 35 years.



Photo credit: Craig Davies

In **1665** Newton graduated with a Bachelor of Arts degree. Then there was outbreak of plague in Cambridge and the university closed, so Newton went home to Woolsthorpe Manor, and stayed there until March **1667**.

This “lockdown” period was a very productive time for Newton and historians have called it Newton’s “Years of Wonders” or *anni mirabiles*. (Christianson, p.73; Westfall 1980, p.140)



Photo credit: Craig Davies

Above is a photograph of the famous apple tree under which Newton sat, while home from university during the plague period. Newton **never** stated that an apple hit him in the head, but he did mention to at least four others (who in turn wrote about it in their memoirs or biographies) that while sitting under the tree “in a contemplative mood” he **saw an apple fall** and that started him thinking about the force that had pulled the apple to the ground and the way in which that force operated. (Stuckeley, p.15)



“Master Isaac Newton in his Garden at Woolsthorpe in the Autumn of 1665” by Robert Hannah (Wellcome Collection) Photo credit: The Royal Institution

Newton's Life at Trinity College (1661—1696)

In **1667** Newton was made a Fellow of Trinity College. The college rules required him to take a vow of celibacy, and to promise that he would take holy orders within seven years of receiving his Master of Arts degree. Newton was awarded a Master of Arts degree in **1668**.

In **1671** Newton invented the first reflecting telescope and submitted it to the Royal Society in London. According to one of Newton's biographers, when Newton presented his Reflecting Telescope to the Royal Society, Dr Hooke "criticized the instrument with undue severity" while announcing that he himself "possessed an infallible method of perfecting all kinds of optical instruments." (Brewster, p. 78)

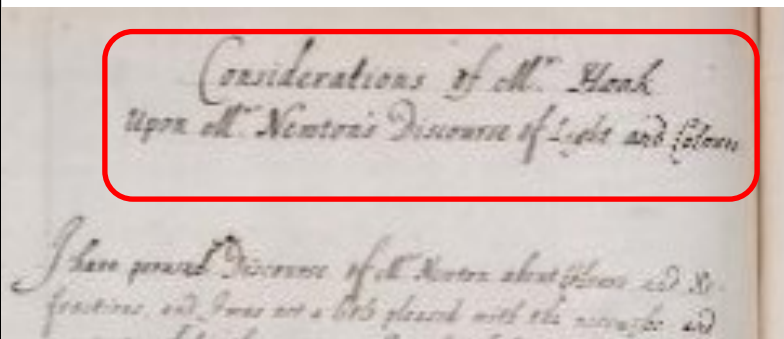


In **1672** Newton's 'Theory about Light and Colors' was published in the Royal Society's journal, *Philosophical Transactions*. At this time Robert Hooke was Curator of Experiments for the Royal Society and he made a series of attacks on Newton's report. (Fara 2015)

As one historian described it:

"Hooke claimed that what was correct in Newton's theory was stolen from his own ideas about light (which he had published in 1665) and what was original in Newton's submission was wrong." (O'Connor, 2021)

According to Professor Iliffe, Newton was unprepared for the controversies that followed the news of his reflecting telescope and the publication of his article on light and colours. (Iliffe, p.320)



Considerations of Mr. Hooke upon Mr. Newton's Discourse of Light and Colours, 1672. From The Royal Society, RBO/4/45

1670-76. LIFE OF SIR ISAAC NEWTON. 85

1675, he observes,—"I was so persecuted with discussions arising out of my theory of light, that I blamed my own imprudence for parting with so substantial a blessing as my quiet to run after a shadow." Newton's letter to Leibniz, 9 December 1675

1676 Newton's letter to Oldenburg :—"I see I have made myself a slave to philosophy ; but if I get free of Mr. Linus's business, I will resolutely bid adieu to it eternally, excepting what I do for my private satisfaction, or leave to come out after me ; for I see a man must either resolve to put out nothing new, or to become a slave to defend it."¹

Newton's Life at Trinity College (1661—1696)

Newton's earliest theological manuscripts can be dated to about **1672**. Professor Westfall wrote that during the 1670s "it was theology that preoccupied him" and that the start of Newton's serious preoccupation with theology "may have stemmed from the approaching deadline" where "he would need to be ordained to the Anglican clergy or face expulsion from the college." (1980 p.310)

However, Newton had become an "Arian" [anti-trinitarian] by **1673** and "could not accept ordination" into the church. (Westfall 1980, p.331, 332) It is a matter of record that in **1674** Newton applied for exemption from ordination, but his application was rejected by the College. In early **1675** Newton wrote to a friend that he had decided to "part with my fellowship" and would be leaving the university. However, in April 1675 Newton received a dispensation from taking holy orders. It came through from King Charles II directly, and was to be applied to the Lucasian professorship in perpetuity. (Westfall 1980, p.333)



So Newton continued to live and work at Trinity College. He was only required to give monthly lectures to students, and at times these were given "to the walls" for lack of an audience! (Keynes Ms. 135) He was able to pursue his own research interests, and these were mostly theological studies. According to Westfall, who called this period the "years of silence" for Newton:

Theological study occupied much of Newton's time during the years of silence. In the late 1670s he began a history of the church, concentrating on the fourth and fifth centuries Newton sought to show, not only that Athanasius was the author of 'the whole fornication' - that is, of trinitarianism, 'the cult of three equal Gods' - but also that Athanasius was a depraved man ready even to use murder to promote his ends." (Westfall 1980, p.344)

Another historian wrote about this period for Newton:

"Newton had a physical presence in his seventeenth-century Trinity rooms, but effectively lived out much of his life in the fourth century, when (as he saw it) pristine Christianity was corrupted by the importation of the despicable beliefs and practices that would later constitute the core of the Roman Catholic faith, chief of which was the doctrine of the Trinity." (Iliffe 2016, p.133)

Also during this period:

"Newton undertook to reproduce the plan of Ezekiel's temple and learned Hebrew in order to read Ezekiel in the original". (Westfall 1980, p.346)

Newton's Life at Trinity College (1661—1696)

In **1676** Robert Hooke wrote to Newton, suggesting a private correspondence between them. In his reply of 5 February 1676, Newton agreed to this private correspondence, noting:

"what is done before many witnesses is seldom without some further concern than that for truth: but what passes between friends in private usually deserves the name of consultation rather than contest."

In the same letter Newton also asks Hooke for critiques of his papers assuring him that:

"I am not so much in love with philosophical productions but oft I can make them yield to equity & friendship. But in the meantime you defer too much to my ability for searching into this subject. What Descartes did was a good step. You have added much several ways, & especially in taking the colours of thin plates into philosophical consideration. ***If I have seen further it is by standing on the shoulders of Giants.***"

However, this venture into friendship did not last and their correspondence soon ceased.

Historians have recently discovered the private diaries of Robert Hooke, which have shed light on his personal and public life. Professor Ford's article in 2015 "The Incredible Invisible World of Robert Hooke" reveals that Hooke's private life was more than scandalous; in fact, it has been described as shockingly immoral even by today's much more liberal standards. (The disturbing details can be found in Professor Ford's article, particularly pages 25 and 34.)

While both scientists can be described as "gifted scientific visionaries," that is where the similarity ends. The difference between Hooke and Newton in terms of morality and lifestyle could not have been greater.



Woolsthorpe Manor, Lincolnshire (photo credit: Craig Davies)

In **1679** Newton's mother became very sick. She had gone to nurse her son Benjamin who had fallen ill with a malignant fever, but then caught the fever herself. Newton in turn went to nurse his mother and "sat up whole nights with her, gave her all Physick himself, dressed all her blisters with his own hands." (Conduitt, Keynes Ms. 130.08) However, after some weeks Hannah died and was buried on 4 June 1679.

Newton stayed on at Woolsthorpe Manor until the end of **1679** arranging estate matters, and then returned once more to live and work at Trinity College.

The next dramatic event that took place in Newton's life concerned the writing and publication of his famous *Principia*.

What led to the publication of the Principia in 1687?

For a more comprehensive account of how the *Principia* came to be, please read Westfall's biography of Newton, *Never At Rest*, pp. 402-407. The following is a summary:

In January **1684** at a meeting of the Royal Society, three famous members—Edmond Halley, Christopher Wren and Robert Hooke—all agreed that an inverse square law governs celestial motions. Hooke claimed that he could demonstrate it. Christopher Wren was skeptical of Hooke's claim so he offered a prize of forty shillings to the one who would bring him a demonstration within two months. Hooke again asserted he knew how to do it but intended to “keep it secret until others by failing to solve the problem learned how to value it.” Seven months passed, with no one claiming the prize or offering a solution to the problem.



In August that year, while in Cambridge, Halley visited Newton, and asked him “what he thought the curve would be that would be described by the Planets supposing the force of attraction toward the Sun to be reciprocal to the square of their distance from it.” Newton replied immediately, “An ellipsis.” When Halley asked how he knew that, Newton said he had calculated it, but was unable to find the paper with the relevant calculations to show Halley. He promised he would send the calculations at a later date, and in November Newton sent Halley a small treatise of nine pages with the title *De motu corporum in gyrum* (On the Motion of Bodies in an Orbit). Halley wanted to publish this straight away, but Newton asked to rework it before making it public. The final result was three volumes—*Philosophiæ Naturalia Principia Mathematica*, known simply as the *Principia*.

Halley asked the Royal Society to publish the *Principia* but the Society's funds had been drained the previous year with the production of an extravagant edition of *The History of Fishes*. Halley generously paid for the publication of the *Principia* himself.

Meanwhile, Hooke once again accused Newton of plagiarism, telling the Royal Society that Newton had stolen his idea about the inverse square law. Newton replied that Hooke was welcome to give his demonstrations but “doubted he had enough geometry to do it”! Hooke never did provide his proof. However, he complained vigorously to the Royal Society that as it had been his idea originally, his name should be in the *Principia*. Halley asked Newton to credit Hooke with the discovery of the inverse square law, so Newton included Hooke's name in the *Principia*, along with that of Wren and Halley as those who had “discovered also independently that the inverse law of gravity holds in all celestial motions.”

by the enclosed scholium to the fourth proposition. “The inverse law of gravity holds in all the celestial motions, as was discovered also independently by my countrymen, Wren, Hooke, and Halley.”

² *Principia*, lib. i, Prop. iv, Schol.

Newton's Life at Trinity College (1661—1696)

In **1689** Newton was elected as a Member of Parliament for Cambridge University.

What led to this?

In 1685 James II (a Roman Catholic) had become King of Great Britain. Early in his reign he appointed many Roman Catholic officers to the army, then went further, appointing only Catholics as judges and officers of state. When positions at Cambridge or Oxford Universities became vacant, the king appointed a Roman Catholic to fill it. When the King tried to insist that a Benedictine monk be given a degree without taking any examinations or swearing the required oaths, Newton wrote to the Vice-Chancellor, "Be courageous and steady to the Laws and you cannot fail." The Vice-Chancellor took Newton's advice and subsequently was dismissed from his post! Newton continued to argue the case strongly, preparing documents to be used by the University in its defense.



King James II

Then in 1688 William of Orange landed in England, and James fled to France. The University of Cambridge elected Newton as one of their two members representing the University to the Convention Parliament on 15 January 1689. This Parliament declared that James had abdicated and in February 1689 offered the crown to William and Mary. (Mary was the daughter of James II and her husband was a Dutch Prince and Protestant.) William and Mary became joint sovereigns of Britain in 1688 in the "Glorious Revolution". In 1689 they passed the "Act of Toleration" promising religious toleration to Protestant nonconformists, but not to Catholics or antitrinitarians.



William & Mary

Historians agree that Newton's brief experiences as a member of Parliament (for one year in 1693 and one year in 1702) were due to his intense desire to prevent a return of rulership by a Roman Catholic sovereign. However, it is clear that Newton was not politically neutral.

Interestingly, Newton strongly argued that allegiance to the King was *only relative, not absolute*. He stated that "English subjects were freemen and hence could not swear fidelity and allegiance to the monarch beyond what was due to him by the law of the land." He also argued that the law placed restrictions on the obligations placed on free Englishmen to swear to be faithful and true to any monarch, for otherwise "we should swear ourselves slaves & ye King absolute." (Westfall, p.485)

When William of Orange became King of England, Newton, who had never before held a public post, briefly sat in Parliament as the appointed member for Cambridge University. He took little part in debates. It is said that the only time Isaac ever spoke was to ask for a window to be closed one day when he found himself sitting in a draught.

Tony Allan, 2001. *Isaac Newton*, Chicago : Heinemann Library, p. 35.

Newton's Life at Trinity College (1661—1696)

1693: Newton's "Black Year"

In the autumn of **1693** Newton suffered a nervous breakdown. Historians generally refer to 1693 as Newton's "black year" (although he had recovered by the end of the year). What happened?

On 13 September 1693 Newton wrote a letter to **Samuel Pepys** saying "I must withdraw from your acquaintance and see neither you nor the rest of my friends any more."

On 16 September he also wrote a letter to his friend **John Locke**, saying, "you endeavoured to embroil me with woemen ... I took you for a Hobbist". (Letters to Pepys & Locke)



Concerned by Newton's letter, Samuel Pepys wrote to his nephew, who was at Cambridge University, and asked him to check on Newton's welfare. Two weeks later, his nephew's friend Millington wrote that he had visited Newton:

"where, upon his own accord ... he told me that he had writ a very odd letter, at which he was much concerned; added, that it was in a distemper that much seized his head, and that kept him awake for above five nights together ... he being very much ashamed he should be so rude to a person from whom he hath so great an honour."

Millington wrote: "He is now very well, and though I fear he is under some small degree of melancholy, yet I think there is no reason to suspect it hath at all touched his understanding."

Theories abound as to what triggered Newton's breakdown. Professor Snobelen raised the point that it may have been caused by "pressures associated with his secret heresy (1999:398,417) An historian who wrote a Freudian psychoanalysis of Newton, speculated his breakdown may have been caused by a break with his friend, Fatio, a Swiss mathematician (Manuel:220), but most Newton historians believe this last speculation to be overdramatic, with one writing:

"Any attempt to link Newton's "derangement" to a precipitous break with Fatio around the time of the letters to Pepys and Locke can no longer be countenanced. In fact, one cannot avoid the suspicion that previous writers on Newton may have overdramatized both his reaction to Fatio and his strange behavior of 1693." (Newman, p.394)

Newton explained his behavior as due to illness caused by exhaustion and overwork. It may also have been exacerbated by contact with dangerous chemicals, in his alchemy work. Newton devoted more time to alchemy in the early 1690s than he did to everything else put together. (Westfall 1980, p.524) After he moved to London he devoted no further significant time to alchemy. (Westfall,1980, p.531) Keynes argues it was due to mercury poisoning from his alchemical experiments and not to clinical depression. (Keynes, p.285) Newton himself wrote about the cause:

Newton in a letter to John Locke on 15 October 1693 wrote:

The last winter by sleeping too often by my fire I got an ill habit of sleeping & a distemper w^{ch} this summer has been epidemical put me further out of order, so that when I wrote to you I had not slept an hour a night for a fortnight together & for 5 nights together not a wink.

Newton & Alchemy—or “Chymistry”

What is Alchemy? “A medieval chemical science and speculative philosophy aiming to achieve the transmutation of the base metals into gold.” In the Middle Ages alchemy was closely associated with magic; however, it laid the foundation for modern chemistry—a transformation that was completed by the end of the 17th century.” Newton carried out many chemical experiments.



“A Philosopher by Lamplight” by Wright of Derby

A leading authority on Newton wrote:

“There was nothing magical in alchemy as Newton conceived it, no method of acting upon material substance by supernatural powers.” (Hall, p.200)

Other historians have noted: “His interest in alchemy was never occult” (Morrison, 2007)

“Newton’s alchemical research was part of his efforts to discover a theory of matter.” (Dobbs 1980, p.521)

Professor Newman of Indiana University and general editor of Newton’s alchemical texts which can be accessed at Chymistry.org stated:

“the apparent incongruity between Newton the scientist and Newton the alchemist **dissolves** when we acquire a deeper understanding of alchemy and of the man himself.”

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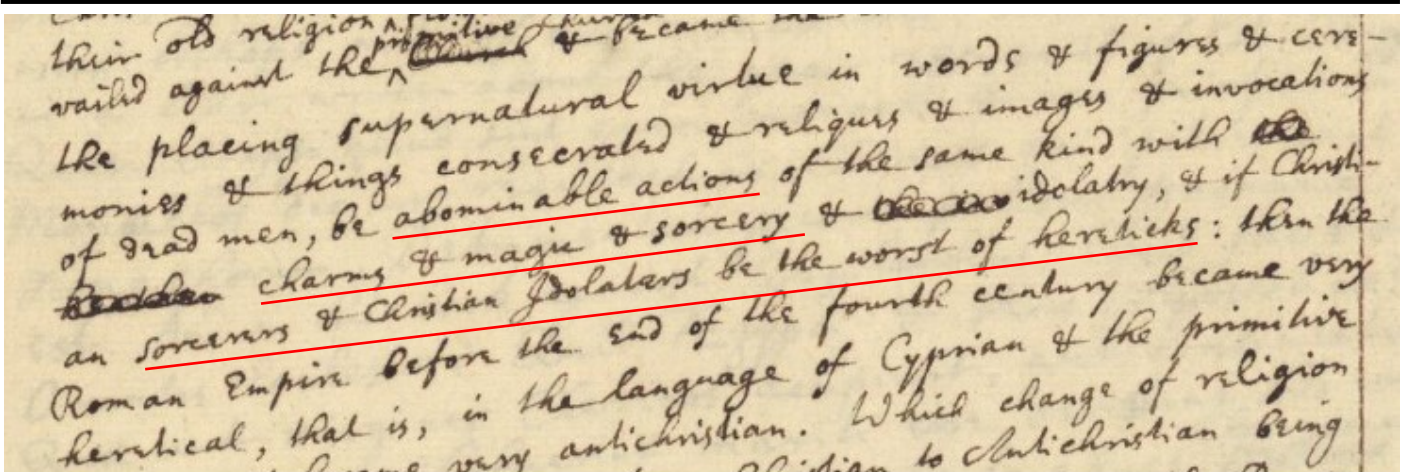
The Chymistry of
Isaac Newton

Home Browse Manuscripts Online Tools Educational R

Newton wrote about how he viewed alchemy in **Keynes MS 33 f.5**

“For Alchemy tradeth not with metals as ignorant vulgars think ... This Philosophy is not of that kind which tendeth to vanity and deceit but rather to profit and to edification inducing first the knowledge of God and secondly the way to find out true medicines in the creatures. . . . So that the scope is to glorify God in his wonderful works, to teach a man how to live well, and to be charitably affected helping of neighbours.”

In many manuscripts Newton wrote of the “**abominable**” actions of “charms & magic & sorcery”.



Transcription of Yahuda Ms 7.3e, folio 5r shown above from The National Library of Israel

“If the placing supernatural virtue in words & figures & ceremonies & things consecrated & reliques & images & invocation of dead men, be abominable actions of the same kind with charms & magic & sorcery & idolatry, & if Christian sorcerers & Christian idolaters be the worst of hereticks, then the Roman Empire before the end of the fourth century became very heretical, that is, in the language of Cyprian and the primitive Christians, it became very antichristian.”

Newton's Later Years in London (1696—1727)

In **1696** Newton was appointed Warden of the Royal Mint on the recommendation of Charles Montague, Chancellor of the Exchequer.

Montague wrote to Newton on 19 March 1696, offering the position, which Newton accepted, moving to London the next month. He was made Master of the Mint in 1699 (til his death in 1727).



"The Mint" engraving by John Bluck, "The Microcosm of London," R. Ackermann London 1809.

Soon after Newton started at his post at the Royal Mint, he encountered a Master Criminal, William Chaloner, who had spent decades counterfeiting money, and had two deaths to his credit. He also had an audacious plan to take over the Royal Mint, which nearly succeeded.

As part of his plan, he accused Newton of fraud, incompetence and mismanagement. After some time, Newton prosecuted Chaloner for forgery (fellow criminals gave evidence against him) and he was found guilty on incontrovertible evidence. The State penalty for counterfeiting was execution. Newton is often blamed for Chaloner's death, but Chaloner had counterfeited on a large scale for years, clearly planned further, and was guilty of worse. (Levenson 2009)

Newton has been praised for his diligence and honesty during his time at the Mint.

Historian for the London Mint Office writes:

"Newton threw himself into his new role, working diligently and with great integrity to improve the reputation of the Mint, which had been dogged for decades by accusations of corruption and incompetence. At a time when corruption was widespread, he set himself up as a role model for his employees to follow, as evidenced when he refused a bribe of over £6000 to award contracts for the procurement of copper." (Robinson 2021)

A Canadian mathematician recently made a study of the work Newton did at the Mint and calculated that Newton's improvements saved £41,510 during his time as Master of the Mint, (roughly £3 million today). However, as the four Masters who followed Newton also applied his techniques, saving twice as much again, this means Newton may have saved the UK around £10 million in today's money. (Belenkiy 2012)

Shortly after settling in a house in London, Newton arranged for his half-niece, Catherine Barton, to come live with him, as housekeeper.

"By every account, Catherine Barton possessed unlimited charm, a woman of beauty and wit. . . . She became the toast of London." (Westfall 1980, p.595)

She married John Conduitt, who after Newton's death took over his role at the Royal Mint, and also later wrote a biography of Newton.

Catherine and her husband lived with Newton in London until his death.



Catherine Barton

Newton's Later Years in London (1696—1727)

1696: The Bernoulli Test

In 1696 Johann Bernoulli (student and supporter of Gottfried Leibniz) sent out a challenge to the best mathematicians of the world to solve. With the challenge, Bernoulli wrote that few would be likely to be able to solve it, even the mathematicians who had wrongly boasted they had discovered theorems that they “thought were known to no one, but which in fact had long previously been published by others.”



Johann Bernoulli

Bernoulli announced the challenge in 1696, with a time limit of six months, then this time limit was extended to one year. As there had been no response from England, in January 1697 Bernoulli sent a letter directly to Newton with the mathematical challenge. It arrived by post on January 29.

At this time Isaac Newton was working as Warden of the Mint and according to his niece, Catherine Barton, who was living with him then:

“in the midst of the hurry of the great recoinage, did not come home till four (in the afternoon) from the Tower very much tired, but did not sleep till he had solved it, which was by four in the morning.” (Conduitt, Keynes Ms. 130.05, folio 1r)

Newton's solution, sent to the Royal Society the next day, is dated 30 January. He submitted the solution **anonymously**, and it was published in the *Philosophical Transactions*.

Bernoulli, writing to Henri Basnage in March 1697, indicated that even though its author, “by an excess of modesty”, had not revealed his name, it could be recognised as Newton's work. Bernoulli wrote: “**tanquam ex ungue leonem**,” a Latin phrase meaning:

“We know the lion by his claw.”

<p><i>Variarum quancunque sive rethineam sive curvilineam, abscondet hoc prima ex superficie conica portione, qua erit ad basin prismati, ut lateri conici ad radii basi conici. Ex quo ulterio patet, cuilibet spatio plano sive quadrabili sive non quadrabili posse sumi absolute spatium a quale ex superficie conici recti & vicissimi. Item omnium portio superficies conice recte terminata a tribus pluribusve hyperbolis in cono factis, quorum axes sunt paralleli axi conici, est quadrabilis, utpote equalis figure rethilinee.</i></p> <p>Problema novum ad cujus solutionem Mathematici invitator</p> <p>Dato in plano verticali duobus punctis A & B (vid Fig. 5) TAB. V. Affigere Mobilis M. viam AMB, per quam gravitate sua descendens & Fig. 5. moveri incipiens a puncto A, brevissimo tempore perveniat ad alterum punctum B.</p> <p>Ut harum rerum amatores investigent & propensionis animo ferantur ad tentamen hujus problematis, fiant non consistere in nuda speculatione, ut quidem videtur, ac si nullum haberet usum; habet enim maximum etiam in aliis scientiis quam in mechanicis, quod nemo facile crediderit. Interim (ut forte quorundam precipiti iudicio obviam eam) quamquam recta AB sit brevissima inter terminos A & B, non tamen illa brevissimo tempore percurretur; sed est curva AMB Geometricis notissima, quam ego nominabo, si elapso hoc anno nemo alius eam nominaverit.</p>	<p>Probl I</p> <p>Investiganda est curva linea ABB in Z</p> <p>que grave a dato quovis puncto A ad datum quodvis punctum B in gravitate sua citissime descendat</p> <p>Solutio.</p> <p>A dato puncto A ducatur recta infinita APCZ horizonti parallel et super eadem recta describatur huius Cyclois quatuoraginta ADP recta AB (quale et si quis est produta) occurrans in puncto Q, huius Cyclois alio ABC cujus basis est ab huius sit ad prius basin et ab huius in speciem ad AB ad AD. Et hac Cyclois novissima transit per punctum B et est Curva illa linea in qua grave a puncto A ad punctum B in gravitate sua citissime perveniat. Q. E. J.</p> <p><small>SOLUTION OF THE PROBLEM OF THE BRACHISTOCROME, OR CURVE OF QUICKEST DESCENT, BY NEWTON.</small></p>
<p>Bernoulli's statement of the problem in the June 1696 <i>Acta Eruditorum</i> written in Latin.</p>	<p>Newton's handwritten solution to the brachistochrone problem.</p>

Newton's Later Years in London (1696—1727)

The Leibniz-Newton Calculus Controversy

Probably the most celebrated controversy in all of the history of science was that between Newton and Leibniz over the invention of the calculus.

The majority of historians agree: "There is no doubt that Newton's discoveries preceded those of Leibniz by nearly a decade." (Blank, p.602) Stephen Hawking wrote: "Although we now know that Newton discovered calculus years before Leibniz, he published his work much later." (1987)



Gottfried Leibniz

Newton's lifelong reluctance to publish any of his discoveries is often blamed as causing the controversy, with one historian commenting:

"Ironically, the person who was pathologically averse to controversy ended up embroiled in the biggest controversy in mathematics history about a discovery in mathematics. . . it was this aversion that caused the controversy." (Starbird 2016)

"Leibniz argued that his priority should be recognized for the good of mathematics" and maintained that "he alone invented calculus". (Blank, p.602) Newton's friend Fatio accused Leibniz of plagiarism and supporters of Leibniz, such as Johann Bernoulli, accused Newton of stealing calculus from Leibniz.

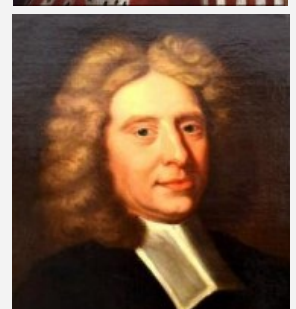
Newton wrote to Bernoulli in 1719:

"I have never grasped at fame among foreign nations, but I am very desirous to preserve my character for honesty, which the author of that epistle, as if by the authority of a great judge, had endeavoured to wrest from me. Now that I am old, I have little pleasure in mathematical studies, and I have never tried to propagate my opinions over the world, but I have rather taken care not to involve myself in disputes on account of them." (Quoted in Brewster 1855)

Newton and Leibniz also disagreed on theological matters. When Princess Caroline moved to London (from Germany, where she had known Leibniz well) she became friendly with Dr Clarke and Newton. Both men had positions at court and their frequent theological discussions with her were a matter of serious concern to Leibniz, who had requested and been denied a position as her court historian. The following is an excerpt from "Caroline, Leibniz and Clarke" by Professor Meli (1999, p.469-486):

Leibniz's plans for self-promotion went hand in hand with a systematic attack on Newton and the attempt to discredit him in Caroline's eyes on philosophical and especially theological grounds. In an important letter of 10 May 1715 Leibniz launched a major attack on Newton based on the analogy between gravity and the eucharist, a perfect topic for gaining Caroline's approval. Leibniz

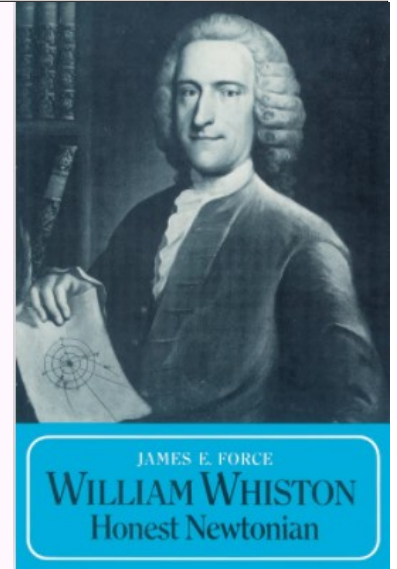
sun, without any medium or means." On the other hand Leibniz argued that the members of Newton's sect (sectateurs) denied that we can participate in the body and blood of Christ in the eucharist without any regard to distances and space. Thus they revealed themselves as enemies of the House of Hannover in claiming that the Lutheran doctrine of the eucharist is absurd. Leibniz suggested to Caroline that this was a good argument for embarrassing those *sectateurs*, concluding that as far as he was concerned, miracles were reserved for divine mysteries, not for explaining natural events.¹⁴ The final remark anticipates the



Meli, D. B. (1999). Caroline, Leibniz, and Clarke. *Journal of the History of Ideas*, 60(3)

In **1702** Newton resigned as Lucasian Professor, and arranged for William Whiston to succeed him as Professor of Mathematics. According to Whiston, Newton first made him his deputy with ‘the full profits of the place’, then specifically ensured he would be his successor. (Force 1985, p.62) This generous support was gratefully acknowledged by Whiston, who, in contrast to Newton, had a wife and large family to financially support.

Whiston was not only an early convert to Newtonian physics, but also of many of Newton’s “heretical” beliefs, including the denial of the Trinity and hellfire. Professor Force wrote: “Newton and Whiston stood shoulder to shoulder in their efforts to defend the specially provident God of the Bible against the ridicule of the deists.” (Force 1985, p.122)



In **1710** Whiston lost his position at Cambridge as Lucasian professor when he published his antitrinitarian views. After this, Queen Caroline (who had been introduced to Whiston through Dr Samuel Clarke) gave Whiston a stipend of 40 pounds a year and he was also able to earn extra money giving lectures, which it has been said that Newton actively promoted. (Force 1985, p.64)

In **1711** Whiston founded the “Society for Promoting Primitive Christianity.” Newton declined to join it. Whiston was an enthusiastic, outspoken person, who in turn described Newton as the “most fearful, cautious, suspicious person” he knew. (Whiston 1749, p.294) After Newton died, Whiston wrote: “they banished, they persecuted me for the very same Christian doctrines which the great Sir I.N. had discovered and embraced many years before me.” (Whiston 1728, p.1080)

In the last few years of Newton’s life, his relationship with Whiston cooled. Whiston applied for membership to the Royal Society but it was not granted. Whiston graciously noted that since he was still able to freely attend all the Royal Society meetings, and regularly did so, that he was happy to have been saved the expense of becoming a member. Some historians suggest that the cause of the rift was due to “the theft from Newton of £3000 by Whiston’s nephew”, although Newton refused to prosecute. (Westfall 1980, p.652) Whiston wrote of their clash of temperaments: “What cautious Temper and conduct on his, or what openness of Temper and conduct on my side or what other Accidents occasioned any interruption in that favour and friendship tis not perhaps proper for me to say.” (Whiston 1728, p.1080) Whiston believed it was because he “could not learn of him without contradicting him, as his other darling friends did,” apparently referring to Samuel Clarke’s close friendship with Newton in his later years. (Whiston 1749, p.294)

While Newton and Whiston agreed on many Bible teachings, and initially both believed the millennium would begin in the late 19th Century, later Whiston predicted the end would come in April 1736 and Newton “later revised the date past the year 2000.” (Force, p. 118) Another point of difference between the two men is in Whiston’s translation of “The Works of Josephus” where he writes in a footnote that the Divine Name of four letters “we have been used falsely to pronounce Jehovah.” (Josephus, p. 71) Although both men deeply respected the Bible, they differed on some issues—the most notable difference between them being in their temperaments.

Professor Snobelen described the contrasting approaches of the two men this way:

“Newton retreated from controversy, Whiston fed on it. While Newton abhorred contests, Whiston relished in initiating them.” “Newton concentrated on a minority, Whiston on the majority.” (2004, pp. 597-8)

In **1703** Newton was elected President of the Royal Society and the following year he published *Opticks*. In the past, some historians claimed Newton intentionally destroyed all record of Robert Hooke once he was President; however, recent articles and research have established that there is no evidence that a portrait of Hooke was ever removed from the Royal Society offices or deliberately destroyed by Newton or anyone else. (See Chapman 2004 & Henderson 2010)

In **1705** Newton was knighted by Queen Anne. While historians have various theories, it is not clear whether this knighthood was in recognition of his contributions to science, due to his work on behalf of Cambridge University as its MP, or his work with the recoinage at the Royal Mint.



Samuel Clarke

Dr Samuel Clarke was Newton's "closest friend and supporter for the last two decades of the latter's life." (Snobelen 1999, p.403)

He shared many of Newton's religious beliefs and his antitrinitarianism became obvious after the publication of his "Scripture Doctrine of the Trinity" in 1712. A complaint was made to Parliament about it and after that he agreed not to publish anything further on the topic.

Clarke was appointed a chaplain to Queen Caroline and visited her each week to discuss theological topics. (Wilkins, p.246) Through Dr Clarke, both Whiston & Newton enjoyed a friendly relationship with the Queen. (Westfall 1980, p.853)

Voltaire, the famous French philosopher, was a great admirer of Clarke and described him as "the most profound, clearest, most methodical and strongest of all those philosophers who have spoken of the Supreme Being." (Voltaire 1752) He also remarked, "He never pronounced the name of God without an air of reverence and very remarkable respect." (Voltaire 1747, p.4) Clarke told him he had learned this custom from Sir Isaac Newton. (Voltaire 1747, p.4)

An historian commented that Newton's "attendance at the worship of the Church of England was made considerably easier during his later years by life in Samuel Clarke's parish, where accommodations in the public liturgy could be made to ease his tender conscience." (Mandelbrote, p.417)

In **1727** Newton presided over his last Royal Society meeting on 19 February, a month before his death.

For some years Newton had been troubled by kidney stones. (This was a fatal illness in the 18th century.)

On **20 March 1727** Newton died, at the age of 84.

To the dismay of the Establishment, on his deathbed he refused the Anglican sacrament, or last rites. (Conduitt, Keynes Ms. 130.07)



"Dr. Richard Mead Attending Sir Isaac Newton on His Deathbed" by unknown artist Photo credit: Wellcome Collection

Final Thought: “An Earnest and Upright Man”

In his blog, Professor Alejandro Jenkins (PhD Physics, Caltech) noted that there is “a widespread perception” that Newton was a proud and vindictive man—however, after researching Newton’s life, he finally became convinced that:

“Newton was an earnest and upright man, profoundly independent in his thinking, with enormous self-discipline and capacity for sustained work.”

“his revolutionary work ... dragged him into controversies that made him significant enemies. The “Bad Newton” picture drawn by Hawking and others is largely the result of modern biographers taking Newton’s enemies at their word.” (Jenkins 2021)

Even historians who write disparagingly of Newton, agree as to some positive points about his personality. Most acknowledge he was extremely generous. (Westfall 1980, pp.858-61) Newton’s friend and biographer, John Conduitt, a first-hand recipient of his generosity, wrote:

“He was generous & charitable without bounds, he used to say they who never gave away till they died never gave I believe no man of his circumstances ever gave away so much during his life time, in alms, in encouraging ingenuity & learning, & to his relations.” (Keynes Ms. 129.01,10r)

In 1697 the Marquis de L’Hopital was told that Newton “conversed cheerfully with his friends, assumed nothing & put himself on a level with all mankind.” (Keynes Ms.130.05; Westfall 1980, p.473)

In 1727 his colleague, Dr Humphrey Newton (no relation) who lived and worked closely with Newton for five years, wrote a letter to Newton’s executor after his death, in which he said he wished to write “a faithful account of my deceased friend.” In his letter he described Newton as:

“mild & meek, without Anger, Peevishness or Passion.” “He was of so sedate & even Temper.”

“He always kept Close to his Studies, very rarely went a visiting, & had a few Visitors in whose Company he took much Delight and Pleasure.”

“His carriage was very meek, sedate & humble, never seemingly angry, of profound Thoughts, his Countenance mild, pleasant & Comely” with a “smiling Countenance”.

“He was very Charitable, few went empty handed from him.” (Keynes Ms.135)

It is also widely accepted, even by his detractors, that he was extraordinarily hard-working. (Keynes, pp.18,19) His kindness to animals and sensitivity to animal welfare is also accepted as factual and unusual for the times. (Keynes 1995). Nearly all biographers comment on Newton’s “horror of controversy” and years of solitude. (Keynes 1995) Most biographers describe Newton as having an outstanding knowledge of the Bible and as a religious “heretic”. (Snobelen 1999)



The famous astronomer Edmond Halley was a great friend of Newton, and was his loyal supporter over many decades, until Newton’s death.

In 1686 Halley wrote “An Ode to Newton”:

Come celebrate with me in song the name
Of Newton, to the Muses dear; for he
Unlocked the hidden treasures of Truth

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