

“WHAT EZEKIEL SAYS”: NEWTON AS A TEMPLE SCHOLAR

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The present paper puts forward some of the conclusions I have reached following extended research on Newton's Latin manuscript now in the Babson Collection: *Prolegomena ad lexici prophetici partem secundam in quibus agitur de forma sanctuarij judaici*. The publication of a facsimile of this manuscript and of its edition and partial Spanish translation in 1996 did much to awaken my interest in Newton's theological and historical papers in general and in the *Prolegomena* in particular, at a time when and in a place where it seemed impossible that I could ever pursue that interest.¹ The aim of this essay is to consider an aspect of Newton's scholarship that, though often mentioned or referred to, has been otherwise largely ignored or neglected, when not misinterpreted. In this context, and by looking at the structure of Newton's manuscript and at his exegetical techniques, I aim to refute some of the most repeated claims on Newton's interest in the Temple of Solomon and on the composition of his work on it.

The scholarship on the *Prolegomena* has mainly served two different purposes. Either it has illustrated Newton's commitment to scientific rigour, by demonstrating its purported presence even in his esoteric pieces, or it has contributed to build a case for his so-called mysticism and his penchant for numerical symbolism. In both cases authors have approached the text with a preconceived notion of how it should be assessed to best suit their own agenda, and have failed to locate the manuscript against the obvious background of the Temple and Hebraist studies of the time and Newton's own work on prophecy. I argue that a new contextualization of the text, towards which this paper seeks to contribute, is necessary. Only when this contextualization takes place will we be in the position to appreciate the relevance of Newton's purpose in this writing, and its importance for Newton's interpretation of prophecies.

INTEREST IN THE TEMPLE AND NEWTON'S WORK ON IT

The Temple was one of many prophetic figures, for the elucidation of which Newton felt morally responsible. As he explained in his list of prophetic figures from his long untitled treatise on Revelation, the Church was most often represented by a Temple.² Not only that, but the courts of the Temple also bore prophetical meaning, as he explained:

The temple wth its Court & y^e holy City is y^e whole Church & it's here distinguished into two parts; the one (y^e Temple) measured & not given to y^e gentiles, & this is therefore y^e elect part of y^e Church; y^e other (y^e outward Court & holy City) left unmeasured that is neglected, left out of y^e measure \or compas/ of

God's regard, not measured compassed or bounded by God's laws but left on transgression, & therefore y^e reprobate part of y^e Church. And this is given to y^e Gentiles to possess, that is to those that should gentelize to be y^e inhabitants or Citizens w^{ch} it should contain or consist of: & they tread it under foot, that is, contaminate corrupt & overwhelm y^e truth of their Christian profession by Gentile practises.³

On the other hand, in the Second Book of one of his extended manuscripts on the interpretation of prophecy, Newton had made clear that the Temple or the Tabernacle was "y^e common scene of all y^e Apocalyptic visions" and "therefore to be understood as well here as in other places". In the same manuscript, Newton announced to his imagined reader that he might in the future give a fuller account of the first and of the second temples, "those who have hitherto wrote on this subject much mistaking y^e form of both Temples".⁴ Newton's interest in temples and very much in particular in the Temple of Solomon was not the interest of the antiquarian, or of the mystic. As becomes obvious to the reader of Newton's *Prolegomena*, the largest part of his projected prologue for a treatise on the prophetic lexicon is in fact, insofar as this piece in the Babson Collection is concerned, a double line-by-line commentary of Ezekiel's verses, where the Temple of Solomon is described in detail.⁵

Newton's fascination with the Temple's divine symmetrical proportions was, on the other hand, absolutely unexceptional. The construction of Solomon's Temple had exerted a powerful attraction on Renaissance and Baroque thinkers of all religions. The popularity of this topic was undoubtedly partially responsible for the century's interest in Hebrew language and sources. Many Christian scholars routinely invoked Jewish sources to justify their theories. By the beginning of the seventeenth century, Hebrew Bibles and grammars, and also editions of the rabbinical commentaries and of the Talmudic texts, had been circulating freely for a long time.⁶ Likewise, scholars had long been aware that the Word of God had originally been written in Hebrew.⁷ Jerome's fifth-century Latin translation of Scripture had lost its privileged place during the Reformation. As Friedman so well put it, it became increasingly obvious to the community of Scripture interpreters that "Scripture represented God's revealed truth coined in Hebrew and perhaps in Greek, but certainly not in the Latin idiom".⁸ On the other hand, and given Newton's strong interest in church history, he was surely aware of the scholarly increasing reliance on Talmudic sources, in particular for the understanding of the primitive church. Last but not least, the influential Cambridge don Joseph Mede, after whom Newton largely modelled his own method for the interpretation of prophecy, had made use of Jewish learning to design his revolutionary reference system of synchronisms.⁹

Philo-Semitism does however not help us to explain to the same extent the fascination that the Temple exerted on Catholic scholars too. The Biblical belief that the construction of the Temple had been commanded by God Himself accounts for the fact that not only Protestants, but also Catholics, undertook the allegedly divine endeavour to describe the Temple's perfect proportions.¹⁰ Members of both denominations believed that the Temple was a prefiguration of the New Jerusalem.

Furthermore, millenarians were equally intrigued by the symbolism of the Temple, initially because its rebuilding was a condition of the Millennium and the second coming of Christ, but also because, like Newton himself, they desired to understand obscure passages from Daniel and Revelation about events that were supposed to have taken place in the Temple.¹¹

As is usually the case with Newton's manuscript drafts, the *Prolegomena* was not an isolated event in his intellectual biography. Several other notes by Newton regarding the interpretation of Ezekiel's prophecy and the physical appearance of the Temple, which he sketched on different occasions, are part of the Yahuda collection of Newton's papers. In particular, the manuscripts Yahuda MS 14 and Yahuda MS 2.4 contain earlier drafts of several parts of the text and figures from *Prolegomena*. While the notes from Yahuda MS 2.4 (late 1680s–1690s) display variations of Newton's most personal discourse on the dimensions of the Temple, some paragraphs being identical to those in the *Prolegomena* version, the manuscript Yahuda MS 14 (1670s) contains elaborations on the line-to-line commentary of chapters 40 and 41 of Ezekiel's prophecy, mixed with Latin and English passages about the meaning of the prophetic figures and some of the few paragraphs about the Temple that Newton wrote in English.¹² Sets of notes which document a part of Newton's enquiries about the Temple are also extant. Thus the second part of a manuscript on the relevance of Jewish ceremonies to prophetic exegesis, Yahuda MS 13.2, contains extracts and notes taken from the Latin translation of the Jewish medieval philosopher Maimonides's *Sefer Avodah, De cultu divino*. Newton worked with his own copy of this volume, Ludovicus de Compiegne de Veil's translation of 1678.¹³ The document displays abundant (in the majority straight) notes from Maimonides's treatment of the Temple. In folio 9r the writing is delegated to a clerical looking hand. In folio 17 Newton opens a section with notes extracted from Ludovicus de Compiegne de Veil's own notes. Folios 19 to the final folio 22 feature Newton's notes from the Jerusalem Talmud, in the Yoma, the fifth treatise of the Mishnah, itself a major work of Rabbinic Judaism and the basis of the Talmud. References in this manuscript make it clear that Newton was familiar with the work of the prominent Christian Hebraist Johannes Buxtorf (1564–1629). Newton quoted his *Lexicon Chaldaicum, Talmudicum et Rabbinicum* (1640) in folio 27r of the *Prolegomena* in connection with a discussion about measuring standards. In his notes of Yahuda MS 13.2, Newton had referred also to the *Synagoga Iudaica* (1622) and to another standard work by Buxtorf, the *Bibliotheca Rabbinica* (1618–19), which contained an edition of the Basel rabbinical bible, and included masoretic notes, Targums (the Aramaic translation of the Hebrew Old Testament) and commentaries of the mediaeval rabbis.¹⁴ Notes now in Yahuda MS 28D (c. 1675–85) also draw from Buxtorf's previous work *De abbreviaturis Hebraicis liber novus & copiosus*, where Newton could have found another shortcut to many of the rabbinical opinions on the Temple.¹⁵

The above mentioned set of commentaries, Yahuda MS 14, contains Newton's extant notes on the work on the Temple by the Spanish Jesuit Juan Bautista Villalpando

(1552–1608), a work of which Newton would later make use for the composition of the *Prolegomena*.¹⁶ There is no evidence that Newton had direct access to Villalpando's treatise on the Temple, but he knew the most important points of his argument through other standard reference books of the time. In particular, Newton owned and used Brian Walton's *Polyglot Bible* and he was also familiar with John Pearson's *Critici sacri*, from which, as we shall see later, he extracted the relevant information about Villalpando that the French humanist Louis Cappel (1585–1658) had collated. The "Triplex delineatio" of the *Polyglot*, also by Cappel, contained a part on Villalpando and a part on Josephus and was completed with the Mishnah's description of the Temple. The volume would have proved useful in providing summaries of relevant parts of Flavius Josephus's *Bellum Judaicum* and *Antiquitates Judaicae*.¹⁷ Still, and although Newton may have drawn abundantly from the *Polyglot*, particularly as far as *Antiquitates Judaicae* is concerned, he must have consulted some original sources. This is at the very least true for Books 7 and 8 of *Antiquitates Judaicae*, and for Book 7 of *Bellum Judaicum*.¹⁸

Nonetheless, when the possibilities for bibliographical consultation from compendia or other secondary sources freely available to Newton are thus briefly sketched, it becomes obvious that the more heroic views of Newton's immersion in the Jewish corpus of literature must be abandoned. In 1980 Richard S. Westfall could write that "being the man he [Newton] was, he plunged into an extensive program of reading in Josephus, Philo, Maimonides, and the Talmudic scholars".¹⁹ Twenty years later, the overview of Newton's notes on the Temple and topics related to it show that he did not need to have read all these authors, or at least not in their unabridged original versions, and that indeed most probably he did not, before he started drafting commentaries of Ezekiel. Although I would on this account (and on account of the lack of originality of much of his work on the topic) be reluctant to describe him as one of "the most significant Christian Hebraists of his age", the sheer number of papers dealing with the Temple and Newton's close reading of Ezekiel's prophecy and other Biblical relevant passages, attest to the importance of the topic for Newton.²⁰ He continued to write on it in a later set of notes, which took him to the release of part of this material to the contemporary reader, in the shape of "Chapter V" of his 1728 *Chronology of ancient kingdoms*.²¹

Newton's note-taking and drafting on the Temple spanned five decades, from the rudimentary sketches of Yahuda MS 14 to the sophisticated plate of the *Chronology* (Figure 1). Although as was usually the case with the topics dearest to his heart, Newton's obsession never became public, William Stukeley recalled having been told by Newton about his project.²² Further research on this manuscript and related ones is needed in order to date the different parts which compose the *Prolegomena*. In my opinion, Yahuda MS 14 and Yahuda MS 2.4 constitute drafts previous to those of the *Prolegomena*, which would imply that the material in the *Prolegomena* is post-1690s but most probably previous to Newton's post-1710 drafting of his later published chapter in Yahuda MS 26.²³

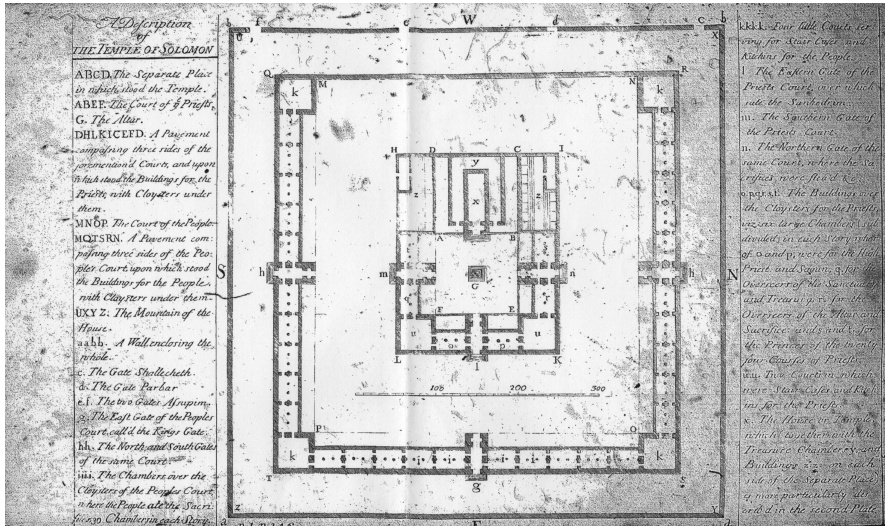


Fig. 1. Newton's published plan of Solomon's Temple, *Chronology of ancient kingdoms* (London, 1728), chap. V. The British Library, 685.i.20.

THE MANUSCRIPT AND ITS CONTENTS

The manuscripts of the *Prolegomena* are part of Sotheby Lot 263. They were acquired at the 1936 auction for £38 by the Magg Brothers, who presumably sold them to John Maynard Keynes. The famous economist exchanged them in late 1936 for two other items of the Yahuda collection. The *Prolegomena* appears later as Item 87 of the auction catalogue of William H. Schab, but this catalogue is undated and we also do not know the date and circumstances under which Schab purchased the *Prolegomena*.²⁴ We assume that it was as a result of the Schab sale that the item was acquired by Babson College. As part of the Babson Collection, the *Prolegomena* could be seen in the Dibner Institute, until 2006. In this year, and following the permanent closure of the Institute, the holdings of the Babson Collection were transferred to the Huntington Library in San Marino, California.

The description of the *Prolegomena* in the Schab Catalogue observes that part of the manuscript is lost and has been replaced by two other texts.²⁵ It is described in this catalogue as a 72-page (on 64 leaves quarto and 3 leaves folio) manuscript and in the better known Sotheby catalogue as an 84-page document. Ciriaca Morano, its Spanish editor, has argued that the text should be considered three-part, but she believes that a coherent ordering of the whole is legitimate. She explains that the existence of two different sets of commentaries on Ezekiel's prophecy, between folios 8 and 11 and between folios 43 and 57, does not necessarily refute her hypothesis. Both series of commentaries could well have coexisted in the same treatise. As Morano explains, to offer a double commentary of the same passages with the second one

focused on the criticism of the corrupted versions, was common at that time.²⁶ The Babson Catalogue also describes the manuscript as “apparently complete” and as presenting no “obvious hiatus in the text”.²⁷

The text is however, from my point of view, clearly fragmentary, since there are no smooth transitions or coherence between the different parts that compose it and no clear general plan of the work. However, the description in the Schab catalogue is inaccurate. All the sketches show key letters that are used in the relevant descriptions, contrary to what the catalogue says, and only the referent of the letters of the plan in the double folio 42 is confused, as already pointed out by Morano, who thinks that this is Newton’s map of the Zerubbabel Temple.²⁸

Those who have seen the linen case which contains the original manuscript of the *Prolegomena* have been surprised by its reduced physical dimensions, which give it the appearance of a notebook. I can attest to the difficulties this piece presents to the transcriber and encoder, since its apparently clear layout (annotations in the recto and main paraphrases in the verso) reveals under the surface a complicated net of insertions and notes that *behave* in all possible and unexpected ways. Two different cover slips in two different hands attribute the titles *A Treatise or Remarks on Solomons Temple* and *Temple of Solomon* to Newton’s manuscript material. Newton himself adopted the heading “Prolegomena ad Lexici Prophetici partem secundam, /in quibus agitur\ De forma Sanctuarij Iudaici”, only after cancelling “continens expositionem allusionum ad mundum mysticum populi Israelis. Sect. j”. Newton’s decision to narrow down the compass of this title corresponds with the limited scope of the contents of the piece, while it tells us of possible ramifications of its core topic.

The *Prolegomena* is quite clearly not a mystical or numerological work, but an exercise in the interpretation of a prophecy. At the outset of the work, Newton explained that his purpose was to study the structure and the measurements of the Temple of Solomon because legal acts used to be performed there. The political or legislative system was important for Newton as for many other major interpreters of the prophecies, because they held the future things to be sketched in the legislative organization, and the interpreters of the prophecies thus took their figures from it rather than from the natural world.²⁹ The phrase “Temple of Solomon” does not refer to a single construction. There existed three historical temples and a prophetic one. The original Temple had been built by Solomon some time between 965 B.C. and 928 B.C. and was destroyed by the Babylonians in 587 B.C.³⁰ The second Temple (about which little is known) had been erected by Zerubbabel around 500 B.C. and the third was Herod’s Temple of about 20 B.C., destroyed by the Romans in A.D. 70.³¹ However, the visionary Temple attracted as much scholarly attention and commentary. It was described by Ezekiel in chapters 40 to 48 of his prophecy. It was the explanation of this vision that constituted the main focus of Newton’s *Prolegomena*.

After expressing his main purpose, Newton continued by briefly describing the Tabernacle of Moses according to biblical evidence in Exodus and Kings.³² According to the Hebraic and Christian traditions, the shape and dimensions of the portable Tabernacle had been revealed by God to Moses. It was thought that Solomon had

kept the same Mosaic proportions when building the temple, but doubling the scale. Solomon's Temple was thought to have been built through divine revelation too. David's son, Solomon, was the architect chosen by God to build His house. Centuries of Temple studies have not settled the question of whether Ezekiel's vision was purely imaginary or whether the prophet was describing the Temple he would have seen before the exile. It was Newton's polemical claim that Ezekiel had been shown the same construction that God had revealed to Solomon, "keeping all the measurements intact".³³ Newton presented these measurements as inferred from the biblical prophecy of Ezekiel, but also from the books of Chronicles and Kings.

According to these sources and Newton's interpretation of them, the Temple of Solomon was a rectangular building divided into three different spaces that were disposed or ordered longitudinally (Figure 2). Walking through the Court of the

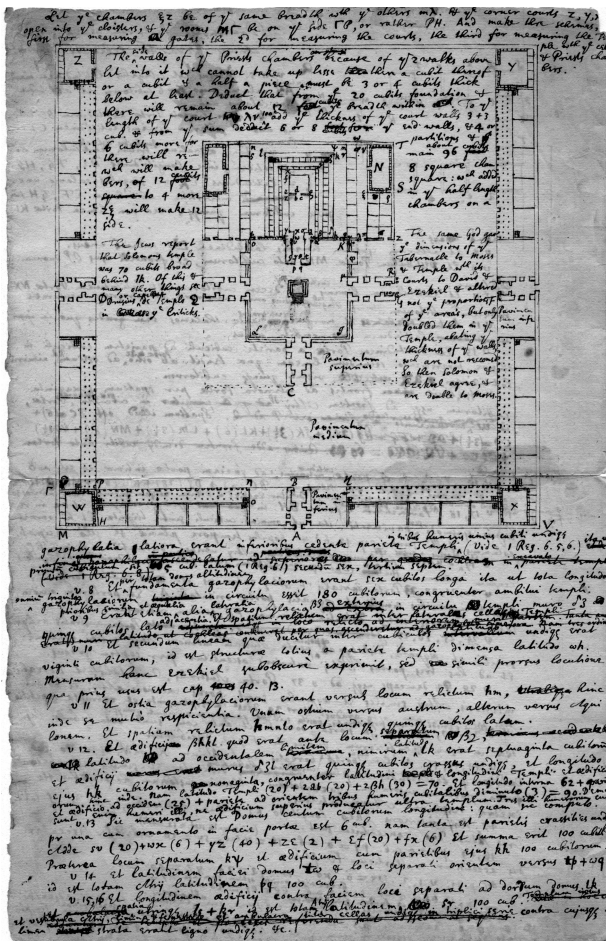


FIG. 2. Newton's sketch plan of Solomon's Temple, Babson MS 434, fol. 8.

People (*MNOP*), which measured 500 cubits on each side, we would have arrived at the actual house. Entering through the east gate of the external atrium we would have covered the distance to the Court of the Priests: 100 cubits. In the Court of the Priests (a room that measured 100 cubic metres, *ABEF*) we would have come across the Altar (*G*) in the centre of the room. The Court of the Priests was surrounded by chambers on three of its four sides. If we had continued our tour, we would have found ourselves in front of the ten steps that took us to the porch of the Temple and to the so-called Separate Place (which also measured 100 cubic metres, *ABCD*) and from there to the Holy Place (*N*) and to the Most Holy Place (*O*). After an allusion to the organization of the priests in their court, Newton explained that Zerubbabel constructed the Temple on almost the same foundations, but rejected the construction of a big “sumptuous” atrium for the gentiles. Newton argued that the Temple lacked such a big court until the time of Alexander the Great.³⁴ The figurative meaning of this fact, to which Newton had referred in other manuscripts, was not spelled out in the *Prolegomena*. I have quoted above from Newton’s allusions in his manuscript known today as Yahuda MS 9.2. In addition, Newton referred in his untitled treatise on Revelation Yahuda MS 1 to the existence of two courts as a representation of the kind of religious segregation that Newton would have imposed between idolaters and other Christians:

The temple wth its Court & y^e holy City is y^e whole Church & it’s here distinguished into two parts; the one (y^e Temple) measured & not given to y^e gentiles, & this is therefore y^e elect part of y^e Church; y^e other (y^e outward Court & holy City) left unmeasured that is neglected, left out of y^e measure \or compas/ of God’s regard, not measured compassed or bounded by God’s laws but left to transgression, & therefore y^e reprobate part of y^e Church.³⁵

The *Prolegomena* continued with an untitled commentary, captioned “Dimensions of the gates of one and the other court (Ezek. 40), illustrated with a sketch”. There were not many amendments or discussions of the passages by Newton in this part of the manuscript. Newton quoted the Septuagint at least twice, the Hebrew version and the Latin version, whose translation of Ezekiel 42:3 he found particularly bad. However, the section was devoted to spelling out the measures of all the places identified with letters on the sketch that he had drawn of the gates.³⁶ In a second part to this commentary, Newton tried to provide the correct translation of the verses that he had paraphrased in the previous part and included brief remarks on the uses of the different rooms.³⁷

The longest section, entitled “Commentary”, followed. In a first part Newton offered Ezekiel’s altar dimensions, which were indeed like those of Solomon’s Temple, as Newton had expected. It was the altar of the second Temple that had the erroneous dimensions, because the Jews had misinterpreted Ezekiel’s words when building the Temple following the prophet’s description.³⁸ In a second part of the commentary Newton stated that Ezekiel’s description was the most reliable source of the size and shape of the Temple of Solomon and he announced the description of the second

Temple.³⁹ However, Newton's text in the next few folios contains very little by way of this description of Zerubbabel's Temple. In the hope that the buildings built over the remains of what used to be Solomon's Temple could help clarify each other and possibly Solomon's Temple itself, Newton offered extensive passages from Josephus *Bellum Judaicum* and *Antiquitates Judaicae*, which he annotated with his own short clarifications, between brackets.⁴⁰ These paragraphs were not so much about the structure of the Temple as a whole, as about the dimensions and the characteristics of its gates and columns and the changes that these had suffered through history, and the use to which each gate had been put. Newton used his indirect knowledge of the Talmud to complement Josephus's description or add more details to it. For the Middoth, a part of the judicial Mishna, which deals with the dimensions of the Temple, Newton relied on the edition by Constantijn L'Empereur (1591–1648), which he quoted.⁴¹ L'Empereur had been a professor of Hebrew and Theology in Leiden from 1627 to 1646; he played an important role in the popularization of Jewish literature and went (perhaps fairly) ignored after his century.⁴² Likewise, Newton, in general not given to acknowledging his contemporary sources, referred at this point to Cappel and Benito Arias Montano, who had both also drawn from rabbinical material. As mentioned above, Cappel's "Triplex Delineatio" in the *Polyglot* and "Villalpandi Paraphrasis" in *Critici Sacri* were very likely Newton's main source for Villalpando.⁴³ The Spanish Benedictine Montano was a humanist and reputed Orientalist who had authored the prefaces to the Antwerp Polyglot Bible. He was an expert in the Talmud, which he had explored to recover the original Hebrew units.⁴⁴

The rabbinical sources agreed, as far as Newton's interpretation was concerned, with Josephus's description. They all thought that the Mount of the House, the name they gave to the big atrium, was a squared surface of five hundred square cubits (measured in the external side), surrounded by a double portico. The agreement was, however, partial. Josephus and the Talmudists differed, for example, over the position and number of the gates. While Josephus had attributed ten gates to the big atrium, the Talmudists testified to the number of seven.⁴⁵ From Newton, the Talmudic experts, who had not been eyewitnesses, erred however in attributing the qualities of the two eastern gates to a single one.⁴⁶ Not only had the number of gates to be increased in relation to the Talmudic descriptions, but since Josephus had made clear that there were chambers over the angles of the atrium, the number of chambers was also higher than the one estimated by the Talmudists. Newton corrected this and other errors accordingly, using Josephus and Ezekiel.⁴⁷ Furthermore, Newton commented on the parts of the temple where the Mosaic proportions had been only approximately doubled. Finally, he showed through a comparative table that the measurements of the gates, columns, etc. given by Josephus and the Talmud did not differ by much when Josephus's unit was converted into the sacred cubit.⁴⁸

The material in this table also appeared in one of Newton's little-known works, namely his *Dissertation upon the Sacred Cubit of the Jews*. This was originally written in Latin and published in English in 1737 in *Miscellaneous works of John Greaves*.⁴⁹ Newton's *Dissertation* spelt out at the outset the high importance of these

disquisitions for all his studies on the Temple. “To the description of the Temple belongs the knowledge of the *Sacred Cubit*”, Newton wrote, “to the understanding of which, the knowledge of the Cubits of the different nations will be conducive”. Furthermore, he stated in his *Dissertation* his suspicions that the sacred Cubit “was taken from some authentic model preserved in a secret manner from the knowledge of the Christians”.⁵⁰ He tried to fix the exact measure of the sacred standard through the contrast of the different national cubits and using John Greaves’s works on the ancient standards of weight and measurement.⁵¹ Newton thought that the sacred cubit was slightly bigger than the vulgar version. The same could be inferred from his frequent conversion from ordinary cubits to sacred cubits in the *Prolegomena*. The sacred and the vulgar cubits stayed almost in the same proportion, one to each other, like the Babylonian and the Egyptian cubits. This was a proof that the Jews had learnt the Egyptian cubit when doing building works in Egypt, where they had adopted this second “adventitious” unit, different from their own sacred standard.⁵²

It was therefore in connection with the comparative table of the *Prolegomena* that Newton’s acute concern about the size of the employed standards of measure shone through. Knowledge of the magnitude of the sacred cubit was part of the ancient wisdom that the Jews had received from their ancestors. The Jews had used this standard, held to be composed of six palms, while routinely converting the foreign units into sacred cubits.⁵³ On the other hand, Newton wrote, Josephus had used the major stadium, which amounted to four hundred sacred cubits, to describe the external atrium. According to Newton, Josephus had not been careful enough regarding the use of the sacred cubit, because his writings were meant for the gentiles.⁵⁴ Newton expanded this idea in his *Dissertation* about the cubit, quoting an example from Josephus’s *Prologo Belli Judaici*, where the latter “every where puts three *Roman* Cubits for about two sacred Cubits except in some of the most eminent dimensions of the temple, properly so called, and set down in scripture, in which case he thought proper to retain the sacred Cubit”.⁵⁵

Only at this point did Newton attempt to offer some of his more personal calculations of how the Temple would have appeared. He occasionally corrected Josephus, who liked using round figures, such as 20 sacred cubits for the width between the two porticoes, where Newton would have attributed 22. The measures given by Josephus and the Talmudists of the chambers and the columns were however accurate in view of the harmony created between the gates and the chambers with the parts of the atrium.⁵⁶ Newton could also accommodate in his own description the measures that Ezekiel had given to the gates. Furthermore, he estimated the length of the sacred precinct to be one hundred cubits. This was appropriate, since it agreed with the location of the altar in the middle of the sacred precinct, which was in turn in the middle of the big atrium, and any other situation was judged improper by Newton.⁵⁷

Newton concluded by describing the external atrium. Josephus and the Talmud agreed on the perimeter, since the Talmud measured five hundred cubits each side outside and Josephus measured four hundred, the other one hundred corresponding to the angles of fifty cubits each.⁵⁸ The description of the columns followed. Newton

compiled then the features or characteristics of Zerubbabel’s and Herod’s Temple that were not included in the prophecy, so that the original description of Ezekiel could stand out, and proceeded to paraphrase Ezekiel’s words again.⁵⁹ This part has been misinterpreted in various places, among others in the Schab Catalogue and in the Spanish edition of the manuscript, where it was understood that Newton *corrected* Ezekiel’s vision, as if the prophet had been wrong, so that the Temple of Solomon could be imagined through his words.⁶⁰

The following commentary contained a full version of chapters 40, 41 and 42 of the prophecy, in the words of Ezekiel. It was in this section that Newton criticized the work of the Temple scholar Villalpando (on whom more later) and carried out a detailed philological study of many verses in his last effort to purge the prophetic text of any corruptions and recover the authentic version.⁶¹ It was indeed due to a misinterpretation of verse 20 of chapter 40 of the prophecy, in its Hebrew version, that Villalpando had decided to divide incredibly (“mirabile”) the big atrium in nine smaller atria.⁶²

In folio 58, Newton set out to compare all the temples, he said, and to supply what was lacking in the prophecy about Solomon’s and Herod’s Temple. Newton’s guiding principle was that the proportionality between the cubic figure of the most internal part of the Temple, as described in Kings, and of the cubic figure of the New Jerusalem, as described in the book of the Apocalypse, had to be kept. Not only the measurements but other non-numerical characteristics of the Tabernacle had to be reproduced in Solomon’s Temple, according to Newton.⁶³ He invoked the recollections of the Jews to confirm that the Altar must have been in the middle of the Court of the Priests and the Temple or Tabernacle in the middle of the Separate Place.⁶⁴

The last part of the *Prolegomena* was devoted to the disposition of the chambers in the Separate Place and the Court of the Priests and to the use of the different spaces by the members of the priesthood class. Newton’s very last comments, before the interruption of the narrative, were about the position of the Judges and the people at the different gates of the Temple for its custody.⁶⁵

OTHER TEMPLE TREATISES AND THEIR COMPARISON WITH THE *PROLEGOMENA*

Newton’s purpose through the manuscript, whose contents I have briefly described, was twofold. He wanted to recover the original text of Ezekiel — the prophetic book that in his view contained the best description of Solomon’s Temple — and he wanted to uncover its true meaning. The analysis I propose shows that Newton worked as a Temple scholar (and not as a mathematician or a hermetic as it has been suggested), although as such he rejected the basic beliefs of the most prominent contemporary Temple scholars. The sixteenth and seventeenth centuries saw the publication of an array of treatises on the Temple, across England and Europe. One of the most influential and most criticized was undoubtedly that of Villalpando, author of the largest part of the three-volume work *In Ezechielem explanationes et apparatus urbis, ac Templi Hierosolymitani*.⁶⁶ No Temple scholar was indifferent to the classically embellished reconstruction of the Temple by the Spanish Jesuit (Figure 3). Newton, who was

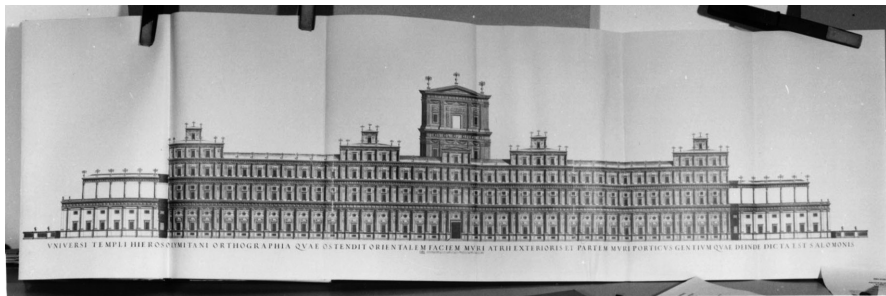


FIG. 3. Solomon's Temple as drawn by Villalpando, from Ramírez *et al.*, *El Templo de Salomón: Comentarios a la profecía de Ezequiel según Juan Bautista Villalpando* (Madrid, 1991).

also familiar with his core argument, neatly summarized his attitude to the Spanish architect in a set of notes, where he wrote: “y^e most eminent commentator in Ezekiel’s Temple; yet out in many things.”⁶⁷ Villalpando argued that Zerubbabel’s Temple had been erected following Ezekiel’s plan. Thus did the Jesuit aim to do justice to the historical meaning of the prophecy. To follow what he called the “historical text”, i.e. the prophecy of Ezekiel, was, he believed, the only way in which the allegorical meaning of the Temple could finally be grasped. It is interesting that Newton should agree with Villalpando in several respects, which affect mainly the relations between the first and second temples and do not include the allegorical affinities in which Villalpando indulged (for example, between the Temple and the body of Christ on the cross). It is almost as interesting that modern Temple and Newton scholars have missed the relevant part of this comparison to focus on Newton’s purported mysticism. But before we go on to this, let us focus on what was polemical about Villalpando’s and Newton’s reconstruction.

One of Newton’s firmest hypotheses (and one that Newton shared with Villalpando) was that “God himself, after the destruction of the Temple, showed to Ezekiel the same construction that He had revealed to Solomon through David (1 Chr. 28. 19), keeping all the measures as far as I can tell”.⁶⁸ For Newton, there were thus no discrepancies between the measures provided by the prophecy of the width of the Sancta Sanctorum, the Holy Place and the porch of the Temple, and the measures of the second Temple. Whether discrepancies existed or not was in fact beside the point for most English commentators, for whom the second Temple could only be an imitation of Ezekiel’s Temple but in no case a replica. One of those commentators was the Puritan divine Samuel Lee, who in 1659 published *Orbis miraculum or the Temple of Solomon portrayed by Scripture light*.⁶⁹ The campaign of opprobrium against what most considered a very extravagant reconstruction of Villalpando had been started by Montano, who had made public his view of the Temple in *Exemplar, sive de sacris fabricis liber* of 1572, and it seems that the reprint of those projects in his *Antiquitatum Iudaicarum libri IX* of 1593 could only have had the aim of neutralizing the future anticipated impact of Prado and Villalpando’s work. Montano was

not prepared to accept Villalpando's use of the prophecy as an accurate description of how the real Solomon's Temple looked like. Most of the rabbinic authorities had established a careful dividing line between the prophetic Ezekiel's Temple and the *historic* Solomon's Temple. For Montano there was no question of the priority of the Hebraic tradition over the patristic literature, whereas the patristic sources were authoritative for the Jesuit Villalpando. The totally unjustified claims that Villalpando ignored the rabbinic sources (starting with Montano) and that Newton criticized him on this account have been commonplace in many commentaries.⁷⁰

Lee's main purpose was, as he stated in the preface of his *Orbis miraculum*, to make clear that "there was never such a Temple extant, as is described by Villalpandus". He set out to provide the crucial demonstration for the implausibility of Villalpando's recreation. The question at stake, which divided Temple interpreters, was the length of the wall of the outward Court.⁷¹ This hinged on the interpretation of the following passage from the prophet Ezekiel's description of the Temple:

¹⁶He measured the east side with the measuring reed, five hundred reeds, with the measuring reed round about. ¹⁷He measured the north side, five hundred reeds, with the measuring reed round about. ¹⁸He measured the south side, five hundred reeds, with the measuring reed.

¹⁹He turned about to the west side, and measured five hundred reeds with the measuring reed.

²⁰He measured it by the four sides: it had a wall round about, five hundred reeds long, and five hundred broad, to make a separation between the sanctuary and the profane place.⁷²

What was there in this passage that could refute Villalpando's (and Newton's) conviction that the prophetic Temple had served as a model for the historic one? In measuring the perimeter of the outward court, the Angel concluded that every side of the wall was 500 reeds long, which would result in a total measure of 2,000 reeds. When that was converted into furlongs, the standard that, according to Lee, Josephus had used to measure the outward court, the perimeter of the outer wall appeared to be 31 furlongs. But Mount Moriah, where not only the Temple but other stately palaces and private buildings stood, was scarcely 33 furlongs. That is, Villalpando's Temple was simply too large for the mountain on which it stood.⁷³

How different Temple scholars dealt with this seeming difficulty is a measure of how their exegetical techniques and most importantly their fundamental aims differed. Let us first look at the solution of another authority on the Temple, Cappel. Cappel had already written that Villalpando's interpretation of the passage above was wrong, but he had other views regarding the implications for the feasibility of Ezekiel's prophecy and the key question of whether this had provided a model for a real Temple. Villalpando understood that the passage reflected the measurement by the Angel of two different parts of the Temple; namely, while verses 16 to 19 referred to the perimeter of the walk wall of the outer court, verse 20 referred for Villalpando

to the Court of the Gentiles. Moreover, the Jesuit had misinterpreted the words of the prophet in another fundamental way. The passage in Ezekiel described how the perimeter of the wall was being measured. The Angel measured the four sides of the wall and concluded that each of those sides measured 500 reeds, which gave a total perimeter of 2,000 reeds. Villalpando had concluded that the perimeter of the wall was 500 reeds and consequently had represented the outward court of the Temple as surrounded by a wall whose sides measured 125 reeds each, which would therefore have occupied but a small part of the Mountain where it was located.⁷⁴

For Cappel (as later for Newton too) there was no doubt that the Angel was measuring the same part of the building in all five verses (each lateral being 500 units).⁷⁵ Cappel and Newton both shared the view that Villalpando's opinion was an invention, for which there was no ground in Ezekiel's verses.⁷⁶ Villalpando's interpretation had failed to consider the different versions of the text and had not captured the prophet Ezekiel's real meaning. The puzzling consequences that Lee's reading made so clearly manifest were avoided when this corruption was discovered and corrected. Where the Hebrew version read "reeds", the uncorrupted version read "cubits" (as in the Septuagint). The sense of the words "five hundred cubits" ("quingentos cubitos in calamo mensurae") in the verse "he measured the east side with the measuring rod; it was five hundred cubits" had been altered in the Hebrew text, where it had been written as "five cubits of reeds" ("quinque cubitos calamorum") instead. The Septuagint had also expurgated the line "in calamo mensurae", which Newton thought superfluous.⁷⁷

Villalpando was, in Cappel's view, guilty of adhering tenaciously to the wrong Hebrew translation with incongruous consequences.⁷⁸ On the other hand, and in contrast with Cappel, Lee did not have any interest in collating the information in the Hebrew version with the Septuagint. For Lee, Cappel's censure of the sacred text was "over-liberal", since he could not imagine that such a mistake should have appeared no fewer than four times in quick succession in the sacred text.⁷⁹ In contrast, Newton, who agreed strongly with Cappel, did not have any difficulty in believing that the mistake could have occurred so many times.⁸⁰ Lee's main concern was to demonstrate that the biblical prophecy did not refer to any physical building past, present or even feasible. For the English theologian, the fact that some of the measures mentioned by the prophet coincided with what was said in the Book of Kings and Chronicles was no proof that Solomon's Temple was Ezekiel's Temple. At the same time, the fact that the Temple constructed by Zerubbabel had common features with Solomon's or Ezekiel's was not proof that it followed the model of the latter.⁸¹

Villalpando thought that strictures of this type had their origin in a literalistic tendency on the part of the Church.⁸² The Church had been, according to Villalpando, "vitiated by a kind of erudition and science". Efforts to make "concordant almost all the words and facts of the Sacred Scripture, of Christ and even the sacred mysteries of his church" often destroyed the authentic historical meaning.⁸³ Likewise even a literalistic interpreter like Newton had little patience for those who did not seem to understand that prophets spoke in images, figuratively, and that the interpretation of the

language of the prophets was the only necessary exception to literalistic exegesis.⁸⁴

For Newton, that the prophetic temple was also a real temple was a premise, not an opinion from which the readers could dissent. Newton believed that Solomon's Temple had been shown by God to Ezekiel and inspired his biblical description. There was an obvious temporal objection: Ezekiel could only have seen the ruins of the first Temple, but Newton was unconcerned by this.⁸⁵ As in other areas of his thought, Newton knew how to make a probable and polemical thesis appear a matter of fact. The author of the *Prolegomena* largely agreed with Villalpando on the similarities between the first and the second temples. At the very least, the measures had been preserved to some extent and, above all, the builders had followed Ezekiel's plan. There certainly were examples where the dimensions of the new temple did not quite agree with the dimensions of the first. Each of these discrepancies could however be explained by Newton, to a large extent with the aid of Josephus, as a result of the Jews' misunderstanding of the prophecy. Newton attempted to eliminate what had been added by the Jews or Herod, or what made the whole irregular, "since they [the Jews] were prone to excess".⁸⁶ The Jews had made mistakes in trying to comply with Ezekiel's instructions but for Newton this was just a further proof that they had taken Ezekiel's model as a pattern. "Once the corrections are introduced, it will be finally possible to image in this temple what Ezekiel says", Newton wrote. Recovering Ezekiel's real intention was, after all, Newton's priority.⁸⁷ Both Villalpando and Newton undertook the commentary and explanation of Ezekiel's prophecy to navigate their way through the description of the Temple. Only because they were convinced that Ezekiel's description was an excellent account of Solomon's Temple and served as a pattern of Zerubbabel's Temple, could they devote most of their treatises to the gloss of Ezekiel and to correct past mistaken interpretations. Their use of the Bible as the most reliable source, and their reliance on philological skills for the *reconstruction* of the text, must serve as the basis for any comparison.⁸⁸ Although some aspects of Villalpando's *Explanationes* are without parallel in Newton's *Prolegomena* (and more on this later), both authors had the objective of supplying the reader with an accurate, non-corrupted version of the Scripture for the passages of Ezekiel's prophecy. In contrast, most of the other Temple scholars of the sixteenth and seventeenth centuries did not believe that the visionary temple could be realized.

WORDS AND NUMBERS

Philological and numerical considerations were very often necessary to achieve Newton's and Villalpando's objective. In the *Prolegomena* Newton compared the Septuagint with the Hebrew version and Jerome's Latin. He did not hesitate, for example, to describe the Latin translation of the verse 9 in Ezekiel 40 as very bad.⁸⁹ Later in the text, in the second commentary to Ezekiel, Newton also cited the Syriac, the Arabic and the Alexandrian versions, on a note to the gloss of verse 8 from Ezekiel 40 again. Newton could have had access to all these versions of the text through Walton's *Polyglot*, of which, as said before, he owned a copy.⁹⁰ The criterion that guided Newton's research was his absolute conviction that the correct version of

Scripture would make sense and be thoroughly consistent. This stood in sharp relief to Villalpando's excessive reliance on the Vulgate, which made him less critical than Newton, although their aims were nonetheless similar.

Establishing the correct measures that God communicated through his prophet Ezekiel was obligatory. Measures were important in their own right and determining the correct ones was part of the double endeavour to reproduce the true Scriptural text and its true meaning. Newton's interest in units of measurement is best visible in this manuscript through the folios, where Newton included a table that contrasted the measurements given by Josephus with those given by the Talmudists.⁹¹ The very real significance of units of measurement was evident in the Bible, where the prophet Ezekiel was shown the Temple by an Angel holding a measuring rod. Their sacred importance was the subject of many treatises by Christian scholars of the sixteenth and seventeenth centuries. Further to their prophetic or typological importance, standards of measurement were taken to be vital for the preservation of justice and the regulation of society.⁹²

The importance attributed by Newton to these standards of measurement is thus beyond any question and it is not my intention to minimize it in any way. However, their presence did not render Newton's *Prolegomena* mathematical, or at least, not to the level of sophistication found in Newton's mathematical work. Most of the admittedly few authors who have examined the manuscript were deceived by the profusion of numbers and consequently agreed on the relative importance of mathematics for the text. Its Spanish editor, for instance, thought that Newton's mathematical knowledge helped him decide between different Temple interpretations.⁹³ Matt Goldish took an even stronger position. For him, "mathematics could stand in good service of his [Newton's] theology. Abstruse calculations accompany his Temple studies", he wrote, "as Newton valiantly struggles with the proportions of the House of God". Not only that, but Goldish thought that "the *Prolegomena* is so full of mathematical calculations as to resemble the *Principia*".⁹⁴

No matter how hard readers may seek those calculations, they will not find them. It is true that Newton reconciled the Talmudists with Josephus by converting magnitudes to the same standard. It is also true that conversions from vulgar cubits to sacred cubits were frequent and that Newton had to sum up dimensions. However, under what parameters can these calculations, which were not even explicit in the text, be called "abstruse calculations" and equated to the mathematical knowledge proper of the author of the *Principia*?⁹⁵ Granted, Newton was using arithmetic, but only to make such calculations as might be expected of any of his contemporaries in the field of biblical criticism. A glance at the third volume of Villalpando's *Explanations* reveals numerous and extended comparative tables of the size of standards of measurement, far more exhaustive than Newton's. However, it has hardly ever been suggested that mathematics played any role whatsoever in Villalpando's approach or work, but rather the opposite.⁹⁶

Newton may have found it easier than other scholars to follow the descriptions of the temple and to intuit what should be changed. But in choosing what he considered

to be the correct original version of the prophecy of Ezekiel, he was aided by philological and typological considerations to a rather greater extent, and many of those were not originally his own. In my opinion, there were no more numbers in the *Prolegomena* than could reasonably be expected in any three-fold commentary of a prophecy that itself contained so many numbers. Obviously the frequency of the appearance of numbers in a text does not make it mathematical in nature. This applies to Newton's *Prolegomena* too. While, as might be expected of a mathematician, Newton's nomenclature and description of various figures was expert, I have not been able to find any unknown non-explicit meaning behind the measurements. As I see it, numbers stood for measures and measures stood for the ones given by Ezekiel in his prophecy.

OTHER MISINTERPRETATIONS: HERMETICISM AND MYSTICISM

The misunderstanding of the role of Newton's numbers in his manuscript *Prolegomena* is by no means the only misinterpretation to which the work has been subject. Villalpando's and Newton's works on the Temple have been compared in the past. Similarities have been pointed out, alas, for the wrong reasons. The term 'Hermeticism' has often been used to describe the kind of Temple studies carried out by Renaissance Christians such as Villalpando. Often equated with 'mysticism', explanations of what is meant by either term are scarce. The term 'Hermetic' has been heavily and justly criticized for not adding anything to its Neoplatonic conceptual framework.⁹⁷ What was there in Villalpando's treatise that many have considered "Hermetic"? Villalpando explained how the divisions on the plan of the Temple were confirmed by the wonderful proportions of the human body, in particular the parameters of the six-foot Vitruvian man. The application of this figure resulted in the plan being subdivided into nine identical squares, a conclusion at which the Jesuit had originally arrived, according to Newton, as a result of a misunderstanding of a passage in Ezekiel 40:20.⁹⁸ He also illustrated the "astrological" disposition of the Israelite tribes in relation to the Temple and created diagrams to support his argument for the concordance of musical consonances and parts of the Temple.⁹⁹ Some of the other so-called "Hermetic" features that authors have related to Villalpando's design, particularly the Cabbala and the Pseudo-Dionysian hierarchies, cannot be justified in the text. Others such as Villalpando's geometry, numerology, anthropomorphism, etc. have a clear referent. This was, however, not Hermes Trismegistus but Vitruvius, whose work was recovered by humanist scholars and for whom Villalpando felt enormous admiration. The importance of precious stones has been also attributed to their "mystical properties" by authors like René Taylor who seemed to ignore their typological meaning. As Newton wrote, the precious stones, the pillars and their foundations were prefigurations of the saints and apostles.¹⁰⁰

Despite what they may have in common, Newton was far from endorsing Villalpando in his comments about the symbolism of the Temple, save for its *religious* scripturally sanctioned symbolism. This part of Villalpando's enterprise had no parallel in Newton's work. Therefore, it is particularly surprising that contemporary

authors have focused precisely on these passages to make them sound “Hermetic” at the same time as invoking Newton’s “mysticism”. Taylor was one of the first scholars (and surely one of the least rigorous) who tried to elucidate Newton’s Temple studies. He was led to them from his interest in Villalpando’s architecture. Largely influenced by the Yates thesis, Taylor sought (mostly with little fortune) to attribute a Hermetic origin to Villalpando’s astrological and Pythagorean relations. For Taylor, while Montano was a rationalist, Villalpando was a mystic, which alone explained why Villalpando had turned to Ezekiel for his reconstruction, according to Taylor.¹⁰¹ In this line, for Taylor there was an affinity of style between Villalpando and Newton, particularly insofar as they situated themselves on what he called “mystical side”. The term ‘mystical’ was abundantly used by Taylor, but never adequately explained. In any case, the question remains whether calling Newton’s interpretation of the temple “mystical” clarifies it or makes it more comprehensible, or whether rather the opposite is true.¹⁰²

Any opinion from Betty Jo Teeter Dobbs on Newton’s work is bound to be much more authoritative than those of Taylor. However, her own view on Newton’s Temple studies relied too little on Newton’s original texts and too much on her pursuit of the ideal of the unity of Newton’s archive, and in particular on a purported connection between the tradition of the *prisca sapientia* and Newton’s interpretation of the prophecies. In this vein, Dobbs speculated that “Newton probably hoped to move beyond his exact calculations ... to a discovery of certain cosmic proportions, such as those he later thought the Greeks had encoded in their myths of Pan and Orpheus”.¹⁰³

In his work *Judaism in the theology of Sir Isaac Newton*, Goldish continued to illustrate the link between Newton and Villalpando through the category of “mysticism”. Goldish argued, possibly under the influence of Dobbs’s own argument, that, although Newton supposedly shared Villalpando’s hermetic tendency to contemplate the Temple as an instrument in the transmission of the *prisca theologia* and despite his purported conception of the Temple as a microcosm, he would have removed “vague mystical ideas” and “concretized the matter”. According to Goldish, Newton had no preconceived notion about Ezekiel’s Temple foreshadowing the Christian Church. He believed that Newton was more interested in pursuing an account of the “harmonic special relationships” between the Tabernacle, Ezekiel’s, Solomon’s and the Second Temples. Goldish’s final point was that Newton criticized Villalpando for ignoring the Jewish sources, a failure that supposedly accounts for an “unhistorical” reconstruction.¹⁰⁴

However, this portrayal of Newton’s opinion of Villalpando seems unfounded. Villalpando’s reconstruction of the Temple used Ezekiel’s prophecy as its most important historical source. Newton criticized Villalpando only for the misinterpretation or mistranslation of biblical passages. Only twice did he blame the Jesuit for not having kept the Mosaic proportions of the building. In both cases Villalpando had misunderstood a biblical passage, namely Ezekiel 40:20 and Ezekiel 42:16–20. Newton reproached Villalpando for not following the correct version of Ezekiel but he never criticized him for relying on the prophecy, as other scholars did.¹⁰⁵ Contrary

to Goldish's implication, I have not found any evidence that Newton attributed Villalpando's mistakes to his neglect of Jewish sources; he well knew that Villalpando had paid attention to the rabbinic writings.¹⁰⁶ In short, the "quarrel" that Goldish discovered between Villalpando and Newton (which he equated with the certainly more real quarrel between Villalpando and the Spanish Arias Montano) did not exist.¹⁰⁷

While Newton did not always agree with the way Villalpando interpreted the Bible, there is no evidence that he, unlike many of Villalpando's other critics, cared much about whether Villalpando's reconstructed Temple would actually have fitted on Mount Moriah, where Solomon's Temple was built. Therefore, Goldish's comment that "Newton's conclusions about the Temple definitely fall in line with those of Villalpando's critics" is partially incorrect.¹⁰⁸ In fact, Newton, unlike other Spanish and British commentators, refrained from criticizing Villalpando's overall approach. All the available evidence indicates that it did not matter to him, as it mattered to other critics like Montano or Lee, whether Villalpando's temple was realistic or not, whether his reconstruction was historically plausible, or only a vision. From my point of view, this proves that Newton's interest in the Temple was aimed only at understanding Ezekiel's prophecy, and Revelation in general, and that consequently his techniques were oriented to scrutinizing the Scriptural description of the Temple, and that this illustrates the position of Newton's work in the Temple in the context of his lifelong study of the interpretation of prophecy.

Goldish was likewise seriously mistaken in minimizing the importance of the Temple as foreshadow or prophetic figure. Admittedly Newton devoted little space to the typological meaning of the temple in this particular treatise or in the fragments we have of it, but when this treatise is read together with others of Newton's prophetic papers, it is quite clear that the Temple was for Newton, as for Villalpando and many other commentators, a type of the proper order of the New Jerusalem after the Second Coming of Christ. Newton did not talk about the Temple allegorically, while referring to the universe or the religious community. Instead he was interested in the Temple itself as an exemplar of what was to come and probably as a model of what he would have liked to be realized in the England of his time.

CONCLUSION

A heretic anti-Trinitarian like Newton and a fervent Catholic like Villalpando had more in common than may appear *prima facie*.¹⁰⁹ They were both interested in demonstrating that prophecies had been fulfilled in the past — one of the most ancient claims of the Christian religion — and they both felt the responsibility of communicating their knowledge of the prophetic Scriptures.¹¹⁰ Throughout his researches, Newton's purpose remained the same. As a Protestant exegete educated in the philological methods of textual analysis, he was extremely concerned with offering the authentic version of the prophecy and with shedding light on its true meaning. Villalpando's attitude to the textual subtleties of the different biblical versions was much less critical than Newton's, but he too thought that Ezekiel's was the best available description of the physical temple and dedicated all his efforts to explaining the prophet's words.

They both worked on the tacit premise that Scripture as a whole was coherent. In pursuing the same goal, Newton and Villalpando both undertook to comment on the prophecy using a literal approach to recover the exact meaning of Scripture. As for the humanists who had tried to discriminate between forgeries and authentic ancient texts, for both Newton and Villalpando there was just one text and one meaning for that text. While for the Catholic Villalpando the literal reading of Scriptures was however only foundational (“The historical truth”, he said, “must be first understood if we want to grasp the strength of the allegory”), for Newton allegorical interpretations were excluded at any stage of the interpretive process.¹¹¹ There is a fine but important dividing line between allegory and typology. In an untitled treatise on Revelation Newton stated clearly that typology was divinely sanctioned and completely different from the indiscriminate use of allegory.¹¹² Contrary to what has been argued, Newton was not walking a middle path between allegorical and literal approaches.¹¹³

Newton was interested in the Temple as a prophetic type, a prefiguration of the New Jerusalem. The language of the prophets had to be explained in order to achieve an accurate meaning of the Scriptures and this is what *Prolegomena* set out to do. The first step was to establish the non-corrupted text, and that could be done only with the help of techniques of philological examination, arguably of humanistic origins. In this aim Newton was surely significantly aided by a number of compilations and scholarly works, where most of the primary sources he would have needed had already been digested and analysed. This surely puts Newton’s occasionally-overrated philological skills into perspective, but it does not diminish the interest of this document. In writing about the Temple, Newton’s strategy did not distinguish itself for being particularly ‘mathematical’ or ‘scientific’, nor surely for being particularly original. In writing about the Temple, Newton behaved and argued as a scholar attempting to restore the correct text of Ezekiel. This is very much what others such as the humanist Cappel had also tried to do before him. What this paper has tried to show is that, if Newton’s study was similar to that of the founder of the genre, Villalpando (and it surely was, despite Newton’s criticism of some of his “mistaken” interpretations), that was not because they shared a so-called “hermetic” tendency, but because they both integrated a typological reading of the prophecy in an otherwise literal interpretative frame. This similarity was embodied in the structures of their treatises, both of them focusing primarily on Ezekiel’s prophecy. Their conviction that what Ezekiel contained was basically right — after the text had been carefully compared in their different versions, in Newton’s view — led them to suggest a construction whose physical feasibility was unclear to other authors. Newton could largely ignore these difficulties, because, in contrast to Villalpando’s work, his *Prolegomena*, like most of Newton’s papers, would be kept hidden from public appraisal for centuries.

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1. The title of the manuscript translates as *Prologue to the second part of the lexicon of the prophets in which the shape of the Judaic sanctuary is discussed*; hereafter: *Prolegomena*. It comprises nearly 25,000 words of Latin, and belongs to the Babson Collection, Huntington Library, San Marino, California, call number MS 434. The Spanish edition included a historical introduction by the historian of science José Manuel Sánchez Ron and a partial edition and translation of the manuscript into Spanish by the philologist Ciriaca Morano: Ciriaca Morano (ed.), *El Templo de Salomón* (Madrid, 1996). A complete transcription of the manuscript is now available through the Newton Project: <http://www.newtonproject.sussex.ac.uk/view/texts/diplomatic/THEM00079> (accessed in May 2009). Transcriptions offered in this paper are diplomatic. Punctuation and spelling are left as in the original, as is superscript. Insertions are indicated by backslash and forward slash. The letter 'thorn' or 'þ', which by the seventeenth century had come to be used as an abbreviation of 'th' is transcribed as 'y', since Newton's own character for it is undistinguishable from 'y'. Translations are mine from the Latin original.
2. Yahuda MS 1.1, fol. 23r.
3. Yahuda MS 1.2, fol. 29r, insertion from 29v.
4. Yahuda MS 9.2, transcribed in Matt Goldish, *Judaism in the theology of Isaac Newton* (Dordrecht, 1998), 189, 194.
5. For the importance of this type of commentary as a humanist literary form, see Anthony T. Grafton, *Joseph Scaliger: A study in the history of classical scholarship*, i: *Textual criticism and exegesis* (Oxford, 1983), 15–17.
6. Jerome Friedman, *The most ancient testimony: Sixteenth century Christian-Hebraica in the age of Renaissance nostalgia* (Athens, OH, 1983), 12.
7. Goldish, *Judaism in the theology of Isaac Newton* (ref. 4), 3. David S. Katz, *Philo-semitism and the readmission of the Jews to England, 1603–1655* (Oxford, 1982), chap. 2, passim. Mordechai Feingold, *Before Newton: The life and times of Isaac Barrow* (Cambridge, 1990), 17.
8. Friedman, *The most ancient testimony* (ref. 6), 120.
9. Goldish, *Judaism in the theology of Isaac Newton* (ref. 4), 57–93, passim. Joseph Mede's *Clavis Apocalyptica* came out in 1627 and appeared in English in 1643 under the title *The key of the Revelation searched and demonstrated out of the naturall and proper charecters of the visions*.
10. "And the word of the LORD came to Solomon, saying, Concerning this house which thou art in building, if thou wilt walk in my statutes, and execute my judgments, and keep all my commandments to walk in them; then will I perform my word with thee, which I spake unto David thy father: And I will dwell among the children of Israel, and will not forsake my people Israel". 1 Kings 6:11–13.
11. See Yahuda MS 7.3, pt. c, fol. 6r. See also Keynes MS 5, fol. V for the Temple as a symbolic representation of the natural world, <http://www.newtonproject.sussex.ac.uk/texts/viewtext>.

- php?id=THEM00005&mode=diplomatic (accessed in May 2009).
12. Yahuda MS 2.4, <http://www.newtonproject.sussex.ac.uk/view/texts/normalized/THEM00267> (accessed in May 2009). For a digitized version of the entire manuscript, visit “Newton’s secrets”, http://www.jnul.huji.ac.il/dl/mss/newton/item_eng.html?pageId=ms05 (accessed in May 2009). Yahuda MS 14. For a digitized version, “Newton’s secrets”, http://www.jnul.huji.ac.il/dl/mss/newton/item_eng.html?pageId=ms1 (accessed in May 2009).
 13. Newton owned three further volumes by Maimonides in their Latin translations: *De idololatria liber* (1641), *De sacrificiis liber* (1683), *Tractatus de iuribus anni septimi et iubilaei* (1708), together with Edward Pococke’s *Porta Mosi* (1654–1655), which featured translations of Maimonides’s study of the Mishnah. Yahuda MS 13.2, digitized version in “Newton’s secrets”, http://www.jnul.huji.ac.il/dl/mss/newton/item_eng.html?pageId=ms12 (accessed in May 2009).
 14. Yahuda MS 13.2, fol. 19r. On Buxtorf, see Stephen G. Burnett, *From Christian Hebraism to Jewish studies: Johannes Buxtorf (1564–1629) and Hebrew learning in the seventeenth century* (Leiden, 1996). Newton owned Buxtorf’s *Lexicon Hebraicum et Chaldaicum complectens* (1621).
 15. *De abbreviaturis Hebraicis liber novus & copiosus: cui accesserunt operis Talmudici brevis recensio, cum ejusdem librorum & capitum indice. Item Bibliotheca Rabbinica nova, ordine alphabetico disposita* (Basel, 1613). Yahuda MS 28D, fols. 1v–2r, digitized version in “Newton’s secrets”, http://www.jnul.huji.ac.il/dl/mss/newton/item_eng.html?pageId=ms3 (accessed in May 2009).
 16. Yahuda MS 14, fols. 32r–33v.
 17. Louis Cappel, “Templi Hierosolymitani Triplex Delineatio”, in Brian Walton, *Biblia Sacra polyglotta, complectentia textus originales...* (London, 1655–57), i, 1–38, and Cappel, “Paraphrastica Explanatio Villalpandi” and “Villalpandi Paraphrasis per Lud. Cappellum”, in John Pearson *et al.*, *Critici Sacri: sive doctissimorum virorum in SS. Biblia annotationes et tractatus. Opus summa cura recognitum et in novem tomos divisu* (London, 1660), iv, 6012 and 6042. That Newton knew the paraphrases and comments of Villalpando by Cappel in Pearson’s and in Walton’s works is evident through his references in an approving tone in notes of folios 9 and 56 of the *Prolegomena*.
 18. The reader is struck by Newton’s repeated reference to chap. 14 of Book 6 from Josephus’s *Bellum Judaicum*, since as far as I am aware this work contained only 10 chapters. See folios 14r, 15r and 17r.
 19. Richard Westfall, *Never at rest: A biography of Isaac Newton* (Cambridge, 1980), 346.
 20. Cf. Y. Ben-Menahem, M. Feingold and S. Snobelen, *Newton’s secrets: Newtonian manuscripts from the collections of the National Library* (Catalogue of the Exhibition “Newton’s secrets”, 17 June – 17 July 2007, The Jewish National and University Library).
 21. Yahuda MS 26.3. Isaac Newton, *A Chronology of Ancient Kingdoms To Which Is Prefix’d, A Short Chronicle from the First Memory of Things in Europe, to the Conquest of Persia by Alexander the Great. Translated from the Latin of Sir Isaac Newton, not yet published* (London, 1728), 333. Newton’s feeble justification of the inclusion of his digression about the Temple in this volume says: “The Temple of Solomon being destroyed by the Babylonians, it may not be amiss here to give a description of that edifice.”
 22. “Upon a visit I made him, we had some discourse about Solomons temple; a matter wh̄ I had studied with attention, & made very many drawings about it, wh̄ I had communicated to my Lord Thomas, earl of pembroke, to M^r. Martin Folkes, & some more of my friends. I found, S^r. Isaac had made some drawings of it, & had consider’d the thing: indeed he had studied every thing. We did not enter into any very particular detail about it. but we both agreed in this, that the architecture was not like any designs, or descriptions yet publick. no authors have an adequate notion of antient, & original architecture. S^r. Isaac rightly judged, that it was older than any other of the great temples mentioned in history; & was indeed the original model wh̄ they followed.” Stukeley, “Memoirs of Sir Isaac Newton’s life” (1752), 11. Royal Society MS 142. <http://www.newtonproject.sussex>.

- ac.uk/view/texts/diplomatic/OTHE00001 (accessed in May 2009).
23. Yahuda MS 26 (post-1710) contains rehearsals for Newton's chap. 5 of the *Chronology*.
24. William H. Schab, n.d., *Catalogue*, 602 Madison Ave., New York City, *Early Science and Old Medicine*, "A precious unpublished autograph manuscript of seventy-two pages by Isaac Newton, 'A Treatise on the Temple of Solomon' ", 33–34.
25. See the Newton Project website for further information, for example, for possible locations of an undetermined number of pages, which would have originally been part of the same Sotheby Lot as the *Prolegomena*. <http://www.newtonproject.sussex.ac.uk/catalogue/record/THEM00079> (accessed in May 2009).
26. Morano, *op. cit.* (ref. 1), pp. lxxxvi and lxxxvii. Villalpando and Cappel did this in their works.
27. *A descriptive catalogue of the Grace K. Babson collection of the works of Sir Isaac Newton and the material relating to him in the Babson Institute Library, Babson Park, Mass.* (New York, 1950), 196.
28. Schab, *op. cit.* (ref. 24), 34, and Morano, *op. cit.* (ref. 1), pp. lxxxvi–lxxxvii.
29. Babson MS 434, fol. 1r. See, for example, Mede, *The key of the Revelation*, "A Comment upon the Revelation", "Of the Seales", *op. cit.* (ref. 9), 56–57.
30. Described in 1 Kings 5–8 and 2 Chronicles. Solomon reigned in Israel between 961 and 922 B.C. He began to build the temple in the fourth year of his reign, according to 1 Kings 6:1, and it took seven years to be completed, 1 Kings 6:38.
31. Helen Rosenau, *Vision of the Temple: The image of the temple of Jerusalem in Judaism and Christianity* (London, 1979), 19.
32. Babson MS 434, fol. 2r. Exodus 30:18 and 1 Kings 7:39.
33. Babson MS 434, fol. 2r: "retentis quantum sentio mensuris omnibus".
34. Babson MS 434, fols. 2r–7r.
35. Yahuda MS 1. 2, fol. 29r–v. <http://www.newtonproject.sussex.ac.uk/texts/viewtext.php?id=THEM00137&mode=diplomatic> (accessed in May 2009).
36. Babson MS 434, fols. 8r–10r. The Latin original caption is: "Dimensiones Portarum Atrij utriusque Ezek 40 schemate illustratae". In this section, Newton commented on Ezekiel 40, verses 5, 6, 7, 8, 9, 11, 12, 13, 14 and 16, 15, 17 and 18, 19, 20–23, 24–27, 28, 30, 39–42, 44–46, 47, 48 and 49; chapter 41, verses 1 and 2, 3 and 4, 5 and 6, 8, 9, 10, 11, 12, 13, 14, 15–16; chapter 42, verses 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12, 12–14, 15; and chapter 46, verse 19.
37. The verses commented in this part of the manuscript are: chapter 40, verses 14, 16, 44; chapter 41, verses 6, 8, 9, 10, 15; chapter 42, verses 3, 10; chapter 40, verse 14; and chapter 42, verse 4. Babson MS 434, fols. 10r–11r.
38. Babson MS 434, fols. 13r–14r.
39. Babson MS 434, fol. 14r.
40. Babson MS 434, fols 14r–20r. "Verum templo illo destructo manserunt sepulta fundamentorū vestigia usq₃ dum templum secundum resurgeret \edificaretur/, & ijsdem fundamentis extructa ædificia se mutuò illustrare sperandum est. Videamus igitur quid lucis afferat visionibus Ezekielis contemplatio templi secundi." Babson MS 434, fol. 14r.
41. Babson MS 434, fol. 20r. Constantijn L'Empereur, *Talmudis Babylonici codex Middoth sive de mensuris Templi, una cum versione Latina ... Additis commentarijs* (Leiden, 1630).
42. On L'Empereur, see Peter T. Van Rooden, *Theology, biblical scholarship and rabbinical studies in the seventeenth century* (Leiden, 1989).
43. On Cappel, see François Laplanche, *L'Écriture, le sacré et l'histoire: Érudits et politiques protestants devant la Bible en France au XVIIe siècle* (Amsterdam, 1986), esp. Part 2.
44. On Montano, whose full correspondence has never been published and of whom we also lack a full biography, see, among others, Luis Gómez Canseco (ed.), *Anatomía del humanismo: Benito Arias*

- Montano, 1598–1998 (Huelva, 1998); Asunción Sánchez Manzano (transl. and ed.), *Prefacios de Benito Arias Montano a la Biblia Regia de Felipe II* (León, 2006); Zur Shalev, “Sacred geography, antiquarianism and visual erudition: Benito Arias Montano and the maps in the Antwerp Polyglot Bible”, *Imago mundi*, lv (2003), 56–80.
45. Cf. Cappel, “Templi Hierosolymitani triplex delineatio” (ref. 17), 24, who writes “Josephus Antiq. Lib. 6. c. 6. videtur Septo interiori Portas decem attribuere, 4 nempe à Meridie, totidem à Septentrione, duas verò ab Oriente”. Newton may be reading Josephus differently. The Polyglot says that Josephus had four gates to “Meridie”, but Newton attributes four to the occidental side (“in latere occidentali”), in fol. 16r. The references are unclear. Chap. 6 of Book 6 of *Judean antiquities*, which Cappel quoted, is about how the Philistines made another expedition against the Hebrews and were beaten and does not seem an obvious source for the interpretation of the *Polyglot*. Newton refers here to a Chap. 14 of Book 6 of *Bellum Judaicum*, which, as already mentioned, has only ten chapters.
 46. Babson MS 434, fol. 22r. Newton’s notes on questions like this, extracted from his readings of the Talmud (largely through L’Empereur) are extant in his manuscript “Prophecies concerning Christs 2d coming” under the title “Ex Talmudis Babylonici Codice Middoth, sive the mensuris templi”, fols. 35–40. See Newton Project, <http://www.newtonproject.sussex.ac.uk/texts/viewtext.php?id=THEM00088&mode=diplomatic> (accessed in May 2009).
 47. Babson MS 434, fols. 22r and 25r.
 48. Babson MS 434, fol. 28r. Newton consulted here the Yoma, Buxtorf’s *Lexicon Chaldaicum, Talmudicum et Rabbinicum* (1640), and Montano’s “Thubal-Cain sive de mensuris sacris liber: tribus voluminibus distinctus, de cubito, de sathò, de siclo”, which constituted a part of the bibliographical apparatus of the *Antwerp Polyglot Bible* (1569–72).
 49. The Latin version of the dissertation appears in an *Appendix / De magnitudine cubiti sacri*, together with earlier drafts in Yahuda MS 2.4. John Greaves, *A Dissertation upon the Sacred Cubit of the Jews and the Cubits of the several Nations; in which, from the Dimensions of the greatest Egyptian Pyramid, as taken by M. John Greaves, the antient Cubit of Memphis is determined*, in *Miscellaneous Works* (London, 1737), 405–33.
 50. Newton, *Appendix / De magnitudine cubiti sacri* (ref. 49), 429.
 51. It is interesting to note how, as pointed out by Zur Shalev in his study on Greaves’s *Pyramidographia*, some authors have been too quick to interpret Newton’s interest in Greaves’s work as a sign that the Pyramid encoded natural knowledge, or to relate his interest in the cubit of Memphis to his physics, rather than to his interest in determining the measure of the sacred cubit. Shalev, “Measurer of all things: John Greaves (1602–1652), the Great Pyramid, and early modern metrology”, *Journal of the history of ideas*, lxiii (2002), 555–75, p. 574.
 52. Newton, *Appendix / De magnitudine cubiti sacri* (ref. 49), 427.
 53. Babson MS 434, fol. 27r.
 54. Babson MS 434, fol. 28r.
 55. Newton, *Appendix / De magnitudine cubiti sacri* (ref. 49), 432.
 56. Babson MS 434, fols. 28r and 29r.
 57. Babson MS 434, fol. 34r.
 58. Babson MS 434, fol. 36.
 59. Babson MS 434, fol. 40. The verses that follow are the complete chapters 40, 41, 42 of Ezekiel, as well as the first verses of Ezekiel 41, with separate entries, and the last verses, from 19 to 24, of Ezekiel 46, also with separate entries.
 60. Schab, *Catalogue* (ref. 24), 34. Morano, *El Templo de Salomón* (ref. 1), 73.
 61. I use the expression “Temple scholar” with a purely descriptive intention. I do not want to suggest that the authors to whom I refer as “Temple scholars” share an identity as such or belong to a

homogeneous group. I do believe, however, that, a comparison between scholars who busied themselves with the topic of the Temple is legitimate, as is the designation "Temple scholar", at least for this limited purpose.

62. Babson MS 434, fols. 41r–57r.
63. Babson MS 434, fol. 58r.
64. Babson MS 434, fol. 59r.
65. Babson MS 434, fol. 60r–69r. See also Yahuda MS 8.2, particularly fol. 3r. <http://www.newtonproject.sussex.ac.uk/view/texts/normalized/THEM00239> (accessed in May 2009), and Yahuda MS 13. In the first paragraph of *Prolegomena*, Newton refers to the need to consider the "Israelite world". Exploring the shape of the Sanctuary was part of this enterprise. Explaining the Israelite ceremonies was another part. Newton never got around to doing it in the space of the *Prolegomena*.
66. Hieronymus Prado and Juan Bautista Villalpando, *In Ezechielem explanationes et apparatus urbis, ac Templi Hierosolymitani* (Rome, 1596–1604; hereafter: *Explanationes*). This work was projected by Hieronymus Prado and completed by Villalpando. It has three volumes. Although their covers show dates between 1596 and 1604, they were composed between 1595 and 1606. The second volume contains most of the material relevant to us. This volume has been edited by Juan Antonio Ramírez *et al.*, and translated into Spanish by José Luis Oliver Domingo as *El Templo de Salomón: Comentarios a la profecía de Ezequiel según Juan Bautista Villalpando* (Madrid, 1991).
67. Yahuda MS 14, fol. 32r. It appears that Newton agreed with Villalpando in his praising of the classical style as the most adequate for Solomon's Temple. At least, William Stukeley recorded after a visit to Newton, that to his idea that Solomon's temple was Doric, Newton had added that "the greeks advanced it into the Ionic, & the Corinthian". Stukeley, *Memoirs* (ref. 22), 13. However, Newton's preference does not show in the text of the *Prolegomena*. Newton's illustrations do not include any elevation, contrary to Villalpando's sophisticated front drawings. I am not suggesting that Newton had access to *In Ezechielem explanationes*. But, as this essay shows, Newton knew Villalpando's argument and took issue with it.
68. Babson MS 434, fol. 2r. "Et eandem fabricam quam Deus per David revelaverat Solomoni \[1 Chron. 28.19\] Deus idem postquam templum illud subversum fuerat ostendit Ezeieli, retentis quantum sentio mensuris omnibus."
69. I am not suggesting that Samuel Lee took issue with Newton or that Newton had read Lee. There is a telling difference of approach between Newton and other authors with regards to the Temple. My interpretation of this difference does not rely on Newton's having had access to Lee's argument in particular.
70. Juan Antonio Ramírez *et al.* (eds), *Dios Arquitecto: Juan Bautista Villalpando y el Templo de Salomón* (Madrid, 1991). See Montano's drawing in Scott Mandelbrote and Jim Bennett, *The garden, the ark, the tower, the temple: Biblical metaphors of knowledge in early modern Europe* (Oxford, 1998), 134. This work is available on line: <http://www.mhs.ox.ac.uk/gatt/> (accessed in May 2009). Montano was severely criticized for having engaged with rabbinical sources to the extent that he had (from the point of view of many other Catholic Spanish scholars) damaged the authority of the Vulgate. See Shalev, *Sacred geography* (ref. 44), 59. Montano had published in 1572 his own reconstruction of the Temple in the *Polyglot (Exemplar, sive de sacris fabricis liber)*. The news that Prado and Villalpando were preparing their own reconstruction, which would differ markedly from Montano's, reached the ears of prominent Spanish scholars, before the work went to press. It is therefore possible that Villalpando's plan was the motivation behind Montano's republication of his work in the year 1593.
71. Samuel Lee, *Orbis miraculum, or, the Temple of Solomon, pourtrayed by Scripture-light* (London, 1659), "A Preface to the Reader", sig. A2, 1r.
72. The passage is quoted from the King James Version. Newton's transcription says: "16 He measured

the east side with the measuring rod: it was five hundred cubits. 17 He measured the north side; it was five hundred cubits by the measuring rod. 18 He measured the south side; it was five hundred cubits by the measuring rod. 19 Then he turned to the west side and measured; it was five hundred cubits by the measuring rod. 20 So he measured the area on all four sides. It had a wall round it, five hundred cubits long and five hundred cubits wide, to separate the holy from the common." Newton observed that, as Cappel had noted in his criticism of Villalpando's fanciful opinion, we should not read "reeds" where it says "cubits" (as in the Septuagint version). Babson MS 434, fol. 56r, note g..

73. Lee, *Orbis miraculum* (ref. 71). "A Preface to the Reader", sig. A2, 1r.
74. Villalpando and Prado, *De postrema Ezechielis prophetæ visione*, vol. ii of *In Ezechielem explanationes* (ref. 66), 378–80.
75. "Whether cubits or reeds" (although "cubits" for Cappel). Cappel, "Templi Hierosolymitani triplex delineatio" (ref. 17), 15.
76. "Merum istud est Villalpandi commentum, cujus nullum neque vola neque vestigium est in verbis Ezechielis", *ibid.* See Babson MS 434, fol. 56r, for Newton's criticism.
77. Babson MS 434, fol. 56r.
78. Cappel, "Templi Hierosolymitani triplex delineatio" (ref. 17), 15–16: "Villalpando mordicus Vulg. Adherens utrinque mensuram hic admittit & calamorum & cubitorum."
79. Lee, *Orbis miraculum* (ref. 71), "A Preface to the Reader", sig. A2, 1r.
80. Babson MS 434, fol. 56r.
81. Lee, *Orbis miraculum* (ref. 71), "A Preface to the Reader", sig. B.
82. Villalpando referred to literalistic interpretations in general, and not to Lee's in particular, which came out only in 1659.
83. Villalpando, *El Templo de Salomón* (ref. 66), 33–34.
84. See, for example, Yahuda MS 1.1, fols. 18r–19r. Yahuda MS 9, fol. 18r.
85. Babson MS 434, fol. 2r.
86. "Et cum Herodes et Judæi in excessu peccare amarent...." Babson MS 434, fol. 40r.
87. "Et hisce omnibus sic correctis licebit tandem in hoc Templo speculari illud Ezekielis." Babson MS 434, fol. 40r.
88. Whether their own or those of authors, whom they followed closely, as Newton did with Cappel.
89. Babson MS 434, fol. 11r. See King James's Version, verses 9 and 10: "Then measured he the porch of the gate, eight cubits; and the posts thereof, two cubits; and the porch of the gate was inward. And the little chambers of the gate eastward were three on this side, and three on that side; they three were of one measure: and the posts had one measure on this side and on that side." Newton's criticism is that: "The Latin version says: And there was an inner space of the House in the laterals of the House. But that in the House is not found in the Hebrew text. And Septuagint reads: *And the rest of the space was in between the laterals of the House*. That is, the space in between the laterals of one side and the other. That *rest* of the space is also translated in the worst way as *in the house*."
90. Babson MS 434, 45r. The verse to which Newton referred says: "He measured also the porch of the gate within, one reed." Newton explained: "Here in the Hebrew text the scribe, by mistake, wrote twice the words: *inside with a rod and he measured the threshold of the door*, because they had the same syllables. In the exemplars of Jerome and in the authors of the Syriac version it reads only once. In the version of the Sep. until the Roman edition they are completely omitted by the opposite mistake of a scribe, but in the Alexandrian codex and in the Arabic version they appear only once."
91. Newton obviously benefited from Cappel's "Templi Hierosolymitani dimensiones secundum Josephum", where the French scholar had offered a neat summary of the dimensions of columns,

- atria, and gates, according to Josephus. Cappel, "Templi Hierosolymitani Triplex Delineatio" (ref. 17), 38.
92. Richard Cumberland, *An essay towards the recovery of the Jewish measures & weights, comprehending their monies, by help of ancient standards, compared with ours of England* (London, 1686), 132. Mandelbrote and Bennett, *The garden, the ark, the tower, the temple* (ref. 70), 152. See also Shalev, "Measurer of all things" (ref. 51), 555–75.
93. Morano, *El Templo de Salomón* (ref. 1), p. xcvi.
94. Goldish, *Judaism in the theology of Isaac Newton* (ref. 4), 104–5.
95. What follows is one of Newton's explicit calculations: "the length of the sanctuary ... will be thus computed: space between the walls 10 cubits, its wall 1 cubit; small atrium 40 cubits; corridor with its walls between the small atria 9 cubits; other small atrium 40 cubits; sum 100 cubits." Babson MS 434 f. 33r. From this calculation Newton inferred that the Talmudists were wrong in attributing 135 cubits to the atrium of the women.
96. Jim Bennett in Mandelbrote and Bennett, *The garden, the ark, the tower, the temple* (ref. 70), entry 51, is an exception to the rule.
97. See Robert S. Westman and James E. McGuire, *Hermeticism and the Scientific Revolution* (Los Angeles, 1977), 70.
98. Villalpando, *El Templo de Salomón* (ref. 66), 398–400. Babson MS 434, fol. 46r. The verses 19 and 20 say, according to Newton: "19 Then, he measured the width from the inside of the lower gateway to the outside of the inner court: one hundred cubits to the East. 20 Then he led me to the North and the gate was the one that faces the North in the external court. He measured its length and its width." Newton noted that this was the Septuagint version and that in the Hebrew text it appeared "as well as on the north" and that, having Villalpando referred these words to verse 19, he imagined that the Angel measured the length of the atrium to the North as well as the width between the doors, and that the length and the width were one hundred cubits each. This is the reason why Villalpando thought, "incredibly", that the whole atrium was divided into nine small atria, all one hundred cubits in width and one hundred in length.
99. Villalpando, *El Templo de Salomón* (ref. 66), 377, 397. Ramírez *et al.* (eds), *Dios Arquitecto* (ref. 70), 175–91.
100. Yahuda MS 6, fol. 14r, from Frank E. Manuel's transcription in Manuel, *The religion of Isaac Newton* (Oxford, 1974), 129.
101. Ren Taylor, "Architecture and magic: Considerations on the *idea* of the Escorial", in Douglas Fraser *et al.* (eds), *Essays in the history of architecture presented to Rudolf Wittkower* (London, 1967), 90–94.
102. René Taylor, "Isaac Newton: Persistencia de la interpretación mística", in Ramírez *et al.* (eds), *Dios Arquitecto* (ref. 70), 139–42.
103. B. J. T. Dobbs, *The Janus faces of genius: The role of alchemy in Newton's thought* (Cambridge, 1991), 154.
104. Goldish, *Judaism in the theology of Isaac Newton* (ref. 4), 91.
105. Cf. Morano, *El Templo de Salomón* (ref. 1), 114.
106. Villalpando cited Josephus and David Kimchi among others. Ramírez *et al.* (eds), *Dios Arquitecto* (ref. 70), 180. Josephus was cited in numerous places, although Villalpando did not always agree with him. See for example, Villalpando, *El Templo de Salomón* (ref. 66), 40, 90, 92. Kimchi was quoted at least on pp. 122, 131 and 132. Villalpando referred to the Targum on a number of occasions, e.g. in p. 121. On p. 125 Villalpando introduced the "Rabí Isaac's" opinion saying: "And it is not only the sacred doctors that confirm this interpretation, that everything happened in that house in a figurative way, but also all the profane doctors and the wicked Jews."
107. Goldish, *Judaism in the theology of Isaac Newton* (ref. 4), 91.

108. *Ibid.*

109. For the connections between anti-trinitarianism and Catholic approaches, see R. Iliffe, “Friendly criticism: Richard Simon, John Locke, Isaac Newton and the *Johannine Comma*”, in Ariel Hessayon and Nicholas Keene (eds), *Scripture and scholarship in early modern England* (Aldershot, 2006), 137–57.

110. Yahuda 1.1, fol. 1r, and Villalpando, *El Templo de Salomón* (ref. 66), 10.

111. Villalpando, *El Templo de Salomón* (ref. 66), 33.

112. Yahuda MS 1, fols. 12r–12v.

113. James Force has tried to make a case for Newton’s “walking a middle path between those who might be called absolute literalists and those who read each and every passage as an allegory”. To this end, Force invokes evidence from Yahuda MS 9 and Yahuda MS 1.1. Force, “Newton, the Lord God of Israel and knowledge of nature”, in R. H. Popkin and G. M. Weiner (eds), *Jewish Christians and Christian Jews* (Dordrecht, 1994), 135–7. Reiner Smolinski follows in Force’s steps by writing that Newton’s rules for interpreting the words and language in Scripture are “characterized by his insistence on a single, obvious or literal sense of the prophecies, yet allows for a kind of ‘third or middle way’ to govern allegorical or nonliteral interpretations when the plain or literal sense contradicts ‘reason’”. Smolinski concludes that Newton “retains a middle way between literalism and metaphor for things confined to earth, yet employs a mystical or anagogical rendition for things that extent into the heavens”. Reiner Smolinski, “The logic of millennial thought: Sir Isaac Newton among his contemporaries”, in J. E. Force and R. H. Popkin (eds), *Newton and religion: Context, nature and influence* (Dordrecht, 1999), 259–89, p. 284.