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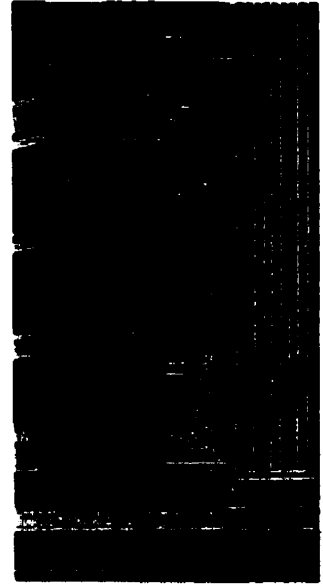
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**RE-DESCRIBING THE REAL:
Villapando's Ideal Image of the Temple of Jerusalem**



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**A thesis submitted to the Faculty of Graduate Studies and
Research in partial fulfillment of the requirements for the
degree of Master of Architecture.**

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ABSTRACT

The symbolism of the heavenly, represented in the Temple of Jerusalem, has inspired diverse interpretations of both mystical and archaeological type. The reconstruction by the Jesuit, Juan Bautista Villalpando (1552-1608), which took place amidst hermetic teachings, Vitruvian norms, and in a religious Spain, merges all these aspects into a harmonious order that spawns a model of perfect architecture as well as the consummate religious edifice. In this vision of the Temple, deciphered from the prophet Ezechiel's abstract and messianic description, the ideal order of divine creation is drawn. Villalpando's drawings and explanations aim to reconcile the sublime in geometry with matter, therefore imitating divine creation while not ceasing to be an imaginative, worldly interpretation. According to Villalpando, in Ezechiel's vision, the spiritual aspect of the Temple of Salomon, God revealed the future Church. After the incarnation of Christ, this Church can be a reality. Villalpando's conception, which was embodied in the palace and monastery of El Escorial, represents the built ideal.

Le symbolisme du céleste, incarné dans le Temple de Jérusalem, a inspiré diverses interprétations mystiques et archéologiques. La conception de ce Temple par le Jésuite Juan Bautista Villalpando (1552-1608), issue d'un milieu d'enseignement hermétique, de normes Vitruviennes, et dans un Espagne religieux, révèle un ordre harmonieux pour une architecture de perfection, ainsi qu'un édifice religieux idéal. Dans sa vision du Temple, Villalpando s'inspire des écrits et des descriptions messianiques du Prophète Ezéchiel pour établir l'ordre idéal de la création divine. A travers ses dessins et ses écrits, Villalpando tente de réconcilier une sublime géométrie avec la matière. C'est ainsi que cet architecte imite la création divine tout en élaborant une architecture humaine et imaginative. Selon Villalpando, c'est dans la vision d'Ezéchiel que Dieu révèle la future Eglise, dans l'aspect spirituel du Temple de Salomon. Cette église deviendra une réalité suivant l'incarnation du Christ. Les idées de Villalpando, incarnées dans le palais et le monastère de l'Escorial, représentent un idéal réalisé.

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To those in diverse parts of the world who kindly shared their time and invaluable knowledge: special thanks to Teresa Gisbert de Mesa and Hugo Entrambasaguas.

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"The generating idea, the word, was not alone at the foundation of all these structures, but also to be traced in their form. The temple of Salomon, for example, was not only the binding of the holy book, but was the holy book itself. Upon each one of its concentric walls, the priests could read the Word, interpreted and manifested to the eye; and thus they followed its transformations from sanctuary to sanctuary until they seized it in the inner tabernacle, in its most concrete form, which was still architectural, the Ark itself. Thus the Word was concealed within the edifice, but its image was upon its envelope, like the human form upon the sarcophagus of a mummy."

¹ Victor Hugo: *Notre-Dame de Paris*. transl. J. Carroll Beckwith. George Barrie, Philadelphia 1892. V.1 p.130.

"I will put my spirit in you and ye shall live!"

[Ezek 37:4]

INTRODUCTION:

The Temple of Jerusalem in Judaism and Christianity

There are a few images, persistent in history, that because of their symbolism and connotations, inspire re-interpretation. The Temple of Jerusalem is perhaps the most significant of these images and the Spanish reconstruction of the late 16th century by the Jesuit Juan Bautista Villalpando is amongst the most notable interpretations. The subject matter of this study is vast and connected to numerous issues, complete coverage of the entirety of the material was therefore not intended. The emphasis will be on topics such as the meaning of the Temple of Jerusalem in the Jewish and Christian traditions, Villalpando's Temple and its connection to the classical tradition, to hermetism and the cosmos, to El Escorial, and to subsequent reconstructions- ideal and real.

Traditionally the Temple of Salomon in Jerusalem was understood to be of God's design; what better condition to overcome the dubious sources of authority which to this day cloud architectural decision-making? The Temple was carrier of unquestionable authority and therefore became an architectural and religious model that was followed throughout all ages. The Temple's significance in Judaism, Christianity and Islam has sprouted numerous reconstructions and interpretations; still today, the number of visions of the Temple is overwhelming. About these diverse but persistent images there is agreement only on a few

facts regarding the structure of the Temple. In most reconstructions the general plan is divided into three spaces: the porch (ulam), the house or holy (heikhal), which includes the debir and is sometimes used to refer to the whole temple, and the holy of holies (debir). But what is more interesting perhaps, more than the real measurements of the Temple, are the diverse versions and architectural visions and theories that emerged from this both mystical and real construction.

The beginnings of the Temple were not without controversy: at the time of its construction, the religious appropriateness of a house for an abstract and infinite God was questioned, and still today, this episode of the Bible introduces discrepancies between basic commandments of the Old Testament.² Perhaps because the only true architecture is otherworldly, in the Old Testament creation is understood as a godly act that when granted to humans could border the realms of idolatry and anarchy. At the same time, however, we find in Exodus praise for the biblical artist Bezalel whom God grants the wisdom to design and construct.³

² The 2nd commandment, which forbids the creation of images in order to prevent idolatry and defeat paganism, has been interpreted as a warning against human constructions.

On this subject see: Joseph Gutmann: *No Graven Images: Studies in Art and the Hebrew Bible*. KTAV Publishing House Inc. New York 1971.

³ *ibid.* pg.8.

A further consideration is that a colossal and stable construction as the Temple of Jerusalem might seem contrary to the image of the Tabernacle in the desert housing a kinetic, holy book of a migrant people. In the protection of vast walls, the Text becomes less accessible to all and closed to interpretation therefore purporting the image of permanence, perhaps more in accord with the presence implied by sight than the absence implied by the fluid word of an aural religion—unless the word flows into the structure of its outer skin so that one can not be read without the other and so that the absence of the word is present in the

construction.

While being a human work, the Temple was not independent from, or even possible outside divine order and design. In this sense, it is closer to Noah's Ark, the first detailed description of architecture in the bible, which is meant to save humanity and God's creation, than the act of arrogance that characterised the Tower of Babel. As has been stated quite appropriately by Joseph Rykwert: the Temple can be seen as *the image of production as a path to salvation*.⁴ The Temple, constructed by man in the light of God, was an act of reconciliation, whereas the Tower of Babel, built with brick, which unlike stone requires the technological transformation of earth, was a defiance to the order of creation and a thieving act of authority. God is of the word but after Babel there was not just one word, the ubiquitous unity maintained by the reconciliatory act of the Temple was lacking because the literal reciprocity between the Word and world was destroyed.⁵

⁴ See: Alberto Perez-Gomez: 'The Architecture of God' in *Design Book Review* 34, Fall 1994. p.49.

⁵ The word *Babel* comes from 'balal' or 'balbel', which means confusion. It could also derive from the accadian 'Bab-Ilu' which means gate of god.

⁶ Helen Rosenau: *Vision of the Temple: The image of the Temple of Jerusalem in Judaism and Christianity*. Oresko Books, London 1979. p.24.

After the destruction of the last Temple, rebuilding it was no longer a popular enterprise amongst Jews, for the reconstruction was associated with messianic age. To this day this is the predominant belief in Judaism. It is considerable that for a number of orthodox Jews this messianic reconstitution is not separate from the existence of the 'Promised Land' which should only be actualised in messianic times. The fact that in Judaism the ideal should not be built, as it is in a realm inaccessible to man, did not prevent the creation of images of the Temple. These images, which represented more a vision than a reality during the Bar Kochba period (A.D. 130's)⁶ gained strength in the Middle Ages with Maimonides more objective

and detailed reconstruction of the 'real' Temple.

The idea of the Temple which was superimposed on the Church influenced Christianity not only theologically but also in its architecture to an extent which perhaps is not recognized with due relevance. However, despite its important role, the Temple image diverged greatly from its real physical appearance throughout most of the middle ages. During this time, the Temple was conceived as the ideal architecture more for its significance than for its appearance. Perhaps we can see how this apparent dichotomy between divine meaning and architectural reality began to change at the beginning of the 17th century with the work of the Spanish Jesuit Juan Bautista Villalpando.

Towards the end of the Renaissance, a time when the past gave vigour to the present, Juan Bautista Villalpando endeavoured to re-create a model of this joint creation of word and stone - godly and worldly, which was the Temple. As the source of his reconstruction, where he could delve into the mystic paths of the unity of God's creation, he chose Ezechiel; someone subject to the senses, memory and imagination of a human being, yet beholder of the prophetic vision of the Temple.

⁷ Ezechiel, in Hebrew 'iehzek el' means 'may God strengthen' ('the child'), and in fact the first portion of the prophecy speaks of Israel's doom and is a call for repentance and the following part is of Israel's restoration and consolation.

⁸ Harald Riesenfeld: 'The Resurrection in Ezekiel XXXVII' in *No Graven Images*...ed. J. Gutmann p.144.

Ezechiel's description is symbol of political and spiritual restoration after the exile.⁷ Even in Judaism the prophecy has at times been associated or becomes a forerunner of the Messiah since in 'Ezek: 37' he claims he will awaken the dead, a power that was granted to the coming of the Messiah.⁸ As the anticipation of messianic time, for Judaism, Ezechiel's vision has not yet materialised, whereas for Christianity it presupposes the coming of Christ and the prophecy

of the rebuilt Temple can therefore be fulfilled by the act of incarnation.

Like other Christian reconstructions which differed from Jewish attempts, for Villalpando the symbolic significance of the Temple outweighed its real existence in the past. But the difference was that his construction did not remain simply mystical, it became apparent through architecture. Villalpando describes Ezechiel's vision of the Temple through the language of classical architecture although Ezechiel's description does not subscribe to any particular style or aesthetic. Keeping in mind Vitruvius' definition of 'idea' as architectural drawings, he says: "*in order to understand the prophecy and perceive the meaning of the vision, we shall first conceive the idea of the building.*"⁹

⁹ "previamente se debe formar la idea de la fábrica para poder entender la profecía y percibir el significado de la visión"

J.B. Villalpando: *In Ezechielem explanationes et apparatus urbi ac templi hierosolymitani* (Rome, 1596 and 1604). Translation: *El Templo de Salomón Según Juan Bautista Villalpando – Comentarios a la Profecía de Ezequiel*. by José Luis Oliver Domingo. Ed. J.A. Ramirez. Ediciones Siruela 1991. p.35.

Despite all criticism, Villalpando's fantastic vision has affected not only subsequent images of the Temple but it has also influenced architectural theory and practice. This can be ascribed perhaps to its superimposition onto the building of El Escorial in Spain, which might have caused fascination in Europe more than for its structure, for being considered a new Salomonic Temple.¹⁰ Seen as the built prophecy, Villalpando's reconstruction, embodied in the construction of El Escorial, represents the materialisation and buildability of the ideal.

¹⁰ Osten Sacken: *San Lorenzo el Real de El Escorial*. Mittenwald. Munich 1979. p.207.

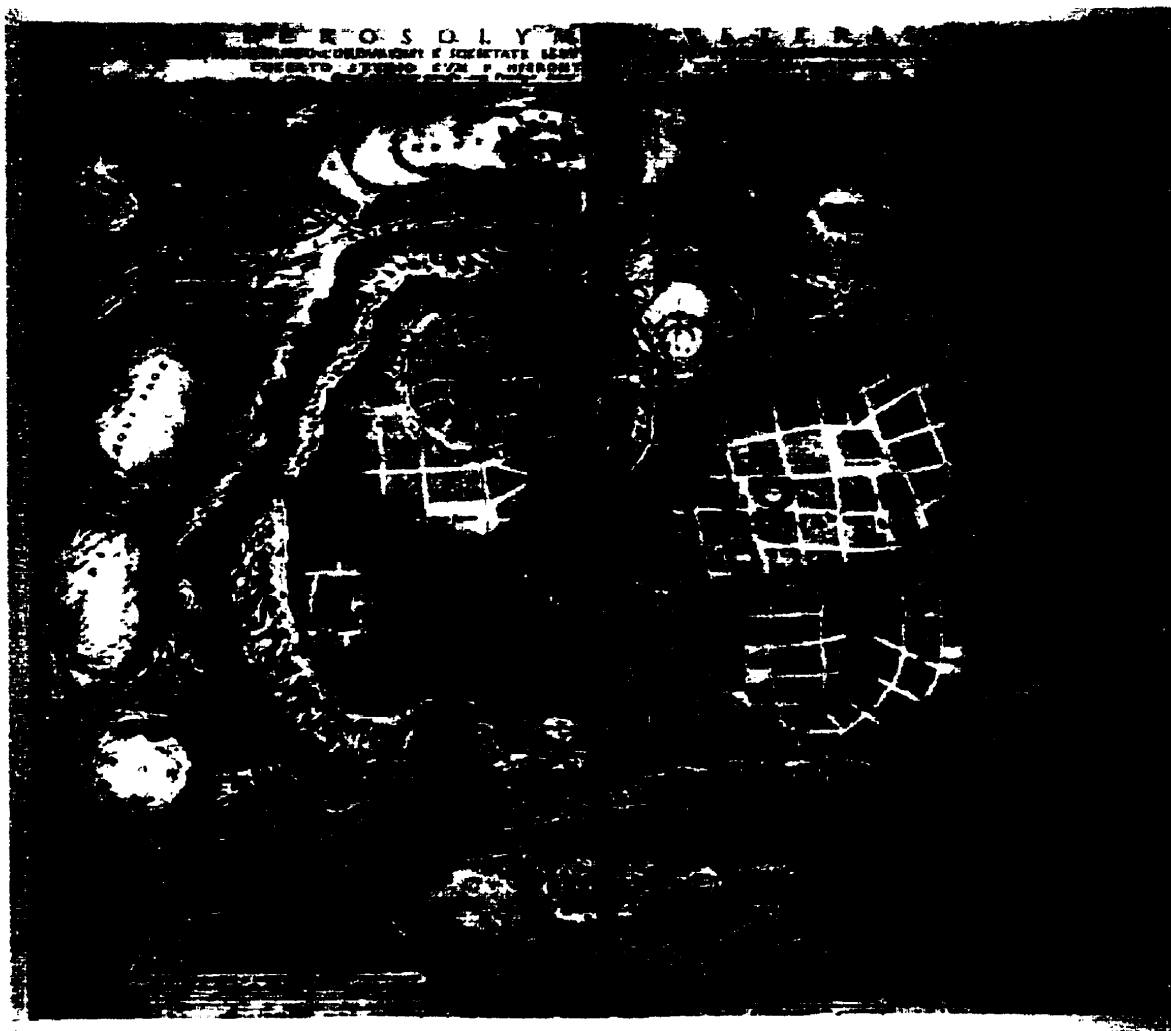
I. THE EXPLANATIONES: Context, Life, Work, Intentions

Philip II King of Spain was interested in promoting cultural monuments for his reign; the most significant 'stone monument' in his time was the palace, sanctuary and college of El Escorial and the other two for which his reign is best known are the publication of the 'Biblia Poliglota Regia' in 1572 (Hebrew Bible and New Testament in the original language with translations) directed by Benito Arias Montano and the second was the book written by the Jesuits Jerónimo de Prado and Juan Bautista Villalpando published in parts in Rome in 1596 and 1604 with the title '*In Ezechielem Explanationes et Apparatus Urbi ac Templi Hierosolymitani*'. Both of these works, though with very different views and goals, include an attempt to reconstruct the Temple of Jerusalem.

Montano's newly edited Bible, though at first not fully invulnerable to inquisitorial suspicion (which was quite normal in the rigid and intolerant counter-reformation Spain of the time), became an important and well-received work.¹¹ In the case of the Jesuits' book the reception was mixed given that controversial issues, such as the choice of reconstructing the Temple from a prophet's vision and interpreting it in the classical tradition, generally caused the rejection of exegetes and historians. In the art world, however, it became very popular and continued to be influential until the 18th century.¹² The treatise was then forgotten and it probably would still be overlooked if it wasn't for Rudolf Wittkower's section on musical consonances in the Renaissance in his book *Architectural Principles in the Age of Humanism* first published in 1949 which includes a reproduction of one of Villalpando's

¹¹ see: Ben Rekers. *Arias Montano*. Taurus, Madrid 1973

¹² For example, the first two etchings of Fischer von Erlach's '*Eintwurf Einer Historischen Architectur*' (1721) show a perspective of the whole temple which is based on Villalpando's reconstruction although Villalpando himself never included a perspective view of all the Temple.



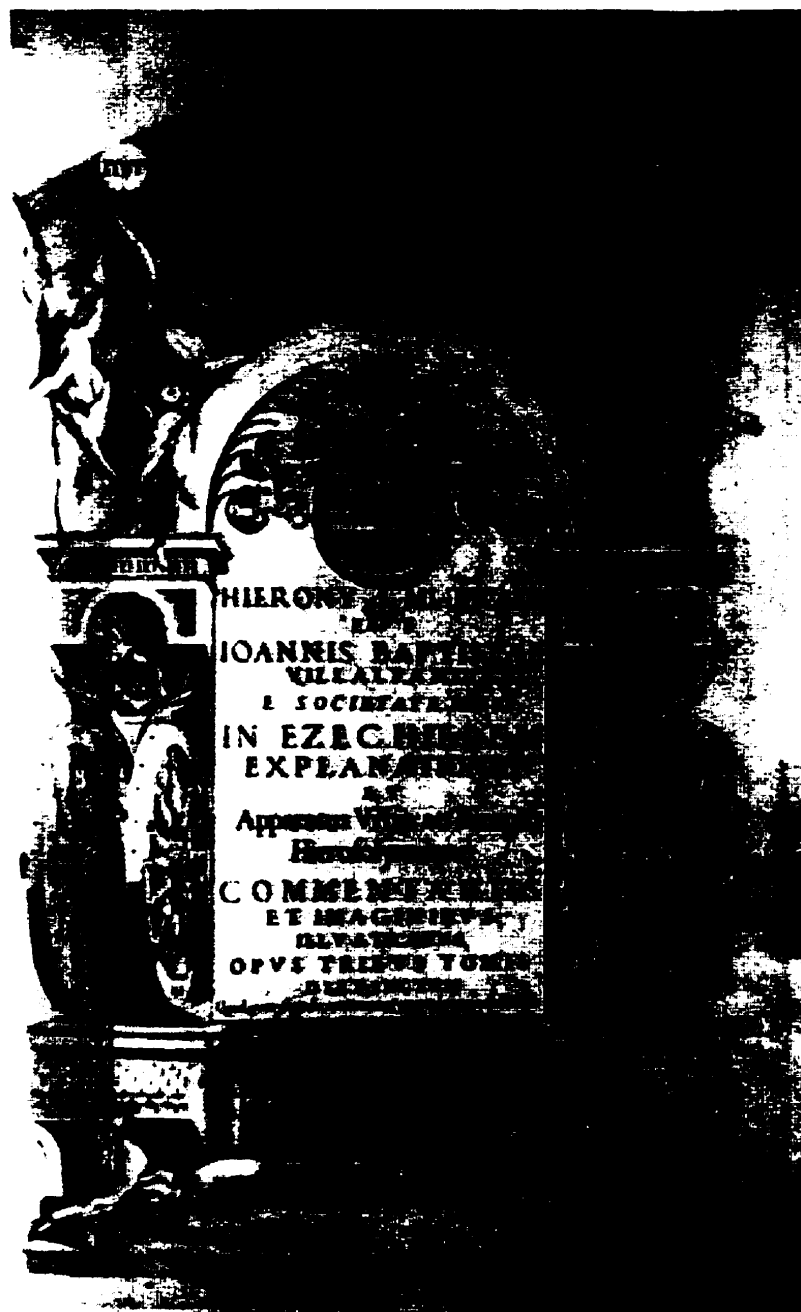
Juan Bautista Villalpando - Bird's eye view of Jerusalem

¹³ R. Wittkower: *Architectural Principles in the Age of Humanism*. Academy editions, London 1988 p.113.

drawings.¹³ Since then there has been an increasing interest in the book, especially with respect to its connection with the monastery/palace of El Escorial built near Madrid. However, the amount of research dedicated to Villalpando and Prado is still not substantial. In fact, the work was first translated from its original language, Latin, into Spanish in 1991. Along with this translation, by José Luis Oliver Domingo, a book of complementary essays also in Spanish titled: '*Dios Arquitecto*' was published under the direction of Juan Antonio Ramirez and with essays also by André Corboz, René Taylor, Robert Jan van Pelt and Antonio Martinez Ripoll. This is the most comprehensive work on the subject, it includes essays on important aspects not only of the *Explanations* but also of the understanding of the Temple of Jerusalem in western culture as well as an account of the most important reconstructions before and after Villalpando. One of the most recent studies on Villalpando is Alberto Pérez-Gómez's article 'Juan Bautista Villalpando's Divine Model in Architectural Theory' published in *Chora III- Intervals in the Philosophy of Architecture* in 1999 which mainly examines issues of architectural representation.

-PRADO AND VILLALPANDO-

Jerónimo Prado was born in Baeza in the republic of Jaén in 1547 where he taught arts and later also theology. He was a sculptor and was knowledgeable in architecture though he has only one known built project, a part of his school in Baeza. It was probably in this school, around 1580's, where he first met and upon learning of the common pursuits, accepted Villalpando's collaboration. The age old interest in



Frontispiece from the first volume of the *Explanations*
with Jeronimo de Prado's signature

the Temple of Salomon was pervasive at the time, but the common denominator, which linked the two Jesuits, Villalpando and Prado, was their agreement firstly on the centrality of the prophet Ezechiel's vision of the Temple, as opposed to other more historical sources, and secondly, on the vitruvian order and proportion of the Temple.

During his lifetime Prado was considered the more important part of the pair since Villalpando initially entered the project as his collaborator with the task of illustrating and interpreting only chapters 40, 41 and 42 of Ezechiel's prophecy, which speak exclusively of the Temple; this would leave the bulk of the project to Prado. The first volume of the *Explanationes* contains Prado's commentary on the initial 26 chapters of Ezechiel; these do not speak directly about the Temple.

Prado died in 1595, unable to accomplish his intended goals, whereas Villalpando, free from the pressure and tension that had developed with his partner for theological differences, proceeded to surpass all goals by adding his own volume of interpretations therefore going way beyond the initial plan to complement Prado's exegesis with drawings of the Temple. The visual reconstruction and corresponding commentary by Villalpando were published in a second volume in 1604, 9 years after Prado's death and therefore excluding his signature. The last part of this volume, which is divided into five books, contains a series of very erudite commentaries and is the most complex and challenging.

Villalpando's interpretation is of interest to us for looking at the Temple if not exclusively, exceptionally from an architectural perspective. With this

consideration in mind, the rest of the investigation will focus only on the second volume that was written by Villalpando and thus I will not cover Prado's exegesis of the rest of Ezechiel's prophecy.

Juan Bautista Villalpando was born in Cordoba in 1552 and died in Rome in 1608. He studied arts and theology, as well as mathematics under Juan de Herrera, royal architect and architect of El Escorial. The connection with Herrera seems to have flowered quite early in his life and through him also the proximity to Philip II, king of Spain. Villalpando, who repeatedly expresses his gratefulness to Philip II for his education, mentions that he was present during the construction of the Escorial (1570-75), which is probably where he could have acquired most of his architectural knowledge as well as his interest in the Temple, as he hints in his dedication to Philip II:

"...but to dedicate to you that which is actually yours is an absurdity, especially considering that everything I am, if of any worth, belongs to you, since from childhood you have bestowed your great humanity to my protection, and you have made an effort to ensure that I receive the noblest education in all the sciences; without such help, the completion of this work would have been utterly impossible. For many reasons I am indebted to you and my work recognizes You as its Lord, its protector and its originator.....".¹⁴

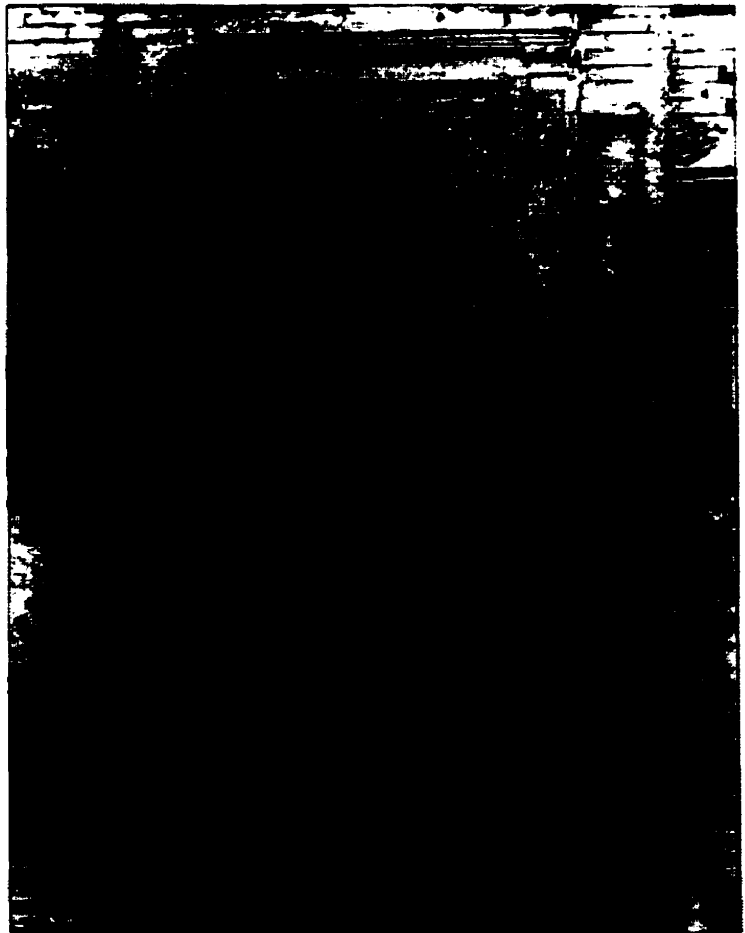
¹⁴ "pero dedicarte a ti lo que es tuyo parece casi una ridiculez. sobre todo reconociendo que cuanto soy, si es que en mi hay algún valor, todo te pertenece, ya que desde niño me has acogido con tu inmensa humanidad para protegerme, y has puesto tu empeño en que fuera educado con los más nobles hábitos y ciencias; sin tales ayudas, hubiera sido totalmente imposible llevar a término esta obra. Por muchas razones se trata de una deuda contraída contigo y mi obra te reconoce a Ti como su Señor, como su protector, como su progenitor;..."

J.B. Villalpando:
in *Ezechieler*.... p.108-109.

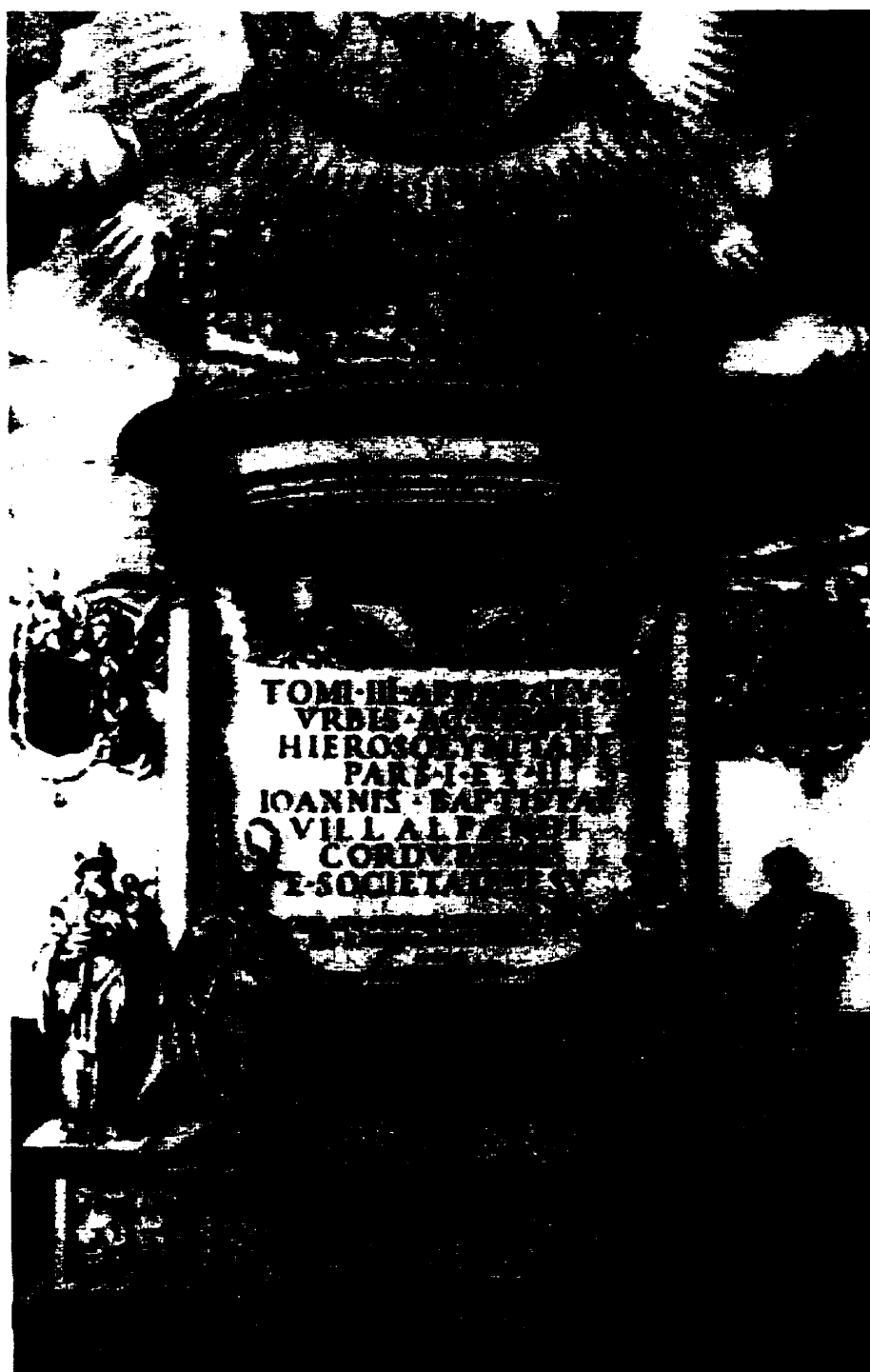
It is not far-flung to assume that the initiative for the project came from Herrera, as we will explain further on.



Juan Bautista Villalpando -
Facade of the San
Hermegildo, Sevilla



Juan Bautista Villalpando - Facade of
Baeza Cathedral



Frontispiece from the second volume of the
Explanationes by J.B. Villalpando

Although Villalpando is recognized more as an architectural theorist than for his built work, he is known to have authored several projects, especially for the Jesuit order. During his lifetime he was a reputable architect in charge of important projects, to name a few: the design of the façade of the Baeza Cathedral (1585), the Colegio de la Compañía in Seville, (probably the most important of his works, it survived, though converted into military barracks, until 1965 when it was replaced by a parking lot), the San Hermegildo, which was part of the building that served as the University of Seville which still stands though with many modifications, and the direction of the construction of the Church of Cordoba(1578), among others. The photographs included here show a couple of these constructions and illustrate, as René Taylor says, how close Villalpando's style was to Juan de Herrera's.¹⁵

¹⁵ Biographical facts in this section are taken from: René Taylor: 'Datos Biográficos' in *Dios Arquitecto*. Ed. J.A. Ramirez. Ediciones Siruela 1991.

-DISSENSION-

In 1589, when the drawings of the Temple were virtually completed, Villalpando went to Madrid to show them to his mentor Herrera whose reaction was an immediate recognition of the divine presence in such beautiful representations. On finding out of the enthusiastic approval, Philip II met Villalpando in 1590 and as a result of the meeting funded the whole enterprise and arranged as well for Villalpando and Prado to move to the Jesuit 'Colegio' in Rome where information was more readily available.

Once in Rome things did not go as smoothly as expected. A complicated disagreement, stemming from Villalpando's theological conclusions, arose between the two authors and worse of all, to add to

this, Arias Montano who, due to his more 'historical' approach, had opposed the Jesuits from the start, caused the Inquisitorial commission, headed by Sixtus V, to revise the work in process on the grounds that Ezechiel's prophecy had nothing to do with the architecture of the Temple of Salomon. This conflict, quite complex because of the personalities involved (no less than Philip II and the Pope Gregory XIII) was finally resolved in a trial (1594) which decreed that Villalpando would only be allowed to publish a short commentary on the structure of his drawings, all other 'apparatus' would be excluded and the work would be published as a single volume with the core comprising of Prado's theological commentary.

Prado died just a few months following this event. As a consequence, while Prado's religious program is not absent, Villalpando's work was published as we described above, in two volumes and with 500 pages of intriguing thoughts on architecture, cosmology, astrology, mathematics, and music, without which the work would have probably passed as just another exegetic study of limited relevance outside the realms of religion.

-INTENTIONS-

It is not easy to summarize Villalpando's goals since his project was complex and ambitious traversing diverse aspects and philosophies some of which I will attempt to describe further on; but if we sustain what he would like to profess as the motivator of the work, it would be the element of hope. In Christianity, Ezechiel's vision of the Temple foreshadowed the Temple of Christ, thus reviving hope; but in order for

people to participate of this hope and to share in the divine body and spirit, Villalpando believed it was necessary to cultivate knowledge of the Temple, namely, of its architectural theory and structure. The book then becomes an architectural treatise for theologians though he does not hesitate to admit that also architects can *"learn the true architecture as per these constructions and forget the many deceptions and shadows of their own art"*.¹⁶

¹⁶ *"aprender la verdadera arquitectura a partir de estas fábricas y olvidarse de los muchísimos engaños y sombras de su propio arte"*
ibid. p.54

Augustine, in the fourth century had first successfully articulated the distinction between faith based on authority and an accepted truth established through philosophical reasoning. In this way he also forged the beginnings of a concordance between Judeo-Christian religion and Greek ontology where the two as allies paved the way for a philosophy of faith through understanding. Villalpando, with this idea permeating much of the treatise, considered blind, unquestioning faith as a characteristic pertaining to the uneducated masses but unlikely for informed intellectuals. Since his work was directed at an elite, scholarly audience, the hope of incarnation could stem only from knowledge of God's wisdom, which was foremost exemplified in the architecture of the Temple, the body of Christ.

The means of unveiling the divine, Villalpando tells us, is by clarifying that which the senses apprehend; the first step therefore was to enable the readers to experience the Temple and by subsequently explaining that which is sensed divine elements would be unconcealed. For this purpose, Villalpando presented a sumptuous collection of drawings coupled with intricate explanations. The drawings here would serve two ends, first to provoke emotions and secondly as theory.



ANALYSIS ET METHEHROSOTYMIANT ORTHOGRAPHIA QVAE TENDIT ORIENTALI EM

Juan Bautista Villalpando - East elevation of the Temple



LYMITE ANTIQVITATIS ORTHOGRAPHIA QVAE TENDIT ORIENTALI EMENACI DEM MYRIATRIDE INTERIORIS ET PARTEM MARE PORTICAM



IMPERIIATRICE INTERIORIS ET PARTEM MAREPORTICVS GENITIVM QVAE DEINDE DICITUR S. AL. OMNI

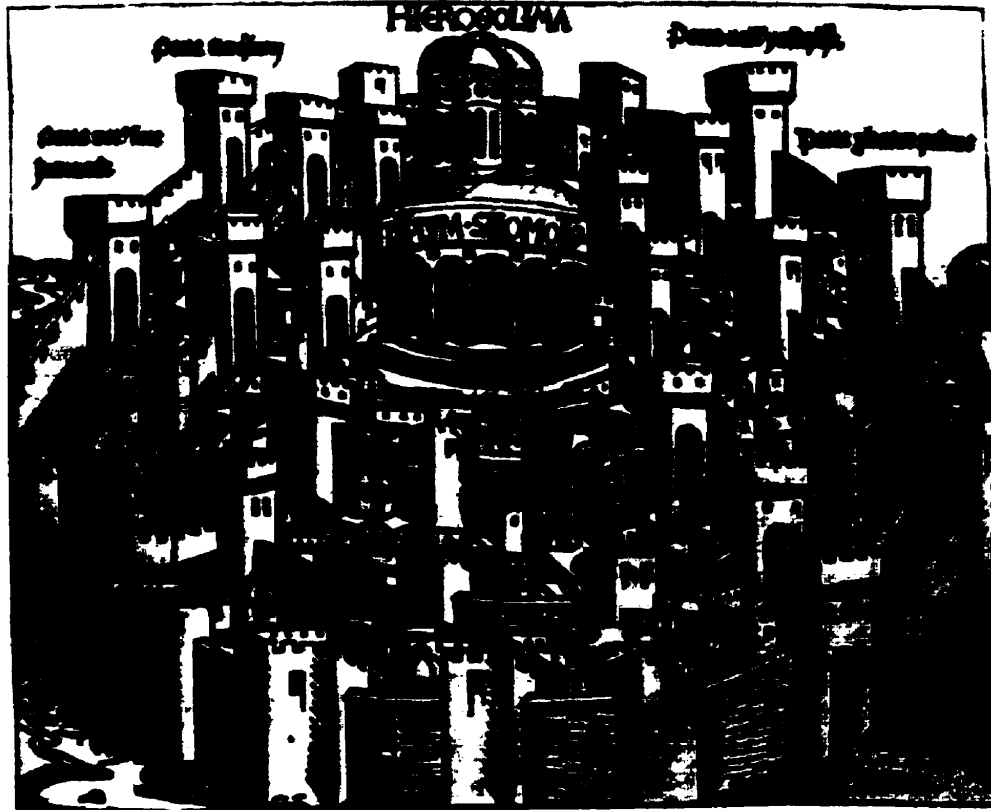


II. THE HISTORIC AND THE ETERNAL TEMPLE: Renaissance and Medieval Interpretations

The story of the Temple is marked by 'misinterpretations' and creative re-descriptions, which in architecture, we could say, have given not so unfruitful results. Villalpando could truly be placed amongst the 'mistaken ones' but he would definitely not stand-alone. As a charged symbol entrenched in different cultures and religions, the transmission of what this building looked like was never free from the bias of what its shape should mean.

After the Second Temple was destroyed by the Romans in 70 A.D., the Muslim Dome of the Rock (which still stands in this site), named this way because it encompassed 'the rock', was built in the same location. The symbolism of 'the rock' is significant for Islam and Judaism. From earliest times it had been the foundation stone of the Temple, possibly serving as the platform of the Holy of Holies, for it was believed to be the sacred stone where Abraham was ordered to sacrifice his son Isaac, this being the first contract of man with God. 'The rock' was also believed to be the holy site where Mohammed was elevated to the sky. When the Dome of the Rock was built, replacing the Temple, the significance of this site did not dwindle even though it became the epicentre of a different religion.

Considering the historical time, it should not surprise us that in the Middle Ages the Temple would be confused and identified with the Dome amongst Christians. In the Christian world the widespread belief was that the conquest of 'terrestrial Jerusalem' would bring about the reign of Christ on earth, a time of



Engraving of the city of Jerusalem showing the
Temple as the Dome of the Rock.
(Hartmann Schedel: *Liber Chronicarum*)

¹⁷ The Temple was seen as the forerunner of the city. During the reign of Salomon the status of the city as holy was established by the erection of the Temple. In Salomon's prayer (1 Kings-8) 'The city' is linked with 'the house' and in Ezekiel's description, the city is raised above historic reality; it becomes a background for the temple.

Encyclopaedia Judaica v.9; p.1550-51.

¹⁸see: J.A. Ramirez: *Edificios y Suenos: Ensayos sobre Arquitectura y Utopía*. Universidad de Málaga, 1983. p.47-120.

religious unity and eternal peace consummated by the establishment of the 'heavenly Jerusalem'. ¹⁷ Motivated by this conception, a further conceptual transformation of the Temple occurred during the Crusades when the Dome was christianised and named "Templum Domini". Since the Temple had become a symbolic prototype for many mediaeval churches, this appropriation could be added to the reasons for subsequent church constructions that took the centralized shape as a model, something common until the end of the baroque.¹⁸ In different ways the significance of the original temple had outlived its various transformations and interpretations and to this day, though we can not ignore the intermingling of faith with politics, the site retains its sanctity. But perhaps what we don't realise today is how much the perpetuation of this sanctity owes to the imagination and to idealised conceptions. Ezechiel's prophetic vision is another instance in the history of the Temple of Jerusalem where the imagined ideal transforms the real.

-HISTORY -

The first Temple was erected on Mount Moriah in Jerusalem between the fourth and eleventh years of King Salomon's reign. Originally the construction was not intended to serve as a place of prayer but rather as an abode for the Ark which had been migrating in the desert and then housed in a tent. The Ark was symbol of the covenant between the people and God hence the Temple was called '*The House of the Lord*'. The biblical prophets had warned the people that Salomon's Temple would be destroyed in punishment for their religious and moral transgressions, despite

this the masses could not help believing that 'The Temple of the Lord' could not but be eternal. The Temple was destroyed by Nebuchadnezzar in 586 B.C. and was followed by the exile of the people of Israel to Babylon. In the fourteenth year after the city of Jerusalem was conquered, Ezechiel, known as the 'prophet of the exile' (Ezek. 40-48) beheld in a vision the restored edifice and was guided by an angel through all its parts, details and measurements.

¹⁹ Encyclopaedia Judaica v.6; p.1088.

Because the book of Ezechiel is a first person account of the prophet's communication with God through visions, it has often been considered more of a spiritual diary of a personal experience of God than a record of objective occurrences. Furthermore, biblical scholars have identified Ezechiel's text as being "*among the most corrupt of the Bible*"¹⁹ on the grounds that many passages are difficult to understand and have most probably been altered in the process of transmission. Precisely the passage to which Villalpando commits, the prophecy of the Temple, is considered the example par excellence of this difficulty. In diverse times, many of those who attempted to reconstruct the Temple, like Arias Montano, were aware of the contradictions between the historical books of the Torah and Ezechiel's vision of the future Temple and therefore this description was the least influential of all the biblical sources. Exegetes, however, have given value to the prophet's vision by describing it as 'purely messianic'. Should its great repercussion in architectural theory then surprise us?

Regardless of its 'realness' or messianic quality the fact is that Ezechiel's Temple became a model worthy of imitation that started off a chain of transmission. Ezechiel's vision in the Old Testament describes a

Temple more vast and extraordinary than the one built by King Salomon in the 10th century B.C. After Nebuchadnezzar destroyed Salomon's Temple, Herod started building the Second Temple in 20 B.C. inspired by Ezechiel's description. However the ideal described in the prophecy was not actually built since in this reconstruction the Torah was absent from the Holy of Holies. In the Medieval image, all three of these constructions, Salomon's, Ezechiel's and Herod's are synthesized to represent the one ideal image of the Temple of Jerusalem. As a consequence, Ezechiel's vision, being a connecting link between the other two, was the source of the medieval ideal image.

-THE SOURCE AND THE IMAGINATION-

In the 16th century the Reformation shared with the Renaissance the concept of return to original sources, therefore the confusion between the Temple and the Dome dissolved. During this time, traditional reconstructions of the Temple were mostly based on texts from the bible, scarce archaeological remains and the topography of Jerusalem. The two principal sources for the plan of the temple in historical reconstructions have been I Kings 6-8 and II Chronicles 2-4; these differ in several important details. The third source, considered somewhat independent and in a different category as the others, is the book of Ezechiel.

However, regardless of the preferred source, it is amazing to note the great divergence between different reconstructions. It is evident that such unknowns which today are specified by scientific methods used in archaeology, were then solved by a personal imagination and strongly leaning on the

²⁰ Despite the argument that the classical style was born 600 years after the Temple, during Villalpando's time, it was impossible to suppress from any design the classical image of what architecture should be. Therefore, even those who, like Bernard Lamy, strongly opposed Villalpando for his classicism, incorporated classical elements in reconstructions.

general beliefs and practices of the time. Context, epoch, culture and creativity were parents of the truth and perhaps this made the truth more acceptable and relevant to those who shared the same roots and same context as this truth.²⁰

The preoccupation for scientific exactitude that arose after the Renaissance actually has its origins in the Middle Ages with Maimonides' treatise, '*Middoth*' which in Hebrew means measurements. Maimonides was born in Spain and died in Egypt, he wrote in the 12th century based on the 'Book of Kings' and 'Chronicles', and is the first to include in his interpretation a plan of the Temple. This can be seen as the beginning of the attempts at architectural reconstruction.

-MAIMONIDES AND YEHUDA LEON-

The architectural reconstruction of the Temple has mostly been a Christian enterprise; mainly due to the connection of the reconstructed Temple with messianic hope, the Jewish contribution has been practically insignificant in number. Of course there are important exceptions, such as Yaacov Yehuda Leon (1603-75) and the aforementioned Maimonides (1135-1204 Cordova, Spain), the most significant Jewish philosopher of the Middle Ages and still today amongst the most influential.

Next to Villalpando, Yaacov Yehuda Leon's (1603-75) model was mostly responsible for getting the public acquainted with the architectural image of the Temple. The model of the Temple which he built got fame for its intricacy and accuracy and because, more than any



Yaacov Yehuda Leon - Frontispiece of *The Temple of Jerusalem* (1665) showing Salomon, Zerrubabel, Ezechiel, and the high priest, all as parts of one same Temple.

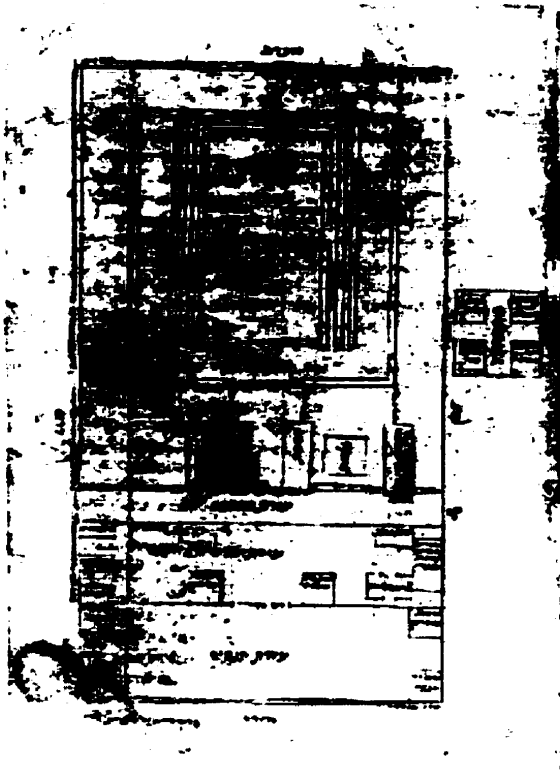
drawing, it was closer to persuading the public that they were looking at the original. The biblical sources he used were mostly from the Talmud and his great knowledge of Jewish history. Along with the model he published a small accompanying treatise which is impartial and avoids polemics. Nevertheless, he agrees on the unity of all temples and in this he is similar to Villalpando as he brings into his model Ezechiel, Salomon, the Second Temple, the Tabernacle, and the Church of Christ. In the prelude to the treatise he writes: *"In this my model I have attached all things that were found in the Temple, although they have existed in diverse times"*²¹

²¹ "En el mi modelo ya dicho adjunté todas las cosas que en el Templo se hallaron, aunque en diversos tiempos hayan sido."

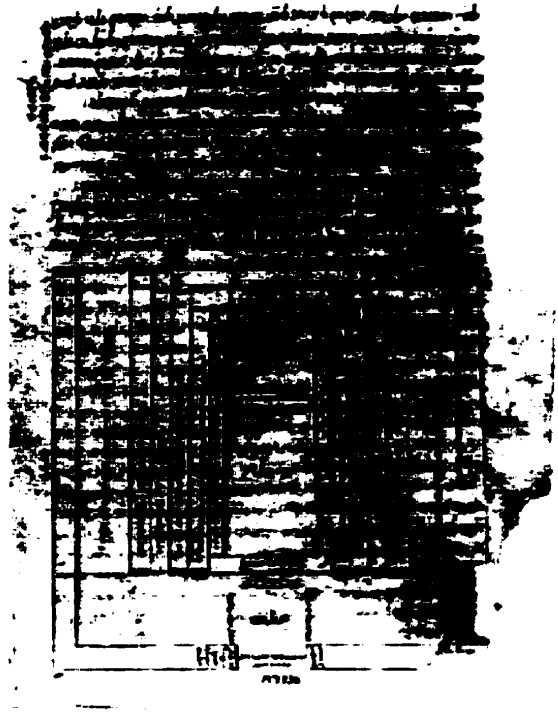
J.A. Ramirez: 'Jacob Judá León y el Modelo Tridimensional del Templo' in *Dios Arquitecto*. p.102

Not denying Jewish ideology, Maimonides' primary concern in his reconstruction was not to rebuild the Temple, but to be able to faithfully inform the ritual practices which the Temple directed in order to be prepared for the coming of the Messiah. For this reason his preoccupation with objectively deciphering the disposition of different objects and the typological order of the elements in the Temple. It was an expression, also pronounced in some prayers, of the hope to be able to see the rebuilt Temple and be a part of its rituals in the messianic age.

Even though the Christian position towards Judaism had usually been one of intolerance, at the same time Jewish scholars did not cease to be considered respected teachers, as is apparent also in Villalpando's work. Maimonides became a respected authority outside the Jewish world probably due to his success in combining rabbinic teachings with Greek philosophies. In fact, the aim of Maimonides' most important work, 'The Guide of the Perplexed' is to reassure those 'perplexed' by the contradictions



Maimonides - Plan of the Temple with annotations



Maimonides - Plan of the Holy of Holies with annotations

²² M. Maimonides: *The Guide of the Perplexed*. transl. S. Pines. Chicago 1963

between the scriptures and Greek thought that the two can be reconciled by discovering meanings of the former with the rational reasoning of the latter.²²

Maimonides' aim at clarifying the disposition of the Temple was innovative at the time due to the use of diagrams to explain the text. In the '*Middoth*', he analyses the architectural differences between the first, the second, and Ezechiel's Temple. This classificatory approach is essentially at variance with Villalpando's conviction that the three Temples, as well as the Tabernacle, should be understood as a unity where each of the 'Temples' represents a different aspect of a single archetype.

The result of Maimonides' reconstruction was an asymmetrical temple, modest in size and splendour, which excluded any imaginative elevations since the scriptures specified only the measurements of the ground plan. Although Villalpando incorporated the same sources as Maimonides to his study, for him, anything that, like most reconstructions stemming from solely Jewish sources, produced a timid and non-splendorous image of the Temple was an offence to divine wisdom. In addition, Villalpando knew that any reconstruction by someone who did not know architecture would result in inexperienced designs not worthy of being called divine and not reflecting the praise which the Temple is known to have provoked even from pagan writers of the times.²³

²³ It is important to keep in mind however, that Maimonides' was not primarily an architectural reconstruction and 'the word' was not meant to be represented by size and magnificence. It was not until Juan Caramuel de Lobkowitz's book '*Arquitectura Civil Recta y Oblicua*' (1678) (which we will discuss later) that the Temple was included as part of an exclusively architectural and not theological treatise.

The '*Middoth's*' aim at objectivity coincides with Maimonides' belief that imagination causes idolatry by failing to distinguish between reality and fantasies of one's own making. But we should not for this difference disregard this reconstruction of the Temple,

²⁴ The measuring unit, the cubit, was approximately 50 cm. in the case of the Temple of Salomon.

for it inevitably retains the qualities of being a human interpretation. In the most intriguing part of the 'Middoth', Maimonides discusses the division between the Holy and the Holy of Holies. In the first Temple he describes a dividing wall that is one cubit wide²⁴ in the second however the words of the scriptures do not specify whether the dividing wall should be measured as part of the Holy or the Holy of Holies. This questionable gap left by the words was transposed literally to the gap of his reconstruction. His solution was to maintain the same distance between the two sections but instead of a wall, two curtains separated by an empty space one cubit wide would make the division. This gap unoccupied by the holy or the holiest, void of man or god, was the unknown openness of possibility.

*"....and this space of repose was for me the foundation of the totality of the world. And that is how I returned again to that universe of relationships that emerge from the silences between the words, a universe in which the created architectural forms, which have given rise to so many interpretations, suddenly become mere appendixes of the un-created space that exists in between them...."*²⁵

²⁵ "...y este espacio de reposo fue, para mi, el fundamento de la totalidad del mundo. Y así fue que regresé de nuevo a ese universo de relaciones que surge del silencio que hay entre las palabras, un universo en el que las formas arquitectónicas creadas, que han suscitado tantas interpretaciones, de pronto se convierten en meros apéndices del espacio increado que existe entre ellas....."

Robert Jan van Pelt: 'Los Rabinos, Maimonides y el Templo' in *Dios Arquitecto* – J.B. Villalpando y el Templo de Salomon. Ed. J.A. Ramirez. Ediciones Siruela 1991; p. 85.

Like the Bible, an incomplete text that requires interpretation in order to have any meaning, a historic building has to be submitted to a continuous and never-ending process of interpretation for its meaning to remain contemporary. This constant movement on the infinite path of re-invention and re-comprehension can keep the Temple alive beyond its physical

existence. In relation to this, Villalpando discusses the etymology of the word 'temple': The word for temple in Hebrew is 'haheical' which derives from 'ohel', meaning tent/tabernacle. But the root of 'haheical' is connected to the word 'halach' meaning 'to walk'. *"Is it possible to recognize in this discussion a desire to present the Temple, that most holy of concrete presences as the embodiment of its absence? The Temple as pilgrimage?"*²⁶

²⁶ A. Pérez-Gómez: 'Juan Bautista Villalpando's Divine Model in Architectural Theory' in *Chora Three-Intervals in the Philosophy of Architecture*. Ed. Alberto Pérez-Gómez and Stephen Parcell. McGill - Queen's University Press 1999. p.140.

-MYSTERY-

The divine appears as mystery in the human world. Mystery of course is something that would never be rejected by a Jesuit; it is inseparable from faith. The mystery of God is hidden in the word, which, being open to interpretation, is never straightforward, as perhaps a vision might be. Therefore, according to Villalpando, the prophets hide their visions in words and meanings as a way to proclaim the divine and a means to avoid its corruption by falling into uneducated or profane hands. He is assured that evidently, in the hands of the masses, holy words would be destroyed; therefore it made sense to him that as part of God's intelligently thought-out plan His words would be in Hebrew. Since translation is never one hundred percent true to the original, the full meaning of the Word will never be grasped thus the original will always remain sacred. In other words, it is better 'to walk' on the exterior paths of mystery than destroy the meaning through clarification and simplification devoid of understanding.

Since the Temple was built after an interpretation of the divine word, a worldly interpretation, we can conclude that the direct author was man and that the Temple is not the Temple itself with all its incorruptible

divinity, it is a human interpretation of it, and therefore the fact of reconciliation. Villalpando quotes Saint Jerome whose commentary to Ezechiel says:

*"Moses in the Tabernacle, as well as Salomon in his Temple didn't effectively build such temple and tabernacle but rather an image and likeness of them, so that we could understand through these symbols which are earthly, that which is celestial and belongs to the spiritual Temple."*²⁷

²⁷ "Tanto Moisés en el Tabernáculo como Salmón en su Templo no construyeron de hecho tal templo y tabernáculo sino una imagen y semejanza de ellos, para que podamos comprender por medio de estos símbolos que son terrenales, lo que es celestial y pertenece al Templo espiritual."
J.B. Villalpando:
In Ezechielem.... p.22.

Ezechiel's description of the Temple, which Villalpando says is: *"the most obscure of all his visions"* does not attempt to elucidate the architecture as much as it aims at protecting the sacraments. For Villalpando this did not imply the absence of a recognizable language which could lead to an architectural reconstruction; using the language of classical architecture, Villalpando's intention is to make this vision understandable for both architects and theologians, but unlike reconstructions like Maimonides' and Montano's he does not wish to be objective and make everything absolutely clear because this wouldn't do justice to the prophet's mysticism. The difficulty of deciphering the prophecy only encourages the pursuit, since difficulty, he claims, is advantageous.

A quality instilled by God upon man is the desire to seek for answers and uncover mysteries; as long as this desire is kept alive, there will be the possibility of attaining happiness. Thus, the obscurities of the scriptures that animate the mystery communicate the presence of the hand of God who: *"... instilled in man, as a stimulus for his happiness, the desire to know, by the exertion of the mind or by nature itself."*²⁸

²⁸ "Dios grabó en el hombre, como un estímulo para su felicidad, el deseo de saber, con el ejercicio de la mente o con la misma naturaleza."
Villalpando:
In Ezechielem.... p.20.

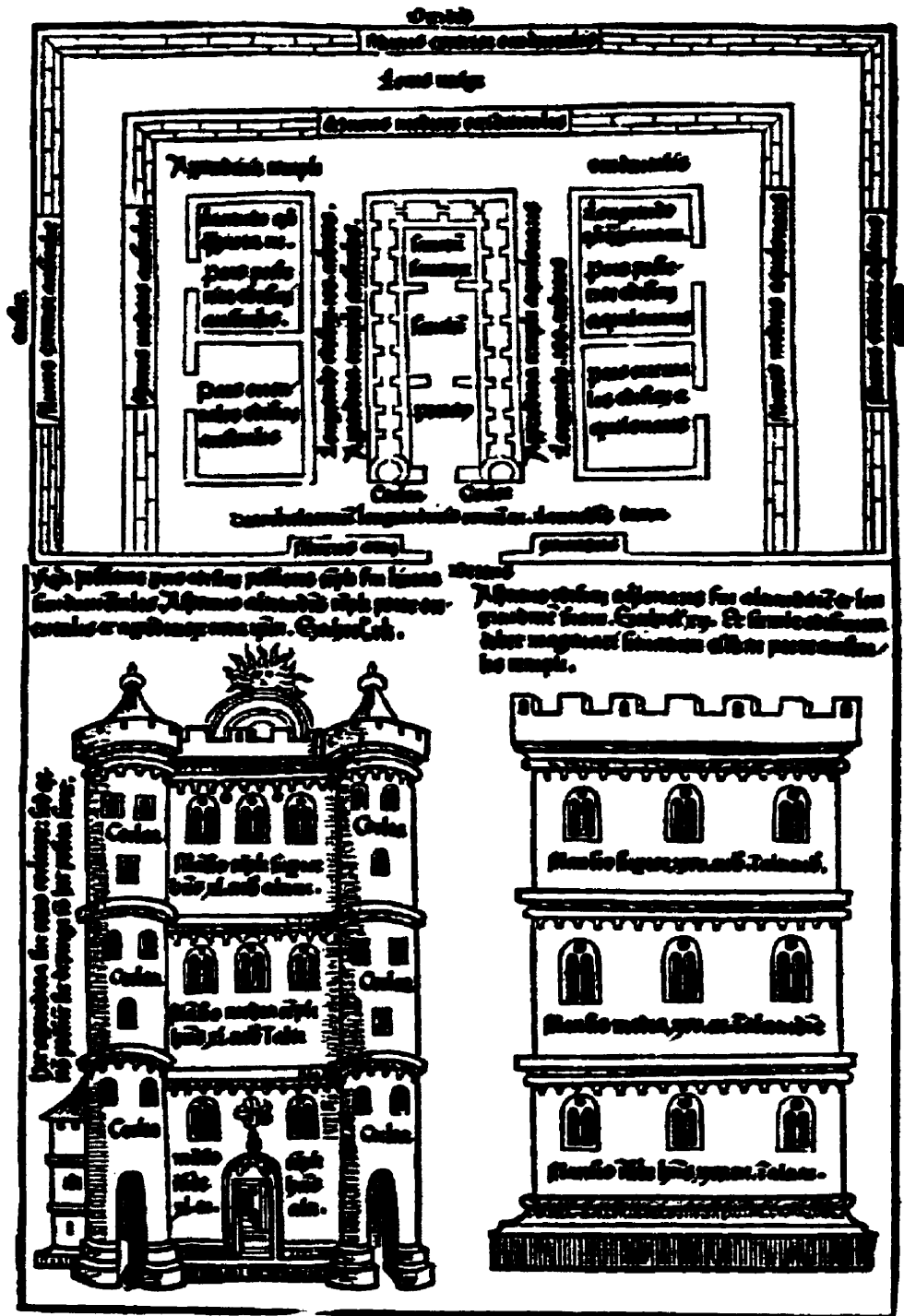
It is interesting to go back to Maimonides' position on this issue. Fundamental to his approach is the division of mankind into two groups, the intellectual who uses reason and the masses who use imagination for understanding. This distinction had a further consequence, the differentiation between accounts of creation that he identified with physics and accounts such as Ezechiel's which he identified with metaphysics. The latter could only be taught to someone wise; the teaching of abstract matters to someone who does not have the capability to understand it would lead to disbelief. The 'Guide of the Perplexed' was addressed to an intellectual elite and is devoted to a philosophic, abstract/spiritual interpretation of scripture or, to use Maimonides' words, to the 'secrets of the Law'. The difference is that the spiritual is reached solely through reason whereas for Villalpando it was through the interdependence of imagination and reason.

III. THE TEMPLE AS MAN, COSMOS AND IDEA

-BEGINNINGS OF VISUAL RECONSTRUCTION-

From the beginnings of Christianity the Temple of Jerusalem had prefigured the Church of Christ. The first Christian reconstruction of the Temple was the one by the Franciscan Nicolas de Lyre (1270-1349) around 1330. His primary source was Maimonides, but he intends to clarify this work with more sophisticated illustrations of the Temple and a plan based on Ezechiel's prophecy from which Villalpando draws considerably. The idea of understanding the Temple through illustrations was first introduced in the 12th century by Richard of San Victor (d.1173). In his treatise *'In Visionem Ezeielis'* he includes illustrations, though simplistic and naïve, considerably innovative for the times, and, more significantly, he states that in order to get to the essence of the symbolism of the Temple it is necessary to understand it literally, that is, visualize its physicality.

Villalpando took this idea to an extreme by making it clear that the only way to understand the Temple was by understanding it architecturally. Seeing his intricately designed drawings, Villalpando assumed, would cause people to admire and praise God's wisdom more. Previous treatises, in his eyes, did not do justice to the divinity of the building because the drawings, which for him are on an equal stance as the thing itself, were poor. In fact, no other reconstruction was as thorough and ambitious as the Jesuit one and no preceding drawings were as intricate and sophisticated.



Nicholas of Lyre - Plan and elevations of the Temple

-VITRUVIUS' ORIGIN-

Before Villalpando, the Temple of Salomon had always been studied from an exclusively religious perspective. Although biblical exegesis is an unavoidable part of any study on this topic and therefore makes up a large portion of the work, Villalpando represents the Temple through an architectural perspective. Architecturally: does not, as could be the case in present times, reduce the subject to a description of form, structure and function. As an imitation of the classics of Latin literature, the work's interdisciplinary approach includes subjects like philosophy, optics, geometry, astrology, classic philology, economics, and more. On the other hand, the Temple, a pre-eminent religious symbol, is not demoted in sanctity by being described in architectural terms but rather architecture is elevated to the rank of the sacred.

The irreconcilability of pagan classicism and the Judeo-Christian tradition was particularly complex in Spain where the characteristic religious dogmatism was even more blatant at the time of Villalpando, the times following the Inquisition and the Council of Trent. Villalpando tactfully merges these two apparently contradictory traditions through the symbol of the body of Christ. In his interpretation, the Temple is the embodiment of Christ.

Villalpando was the first to officially align the classical tradition with religion through the Temple. Benito Arias Montano before him had given his drawings a classical aspect, but he failed to do justice to the classical tradition because he tried to adhere to the historical reality of the three temples which he represented:

Salomon's, Zorobabel's and Herod's, thus deliberately omitting any considerations of symbolic or mystical type. In this respect, he is significantly influenced by the protestant viewpoint, which still today considers the literal interpretation of the Bible to be the only valid one.

Villalpando considered that previous reconstructions had not done justice to the divine in the Temple; he identified the cause of their failure with the exclusion of the principles of classical architecture. For him, the only way to fully understand the Temple's divine meaning was by understanding its architecture and the only way to speak about architecture was with the language from Vitruvius. There was no question then that the style in which God had designed the Temple was the classical since perfection in architecture could only be attained following those eternal norms.

This initially satisfying conclusion nevertheless poses a problem of anachronisms; how could Salomon have anything to do with Vitruvius when he lived centuries before classicism in Greece even existed? Villalpando's response is the addition of an earlier chapter in the story of the origins of architecture; Vitruvius' sources rediscovered in the architecture of the Temple of Jerusalem. The five orders, Villalpando explains, had actually derived from the one divine order found in the Temple which embraced all the qualities of the others. This setting back of the sources also conveniently coincides with the belief in the nobility of the past by virtue of being closer to God, and of course what closer than King David and Salomon. It must then be assumed that the Greeks had only adapted to their own times the already existing knowledge in the arts and sciences.

²⁹ "Confesamos que lo vamos a mostrar con más claridad que la luz del día: el método de construcción de los romanos o de los griegos o cualquier otro método que sea más noble o más hermoso, ha sido tomado de esta fábrica y de sus figuras; por ello se verá que la única comparación posible entre la arquitectura sagrada y la profana es como considerar las aguas de un río con la fuente de la que procede"
ibid. p.81

³⁰ In 1741, the English architect John Wood (1704-1754) though without mentioning Villalpando, took over this idea and wrote about Vitruvius' 'plagiarism' of the Bible. In his book, 'The Origin of Building or the Plagiarism of the Heathen detected' he even places quotes from Vitruvius alongside passages from the bible to illustrate his allegation.

*"We admit that we will prove this with more clarity than the light of day; the construction methods of the Romans or Greeks, or any other method which might be more noble or beautiful, was taken from this [the Temple's] construction and its figures; for this reason it will be clear that the only possible comparison between sacred and profane architecture is like comparing the water in the river with the source of its flow."*²⁹

As proof of the Greek's access to the divine archetype Villalpando frequently points out how Vitruvius was so familiar with the Bible, that he even used the same words.³⁰ The Vitruvian concept of order and measurement relates to the Hebrew word for measuring, '*tachnith*', which derives from '*thacan*', which means to place in order. Vitruvius would have had to recognize the centrality of number and measure, since the only words the angel had uttered when describing the temple to the prophet Ezechiel were the measurements of the building and he carried with him "*a flax cord and the measuring cane*" same instruments which were used to build the temple. Villalpando assumes that Ezechiel would necessarily have had to be knowledgeable in classical architecture as these numbers more than structural calculations, signify proportion and harmony. Salomon's words further corroborate the importance of number: "*You have ordered all things according to number, weight and measure*" (Wisdom 11-20). According to Villalpando, God had enlightened Salomon to build with the standards of his own creation, with cosmological harmony and numerical proportion, and

Chap. I. *Plagiarism of the Heathens Detected.* 9

was four Cubits, or very near one Diameter of the Pillar: And thus *Order* was not only reduced to a certain *Proportion*, but all the *Orders* were brought to their Perfection after the Space of Four Hundred and Eighty-Six Years and a Half, from their first Introduction into Edifices; this being the exact Period between the Time in which *Moses* built the *Tabernacle*, and the Completion of the *Temple* by King *Solomon*.

Thus far Sacred History on the Origin of Building, as well as on the Rise, Progress and Perfection of the *Orders of Architecture*. We will now see how these two Accounts stand when fairly stated together.

VITRUVIUS tells us, That Men at first were born in Woods and Caverns, like the Beasts, and lived therein on the Fruits of the Earth.

VITRUVIUS says, That an impetuous Wind happening to arise, it pushed the Trees in a certain Wood with such Violence against one another, that by their Friction they took Fire; which drove Mankind out from amongst them: This caused Men to assemble together, to live in the same Place, and to make *Huts* to dwell in; *some with Leaves*, others with Branches of Trees and Pieces of Clay; while some dug Lodges in the Mountains.

MOSES tells us, That after God had created Man, he planted a Garden with many Trees in it, and therein placed him to dress it and to keep it, giving him for his Sustenance every green Herb, and the Fruit of every Tree but that of the Knowledge of Good and Evil.

MOSES says, That Man having disobey'd God's Commands, his Nature was instantly chang'd; as soon as he found it, he covered himself with *Leaves*; and when he heard the Voice and Motion of his Maker, i. e. an impetuous Wind, attended with Thunder and Lightning, he hid himself under the Trees; God instantly drove him out of the Garden of *Eden*, and placed Cherubims with flaming Swords at the East End thereof, to prevent his Access to the Tree of Life, and thereby make his new State immortal. After this, when *Adam* had a Grandchild born, his Son *Cain*, who had taken up his Abode in Obscurity in a strange Land, which he called *Nod*, in Allusion to his Vagabond State, began to build *Huts* for his Family to dwell together in one collected Body.

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VI.

for this purpose he also revealed to him what we now know with the name of Platonic musical harmony.

-UBIQUITOUS HARMONY-

The harmony of the Temple is manifest at three levels: 1. Theological, 2. Cosmological, and 3. Architectural. A building of God's design could not but be perfect in all aspects; in Villalpando's elaborate description however it's perfection is not limited to religious terms; like God, it is all-encompassing, in harmony with the cosmos, the world, man and man's accepted traditions. It is not enough for Villalpando's ambitious project to prove the concordance between the classical and religious traditions; this building, like all divine creation is part of a mythical order for and above all.

"In fact, there exists a similarity between man, the tabernacle and the universe, but such analogy is not perceptible to the senses."³¹

³¹ *"En efecto se da una similitud entre el hombre, el tabernáculo y el universo, pero tal analogía no es perceptible para los sentidos..."*

Villalpando:
In Ezechielem... p. 392

³² *"En esta fábrica dejó Dios estampado con maravilloso arte la semejanza de todo cuanto existe bajo la inmensa cubierta del firmamento."*
Ibid. p. 451.

Even though the physical construction of the Temple presents elements in common with other 'profane' buildings, it is superior to any other construction because that which is not perceived by the senses, the divine 'idea', shows that it is like a "small drawing" of the universe. *"In this construction God left a stamp of wonderful art of all that exists under the immense skies of the firmament"*.³² For this reason, like the universe, it can never be understood in its wholeness, but Villalpando attempts to reveal aspects of its order and analogy by following divine example and becoming a creator himself. He starts with an analysis of the Tabernacle, since it's important to:

"...take into account, that the same design, which god himself drew for the tabernacle on a small slate or canvas, had previously been sketched by him for the tabernacle of the universe which he had planned from the beginning"³³

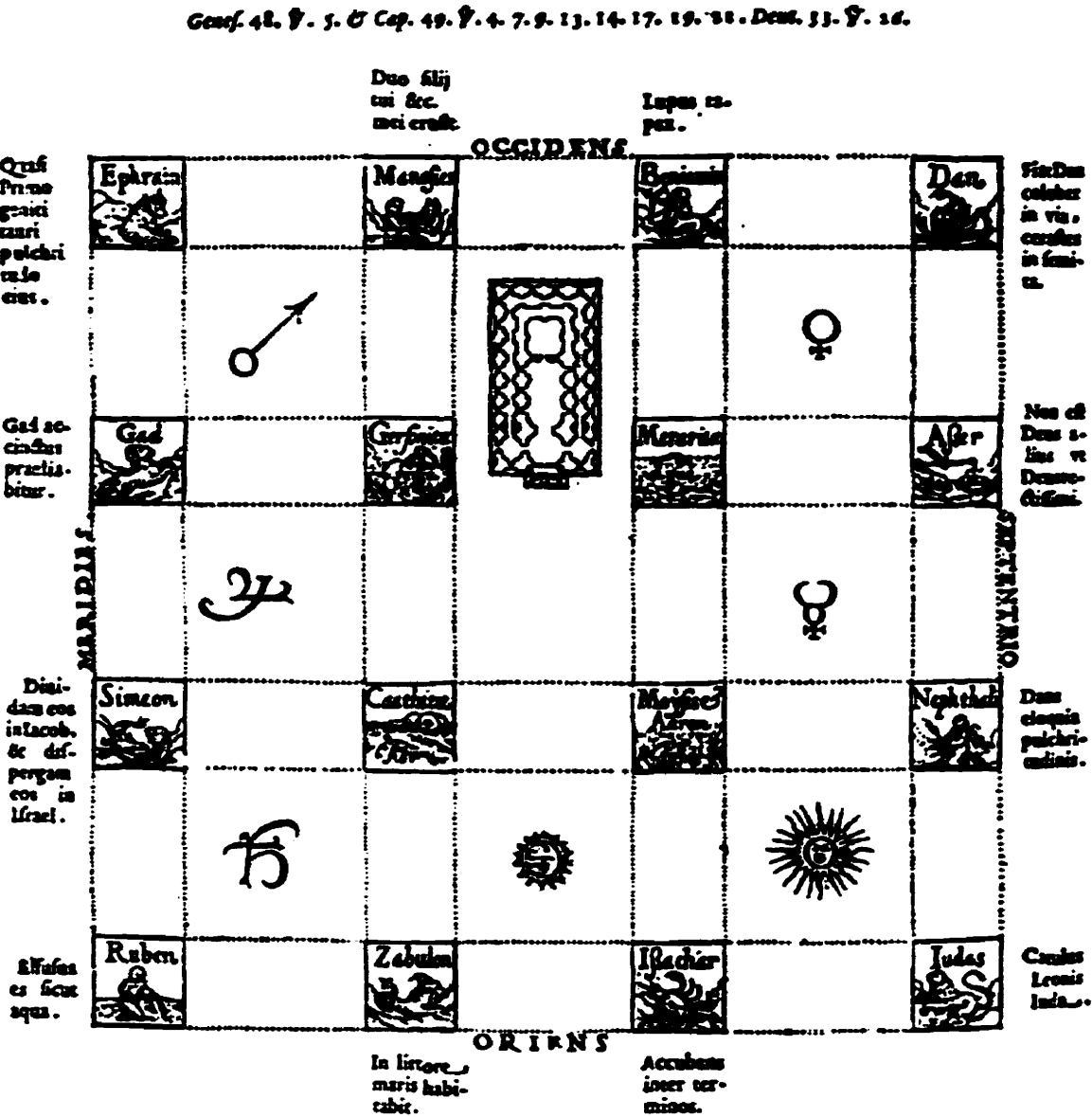
³³ *"...ten en cuenta ademas que este mismo diseño, que el mismo dios dibujo en el tabernaculo como si fuera en una pequeña tabla o lienzo, ya anteriormente lo habia casi bosquejeado en el tabernaculo del universo, que habia dispuesto desde el principio"*
Villalpando:....In Ezechielem.
p.393

-THE SIMILARITY OF THE TABERNACLE-

The 'live tabernacle' was first shown to Moses as a small sketch on a slate so that Bezalel could draft it. This was the same design previously sketched for the 'tabernacle of the universe' that had been planned from the beginning. In this perfectly thorough design the twelve tribes of Israel, each represented by a sign or emblem and facing a fixed direction surrounded the Tabernacle. Villalpando's explanations meticulously demonstrate that no part of the design is left to chance. The number twelve is loaded with mythical meaning beyond its connection to the biblical tribes. Its perfection is proven by the circular orbit of the sky taking twelve months which man further divides into twelve daylight and twelve night time hours and the twelve stars of the zodiac each corresponding to a particular tribe. The centre of this 'sky on earth' is not occupied by the sun but by the 'creator of light'.³⁴ Following this disposition, Salomon fixed the sanctuary in the centre, with 12 bastions along its perimeter and four inner ones corresponding to the levitical tribes as well as symbolising the four worldly elements. He used the order and proportions of the Tabernacle but made the Temple twice as large.

³⁴ The identification of the sun with Christ was a common belief in hermetic circles.

The exterior facade of the temple, Villalpando tells us, is of the measure of the skies, 120, which is equal to the diameter of the celestial orbits or 1/3 of its



Juan Bautista Villalpando - Astrological configuration of the Temple

³⁵ "A partir de esta única circunstancia, quedaría suficientemente señalado que esta es la casa del señor que, aunque todo lo llena y todo lo contiene, no queda El contenido por nada ni delimitado por nada."

Villalpando:

In Ezechielem...p.396

circumference. *"From this circumstance alone, it would be sufficiently clear that this is the house of the Lord that fills and contains it all yet is not contained or limited by anything."*³⁵ Since the height of the Temple is equal to the diameter of the celestial orbit, it can be said that the Temple actually 'squares the circle' thus fulfilling the utmost reconciliation of all dualities into unity. He thus demonstrates the similarity between the Tabernacle, and therefore the Temple, and the Universe and proceeds to explain the analogy of these to man.

-THE SIMILARITY OF MAN-

Ezechiel's guide was an angel who carried a cane, the measuring unit for all the dimensions of the Temple. As Villalpando explains, the cane is equivalent to the module described by Vitruvius with which a whole building is divided into equal parts. For instance, the atrium in the temple, measuring 500 cubits coincides exactly with 80 canes, the exterior width is 120 canes, and so on. Lines drawn through the ends of each cane divide the Temple into a grid (on all axes) which shows all the construction lines or "base lines" ("lineas raices") as Villalpando calls them, as well as the width of the walls. Within the module, each element is proportional to the whole. In the same way, man and the Temple are proportional to each other and in proportion to the universe, and for the same reason, the first order of the atriums, for instance, is 4 canes (25 cubits), as four are the humours in man and four are the elements in the world.

In the obscurity of Ezechiel's description however, such a crucial factor as the measure of the cane was an

incognito, but Villalpando gives sufficient reason to prove that the cane was equal to $6 \frac{1}{4}$ cubits, measure which further ratifies the harmonious unity. The number six is significant because the world was created in six days; more importantly, that was the day of the creation of man in which are contained all other species. The disconcerting fraction represents the 'fractioned' ('rotos') men, that is the sinners.

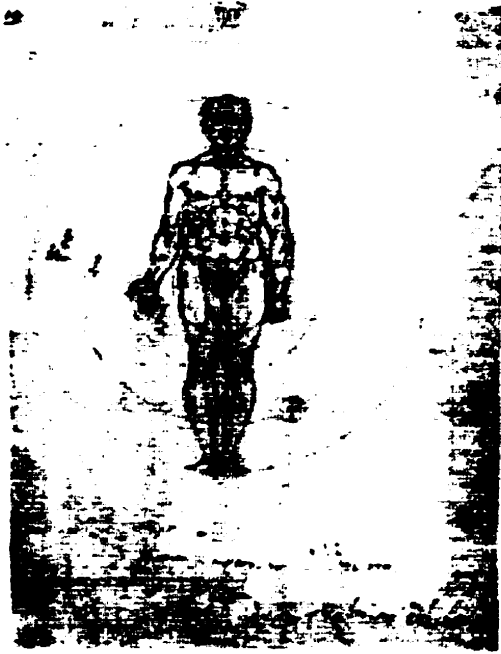
In his explanations of the 'human proportions' of the temple, Villalpando most unreservedly interweaves the scriptures and Vitruvius with a touch of Hermetism as well; discernible in borrowed elements from the astrological Codex Huygens.³⁶

³⁶ The cosmological man has different origins from the Vitruvian man. Villalpando's mix of the two is seen for instance in the choice of the centre of the body. Like the cosmological man, Villalpando makes the four circles which represent the four elements have their centre in the pubis whereas Vitruvius shows the navel as the centre.

R. Taylor: 'La Planta Antropomórfica y la Trama Cúbica' in *Dios Arquitecto - J.B. Villalpando y el Templo de Salomón*. Ed. J.A. Ramirez. p. 189-203

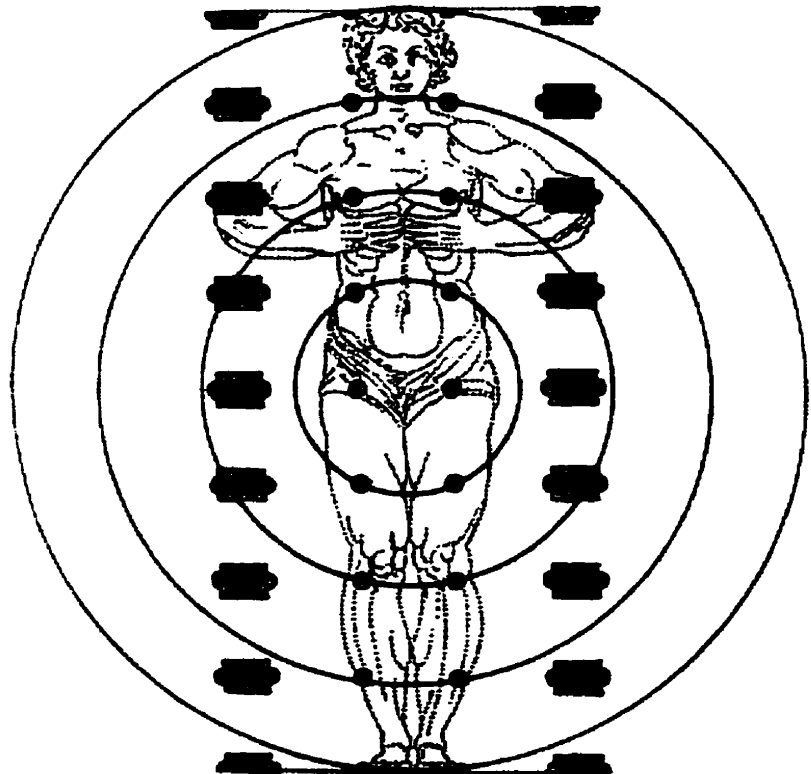
Vitruvius affirms that all the laws of architecture were derived from the symmetry and proportion of the human body, the most perfect 'building' of nature. Villalpando takes the height of the Vitruvian man to be 6 feet, which is equivalent to the horizontal measure of a man with outstretched arms. However, he chooses to bend the arms in front of the chest in an awkward position, as shown in the drawing below, to keep his 1:2 proportion. The width then becomes 3 feet, which is divided into equivalent thirds giving the chest a width of 1 foot, same as each bent arm. The reconstruction of the Temple carries this same length to width proportion (2:1) of a man with bent arms and the plan is accordingly divided into 3 galleries of equal width - one bent arm, at the centre the chest and next to it another bent arm. Longitudinally it is divided into 8 vestibules which correspond to the $\frac{1}{8}$ proportion of the head to the rest of the body.

For Villalpando's flawlessly all-encompassing



Codex Huygens - The cosmological man

SINGVLARVM
PORTICVVM, ET HV-
MANAE STATVRAE SIMILIS
DISTRIBVTIO.



Juan Bautista Villalpando's anthropomorphic figure with an overlay of the Temple plan and, like the cosmological man, showing the four elements represented by the concentric circles.

program, the anthropomorphic connection becomes even more profound when applied to the Temple; being the obelisk of human conduct and morality, the correspondence with the building lies not only in the structure of man but in his customs and obligations as well.

In the Temple, exterior columns 20 cubits in height protect the structure from collapse, yet their position is not a part of the religious edifice, they remain on the outside. Their measure also measures the young men of the military. According to biblical tradition, the prime age for a man to enlist in the Israeli military was 20 years; at this age, he was capable of supporting civil obligations, but not religious. The 20 cubit column likewise serves its purpose yet does not reach the level of sacredness necessary to partake of the perfection of all elements of the Temple. *"However, the perfect order reaches a height of 25 cubits, and therefore with less number of years no one is considered apt for celestial formation, that is to say for the church."*³⁷

For a man, 20 was not the ideal age, as growth continues and culminates at the age of 25; the wilting of this ideal state begins after the age of 50. *"This is the law of the levites: from 25 years and up they will enter the service of the tabernacle of the covenant, and on turning 50 years old they will cease to serve."*³⁸

Therefore, Villalpando tells us, the entrance to the Temple has one measure, 25 by 50 (cubits/years) applied in the corresponding sense both to the door and to the entering man. This syncretic relationship not only surfaces yet another proof of unmistakable unity between pagan architecture and religious norms, it also describes a parallelism with the human body that goes beyond the proportions of the Vitruvian man; the Vitruvian man is sanctified and alive, as is the

³⁷ *"Pero el orden perfecto alcanza una altura de 25 codos, y por tanto con menor número de años nadie es considerado idóneo para la formación celestial, es decir para la iglesia."* Villalpando: In Ezechielem....p.398.

³⁸ *"Esta es la ley de los levitas: de 25 años para arriba entraran a servir en el tabernáculo de la alianza, y al cumplir los 50 años dejaran de servir"* ibid. p.398; [Num. 8,24-25]

Temple. In this dual relationship, man is represented through the Temple and all its parts, and the Temple is inside each man. *"The temple's surface discourses like the present life, and due to this, and with all right, the space that the temple occupies can be considered a symbol of life"*³⁹

³⁹ *"La superficie del templo discurre como la vida presente, y por ello, y con toda razón, el espacio que ocupa el templo puede considerarse como un símbolo de la vida."*
Ibid. p. 398

-HERMETISM AND THE SIMILARITY OF THE UNIVERSE-

Villalpando's scheme of an earthly architecture in tune with the cosmic order is consistent with the hermetic belief in the effects of the stars on the elemental world. Hermetism described an astrologically ordered cosmology which, like Villalpando's description of the Temple, was divided into 3 correlative parts: the elemental world of man, the celestial world of stars and planets and the super-celestial of God and the angels (also known as the intellectual world) where the world of man is affected by God through the world of the stars.⁴⁰ In addition to this coincidence, the hermetic tradition in general showed great interest for the Temple. Hermetic followers claimed that the Tabernacle, which prefigured the Temple, was a key to the philosopher and alchemist Hermes Trismegistus since Moses, who had constructed it, had grown in Egypt, the original home of all knowledge. The interest in the Temple continued until the 19th century as it was later kept alive in the rites of freemasonry, which considered the Temple as an archetype of divine geometry.⁴¹

⁴⁰ see R. Taylor: 'Hermetism and Mystical Architecture in the Society of Jesus' in *Baroque art: The Jesuit Contribution*. Edited by R. Wittkower and Irma B. Jaffe. Fordham University Press, NY 1972).

⁴¹ See: F. Yates: *Giordano Bruno and the Hermetic Tradition*. London 1963. Ch. I.

To be interested in Ezechiel, Villalpando had to be a mystic. Even though Prado, who coincided with the shared identity of Salomon's and Ezechiel's Temples,

would probably have avoided the magical themes involved in Villalpando's interpretation, mysticism was not foreign to the Jesuit order. Villalpando's reconstruction is surely the forerunner of another Jesuit in the same trend, Athanasius Kircher, and his reconstructions of biblical buildings: 'Arca Noe', which, like the Tabernacle and Temple, he says prefigures the church, and 'Turris Babel'. In his book 'Oedipous Aegyptiacus' he reproduces Villalpando's drawing on the astrological organization of the temple based on the Tabernacle.

Some of the most extraordinary characteristics of Villalpando's thought can be traced back to his teacher Herrera and to the extent of the influence exercised on him and in Spain in general by the Art of Ramon Lull.⁴² Spain had always been a hub of books on magic as well as the mediaeval centre for cabala, which Lull is known to have christianised. Despite the rigidity of Spain after the counter-reformation, the interest for cabala continued during the 16th century. The compromise between these otherwise heretic books and religion was termed 'Christian Hermetism'. Herrera was an adept of 'Christian Hermetism' and a leading Lullist in Spain and his influence touched no less than Philip II who was 'converted' to Lullism in 1580. Villalpando's work was a significant contribution to the reversal of Spain's anti-Hermetic attitude.⁴³

Herrera was fully involved in occult sciences, in fact, his library contained so many more books on early and Renaissance Hermetic writers (i.e. from the Renaissance: Ficino, Pico, Paracelsus, Porta, Bruno, J. Dee and also pseudo-Lullian, alchemical and cabala texts) than architectural treatises that his activity as an architect and his involvement in El Escorial has

⁴² On the influence of R. Lull see: F. Yates: 'The Art of R. Lull' in *Journal of the Warburg and Courland Institutes*. V. XVII no. 1-2, 1954

⁴³ see: R. Taylor: 'Architecture and Magic - Considerations on the Idea of the Escorial' in *Essays in the History of Architecture Presented to R. Wittkower*. Ed. D. Fraser, H. Hibbard, M.J. Levine. Phaidon Press, London 1967.

⁴⁴ see for instance: J.B. Bury: 'Juan de Herrera and the Escorial'. in *Art History*. V.9; No. 4, (December 1986) Routledge and Kegan Paul 1986. p.437-38.

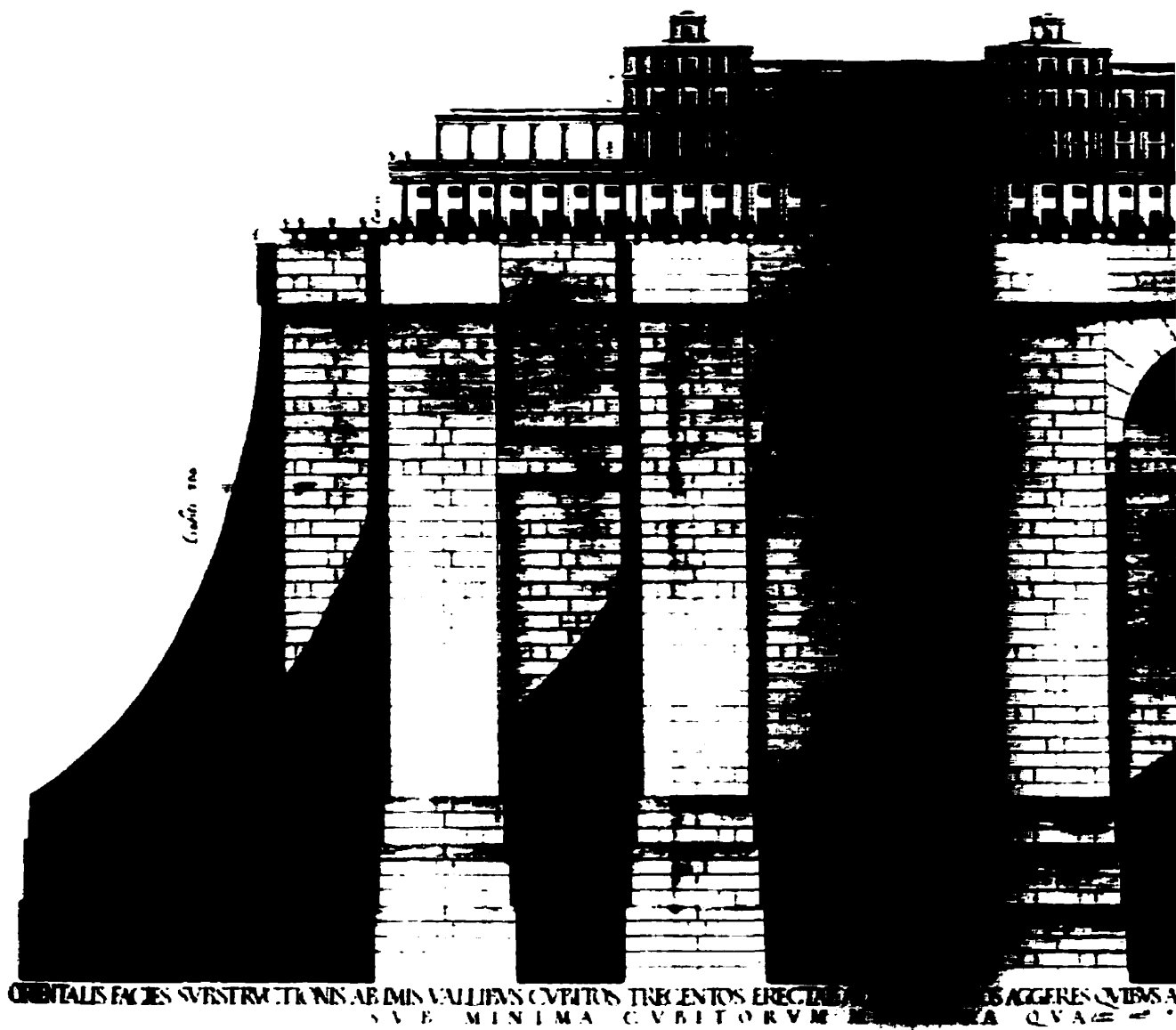
even been questioned on this basis.⁴⁴ But for a man like Herrera who would have had to be familiar with the notion, first articulated by Marsilio Ficino, that *art is the outcome of a magical process*, his different activities were probably not contradictory. For him magic was not an extraneous interference but precisely what enlivens architecture by making it a part of the all-harmonic cosmos.

*"Even such an apparently rational activity as architecture needed to have its bare bones vivified by the magic of a supra-rational afflatus that defies exact analysis. Vitruvius himself supplied the ideal example of this twofold approach in seeking to combine theory or innate gift and practice or acquired art, so that he deals with every facet of architecture from the commonplaces of building techniques to astrological cosmology"*⁴⁵

⁴⁵ R. Taylor: 'Architecture and Magic - Considerations on the Idea of the Escorial.' p.89

Neither would it be sensible, given what we know of Philip II, his great attachment to Herrera and his long-lived interest in architecture, to believe that he would be unfamiliar with these ideas and that he would be concerned only with the form of his sanctuary and palace and not with its meaning.

At the time there was no clear-cut division between science and magic especially in the field of mathematics, and for important figures such as the alchemist and doctor Ficino, after mathematics, architecture was the number one science. Herrera's book, generally known by the title: *Discurso de la Figura Cúbica* (the full title in English is *A Treatise on the Cubic Figure According to the Principles and Opinions of the Art of Ramón Lull*) is a good example

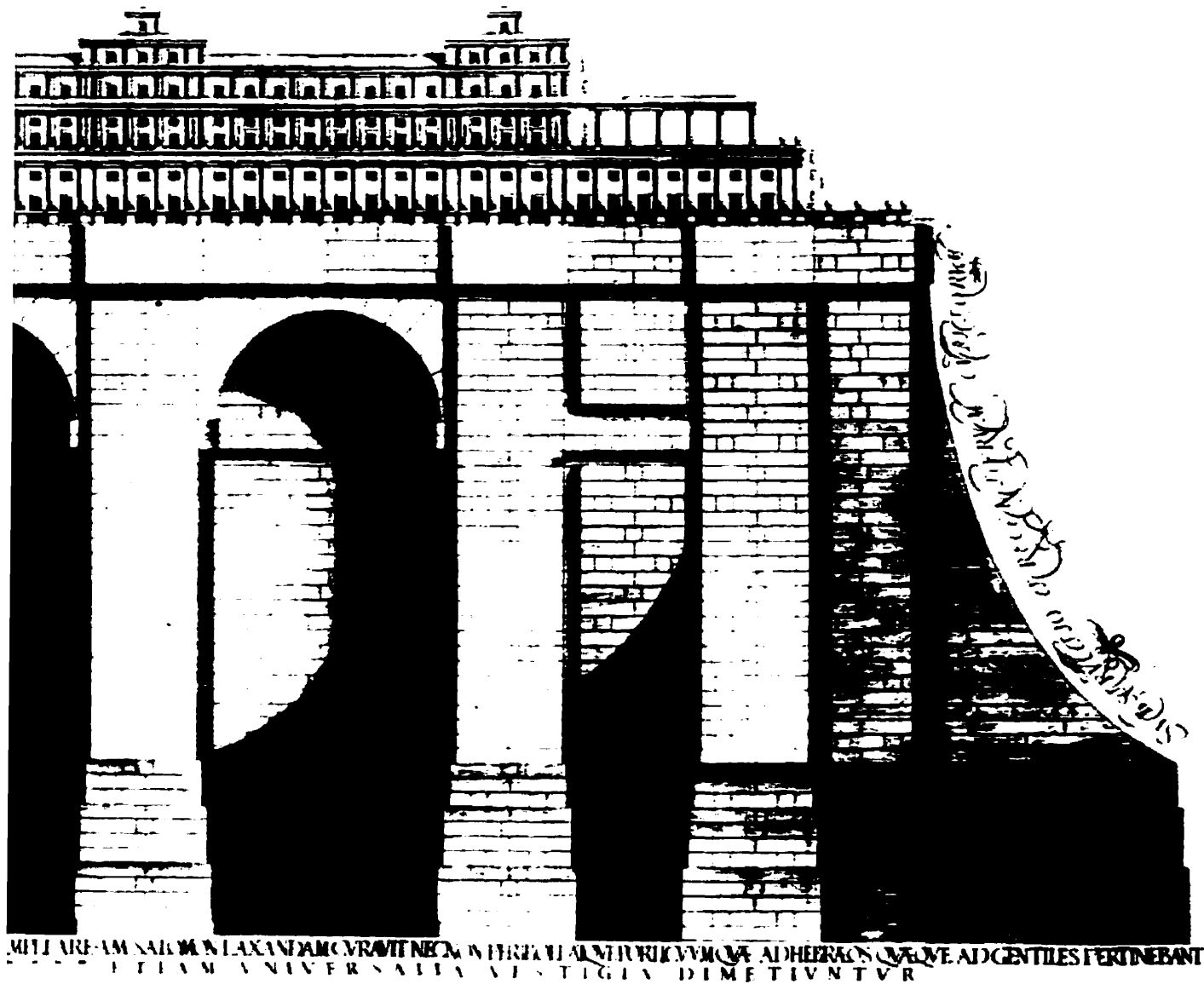


Juan Bautista Villalpando - Elevation and foundations of the Temple



VALLENS CVBITOS TRECENTOS ERECTA... AGGERES CVBIS ATRIVM TLMH ARE AM SAR MON LAXANDAM CVRAT NECA NITRITAV AQ
MINIMA CVBITORVM... QVA... ILLAM VNIVERSALIA VESTI

of the Temple



of the case in point. The work uses the rational principles of Euclidean geometry as the basis of a mystical dissertation on the cubic figure according to the Art of Ramón Lull.

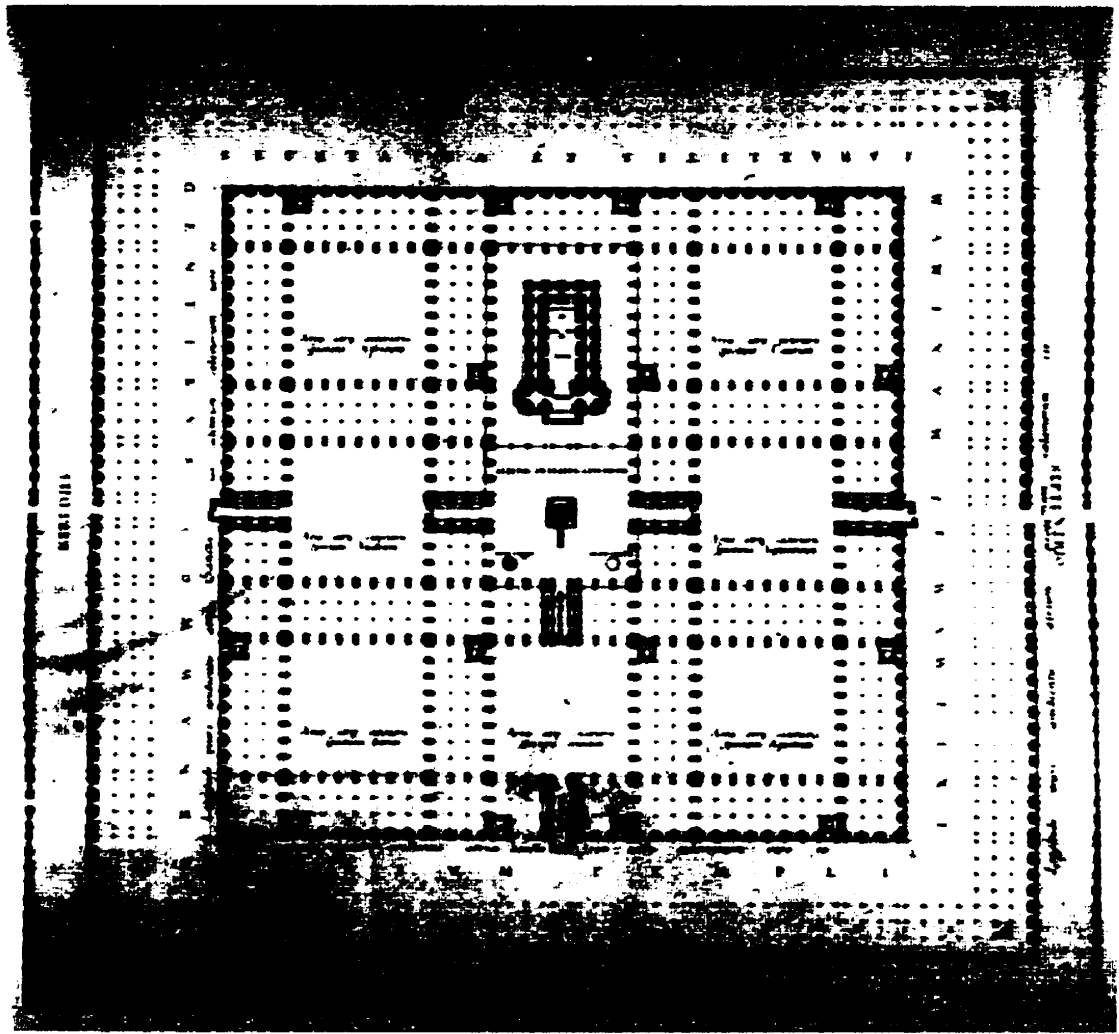
Plato in the *Timaeus* had first ascribed philosophical meaning to the cube; he says: "*To earth let us assign the cubical figure; for of the four kinds [fire, earth, water, and air] earth is the most immobile and the most plastic of the bodies*".⁴⁶ Visually however, everyone knows the earth to be spherical. The cube can be interpreted as the philosophy or 'idea' behind it, which is invisible to the senses just like architectural theory is to a building.

But to get back to the issue, beyond representing the earth, source of the other three elements and of man, the cube also has a hermetic meaning; it is a *hieroglyph of the Supremum Numen*.⁴⁷ In addition, the process of multiplication to the power of three and the correlation of the figure three with the holy Trinity no less adds significance to this shape.

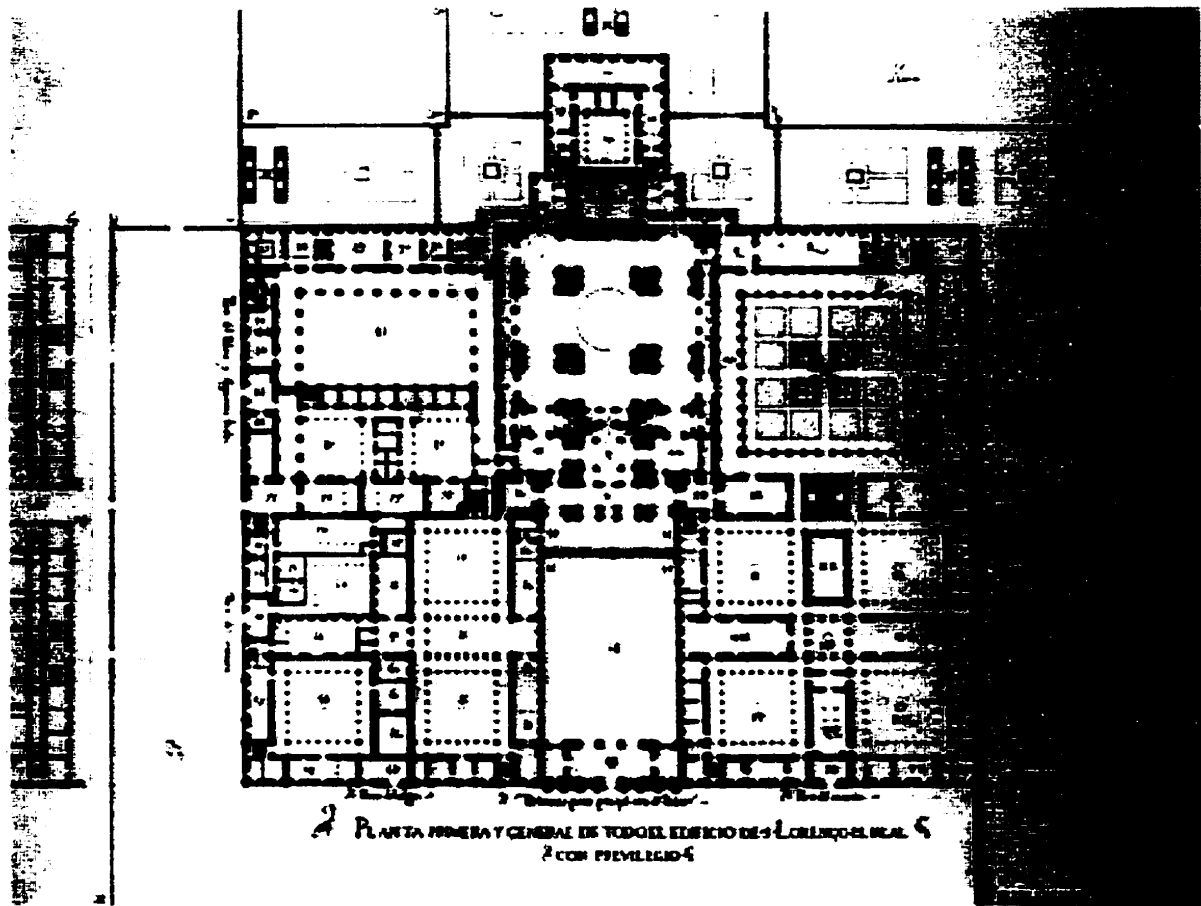
Villalpando, surely acquainted with his teacher's manuscript treatise on the cube, did not forgo its substance. In his reconstruction the Sancta Sanctorum, abode of the Ark, is cube shaped. Furthermore, the foundations of the Temple, which are portrayed as being of a colossal size, as they were, more symbolically than structurally, an integral part of the building, had a height of 300 cubits and a width and length each of 800 cubits. $800 \times 800 \times 300$ is equal to $2^3 2^3 3$; therefore a building founded on cubic principles. This hidden, omnipresent cube, apart from all other astrological and cosmological coincidences, would convince Herrera of the worth of the Jesuit's

⁴⁶ Plato's *Timaeus*. transl. Francis M. Cornford. The Library of Liberal Arts Press, New York 1959; p.60,55-e

⁴⁷ Piero Valeriano, Hieroglyphica, Lyon, 1594, bk.XXXIX pg. 383, *De Trino, Cubus* in R. Taylor: 'Architecture and Magic'.



Juan Bautista Villalpando - Ground plan of the Temple



Herrera - Ground plan of El Escorial (1589)

reconstruction. As Villalpando himself relates, when Herrera:

"...saw our designs for the first time, and was able to examine the proportions and dimensions of all their parts, as well as their harmony and beauty (which constituted such a clear manifestation of supreme genius), he confessed with all honesty that he could perceive a touch of divine wisdom in the architectural form itself. Even if he had only looked at the drawings, disregarding the fact that all this can be read in the Holy Scriptures, he would not have hesitated to conclude that such a building could not be a product of human genius, but could only have been conceived by God's infinite wisdom. Such was the opinion of an exceptionally intelligent and learned man. He frequently repeated this opinion to me and I don't doubt that he also sustained it in the presence of the king. From the beginning he has honoured this modest work with his interest. Later, it is true, the king himself conceded us his approval and showed great signs of generosity without which this publication would have been neither probable nor possible"⁴⁸

⁴⁸ "...vio estos diseños nuestros por vez primera, y pudo examinar sus proporciones y las dimensiones de las partes, así como su armonía y belleza (que constituían tan clara manifestación de un ingenio supremo), confesó con toda franqueza que percibía algo de la sabiduría divina en la forma misma de la arquitectura. Aún cuando no hubiera hecho más que mirar los dibujos, haciendo caso omiso de que todo esto se lee en la Sagrada Escritura, no hubiera tenido la menor dificultad en concluir que tal edificio nunca pudo ser producto del ingenio humano, sino concebido por la sabiduría infinita de Dios. Tal fue el parecer de un hombre sobradamente culto e inteligente. Esta opinión suya me la repitió él a mí con frecuencia, y no dudo que la sostuvo enérgicamente en presencia del rey. Desde el comienzo honró este indigno trabajo nuestro con su interés. Más tarde, es cierto, el rey mismo vino a conceder su aprobación y lo colmó de toda muestra de generosidad, sin la cual no hubiera sido probable, ni acaso posible, publicarlo."
Villalpando: *In Ezechielem*..p. XVIII

As René Taylor suggests, it is hard to avoid the suspicion that Herrera was the instigator of Villalpando's project. Other than general interest in the subject, what could have been at stake in order to motivate Herrera to pay such heed to this project?

⁴⁹ See R. Taylor: Architecture and Magic. P.93.

⁵⁰ *ibid.* p.94

In a different section, Villalpando clearly shows that in the Temple no decision stemmed from practical reasons. In his reconstruction, the Sancta Sanctorum had no windows, in the plan however he shows where the windows could have fit in perfect keeping with the proportions of the whole and this he does as proof that the reason they were left out was not structural, but only because *"the sanctity and dignity of this place forced their omission"* (*"unicamente la santidad y dignidad del recinto obligo a prescindir de ellas"*).

Villalpando: *In Ezechielem...* p.251.

⁵¹ *"Aquí como en otro templo de Salomón a quien nuestro patrón y fundador fue imitando en esta obra, suenan día y noche las divinas alabanzas..."*

Fray José de Sigüenza: *La Fundación del Monasterio de El Escorial*. Turner, Madrid, 1986 pg.418.

⁵² See R. Taylor: 'El Padre Villalpando y sus Ideas Estéticas' in *Academia*, Madrid 1952.

The answer could lie in his possible responsibility for hermetism in El Escorial. There is enough evidence to propose that the Temple of Jerusalem could have been the underlying 'idea' of El Escorial.⁴⁹ The program of El Escorial to serve as a convent, palace and church recalls a similar division in the Temple.

But for few coincidences however, the similarity between the two works is probably more at the symbolic than at the structural level. If the Temple is the underlying idea of El Escorial, then it is what gives the building its invisible structure and symbolism; in other words, the role of Villalpando's treatise was to provide the theoretical portion of El Escorial, and therefore its relevance for Herrera and Philip II. *"The more likely explanation is that they are similar simply because both are the offspring of the same basic idea, modified in the instance of the Escorial by practical considerations."*⁵⁰

This analogy and correspondence is not an ingenious post-factum invention; the writings of Padre Sigüenza, the Escorial historian, and Montano's disciple, actually refer to it as another Temple of Salomon: *"Here [in the Escorial] like in another Salomon's temple which our founder and patron has emulated in this work, day and night divine praise is heard..."*.⁵¹ Sigüenza also makes it clear that this was not his invention but a well-accepted title since El Escorial was the creation and project of Philip II, known in Spain as 'King of Jerusalem' until the 18th century.⁵² The King's motivation for financing both El Escorial and the *Explanaciones* could stem from his ambition to own this title and like Salomon, prove his wisdom through wealth and possibly use it as justification for colonial exploitation in the Americas. Villalpando seems to

⁵³ *"En efecto, no hay nada que conduzca mejor a adquirir riquezas y a aumentarlas hasta lo increíble, que la sabiduría"*
Villalpando:...In Ezechielem.
p.434.

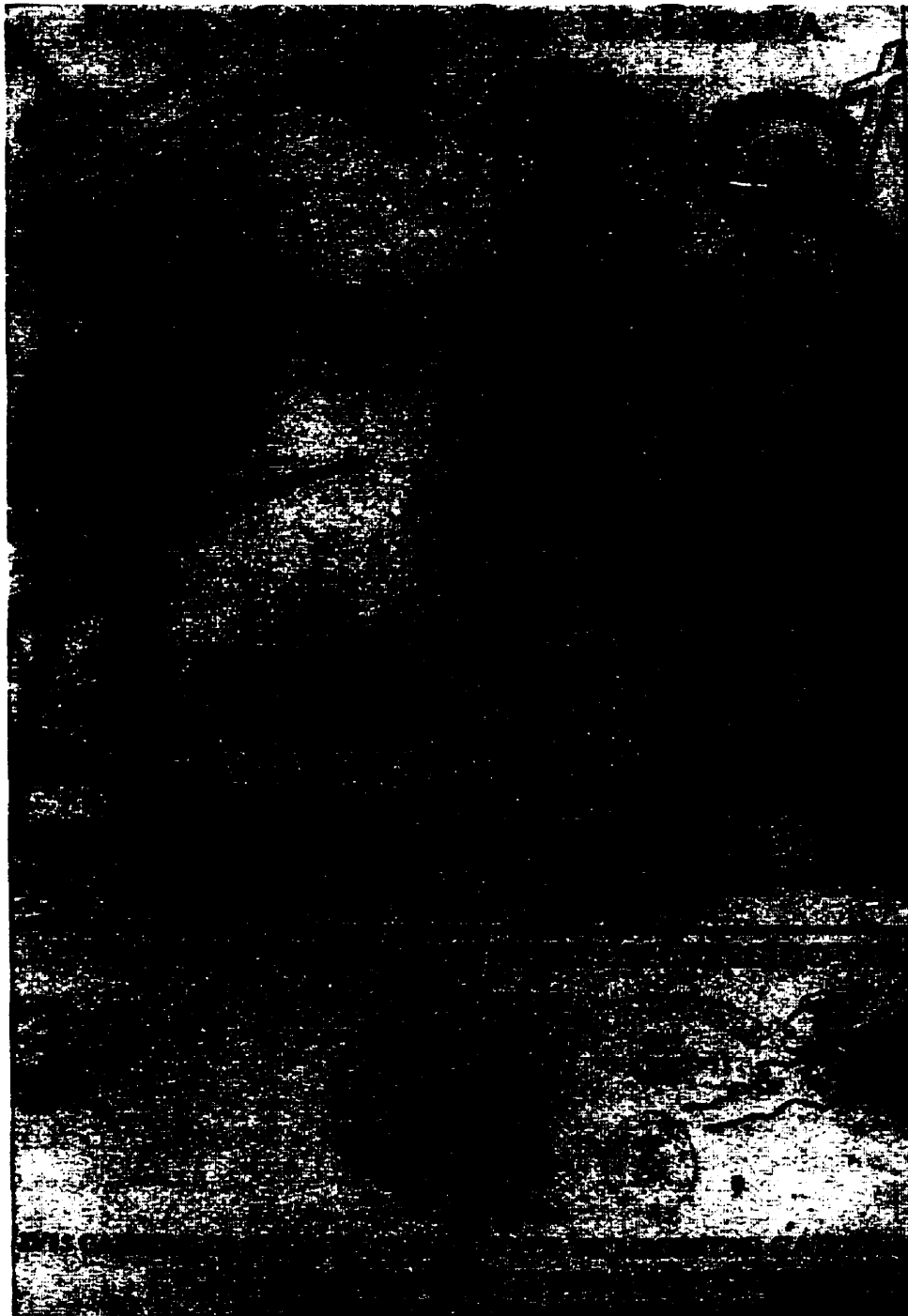
⁵⁴ Taken to an extreme, this way of thinking gives way to the beginnings of the baroque. Villalpando's reconstruction marks the end of the 'estilo desornamentado' (unornamented style) best exemplified in Spain by Herrera, and opens the way for the eloquently ornate baroque. However, the intrinsic connection that Villalpando draws between wisdom and wealth and his own ornate drawings may seem like a blatant inconsistency with statements he makes against the use of ornamentation. Gold and precious stones on the façade of a building are a sure sign of wealth, but aren't they also ornaments? Perhaps in order for ornamentation not to be redundant it should manifest the presence of wealth and not that of craftsmanship. And in this way it will represent not whim and accident but wisdom and divine providence.

⁵⁵ J.A. Ramirez: 'La Visión de Sigüenza: Gastos y Beneficios de El Escorial. in *Dios Arquitecto*. p.220

be in agreement with this conception, on which he writes an extensive justification for in book five (also the book that speaks the most on hermetism). He says: *"Effectively, there is nothing more conducive to the acquisition of wealth and to increasing it to incredible amounts than wisdom"*⁵³

Salomon, as his supposed cognate Philip II, had wealth because they were wise. Given that the quality of wisdom is granted by divine providence, wealth is a derivative of God's will, therefore, making these riches visible in temples and decorations is a show of gratefulness and glorification in response to divine favour. In this way the use of gold is associated less with wasteful excess driven by human greed and becomes a carrier of prestigious meaning.⁵⁴

Because Philip's project was often condemned for its wastefulness, Villalpando's reconstruction becomes important as the financial justification of El Escorial as well.⁵⁵ A lot of book five differs from the rest of the work, as it describes practical concerns of architectural construction and especially considerations of economic type such as costs of materials, number of construction workers and their wages. The sense of accuracy and preoccupation with details in these sections definitely makes it seem like a program for a present construction, presumably Philip's new 'Temple'. We see therefore how the repetition of the Salomonic story in Villalpando's and Philip's Spain was probably considered more than just a myth.



Engraving of Philip II defending religion showing
El Escorial in the background (from frontispiece
of a book by Cabrera de Cordova)

IV. REPRESENTATION AND VISION: Drawings, Optics, Theory and Practice

Continuing the argument about the spiritual superiority of the Church but in a chapter about the harmony of the Temple, Villalpando explains the integrity of the building and with this presents the core of his demonstration. Like the creation of man, the Temple was created with a soul and body. In the soul, there is a superior force and an inferior force, mind and senses respectively. The 'mind' of the Temple, or the most important aspect of it, is symbolised by the Church of Christ, and is perceptible according to each individual's intuitive capacity.

According to Villalpando, the perfection of this work can be explained to all through architectural theory. Vitruvius affirmed this when he said: *"theory, on the other hand, can explain and demonstrate according to the laws of proportion and reason, the perfection of built works."*⁵⁶ Salomon, according to Villalpando, had done precisely what Vitruvius herein after prescribes; he expressed the architectural theory of the Temple through his words of praise to God's work of art and its perfect harmony. However, it is not just through language that theory is revealed, also drawings and images bring to light that which is not directly accessible to the senses. The scriptures, before Vitruvius, demonstrate this; Villalpando's architect God is the creator not only of the word but also of the image.

⁵⁶ "la teoría, en cambio, es la que puede explicar y demostrar de acuerdo con las leyes de la proporción y el razonamiento, la perfección de las obras realizadas."
Ibid. p.392

"It also deserves our ardent praise that God himself with his hand would graphically draw the design, the figures, the orientation of all the

⁵⁷ "Merece también nuestro encendido elogio el que el mismo Dios con su mano dibujara gráficamente el diseño, las figuras, la ubicación de todos los elementos, las plantas, alzados y perspectivas, y además el mismo Dios describió todo ello con abundantes comentarios que le fueron entregados a David y este a su vez, se los entrego a Salomón para que los artesanos lo realizaran todo a la perfección."

Ibid. p.398

⁵⁸ This invisibility however is only physical since, as we will explain further on, they are perceived by the kind of vision which Villalpando calls intellectual.

elements, the plans, elevations and perspectives, and furthermore, God himself described all this with abundant commentaries which were handed to David who then gave them to Salomon so that the artisans could execute everything to perfection."⁵⁷

The 'Architect' did not physically build the Temple; he provided the 'theory' for its construction.

Theory and drawings are both vessels of those traces that the idea impresses on the design but that once it becomes a building become invisible. ⁵⁸ These 'lineamenti', Vitruvius says, are what gives meaning to a building, therefore the drawings for Villalpando are essential to successfully explain the vision. Like Serlio, Villalpando seems to support the power of the image over the word where the text becomes a description of the drawings. It is also important to remember that at the outset the core of Villalpando's work was comprised of drawings, the explanatory text was added after Prado's death. However, judging from the length and complexity of the commentaries, it is hard to classify them as entirely secondary.

The title of the first chapter of part II is: *El Arquitecto debe estar dotado de grandes conocimientos y dominar diversas ciencias.* (*The architect should be endowed with great knowledge and master diverse sciences*). An architect, Villalpando explains, who lacks this knowledge and does not incorporate other sciences into his work is not an architect but an artisan. By default there are already too many artisans, producing too much decoration, too little of which is of any use to citizens in the cities. Leaning mostly on quotes from Plato he makes a clear distinction

⁵⁹ "Según Platon, dos son los objetos de la arquitectura, edificio y arquitectura; el edificio es algo fáctico, es un trabajo, la arquitectura es una teoría."
Ibid. p.56

between theory and practice. "According to Plato, architecture has two objectives, building and architecture, the building is something factual, it is a work, architecture is a theory."⁵⁹ This would explain the correlation that he points out between the Temple of Salomon being the building and the Temple of Ezechiel, the Church of Christ then being the theory. Ezechiel's abstract construction is not physically a building and yet it describes and illustrates the meaning of the Temple as the actual building never did except perhaps for those who lived in those times.

Amongst the subjects necessary to architecture which Vitruvius lists (grammar, drawing, geometry, optics, arithmetic, history, philosophy, music, medicine, jurisprudence, astrology) Villalpando points out 'optics and drawing' as the most relevant to his subject. Drawing is the work of an architect, not the building. Again, Plato corroborates this, as he says no architect does manual labour but should just direct the manual labourers with his capacity to judge and order "*given that he knows the theories worthy of a free man, and can at least judge the artistic accomplishments and works of the artisans, however it is not convenient for him to practice them.*"⁶⁰ For Plato the architect is comparable to a philosopher since architecture is a speculative science. Villalpando quotes Plato extensively, but in case the reader has any doubts he recommends turning directly to religion for ratification, why look "*in the rivulets of wisdom for that which is very clear in the perennial source of the Holy Scriptures themselves, where we can quench our thirst and rest in truth itself*"⁶¹

⁶⁰ "ya que conoce las teorías dignas de un hombre libre, y al menos puede juzgar los logros artísticos y los trabajos de los artesanos, mas no es conveniente que el los ejerza."
Ibid. p.55

⁶¹ "en los riachuelos de la sabiduría lo que esta clarísimo en la misma fuente perenne de las Sagradas Escrituras, donde podremos apagar nuestra sed y descansar en la misma verdad."
Ibid. p.57

This marked division between theory and practice is at odds with Vitruvius and the classical tradition, which

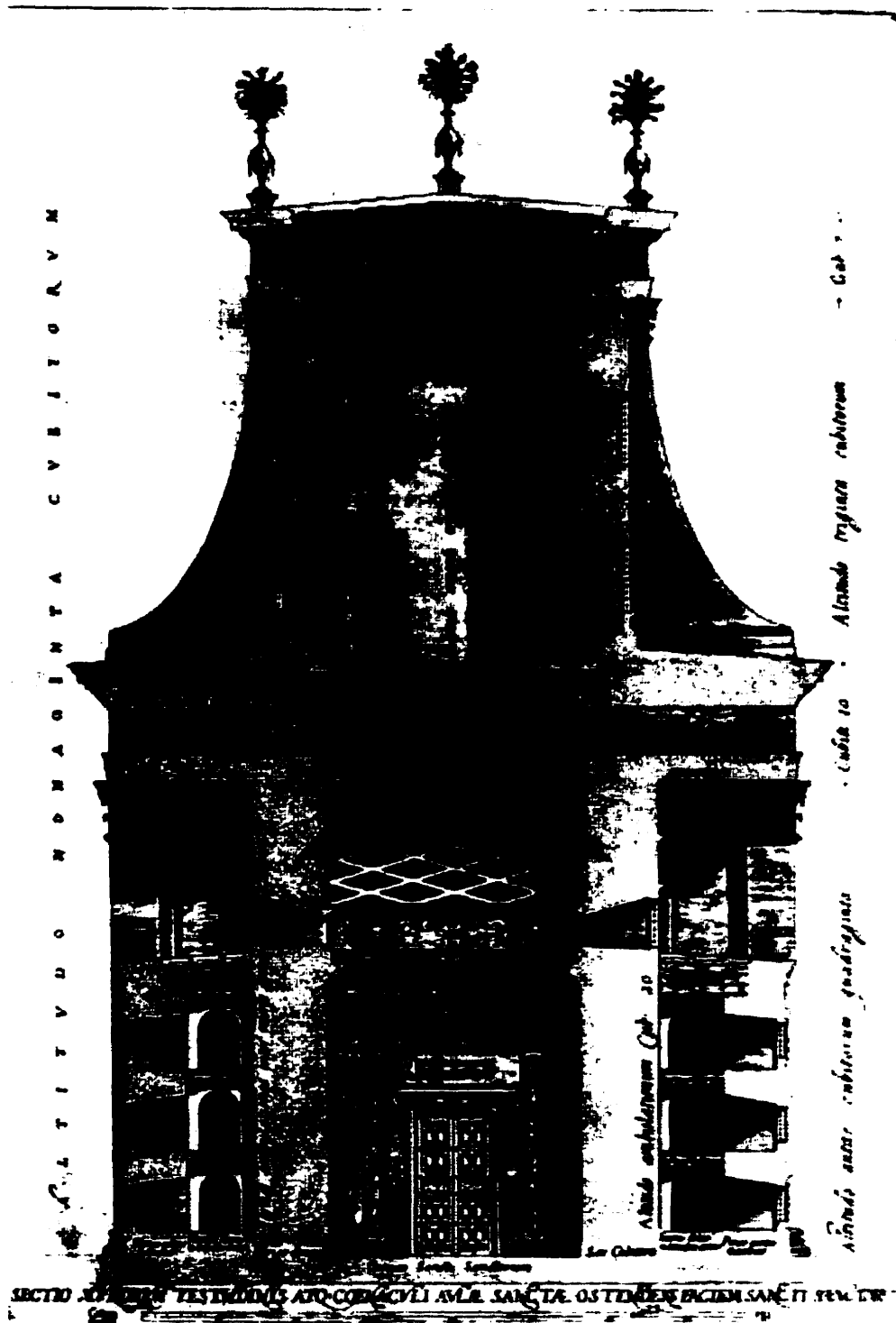
always encouraged the integration of the two. But Villalpando allows for such divergence as he claims to find justification in the scriptures or perhaps in his tendency to approximate the process of the architect to divine creation. His perception seems closer to today's architectural practice than to methods of apprenticeship, which were nearer to his time. We cannot, however, consider him a fully modern man since in his eyes this division had its origins in theology and not in economic or practical considerations. The Architect of architects shows by example the need for wisdom as well as 'science' in order to do the work of an architect, that is, design the drawings and models. *"God, with his infinite wisdom, was its architect, the author of the model as he had previously also been the author of the sketch"*⁶²

⁶² "Dios de infinita sabiduria, fue su arquitecto, el autor del modelo como anteriormente también había sido el autor del boceto"
ibid. p.393

-DRAWING OR IMITATION-

When Villalpando talks about drawing he means architectural drawing, for according to him, other forms of representation do not have the same qualities. Painting in particular does not deserve Villalpando's respect. The distinction between painting and architectural drawing is the latter's geometric quality. One who describes a building without the use of geometry, he maintains, should consider himself a painter not an architect since not only would the drawing be *monstrous*, it would also be of no use when it comes to building it. The work of a painter could be used only as ornamentation on buildings, something that in moderation could be nice, but in effect not necessary.

In essence, the reason why painting is incapable of



Juan Bautista Villalpando - Section through the Holy of Holies

⁶³ "tanto el trabajo del pintor como del escultor consiste en la imitacion, cosa que no hace el arquitecto."
ibid. p.57

transmitting the meaning inherent to architectural drawing is that *"the work of the painter as well as that of the sculptor consists of imitation, something the architect does not do."*⁶³ For the most part, painting would fall into the category of manual labour, he says, since painters paint by habit usually mindlessly imitating the masters. This differentiation, which is similar to Plato's distinction between mimesis and imitation, stresses the relevance of interpretation as well as science to architectural drawings.

Albeit Villalpando's assertive argument, we need to be cautious of his dislike for painting for even though he is mostly a mathematician he gave considerable importance to making his drawings beautiful. Perhaps the reason for this was that he did consider the senses as the starting point for the discovery of the divine. But what is interesting from all this is that his drawings could be beautiful aesthetically but they would cease to be of any worth if they did not transmit a science as well. Anything that involves pure imagination without reason can devalue into imitation, this imitation would be invalid because it does not fuse the sublime in geometry with matter it therefore fails to copy the only thing that should be imitated, which is God's creation.

When a good architect is designing a building, Villalpando explains, he first starts with a mental image of the whole. He then proceeds to consider each of its parts separately and to draw them clearly and precisely. This he does *"so that they remain fixed and so that we can repeatedly look at them with our eyes and mind"*⁶⁴ and as a secondary reason, so that the artisans who will be doing the building will be able to understand the design. Today this order of priorities is of course

⁶⁴ "para que queden fijas y podamos contemplarlas con los ojos y con la mente una y otra vez"
ibid. p.74.

reversed or rather eliminated, as a drawing is no more than a construction document with a specific purpose. For Villalpando drawings have the quality of the eternal; by showing process and carrying meaning, they are far from being an instrument and a means to an end, drawings are worthy in themselves and are as valid as the building itself or perhaps even more since the Temple's Architect constructed the drawings not the building.

-VISION AND PERSPECTIVE-

Villalpando maintains that an architect-specific quality is the ability to intuit a building in the mind before it exists physically thus approximating the architect to a 'magus'-God. He quotes Vitruvius on the subject, who says everyone can judge good from bad, but the difference is that an architect will be able to predict beauty before seeing it whereas others will have to see it built before being able to judge. In this respect, it is important to realise that the 16th century was not as vulnerable to the dangers which such power to predict the future, or rather belief in the possession of such power, can cause in today's technological world. This contention stood for something quite different; although the architect is given godly qualities he does not replace god, he sees in his light, there is always a superior and necessary authority that ensures the microcosm/macrocosm correspondence.

After Ignatius Loyola, visualisation played a very important role in Jesuit practices. *This vision was ultimately construed as a sharing in the light of God by the godly in each one of us.*⁶⁵ For Villalpando the visual is an intrinsic part of his whole explanation; not only for the obvious reason that the book is about a

⁶⁵ Pérez-Gómez A. -'Juan Bautista Villalpando's Divine Model in Architectural Theory'. *Chora Three*. p.132.

vision, Ezechiel's, but also because the visual, graphic part of his work is for him the central piece for understanding the prophecy. The architect must first visualise the entire building in his mind and then inscribe it in the different kinds of architectural drawings which Vitruvius calls 'ideas' and Villalpando calls 'perspectives' as this kind of drawing allows to represent the whole idea in one image.

-OPTICS-

The three types of Vitruvian 'ideas', ichnografía-plan, orthografía-elevation and scenografía- interpreted by Villalpando as perspective, he says are all 'ideas' that refer to optics. After drawing, optics is for Villalpando the second science for architecture since it is essential to the 'disposition' of the building. Perspective deserves his admiration since, by appearing to be 3-dimensional, it is able to trick the senses as well as reason. But more importantly, he considers it to be the most beautiful of all since it is a science of light and vision, light being the beauty of things and vision of all our senses the most magnificent. *"As Aristotle says, sight is what man appreciates most; it is, of all the senses, the most necessary for the sciences, and what we learn through sight we think we know with all certainty."*⁶⁶ However, since we never contemplate objects in their true form but only *as represented by matter, (como los representan las especies)* or by the rays they irradiate, sight can be deceiving and one same object can be represented in diverse and not all correct forms. Perspective drawing however always remains closer to the truth. The difference between a philosopher and a perspective artist, Villalpando says, is that the latter may diverge from the road of truth due

⁶⁶ "Como dice Aristoteles, lo que más aprecia el hombre es la vista; es el sentido más necesario para la ciencia y lo que conocemos con la vista, pensamos que lo conocemos con toda certeza"
ibid. p 64.

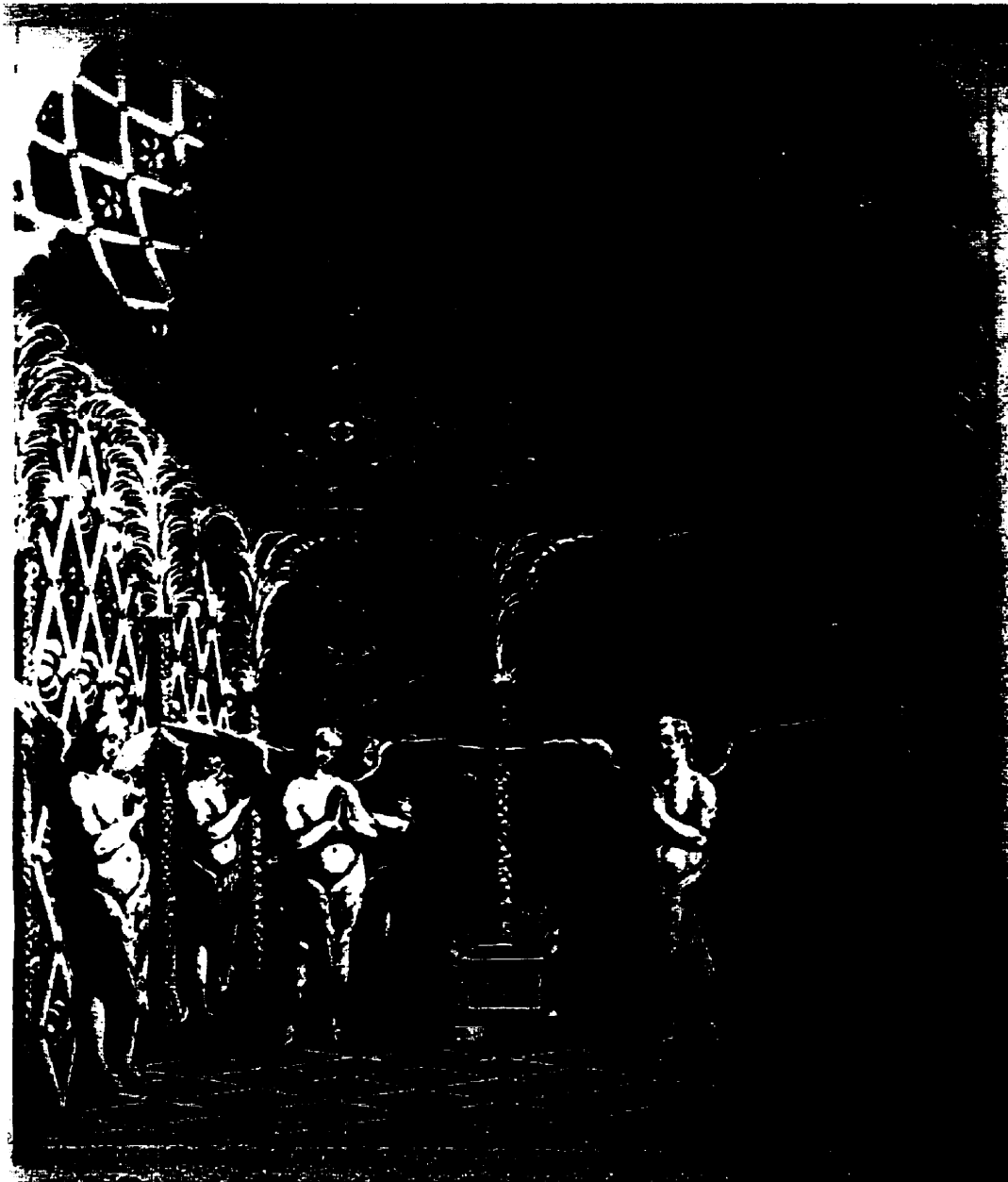
to an excess of factors and opinions but the former, leaning on mathematical arguments, will avoid confusion and always follow the path of truth. A perspective drawing is therefore the best means of representing the reality of an object. It seems disconcerting that Villalpando would say this and at the same time include in his reconstruction only one perspective drawing, the interior of the sanctuary, and no perspective of the whole Temple.

As opposed to Vitruvius who assumed optics had nothing to do with drawing, for Villalpando the study of perspective is intrinsically tied to optics given that optic's three components: vision, light and drawing, are all connected to perspective as we have seen. Optics *"deals with the method of presenting to the eyes the drawings which actually represent the objects themselves."*⁶⁷ The necessary condition, which Villalpando stresses, in order for this to be true, for the observer to truly see the building itself through the drawings, is that the observer know how the vision is produced. This can't be known without first understanding the nature of light and shadow, which are topics in the field of optics as well as philosophy. Here we see again the importance given to understanding process and theory before being able to fully know. Being a recipient is not sufficient since the drawings should not only provoke an emotion, they should serve as a scientific instrument.

⁶⁷ *"trata la manera de presentar ante los ojos los dibujos que representan realmente a los mismos objetos"*
ibid. p.71.

-THE 3 KINDS OF VISION-

Having a vision does not make one a prophet; one who is able to understand the vision, on the other hand, is closer to being a prophet. Since Ezechiel has both



Juan Bautista Villalpando - Interior view of the Holy of Holies

the vision and the power of mind to interpret it, this makes him a great prophet.

⁶⁸ "Ezequiel es arrebatado mentalmente a Jerusalem"
ibid. p.11.

⁶⁹ Pérez-Gómez A. -'Juan Bautista Villalpando's Divine Model in Architectural Theory'.
Chora Three. p.132.

Ezechiel's vision of the Temple was in his mind, since he was not taken from Babylon to Jerusalem physically, but mentally.⁶⁸ Verbal descriptions of foreign lands or things never seen before can never depict the exact reality, it is necessary to be present and experience for oneself, it is necessary to see. This may seem quite obvious, but as will become apparent, seeing is not just a bodily function, there are other forms of vision that can 'see' the invisible which, "*for Villalpando, was always present behind sensuous experience.*"⁶⁹ From the beginning, he claims the validity of imagination, which, by approximation to things known, can make images of the never seen. If we cannot make a mental picture of something unseen, he says, we can use imagination to come close to it.

Vision is not understood simply as an autonomously physical act involving the listless presence of a pair of eyes. Villalpando describes three different types of vision: 1) of the senses, 2) of the soul, and 3) intuitive vision. Intuition is the means of contemplating intellectual truth, without it the other two would be deceiving and lead to error; it is the eye of the mind which allows to see the things of the future with the same clarity with which bodily eyes see the things of the present. Prophetic vision is realised with the eyes of the mind.⁷⁰ Seeing with mental eyes, or intuition, is a means of understanding the vision, this calls for an active, personal interpretation of what is perceived in order to create one's own mental picture. Since behind the sensed there is always the invisible to intuit, this adds a sense of responsibility to the observer. Knowing that there is more to what you see than the

⁷⁰ When Ezechiel is mentally transported to Jerusalem, he is nevertheless instructed to 'see with his own human eyes' and 'hear with his own ears'. It is as if imagining senses since he is not actually using them.

surface, or that the essence lies below the surface, adds a sense of engagement and participation which today is so much lacking in our TV and flashy image culture.

V. MONTANO AND VILLALPANDO: The Mystical Reality of Villalpando's Embodied Construction

-BENITO ARIAS MONTANO-

Benito Arias Montano was Villalpando's contemporary and probably his most notable opponent. In Spain, Montano was a renowned exegete, appointed by Philip II first director of the Escorial Library and chief editor of the second *Biblia Polyglotta*. The final volume of the bible, which includes an apparatus on the Temple (a plan, a perspective and a longitudinal section) and the ethnography of the Holy Land, shows that the importance of the Temple for Montano was in its historical relevance to the people of Israel and not for being a divine model to guide human works. The last section named *De Arcano Sermone* is a discourse on the difficulties of translating from Hebrew, difficulties which probably stemmed from the difference in grammatical structure and lack of vowels, considerations which were related to Montano's preference for a literal interpretation over more allegorical methods. He also wrote *Historia Naturalis* (1601) in which he describes the animal kingdom through a systematic classification based on anatomic structure. In architecture, a similar approach becomes apparent in his claim that sacred buildings are not admirable only for their meaning but for their configuration and structure.⁷¹

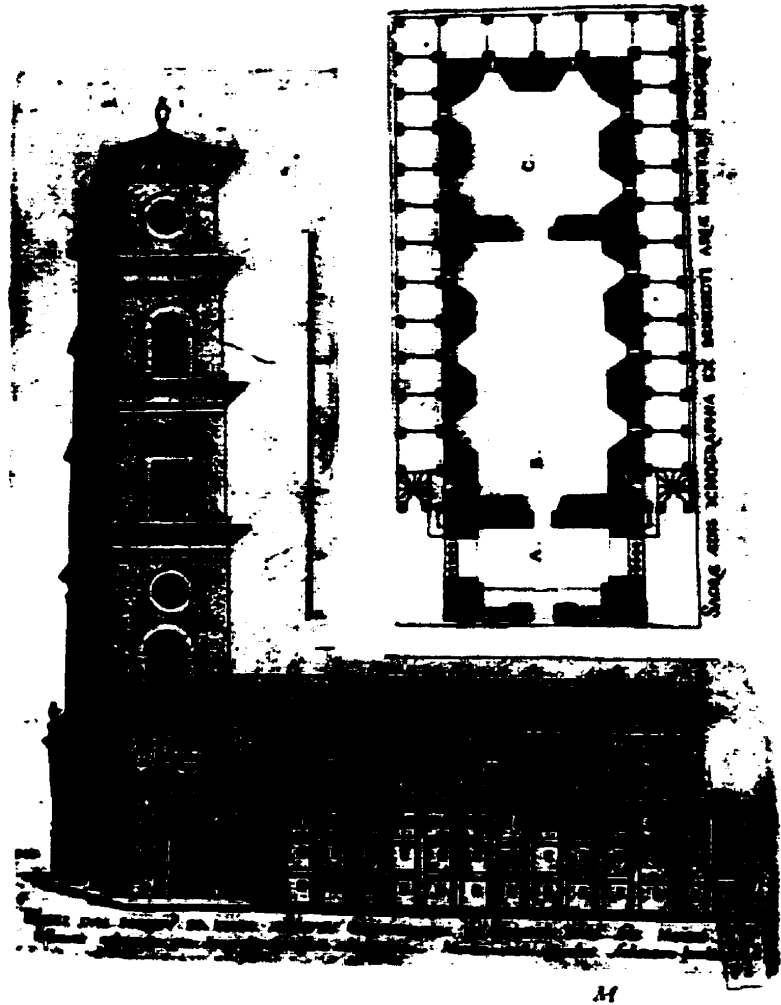
⁷¹ A.M. Ripoll: 'Del Arca al Templo. La cadena ejemplar de prototipos sagrados de B. Arias Montano.' in *Dios Arquitecto*.

Montano writes about a trilogy of sacred buildings, Noah's Ark, the Tabernacle, and the Temple, but he does not consider Ezechiel as a source, since for him, his description is not more than a vision of a prophetic building never constructed. He saw Noah's Ark and the Tabernacle as archetypes which culminated in the first Temple, the only one of worth for his purpose since the second by Herod had suffered transformations and distorted the original. Though far from being archaeological in the present sense, his attitude is considerably more historical than Villalpando's, since he relies only on texts (biblical, Jewish or classical) of 'proven historic value' therefore excluding Ezechiel. This rationalist attitude, along with the lack of symmetry and proportion of Montano's reconstruction, is perhaps at the root of the discord with Villalpando.

Using Ezechiel as a source in studies of the Temple was a traditional Christian practice, even merging the two temples had been done before, but never before had anyone undertaken these investigations whilst claiming the necessity to recover the real architectural structure of the Temple through knowledge of science and of Vitruvius as Villalpando had done. For Montano it was enough to read a number in the historical texts of the bible to define a measurement, he saw no connection or need to explain how that number could signify the presence of divine design. For him, such analogies only confused and manipulated the structures described in the scriptures, transforming them into invented edifices.

Although Arias Montano differs from Villalpando in his rationalist interpretation, on the other hand he is apparently similar in his attempts to reconcile revealed architecture with classical and pagan norms. In his

Benito Arias Montano - Ground plan and elevation of the Holy of Holies



Benito Arias Montano - Noah's Ark as Christ's coffin

work a clear christianisation of the classical orders as well as the use of anthropomorphism are apparent, though in a very different sense from Villalpando's Vitruvian man since he did not believe in a cosmobiological order. With a very descriptive drawing, Montano shows that the 'divine body', though projected onto revealed architecture, is not alive with a soul, bodily humours, customs, and obligations; instead, he derives the plan of Noah's Ark from the dead body of Christ in a coffin. The proportions of this interpretation bring to mind something fundamentally different from those presumably ascribed by a disembodied, abstract and eternal God. His conception seems to stress the mortality of Christ and not the union between the divine nature and the human, which Villalpando had so successfully expressed through the analogy of the body of Christ and the architectural idea of the Temple.

The accusation against the delusion of the *Explanaciones* came not only from Montano, in effect, it derived from the belief that architecture and a prophet's vision could not co-exist. When we say that Ezechiel did not physically witness the temple, questions then arise as to the truthfulness of the whole description. Perhaps what he saw was something that once existed or maybe it never did and never could exist either. This becomes even more questionable given the obscurity of the description, which is difficult to translate into a coherent parallel image. Proof of this is the great dissension that can be seen between different individual attempts at reconstruction. When Villalpando had met difficulty and contradiction in the reconstruction of the Temple he had recognised it as a prophetic mystery that he had to uncover in order to portray the divine in the building. Whereas others, like

Arias Montano, when meeting such inconsistencies with reality had justified the impossibility of a reconstruction by claiming that the building described in the prophecy had not existed in reality, it was not historical.

The orthodox protestant opinion on this subject, best exemplified by Johannes Lund (1638-86), was that Ezechiel's intention was not to create the image of a historical, buildable temple, his description referred exclusively to the spiritual Temple of Christ and as such had no archaeological significance. For this reason, this chapter should be ignored in relation to the architecture of the Temple. Villalpando coincided with this idea only with regards to the identification of Ezechiel with the Church of Christ, but for him this identification is precisely how the prophecy gives the architecture of the Temple a soul, its the spirit and theory of the edifice. Villalpando himself does not seem to insist on the point that Ezechiel's Temple was ever a real, tangible building, but this, in his eyes, does not discredit its importance or make it a nonentity. He says: *"We have given sufficient proof that the building described by Ezechiel was a perfect and coherent building that could have easily been built or (we can assume) that was built at a given time."*⁷² The watertight order, which the images of this prophecy adumbrate, is enough to prove that this is an archetype to be imitated in human works.

⁷² "Hemos mostrado suficientemente que el edificio descrito por Ezequiel era un edificio perfecto y coherente que hubiera podido construirse facilmente o (se puede pensar) que fue construido en algun momento"
ibid. p.38.

One of the arguments against Villalpando's approach is that Ezechiel's vision of the Temple was not the Temple of Salomon since in his vision was represented the Church of Christ, not the first Temple. Villalpando's explanation is that both are the same building and the two perfectly symbolise the Church. The future Church

that we seek as well as the present one we inhabit is symbolised by the same temple. In order to prove that both buildings are one, he shows how the measurements of parts from each coincide, making a direct correlation between religion and architectural terms.

In Villalpando's discourse on ornamentation a further defiance to this apparent dichotomy and to accusations of historic anachronisms that arose when he unified all the different temples is discernible. Villalpando draws a clear distinction between structure and ornament; as he puts it, measurements and distribution of all the structure should not be confused with the magnificence and splendour of the ornamentation since *"the first elements refer to the body of the building, the second ones are accidental"*.⁷³ Although ornament brings beauty, which of course is desirable, without it the building still stands, but if you exclude measurement and distribution, the whole thing collapses.

⁷³ "Los primeros elementos se refieren al cuerpo del edificio, los citados en segundo lugar son accidentales"
ibid. p.48.

Along the lines of Vitruvius, Alberti, and other Renaissance architects, Villalpando considers ornament as dress, therefore, he concludes, *"you can philosophise about any man and his dress: but he is still the same man whether he is dressed in good or bad clothing, but different men are never one and the same man because they are dressed in the same clothing."*⁷⁴ This gives him good reason to conclude that the second Temple (of Zorobabel) and first Temple (of Salomon) are effectively the same given that even though the second was not as magnificently ornate, the order and structure were the same. The fact that the second was shorter in height does not refute his opinion; when a man is a young boy he is short, when

⁷⁴ "puedes filosofar sobre cualquier hombre y sobre sus vestidos: sigue siendo el mismo hombre se vista con buenos o malos trajes; pero distintos hombres nunca son un solo hombre porque lleven los mismos trajes"
ibid. p.49.

he is older he is tall, this does not make him a different person. His explanation is much in line with his idea of a 'living Temple' and of course also drawn from classical anthropomorphism. For Villalpando, there has always been and always will be one Church or Temple, since the plan, structure, foundation and order are always the same. However, after Christ, it is more sacred and solid since it becomes the established and eternal Church.

Villalpando understands that the architecture of the Temple which could be no other than the true architecture contained both mystical and historical elements and therefore reconciling the different Temples of the scriptures in his reconstruction did not signify deviation from the truth.

Villalpando explains that although Ezechiel's and Salomon's are the same Temple, they are significantly different in character: the later is built and the former is the image of it. That means the Temple is a real fact, and the Church of Christ is a *figure or semblance of the house*. This gives the Temple two aspects: the mystical, represented by Ezechiel/Church, and the historical of the Tabernacle/Salomon. The Church, he says, is superior to the Temple in many ways; the image is superior to the fact. It would not be far-fetched to consider the historic aspect as being the Jewish part of the Temple that is then mystified by Ezechiel's vision. In Villalpando's view, the historic/mystical relation is best illustrated by the simple, nomadic structure of the Tabernacle of Moses, the Temple on earth and Ezechiel's Temple, the sanctuary in the sky.

The source of this thought could probably come from the Epistle to the Hebrews, a document written with

the purpose of conversion to Christianity. The author of the Epistle asserts that Christ is the highpriest of a New Covenant. The Old Covenant had a sanctuary on earth, the Tabernacle, (which prefigured the Temple). The Tabernacle was comprised of two main parts; the first, containing the lampstand the table and the presentation loaves, was called the Holy Place. Beyond the veil, in the innermost part, was the Holy of Holies where the gold altar of incense and the gold Ark of the Covenant were found. This construction was understood to be an allegorical representation of the universe, where the Holy Place was a symbol of earth and the Holy of Holies of heaven. The only one allowed to enter into the Holy of Holies was the highpriest and only in the occasion of the Day of Atonement, the time when reconciliation is sought between man and God. A part of the Epistle describes this construction:

*"By this, the Holy Spirit is showing that no one has the right to go into the sanctuary as long as the outer tent [the Holy Place] remains standing; it is a symbol for the present time. None of the gifts and sacrifices offered under these regulations can possibly bring any worshipper to perfection to his inner self; they are rules about the outward life, connected with food and drinks and washing at various times, intended to be in force only until it should be time to reform them."*⁷⁵

⁷⁵ Epistle to the Hebrews, 9: 11-12 in R. Jan van Pelt: *Architectural Principles in the Age of Historicism*. Yale University Press, New Haven 1991 p.101.

This description identifies the outer tent with observances and laws governing worship and lifestyle whereas the Holy of Holies is symbol of inner life and messianic age.

⁷⁶ Villalpando:
In Ezechielem...p.270.

In the New Testament it says: *"All that was described in [Ezechiel's] vision became true when the Lord, expiring on the Cross, shouted "and the veil of the Temple tore in two halves from top to bottom." [Mathew 27;51]* ⁷⁶ ; Christ had opened the space of the Holy of Holies to all when the veil that separated the Holy from the Holy of Holies parted in two.

Access to the divine Temple on earth, in other words access to the body of Christ that takes place in the offering of the eucharistic sacrifice, became a reality on earth. The Temple was no longer the abode of the word of a far away god, *word becomes flesh* [John 1:14] which in Villalpando's analogy becomes architecture. For this reason the importance of deciphering Ezechiel's prophecy to the meaning of El Escorial. The Temple/Christ was embodied in this construction where the union of mystical and historical, idea and matter, human and divine took place. This fulfilment of the prophecy is nowhere as implicit as in Caramuel de Lobkowitz's work on the Temple published in Vigevano in 1678. Caramuel's explanation brings to light how the ideal was materialised for the first time in this construction.



Caramuel de Lobkowitz - Perspective view of the Temple

VI. 4 RECONSTRUCTIONS AFTER VILLALPANDO Caramuel, Perrault, Newton, Perrot and Chipiez

Despite the clear divergences between Caramuel de Lobkowitz (1606-82) and Villalpando, Caramuel is, possibly more than anyone, responsible for divulging Villalpando's ideas, especially regarding the connection of the Temple to El Escorial. For Caramuel the Escorial represented the culmination of all architecture, the built ideal, as is apparent in the title of his work on this subject: *Arquitectura Civil Recta y Oblicua, Considerada y Dibuxada en el Templo de Jerusalén....promovida a suma perfección en el templo y palacio de San Lorenzo cerca del Escorial....*

Caramuel used Y.Y. Leon as a point of departure for his reconstruction of the Temple of Jerusalem, arguing for the legitimacy of a Jewish/rabbinical interpretation. This remarkably original Spanish character also confronted Villalpando's absolutism, but perhaps because of his eclecticism with more fruitful results for our interests.⁷⁷

⁷⁷ Caramuel was a man who considered it useful to know everything, from world architectures, to fables and even 20 languages including indigenous languages of the Americas. A commentator of his times expressed his praise by saying that if all sciences were to disappear and Caramuel was still alive, he could revive them all.

Although Caramuel was a sceptic of Vitruvian norms, a large part of his theories were derived from Villalpando's investigations on the Temple. His book on the Temple intrinsically opposes symmetry and classical norms, as his central argument is that correct architecture is oblique since God's creations, the planets, the celestial orbits, and the mountains, were all oblique. Similarly, also in the Temple 'the Creator' made use of obliquity. As his single example Caramuel highlights Villalpando's description of the oblique windows: "*in the Temple he made oblique windows*".

⁷⁸ See: J.A. Ramirez, 'Caramuel: Probabilista, Eclético y "Deconstructor" in *Dios Arquitecto* p.110

⁷⁹ see: A. Pérez-Gómez: 'Juan Bautista Villalpando's Divine Model in Architectural Theory'. *Chora Three*. p.148-49

This method of depositing all his conviction on isolated fragments is at odds with Villalpando's coherent completeness in his presentation not only of the Temple but its order in the whole universe.⁷⁸ Caramuel's treatise includes rigorous and detailed drawings of different parts of the building-columns, ornaments, but only one image in which we can see a top view of the whole Temple. This particular image is actually a copy of a perspective drawing from Y.Y. Leon's asymmetrical reconstruction perhaps included as reinforcement to his argument on obliquity.⁷⁹ Following this image, he also includes a very similar perspective view of El Escorial.

In Caramuel's reconstruction everything was asymmetrical; even the sanctuary was offset. This lack of symmetry would of course lead him to pose the question whether the laws of architecture should always be observed. His answer is that there are usually unpredictable circumstances that dispense of all laws. Since reason is not absolute he develops his own system of aesthetic probability. For instance, he accepts Villalpando's drawing of 'the sea of bronze' because "*its delineation is beautiful*". This premise alone is a hefty justification; when reason doubts, beauty can decide.

This conclusion added to his scepticism of an ideal totality in a way makes him a man of the future, at one with attitudes to come. His is the first architectural treatise to consider the Temple as a theme; while Villalpando's goals are largely theological, Caramuel's are purely architectural, perhaps reversing Villalpando's program by using the religious justification as a crutch. This characteristic, coupled

with his genealogical style of presenting world architectures, turned the history of architecture into an issue for the first time.

Even though Caramuel discredits classical architecture for obliquity and Salomonism, he does not oppose it with religious absolutism, as he also questions whether biblical architecture should be imitated. Caramuel denies a golden age; the past was not a better time, and proof of this lies clear in the character of the first architecture which was at the same time military and divine; God had fortified the gates of paradise. His conclusion is that: *as times change, all things also change and all things grow jointly in perfection and in age.*⁸⁰ Therefore, although it is necessary to study the architecture of the Temple, the Ark and the Tabernacle, they should not be copied in the present; in fact, the 'new Salomon's' Temple competes with the Temple of Jerusalem. However, Philip's construction seems to mark the end of architectural progress, for he considers it an eternal model of perfect architecture.

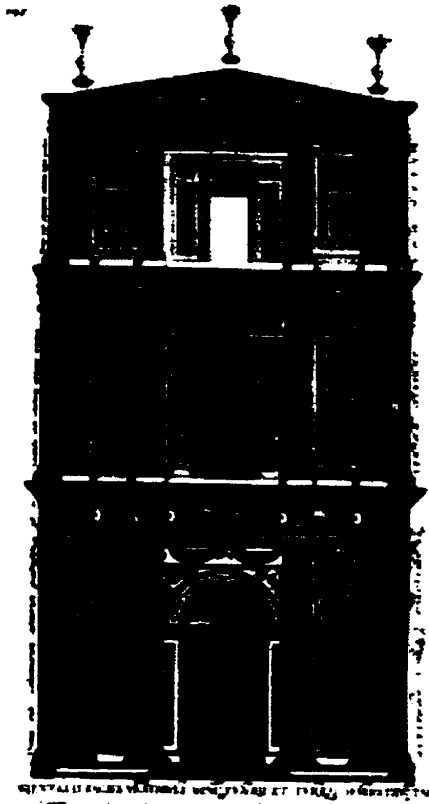
⁸⁰ "Que mudados los tiempos se muden también todas las cosas"

"Todas las cosas fueren imperfectas al principio y han crecido en perfección y en edad conjuntamente."

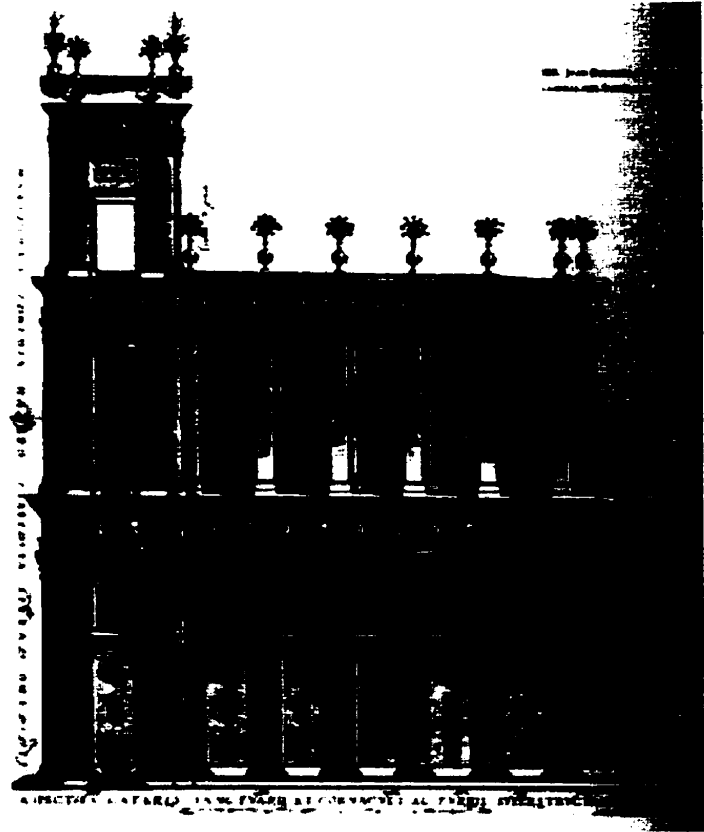
Caramuel de Lobkowitz: *Arquitectura Civil Recta y Oblicua, Considerada y Dibujada en el Templo de Jerusalem..* Ediciones Turner 1984. V.II. p.15.

-AFTER VILLALPANDO-

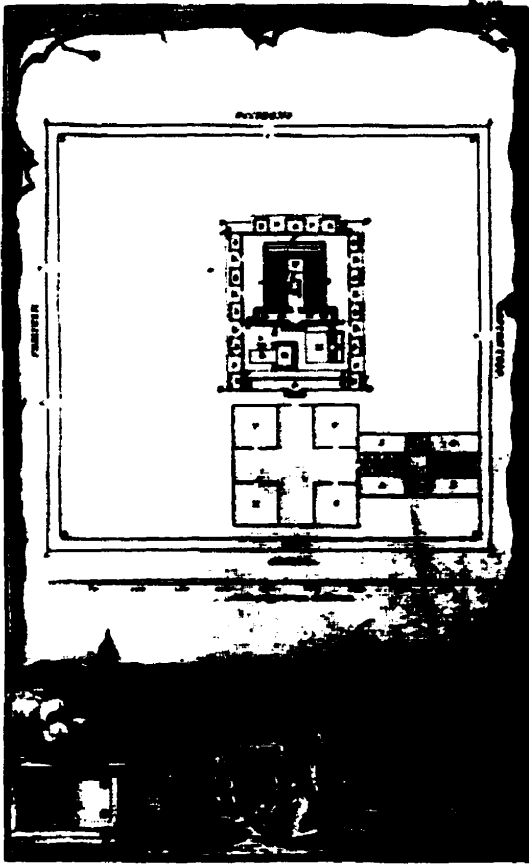
Villalpando had imposed a unity in an architecturally conceived cosmos that permitted to overcome all possible contradictions in the scriptures. The architectural perfection of the Temple and its coincidence with the classical tradition was a reassurance that there is only one divine, therefore correct, architecture. However, the most important section of the *Explanationes* was published at a time when vitruvianism and Renaissance classicism were getting buried by a new rationalism marked by the



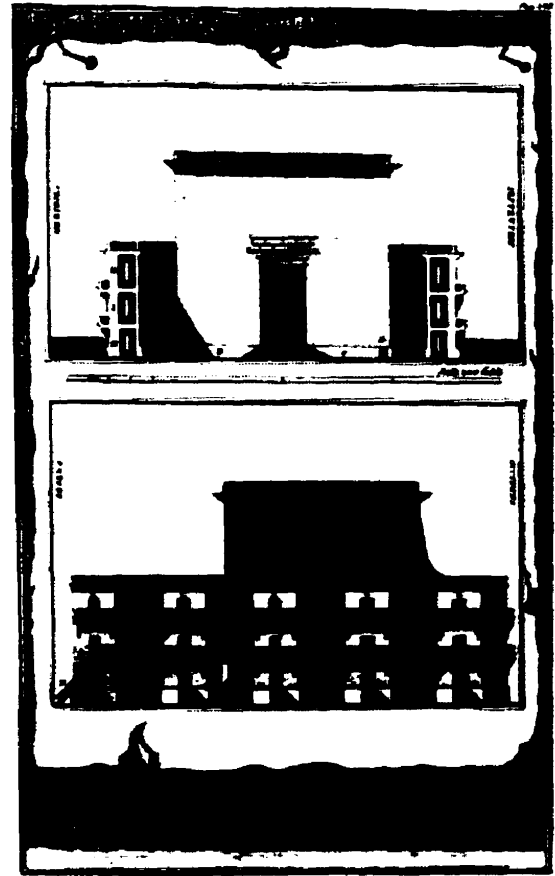
Juan Bautista Villalpando - Facade of the Sanctuary



Juan Bautista Villalpando - Side view of the Sanctuary



Claude Perrault - Ground plan of the Temple



Claude Perrault - Elevations of the Temple

scientific revolution. Geometry was seizing to describe the universe to become a tool and it was therefore acceptable for the Temple to show its greatness not by its cosmological order but by its size and riches as it did, for instance, in the first history of architecture which was written by Fischer von Erlach in 1727. (*Entwurf einer Historischen Architectur*). Apart from the need to fill in the gaps of the scriptures, it was disagreements on subjects of the Montano versus Villalpando type that mostly marked the character of the ideas to come on the architecture of the Temple. In this respect, Claude Perrault's architectural reconstruction illustrates many important differences a study of which can emphasise what made Villalpando's work significant.

-CLAUDE PERRAULT-

Louis Compiègne de Viel was the first to attempt a Latin translation of Maimonides' Mishneh Torah. Perrault got involved in the reconstruction of the Temple when Viel turned to him for the illustrations on the Middoth. In addition to the Temple drawings, Perrault included an explanatory text that was published in 1678 in Paris.

The first difference between Perrault's and Villalpando's reconstructions was the source: Maimonides' aim at specificity on the one hand and Ezechiel's mysterious ambiguity on the other. Perrault also looked at other sources: L'Empereur (1630), Lightfoot (1650) and Cappel (1657) all of whom were bent on the Jewish tradition. However, without ignoring his catholic descent but tending more towards a protestant approach, he seems to avoid subscribing

to any religious preference.

Perrault's drawings are visually very different from Villalpando's; they depict a small, un-centered and asymmetrical sanctuary. The use of columns, pilasters and entablatures is avoided (Villalpando's had 1,500 columns), and the façade is unornamented. The visible characteristics of mass and solidity of the façade are reminiscent of Egyptian architecture, or at least of what was probably superficially known of Egyptian Architecture in the 17th century. It is clear that Perrault, wanted to stress the oriental and not Greek origin of the Temple thus openly expressing his rejection of Villalpando on this issue.

At the same time, it would be a mistake to judge the dissimilarity of sources as the sole cause for the disagreement between Villalpando and Perrault, for Villalpando, considering that he didn't know Hebrew, actually incorporated numerous Jewish sources to his studies, frequently quoting rabbinical texts and defining Hebrew words. This factor was also intrinsic to his belief in the unity between the symbolic aspect, embodied by Christ, of Ezechiel's Temple and the historic existence of the Temple of Salomon. In essence the physical dissimilarity between these reconstructions does not set the two apart as much as the founding idea; Perrault ignores the 'symbolic temple'; his reconstruction is fully archaeological with the aim of delineating the 'real' history of the Temple. Perrault's project therefore falls short of demonstrating, as Villalpando does, why the Temple is the divine archetype; but this is not an unconscious choice. For Perrault the human world was autonomous from the divine. If man and his works are detached from the universe, then the Temple becomes just a human

building which perhaps deserves attention because it is subjectively classified as beautiful and not due to the invisible cause of beauty inherent in its geometry. This building would not be dignified because of its antiquity or proximity to a golden age: like Caramuel, Perrault, who wrote on the merits of moderns over ancients, did not believe in the superiority of the past.

By claiming that theory is no more than a set of instructions for efficient construction and denying the proportional correlation between microcosm and macrocosm Perrault demystifies the completeness of Villalpando's astro-biological temple. For Villalpando, not only would Perrault's design be offensive, his subjectively formed idea would be an unacceptable claim for the validity of human knowledge and autonomous building above divine wisdom. In other words questioning divine authority and doubting a unified, all-explaining and encompassing ideal order of which man could take part by understanding the Temple. Perrault does not attempt to retrace the steps of the 'first creator' as Villalpando does, his design is guided solely by human rules and not derived from those signs that could be unearthed from the mysteries of a prophecy. With regards to this issue, of all post-Villalpando reconstructions, Newton's would probably be the one that most approximates the Jesuit's idea, since he too believed, and starts from the premise that God relates to the historical world through prophecy.

-ISAAC NEWTON (1643-1727)-

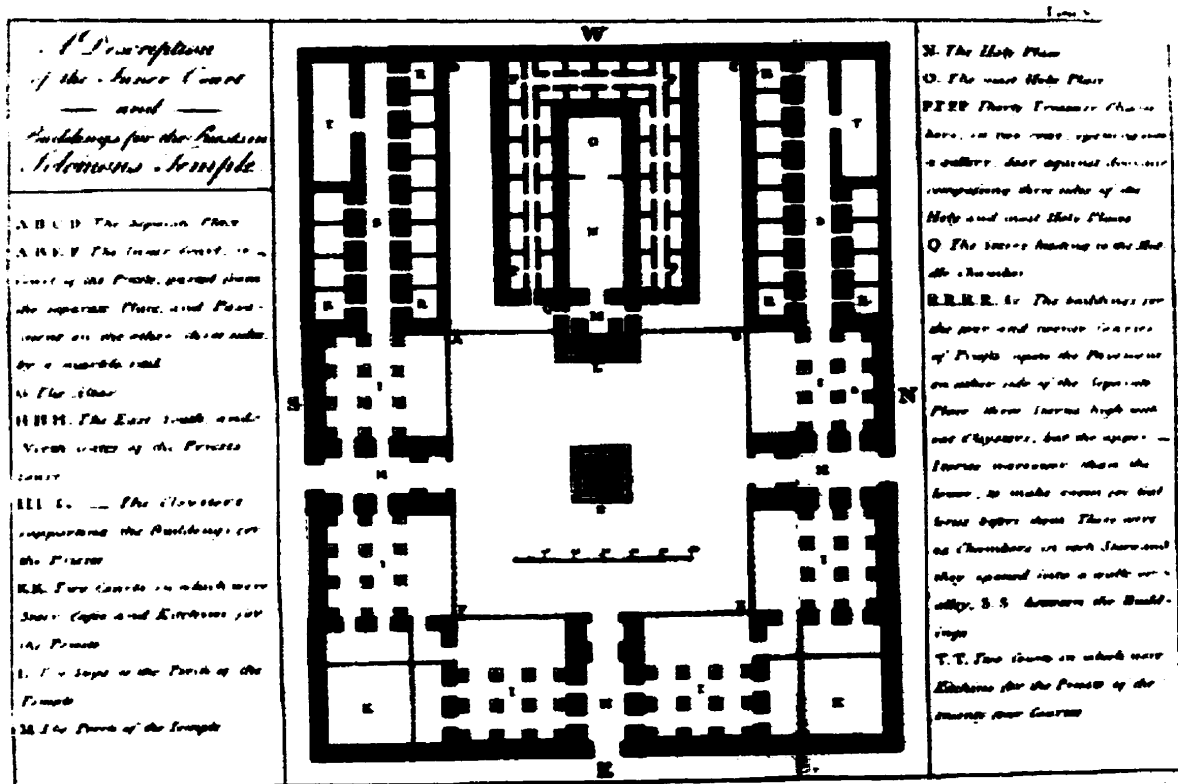
It may seem incongruous nowadays to see Isaac Newton amongst those exegetes or architects who

undertook a reconstruction of the divine archetype. Actually, Newton was not troubled by the conflicts of science versus theology, in fact theology was central to his science. His explanation of the order of the universe in mathematical terms became a model for architectural theory, one which was not entirely at odds with previous theory since it highlighted God's responsibility for the order and regularity of all. Newton's natural philosophy was also essential to Freemasonry. Masonic doctrine believed geometry to be the basis of all knowledge and 'God the geometrician' had Hiram construct the Temple with its principles. Newton's philosophy as we now know it actually came to be in the 19th century when it was secularised and voided of God.

⁸¹ See: F.E. Manuel: *Isaac Newton Historian*. The Belknap Press of Harvard University Press, Cambridge, Massachusetts 1971.

A facet of Newton's work which seems to be often overlooked are his historical writings which are comprised of mythology, interpretations of Egyptian hieroglyphs, ancient chronology founded on astronomical proofs and readings of the Bible, the most authentic history.⁸¹ His reconstruction of the Temple was first published in a posthumous book titled '*Chronology of the Ancient Kingdoms Amended*' in 1728. The reconstruction includes a description of his design as well as a plan that clearly shows his acceptance of symmetry. Like Villalpando, Newton believed in a symmetric and harmonious universe: in his 'Opticks', he talks about the correspondence of colour intervals and musical notes.

Newton was well informed about previous writings on the topic of the Temple; in fact, he also used an edition of the bible that contained a summary by Louis Cappel of Villalpando and Prado's reconstruction. Because he did not care for classicism, he criticises Villalpando



Isaac Newton - Plan of Solomon's Temple

on these grounds; the Temple for him was exclusively Judeo-Christian and entirely disconnected from Vitruvius. There are however, significant similarities, since, like Villalpando, Newton believed in the unity of the Temples and decided to start his reconstruction from Ezechiel's prophesy, therefore, though the physical plan of the two may not coincide, the mystical one does. The choice of the obscure prophet Ezechiel may seem even more disconcerting for a man of science, but not for someone that, like Newton was interested in alchemy and occult sciences. This was one of the few exceptions to the historicist post-Villalpando reconstructions.

The goal of Newton's reconstruction was to prove that the Old Testament forecasts the future happenings of the New Testament and that in the mysteries hidden in the prophecies were contained the hieroglyphs of future history. The Temple, the earliest permanent building, being the analogy of the heavenly future city, was therefore considered an ideal to be discovered and the absolute model for all future building. If the prophecies of the scriptures were fulfilled on earth, then the heavenly could be built. This makes perfect sense with Villalpando's approach; Ezechiel's prophecy was deciphered and subsequently made real by the 'new Salomon', foreshadowed by the biblical one.

-ANDRÉ PERROT AND CHARLES CHIPIEZ-

There is in the 19th century a study of the Temple which is worth mentioning for its recognition and value of the intermingling of ideality and realness which characterises a reconstruction stemming from Ezechiel's prophecy. André Perrot and Charles Chipiez's recon-

struction of the Temple was published in 1887 in their book *'Histoire de l'art dans l'antiquité'* and was republished two years later as a separate work titled *'Le Temple de Jerusalem et la Maison du Bois-Liban, restitués d'après Ezéchiel et le livre des Rois'*. Regardless of their claim for an archaeological analysis, it is Ezechiel's vision and imagination which they scientifically reconstruct.

⁸² A. Perrot and C. Chipiez: *Art in Sardinia, Judaea, Syria, and Asia Minor*. Chapman and Hall, London 1890. p.191

Perrot and Chipiez considered Ezechiel's vision more appropriate over other sources for its *"superior wealth of details and amplitude"*. They deemed unworthy those reconstructions by *Greek translators, [and] Hebrew scholars [of their time, who] were unacquainted with architecture or archaeology and merely dealt with words*.⁸² They, on the other hand, other than architecture and archaeology, dealt with memory and imagination, for they trusted Ezechiel's remembrance of the Temple since he would have known it well and would also have been familiar with the architecture of the time. It is in fact unclear from a reading of the prophecy whether Ezechiel is describing what he had known in Jerusalem before the exile or what should be constructed in the future. Perrot and Chipiez seem to embrace the non-messianic interpretation, more in accord with realistic and archaeological reconstructions, therefore clearly differentiating from Villalpando. However, it is possible to rescue some concepts that, while not so removed from Villalpando's ideal, could leave a space for creation in our own secular world. I quote a part from their introduction:

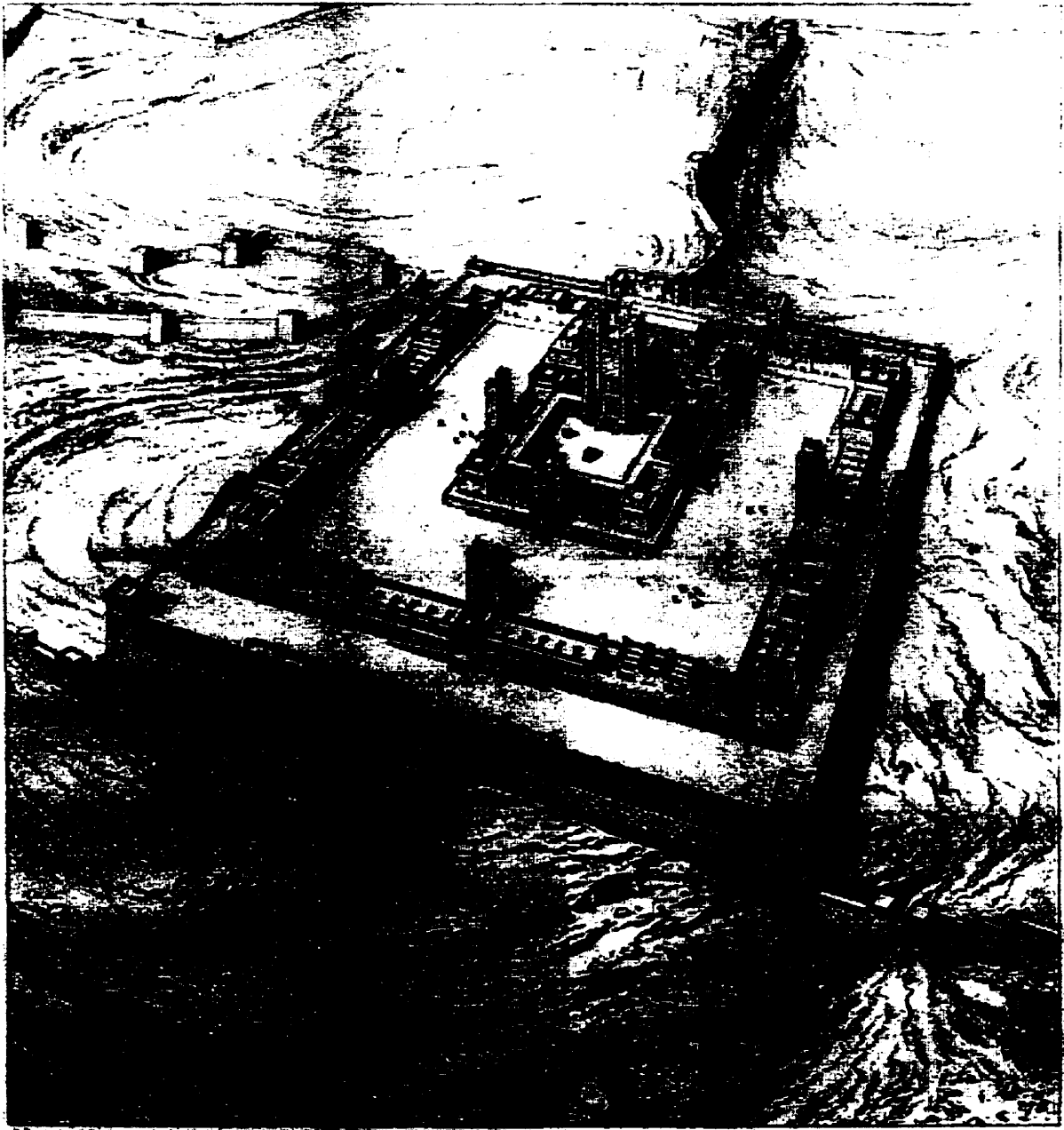
"The reader will have guessed ere now, that we have been leading up-not to a restitution of Solomon's temple, at best an edifice of slender pretensions-nei-

*ther to the Temple destroyed by Nebuchadnezzar, considerably more complicated, but knowledge of its irregular and confusing disposition is insufficient; but to that of Ezekiel, a blending of idealism and reality, the last note of sacerdotal ambition, the supreme effort of Hebrew genius in translating its ideas into concrete forms and combination of lines subject to the laws of number. It is its finest artistic monument, the only one it ever created. If this be granted, it will cause no surprise, that yielding to so alluring a temptation we should have essayed to resuscitate the great document, whose image floating mid heaven and earth, passed before the wistful gaze of the seer.....*⁸³

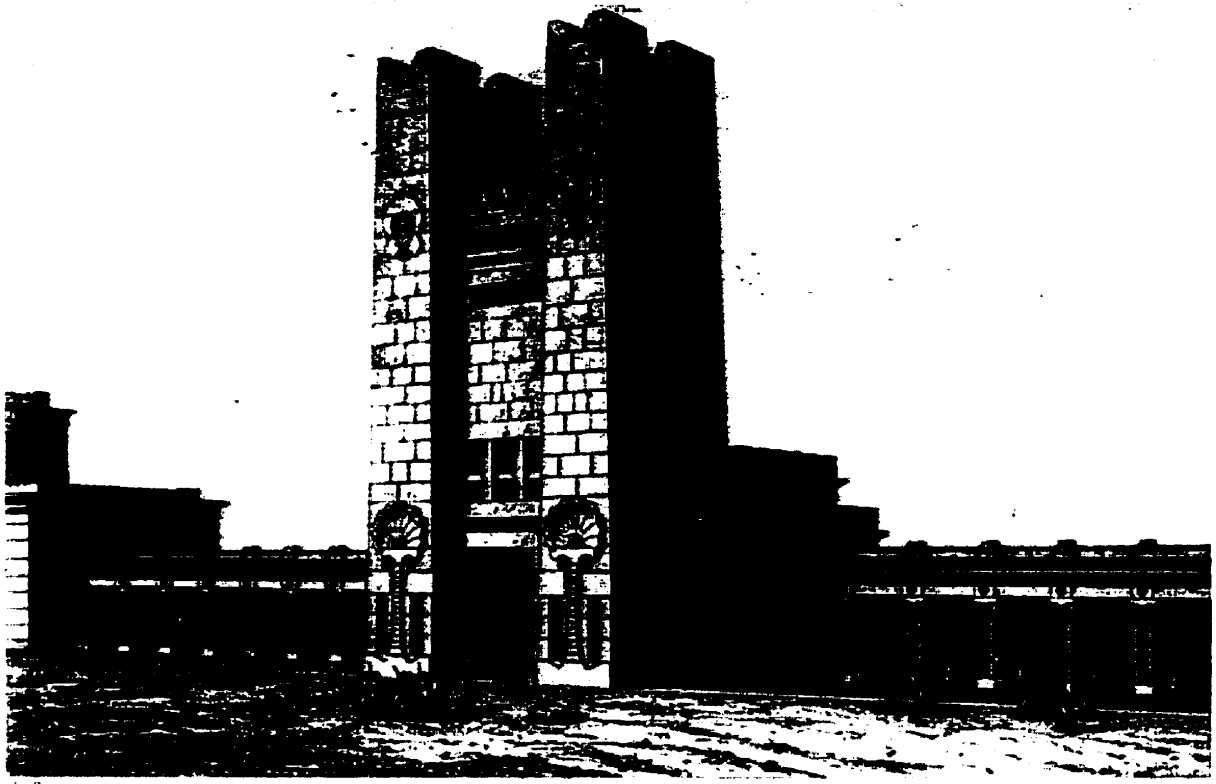
⁸³ *ibid.* p.200

In the union of idealism and reality of Ezechiel's Temple, the word could become image, but only with Villalpando and Herrera could it be translated into a concrete unity of form and meaning. There is much lacking from this reconstruction that is essential to Villalpando. But perhaps we should recognise it for attempting to resuscitate the image of the Temple *floating mid heaven and earth*, as well as, with their beautiful drawings, transforming history into art therefore not killing the illusion and keeping alive the inner drive to construct.⁸⁴

⁸⁴ F. Nietzsche: 'On the Uses and Disadvantages of History for Life' in *Untimely Meditations*. Cambridge University Press 1983. p.95



Andre Perrot and Charles Chipiez - Perspective view
of the Temple described by Ezekiel



Andre Perrot and Charles Chipiez - Side elevation of
the Temple described by Ezechiel

VII. CONCLUSIONS

Five years after the *Explanationes* were published the '*Annales Sacri*' appeared in Milan. The author, Agostino Torielli, criticizes Villalpando's treatise, not for its aesthetics, but for distorting history and for shamelessly defending evident anachronisms. Today, because of the persistence of a similar mentality to the one that formulated such criticism it is easy to adhere to its condemnation and disregard this work as a manipulation of history for the sake of another dogmatic call for the superiority of Christianity of a conquering Spain. We cannot deny the religious interests in this work; however, it is perhaps such perfunctory accusations against Villalpando which need to be rethought in order to re-discover the potentialities of architecture.

With the aid of advanced archaeological technologies, a contemporary reconstruction of the Temple might determine the style, dimensions, perhaps materials and even practices of the time; but what can we learn from this accumulation of knowledge that can inform our actions? Is it pure naiveté to hope to unearth from such ancestral footprints a trace of what once made a building sacred? Or is it an unfathomable dream to think that such unveiling is possible in our context? Villalpando shows that with the sciences of architecture and with imagination this is possible. But science alone can only describe the historical and not the eternal, it can explain things that have been but not things that are, such as art and religion. Forced to remain the same in order to be a fact, a historical reconstruction disintegrates and disappears. When the construction is fully complete, then the destruction or de-construction can begin, unless the plan that's being followed is that of the never fully deciphered uni-

verse and its meaning has to be continuously remembered and re-invented. Perhaps this could be a more contemporary way of interpreting what Villalpando meant by 'live temple'. Villalpando trusted the Temple's potentiality to orient man, not only with respect to religion, but also in his creations; since discovering the theory and ideas of this archetype, allowed for the repetition, in the human world, of the godly act of creation.

Villalpando was more concerned with questions of meaning than scientific accuracy. Through its concentration on the question of these universal meanings, Villalpando's 'story' can carry the past into the present and bridge the chasm between the historical event and contemporary preoccupations. This position, however, would unavoidably have to compromise the loss of historical 'facts' but this does not necessarily mean the loss of reality. Perhaps, contrary to historicist criticism, it is precisely a description of the character of Ezechiel's, enlivened by ambiguities, which can approximate our own reality more. Science does not admit of such ambiguity, but this is probably where human truth can be sought: like in Maimonides' reconstruction, in the unknown gap, in-between human space and sacred space.

Villalpando's concern for content while looking in Ezechiel's vision, did not result in an irrationally mystic reconstruction, for the undeniably necessary structure of the Temple could be unveiled only through the 'scientific' processes of optics. He therefore brings together science and imagination, proving *“that science, far from limiting the imagination, can unleash and multiply its effects to the point of penetrating the incontestable spheres of art”*⁸⁵ and the historical and

⁸⁵ J.A. Ramirez: 'Delirio Objetivo: Villalpando' in *Dios Arquitecto*. p. 35

allegorical saying that the three temples are different aspects of a single all-embracing intention. Maybe in the intersecting space of these otherwise contradictory terms we can recognize a venue for poetic making or perhaps a model for the possible affinity between the material and spiritual and the technological and the human, as a refuge from superficiality.

The work presented here belongs to a different world: a time when human creations could have the status of a covenant between man and God, a time when progress could be understood as a pilgrimage towards the divine and it was understood that absolute truth could not be fully uncovered in the human world. A work like Villalpando's, however, could offer a glimpse at the mysterious order of the universe through the 'idea' and image of the Temple. This image, beyond being the document for the physical manifestation of the construction, acts as a vehicle for the senses to intuit a prevailing order and consequently as the theory of true architectures.

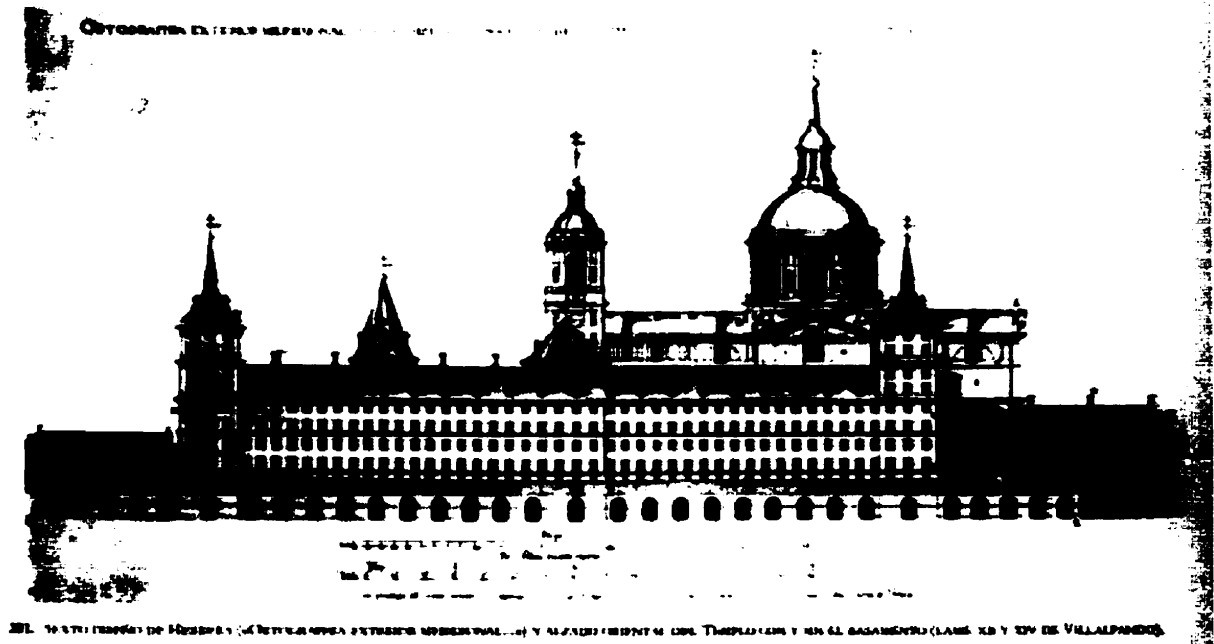
For the ill-fated heirs of an expelled Adam, the task of re-creating the original Temple is a mimetic work of the imagination. But if a part of us can be identified as well with the expelled in the hermetic account of paradise, then this recreation could pose a problem. Perhaps in this different interpretation of a genesis, where the cause for 'the fall' was the narcissistic confusion of the original with its reflection, resulting in the idolising of form, we can see a model of 'the fall' of contemporary interpretations of the sacred.⁸⁶ Throughout the ages many, like Maimonides, have warned against the tempting of idolatry and distortion of reality caused by the imagination, but as Richard Kearney says: "...in short, idols arise when imagination ceases

⁸⁶ F. Yates: *Giordano Bruno and the Hermetic Tradition*. University of Chicago Press, Chicago 1964

⁸⁷ R. Kearney: *The Wake of Imagination*. Routledge, London 1988; p.126

*to recognize images as similitudes which mirror a higher being and becomes engulfed in images which mirror themselves in an empty play of non-being*⁸⁷

In the vein of our present image oriented culture, for Villalpando the image could precede the object, but the difference lies in that his image does not replace 'reality' but directs the sight towards the transcendental in the real, whereas in a secularised world, reality becomes a reflection of the image, and this demystification reverses the totality of Villalpando's conception.



Herrera - Elevation of El Escorial (1581)

REFERENCES

Bury, J.B.: 'Juan de Herrera and the Escorial'. *Art History*. V. 9; No. 4, (December 1986). Routledge and Kegan Paul 1986.

Encyclopaedia Judaica: New York, Macmillan c1971-72; V.9: Temple of Jerusalem. V.6: Ezekiel.

Gutmann, Joseph: *The Temple of Solomon: Archeological Fact and Medieval Tradition in Christian, Islamic and Jewish Art*. Scholars Press, Missoula, Montana 1976.
-*No Graven Images: Studies in Art and the Hebrew Bible*. KTAV Publishing House Inc. New York 1971.

Herrmann, Wolfgang: 'Unknown Designs for the Temple of Jerusalem by Claude Perrault.' *Essays in the History of Architecture Presented to R. Wittkower*. Ed. D. Fraser, H. Hibbard, M.J. Levine. Phaidon Press, London 1967.

Jan van Pelt, Robert and Westfall, Carroll William: *Architectural Principles in the Age of Historicism*. Yale University Press, New Haven 1991.

Kantor Kozovsky, Lola: 'Piranesi and Villalpando: The Concept of the Temple in European Architectural Theory' in *The Real and Ideal Jerusalem in Jewish, Christian and Islamic Art*. Ed. by Bianca Kuhnel. Center for Jewish Art, Hebrew University, Jerusalem 1998.

Kearney, Richard: -*Poetics of Imagining: Modern to Post Modern*. Fordham University Press 1998.
-*The Wake of Imagination*. Routledge, London 1988.

Kubler, George: -*Building the Escorial*. Princeton University Press, Princeton, N.J. 1982.
-*The Shape of Time – Remarks on the History of Things*. Yale University Press, New Haven 1962.

Lobkowitz, Juan Caramuel de: *Arquitectura Civil Recta y Oblicua Considerada y Dibuxada en el Templo de Jerusalem*. Vigevano 1678. Ediciones Turner 1984.

Maimonides, Moshe ben: *The Guide of the Perplexed*. transl. S. Pines, Chicago 1963.

- Manuel, Frank E.:** *Isaac Newton, Historian*. The Belknap Press of Harvard University Press, Cambridge, Massachusetts 1963.
- Naredi-Rainer, Paul von:** 'Between Vatable and Villalpando: Aspects of Postmedieval Reception of the Temple in Christian Art' in *The Real and Ideal Jerusalem in Jewish, Christian and Islamic Art*. Ed. by Bianca Kuhnel. Center for Jewish Art, Hebrew University, Jerusalem 1998.
- Newton, Isaac, Sir:** *The Chronology of Ancient Kingdoms, Amended*. Histories & Mysteries of Man, London 1988.
- Nietzsche, Friedrich:** *Untimely Meditations*. Cambridge University Press, 1983.
- Pérez-Gómez, Alberto:** -'The Architecture of God'. *Design Book Review* 34 Fall 1994.
- 'Juan Bautista Villalpando's Divine Model in Architectural Theory'.
Chora Three-Intervals in the Philosophy of Architecture. Ed. Alberto Pérez-Gómez and Stephen Parcell. McGill - Queen's University Press 1999.
- Pérez-Gómez, Alberto and Pelletier, Louise:** *Architectural Representation and the Perspective Hinge*. MIT Press, Cambridge, Massachusetts 1997.
- Perrot, Georges and Chipiez, Charles:** *Art in Sardinia, Judaea, Syria, and Asia Minor*. Chapman and Hall, London 1890.
- Plato:** *Timaeus*. Transl. Francis M. Cornford. The Liberal Arts Press, New York 1959.
- Prado, Jerónimo de:** *Compendio de la Segunda parte de los comentarios del profeta Ezequiel*. transl. José Luis Oliver Domingo. Ed. J.A. Ramirez. Ediciones Siruela 1991.
- Ramirez, Juan Antonio (Ed):** *Dios Arquitecto - J.B. Villalpando y el Templo de Salomon*. (Essays by: André Corboz, René Taylor, Robert Jan Van Pelt, Antonio Martínez Ripoll). Ediciones Siruela, Madrid 1991.
- *Edificios y Sueños: Ensayos sobre Arquitectura y Utopía*. Universidad de Málaga y Universidad de Salamanca, 1983.

Rekers, Ben: *Arias Montano*. Taurus, Madrid 1973.

Ricoeur, Paul: -*Figuring the Sacred – Religion, Narrative and Imagination*. Fortress Press, Minneapolis 1995.

-*Hermeneutics and the Human Sciences*. transl. John B. Thompson Cambridge University Press, Cambridge 1981.

-*Time and Narrative*. transl. Kathleen McLaughlin & David Pellauer. University of Chicago Press, Chicago 1988.

Rodriguez, Carlos Sanchez: *Perfil de un Humanista: Benito Arias Montano*. Huelva Diputación Provincial, Spain 1996.

Rosenau, Helen: *Vision of the Temple – The Image of the Temple of Jerusalem In Judaism and Christianity*. Oresko Books, London 1979.

Rykwert, Joseph: -*The Dancing Column-On order in architecture*. MIT Press, Cambridge, Massachusetts 1996.

-*The First Moderns- The Architecture of the 18th century*. MIT Press, Cambridge, Massachusetts 1980.

Sacken, Osten: *San Lorenzo el Real de El Escorial*. Mittenwald, Munich 1979.

Sigüenza, Fr. José de: *La Fundación del Monasterio del Escorial*. Ed. Turner, Madrid 1986

Taylor, René: -'Hermetism and Mystical Architecture in the Society of Jesus'. *Baroque Art: The Jesuit Contribution*. Ed. R. Wittkower and I.B. Jaffe. Fordham University Press, NY 1972

-'Architecture and Magic – Considerations on the Idea of the Escorial. *Essays in the History of Architecture Presented to R. Wittkower*. Ed. D. Fraser, H. Hibbard, M.J. Levine. Phaidon Press, London 1967.

-'El Padre Villalpando y sus Ideas Estéticas' in *Academia VI*, Madrid 1952

Tigerman, Stanley: *The Architecture of Exile*. Rizzoli, New York, 1988.

Victor Hugo: *Notre-Dame de Paris*. transl. J. Carroll Beckwith. George Barrie, Philadelphia 1892.

Villalpando, Juan Bautista: *In Ezechielem explanationes et apparatus urbi ac templi hierosolymitani (Rome, 1596 and 1604).* Translation: *El Templo de Salomón Según Juan Bautista Villalpando – Comentarios a la Profecía de Ezequiel.* by José Luis Oliver Domingo. Ed. J.A. Ramirez. Ediciones Siruela 1991.

Vitruvius, P.: *The Ten Books on Architecture.* transl. Morris Hicky Morgan. Harvard University Press, Cambridge 1914.

Wischnitzer, Rachel: 'Maimonides' Drawings'. *Journal of Jewish Art* 1, 1974, p.16-27.

Wittkower, Rudolf: *Architectural Principles in the Age of Humanism.* Academy Editions, London 1988.

Wood, John: *The Origin of Building or the Plagiarism of the Heathen Detected.* Bath 1741.

Yates, Frances: -*Giordano Bruno and the Hermetic Tradition.* University of Chicago Press, Chicago 1964.
-'The Art of R. Lull' in *Journal of the Warburg and Courtland Institutes* V. XVII No. 1-2, 1954.