Chapter 60 *Coelum Britannicum*: Inigo Jones and Symbolic Geometry

Rumiko Handa

Many of these monuments remain in the British islands, curious for their antiquity, or astonishing for the greatness of the work: enormous masses of rock, so poised as to be set in motion with the slightest touch, yet not to be pushed from their place by a very great power; ... displaying a wild industry, and a strange mixture of ingenuity and rudeness. But they are all worthy of attention not only as such monuments often clear up the darkness and supply the defects of history, but as they lay open a noble field of speculation for those who study the changes which have happened in the manners, opinions, and sciences of me...

Edmund Burke (1887: 188)

Introduction

Inigo Jones's interpretation that Stonehenge was a Roman temple of Coelum, the god of the heavens, was published in 1655, 3 years after his death, in The most notable Antiquity of Great Britain, vulgarly called Stone-Heng, on Salisbury Plain, Restored.¹ King James I demanded an interpretation in 1620. The task most reasonably fell in the realm of Surveyor of the King's Works, which Jones had been for the preceding 5 years. According to John Webb, Jones's assistant since 1628 and executor of Jones's will, it was Webb who wrote the book based on

R. Handa (⊠) College of Architecture, University of Nebraska-Lincoln, Room 237 Arch Hall West, Lincoln, NE 68588-0107, USA e-mail: rhanda1@unl.edu

First published as: Rumiko Handa, "Coelum Brittanicum: Inigo Jones and Symbolic Geometry". Pp. 109–126 in *Nexus IV: Architecture and Mathematics*, Kim Williams and Jose Francisco Rodrigues, eds. Fucecchio (Florence): Kim Williams Books, 2002.

¹ There are two modern facsimile reproductions of Jones's *The most notable Antiquity of Great Britain, vulgarly called Stone-Heng, on Salisbury Plain, Restored*: of the 1655 edition (Jones 1972) and of the 1725 edition (Jones 1971). Although the 1655 edition was narrowly distributed, and the 1666 Great Fire destroyed the unsold copies, it was re-issued in 1725, together with Walter Charleton's refuting account of 1662 and John Webb's rebuttal of 1665. The page numbers referred to in this article refer to Jones (1971).

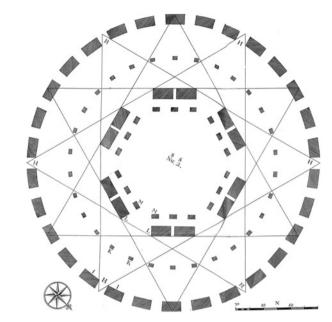


Fig. 60.1 Inigo Jones, "Groundplot" of Stonehenge. Image: Jones (1655: Pl. 40)

Jones's "few indigested" notes, on the recommendation of William Harvey, physician to James and to Charles I, and John Selden, antiquarian.² The treatise included a plan of the megalith restored (Fig. 60.1).

On the outer circle were 30 columns, to which a concentric circle of 30 smaller columns corresponded, the radius of the latter tracing the outermost intersections of the four equilateral triangles within the first circle. On the hexagon resulting from two of the four triangles were six sets of two stones each. A side of this hexagon was as wide as that of the dodecagon.

John Aubrey, seventeenth-century antiquarian and Royal Society member, characterized Jones's theory by a "Lesbian rule", a soft lead ruler that fits curbs of stones: Jones "had not dealt fairly, but had made a Lesbian's rule, which is conformed to the stone; that is, he framed the monument to his own hypothesis which is much differing from the thing it self" (Aubrey 1862: 315; Hunter 1975: 179–180). Since then, scientific archaeology has advanced our knowledge of the monument. Thirty stones make up the outer circle, as Jones depicted. However, no hexagon exists, but rather a U-shape of ten stones. No indication of Tuscan order is found in the crude cuts of the stones. Isotopic method has proven several construction stages between 2000 and 1600 B.C., ruling out the Romans, who reached the British isles in 43 A.D. Some present-day scholars have suspected that Webb published the theory of which Jones was not convinced, or simply borrowed the master's name to publish his own idea. However, the idea, if not the writing, should be attributed to Jones, and reveals the architect's sense of the past and imagination. The symbolism of Coelum are also found in other works associated with Jones.

 $^{^{2}}$ These two individuals both have connections to Robert Fludd; see Yates (1969): 64, Rykwert (1980).

Jones's Stonehenge interpretation reveals an important difference between his world and ours, as Edmund Burke's statement above suggests. Jones demonstrated the ideal through architecture, no matter if, as was in fact the case, the ideal was far from the real. Mathematics, and geometry in particular, enabled him to do so. Stone-Heng was not so much related to the original as to its ideal. It not only idealized the megalith but also the nation and monarch. It further idealized Jones's own realm, that is, architecture, the architect, and his own being. To compare, today's advanced technology makes almost any construction possible but at the same time allows us to be oblivious to what ought to be built. Professionals might ask what is timely, but often fail to question whether being timely is always good. Positivistic clarity in the matters of economy and efficiency makes it difficult for us to see ethical values. In order to fully appreciate Jones's world, we need to get at the provenance of his knowledge.

Jones's Intellectual World and His Mathematics Education

Called by John Summerson "England's first classical architect" (Summerson 2000: 1), Jones himself listed the Vitruvian qualifications for the architect:

An Architect; who, (as Vitruvius saith) should be ... perfect in Design, expert in Geometry, well seen in the Opticks, skilful in Arithmetick, a good Historian, a diligent hearer of Philosophers, well experience'd in Physick, Musick, Law and Astrology (Jones 1971: 3).

Artisans of Elizabethan England could have known of Vitruvian qualifications through English authors as well, including John Shute in *The First and Chief Ground of Architecture* (1563) and John Dee in his preface to Euclid's *Elements of Geometry* (1570).

Jones himself must have made efforts in acquiring these qualities. *Altro diletto che Imparar non trovo* ("I find no other pleasure than learning"), Jones wrote decoratively for frontispiece of his sketchbook in January 1614. Jones owned a copy of Daniel Barbaro's translation and commentary of Vitrivius's *Dieci Libri dell'Architettura* in Italian of 1567, now in the Devonshire Collection. When and how Jones acquired this book published before his birth, or any others, would be an interesting but difficult topic to pursue. Out of about 50 volumes of Jones's extant library, five bear the dates of purchase, the earliest of which is 1601, in which the 28-year-old paid two gold coins for a copy of Palladio in Venice.³ Only a portion of Jones's library has survived, which range from architecture to history, geography, mathematics and philosophy.⁴ Most of these books are in Italian, some with Jones's

³ The particular dated inscription has been considered by generations of scholars "not by Jones" or "by an Italian bookseller". For the present author's argument to affix the authorship to Jones, see Handa (2006).

⁴ For a list of Jones's extant books, see Johnson (1997, Anderson 1993). For the provenance of the George Clark (1661–1736) collection which makes up the Worcester books, see Wilkinson (1926). See also Sayce (1970).

annotation, while the only two are in Latin without notes. Jones must have been proficient in Italian but not in Latin. Jones cited about 60 authors in his *Stong-heng*, out of which only about 10 are among his extant books. The fact that quotations are in Latin with an English translation following should not refute the assumption about his language capabilities. Jones could well have drawn quotations from Italian, while Webb could have searched equivalent passages in Latin editions. An observation can be made: While much was quoted from the 1567 Latin edition of Barbaro's Vitruvius, one statement was in Italian with a reference to the 1584 edition. The statement being in Italian is natural, for the 1567 Latin edition did not include that precise passage by Barbaro. The citation is unusual, however, as the only one that specifies a particular edition, and puzzling for not referring to the 1567 Italian, which Jones owned and which included the quoted passage. What should be deduced is that Jones's 1567 copy had left Webb's hands before 1655. This might begin to explain why the book was separated from others, which stayed with the assistant until his death, and most of which are at Worcester College, Oxford.

Although we do not know where Jones learned mathematics, he grew up in a time when mathematics was valued in practical trades. A number of individuals, including Robert Recorde and John Dee, had spread the mathematics discipline.⁵ Robert Recorde, whose life ended before Jones was born, taught mathematics in London (Taylor 1954). His books, *Grounde of Artes*, 1542, on arithmetic, Pathway to Knowledge, 1551, on geometry, and *Castle of Knowledge* (1556) on astronomy, written in vernacular English, were meant for tradesmen and artisans (Johnson and Larkey 1935). Geometrical operations needed for Jones's diagrams were in book I of *Pathway*, such as drawing an equilateral triangle within a given circle, a circle within a given triangle, and a hexagon within a given circle.

Inigo Jones's Stonehenge Interpretation

Jones refuted preceding theories of Stonehenge and presented a new interpretation:

Wherefore leaving these, Stoneheng was dedicated, as I conceive, to the God Coelus, by some Authors called Coelum, by others Uranus, from whom the Ancients imagined all things took their beginning (Jones 1971: 101).

In the last portion of the book Jones gave principal reasons for his interpretation. He first listed the surrounding environment: "My reasons are, first, in respect of the situation thereof; for it stands in a Plain, remote from any Town or Village, in a free and open air, without any groves or woods about it" (Jones 1971: 67). Jones had rejected the popular belief of Stonehenge as a Druids' temple for the reason that Druids, who according to Julius Caesar lived in groves and woods, would not have been involved in complex building such as Stonehenge. Jones quoted Vitruvius:

⁵ Taylor (1954) includes 582 individuals whose lives ranged from 1486 to 1768, and 628 printed books and manuscripts on mathematics and related subjects.

In the first Age of the World (saith he) Men lived in Woods, Caves, and Forests, but after they had found out the Use of Fire, and by the Benefit thereof were invited to enter into a certain kind of Society, ... Some of them began to make themselves Habitations of Boughs, some to dig Dens in Mountains; other some, imitating the Nests of Birds, made themselves places of Lome and Twigs, and such like Materials, to creep into, an shroud themselves in (Jones 1971: 8).

Jones's second reason came from observing the roofless nature of Stonehenge: "...in regard of the Aspect; for Stonehenge was never covered, but built without a roof" (Jones 1971: 67). Jones had learned the term *hypaethros* from Vitruvius, noting in his copy, "7/hipteros the open or uncovered".⁶ Jones listed the suitable deities, quoting Vitruvius: "To Jove the Lightner, and to Coelus, and to the Sun, and to the Moon, they erected buildings in the open air and uncovered" (Vitruvius 1567: III, 2). These deities should be presented "in a clear and open view", which required the edifice not to be enclosed by walls but instead to be surrounded by columns. Jones had earlier observed in Vitruvius: "Temples open to the Air, and without Roofs, have columns on the Inside, distant from the Walls, as Courts Porticoes about them" (Vitruvius 1567: III, 1; Jones 1971: 46). Additionally, Jones considered it a "hainous matter to see those Gods confined under a roof, whose doing good consisted in being abroad".

Jones's third reason concerned the circular plan (Jones 1971: 67). Pierio Valeriano, Leon Battista Alberti, and Philander on Vitruvius were his sources. Quoting from Philander (1549: 137–138), Jones observed:

Although (saith he) the Ancients made some Temples square, some of six Sides, others of many Angles, they were especially delighted with making of them round, as representing thereby the Form or Figure of Coelum, Heaven (Jones 1971: 67).

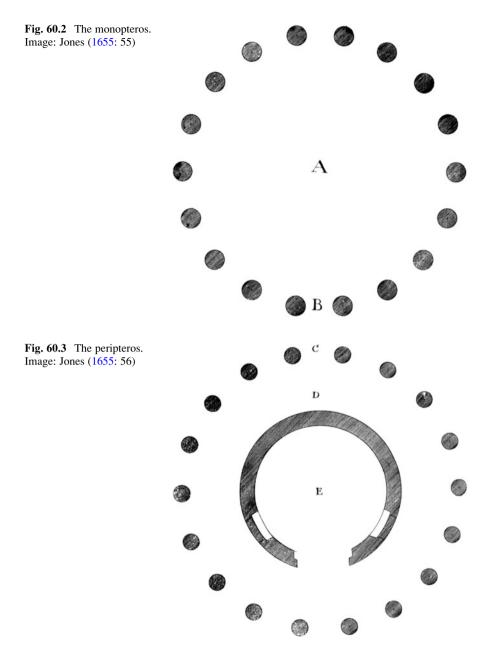
In Philander (1549: 138) Jones found a reference to circular temples with double columns:

Varro de re rustica (as I find him cited by Philander) tells us, that they had in use amongst them a round Building without any Walls, having a double Order of Columns round about, this he calls by the name of Tholus, ... A round Edifice (saith he) environed about with a double Order of Columns (Philander 1549: 138).

Jones was ready to compare two types of circular temples. Referring to Vitruvius, Jones stated, "there were amongst others two Forms of round Temples, commonly in Use amongst them, the one called Monopteros (Fig. 60.2), the other Peripteros" (Fig. 60.3) (Vitruvius 1567: IV, 7; Jones 1971: 51).

Earlier Jones had mentioned that *peripteros* "has the Cell enclosed about with a continued Wall, and at a proportionate Distance from it, the Columns place which made a Portico round about it, clean different from Stone-Heng", while monopteros was "made open, and instead of a Wall encompassed with a Row of Pillars only, having no enclosed Cell within it at all, as much conducing to our Purpose in Hand". Jones had noted on the illustration of a *monopteros* in his copy of Vitruvius,

⁶ According to John Newman (1992: 33), the spelling mistake, came from the fact Jones did not know the Greek language. The annotation is in Vitruvius (1511: 121).



"the one without sell and only with Colloms/the other winged about" (Newman 1992: 48). Jones stressed the relevance of *monopteros* to Stonehenge, quoting Barbaro in Italian: "I believe that Temple without Walls (speaking of the Monopteros aforesaid) had a Relation to Coelum (Heaven) because the Effects thereof are openly displayed to the full View of all Men" (Jones 1971: 71). A sort of

evolution can therefore be observed about the circular temple, from monopteros, peripteros, and to Stonehenge. The changes had taken place, for

Architect disdaining usual and common Forms, of both the aforesaid Forms [monopteros and peripteros] composed one. For, taking the outward Circle from the Monopteros, he made it open also as in that, but instead of the continued Wall circularly enclosing the Cell of the Peripteros, at Stone-Heng he made only an Hexagon about the Cell, leaving the same open in like Manner (Jones 1971: 51).

Architectural order of Stonehenge was the next topic. The megalith must have a specific order, for "it was the Custom of the Ancients (as in Part I remembered before) to appropriate the several Orders of Architecture, according to the particular Qualifications of those they deified" (Jones 1971: 67–68). It must have been the severest and most grave order: "[I]t is in mine Opinion," Jones stated, "Respecting therefore this Decorum used by the Ancients in building their Temples, and that this Work Stone-Heng is principally composed of a most grave Tuscan Manner, by just Proportions of an agreeable Form." Jones might also have read Shute's account:

Then the Tuscanes, beginning to builde, having knowlaige of the pillor, whiche was firste invented by the Ionians, upon the Symetrie, of a strong manne invented to buylde stronglye after the maner aforsayde, yea, and to garnishe also theyr cyties and townes beautifullye with a pillour of their owne devise whyche yet at this present time, remayneth wholle in the citie of Forence and in the countreis there about they fourmed and fashioned that pillor, whyche to thys daye is named after the sayde countrey Tuscana.... This pillor is the strongest and most able to beare the greatest of burteofal the others. And that same his stregthe cometh by his shortenes, ... (Shute 1563).

This severest and the most grave order was appropriate for Coelum, the "ancientist" and "father of Saturn". His understanding of Coelum came from both classical and contemporary authors, Apollodorus, Boccaccio, Diodorus Siculus, Plutarch, Johannes Rosinus,⁷ Thomas Godwin⁸ and Valeriano. Book 1 of *Bibliotheca* of Apollodorus (1997), a grammarian of Athens of the second century B.C., was a common guide to Greek mythology, which drew from older sources like Hesiod's *Theogony*, of the eighth century B.C., in which Ouranos, Greek equivalent to Coelum, was described as the first deity:

Ouranos was the first ruler of the universe. He married Ge, and fathered as his first children the beings known as the Hunred-Handers, Briareus, Cottos, and Gyes, who were unsurpassable in size and strength, for each had a 100 hands and 50 heads. After these, Ge bore him the Cyclopes, namely, Arges, Steropes, and Brontes, each of whom had a single eye on his forehead (Hesiod 1968).

⁷ Johannes Rosinus (1551–1626) was Jones's contemporary. Jones cited Book 2, Chap. 5 of Rosinus's *Antiquitatum Romanarum* (1645).

⁸ Thomas Godwin (1587–1642) was another contemporary of Jones. His *Romanae Historiae Anthologia. An English Exposition of the Roman Antiquities, wherein many Roman and English Offices are parallelled, and diverse obscure Phrases explained* of 1614 was intended for the use in Abingdon school in Berkshire, where he was the schoolmaster, and was revised and reprinted a number of times, till the sixteenth edition in 1696. Jones cited its Book 1, Chap. 20.

Diodorus of Sicily, who in turn drew from Apollodorus, Greek historian of the first century B.C., stated in his Bibliotheca historica:

As for the Muses, since we have referred to them in connection with the deeds of Dionysus, it may be appropriate to give the facts about them in summary. For the majority of the writers of myths and those who enjoy the greatest reputation say that they were daughters of Zeus and Mnemosyne; but a few poets, among whose number is Alcman, state that they were daughters of Uranus and Ge... (Diodorus 1935: IV, Chap. 7).

Diodorus, earlier, told the stories of Uranus, their first king, who improved his subjects' ways of living, and introduced the year, months and seasons based on the observations of the stars (Diodorus 1935: III, Chap. 56).

In time, according to Diodorus, the people accorded Uranus with immortal honours and made him the king of the universe.

In his copy of Vitruvius, Jones had made this note: "in musicke the(re) must be a proportionatt distance between the low and heavyh/the same symphathy is in the stares/the ruels of arethematicke that unite musick wth astrologiy" (Newman 1992: 27; the annotation is on Vitruvius 1567: 24). Near the end of the *Stone-Heng* book, Jones discussed the correlation of architecture, astrology and music, made possible through mathematics:

Lastly, that Stone-Heng was anciently dedicated to Coelus I collect from the Conformation of the Work. For the Conformation of the Cell and Porticus in the Plan, was designed with four equilateral Triangles, inscribed in a Circle, such as the Astrologers use in describing the twelve celestial Signs in musical Proportions (Fig. 60.4).

He quoted Vitruvius:

In the Conformation thereof, let four Triangles be inscribed of equal Sides and Intervals, which may touch the extreme Part of the Circumference: ... by which Figures also, Astrologers from the musical Harmony of the Stars ground their Reasonings, as concerning the Description of the twelve celestial Signs (Jones 1971: 70; Vitruvius 1567: V).

Jones added that the hexagon, which made Stonehenge's inner cell, was also a tool of astrologers. He quoted Philander: "The Astrologers make use of three Sorts of Figures, the Triangle, Tetragon, and Hexagon" (Jones 1971: 70). The four equilateral triangles determined not only the hexagon, but also the openings, or "comparting", of the outer columns. According to Jones, "the three Entrances leading into the Temple from the Plain, were comparted by an equilateral Triangle; which was the Figure whereby the Ancients expressed what appertained to Heaven, and Divine Mysteris also." This must have stemmed from Jones's careful observation of an illustration of a theater in Barbaro's translation and commentary of Vitruvius (Fig. 60.5).

Jones reinforced the symbolism of the equilateral triangle, referring to Valeriano: "The Magi add, that a Triangle of equal Sides is a Symbol of Divinity, or Sign of celestial Matters" (Valeriano 1556: Bk. 39; Jones 1971: 70). Finally, Jones related the stars' circular movements in the heavens to the plan of Stonehenge: "those several Stars which appearing to us in the Heavens in Form of a Circle," or "the celestial Crown", was not "improbable" for the Stonehenge

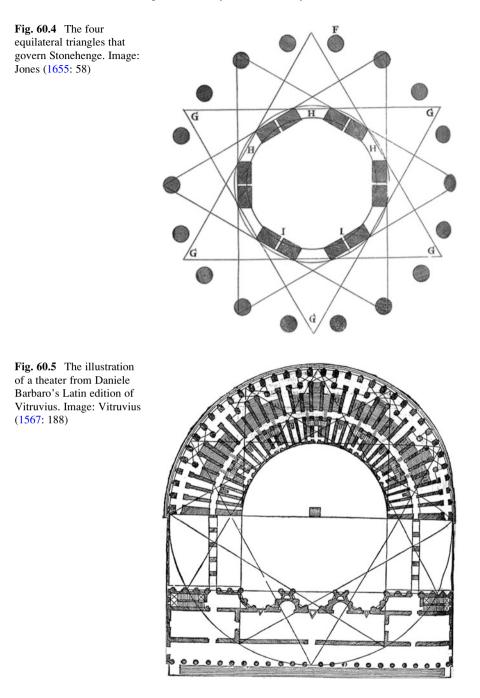
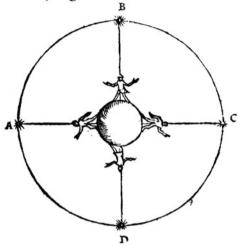


Fig. 60.6 Circular movements of celestial bodies. Image: Recorde (1556)

- A.C. The Horizonte of London.
- B. The Mcridian of it.
- A. The caffe to London, and the noneffecde to Calecut.
- D B. The Horizonte to Calceut.
- D. The eafte to Calccut, and the line of midnyghte to London.
- C. The wefte to London, and the lyne of mydnighte to Calecut.



composition, for "after Ages might apprehend, it was anciently consecrated to Coelus or Coelum Heaven" (Jones 1971: 70).

Although Jones did not identify the "Astrologers", Recorde and Dee, and also Robert Fludd, are possibilities. Although Fludd's books were in Latin, Jones's personal acquaintance on medical matters has been found by Joseph Rykwert. With Recorde's Castle alone Jones would have known circular movements of celestial bodies (Fig. 60.6).

Jones's Ideal Vision of Britain and the British Monarch

Jones's interpretation of Stonehenge as a Roman monument was "profoundly informed by Jones's vision of Britain as the true heir of Roman culture" (Strong 1973: 82). Justifying the present by the virtues of the past had been in practice before Jones. Brutus the Trojan and King Arthur represented English chivalry. The poem Faerie Queen by Edmund Spenser (d. 1599), for example, had deliberately linked Queen Elizabeth to Prince Arthur, and to Brutus, in order "to fashion a gentleman or noble person ... to be of good birth and to be aware of your past and

of the obligations imposed upon you by your past was an urgent first rule" (Kendrick 1950: 130).

Early Stuarts also likened themselves to historical figures, including James I who styled himself as King Solomon for uniting Scotland and England. In reality he was never Elizabeth's match officially or personally. The schisms between the monarch and his subjects would continue with Charles I, eventually culminating, of course, in beheading the monarch in the Civil Wars. And yet the sovereigns had an extremely high vision, as James wrote in Basilikon Doron: "A King is as one set on a stage, whose smallest actions and gestures, all the people gazingly doe behold." The monarch must therefore exemplify good laws

with his vertuous life in his owne person, an the person of his court and company; by good example alluring his subjects to the love of virtue, and hatred of vice ... Let your owne life be a law-booke and a mirrour to your people, that therein they may read the practise of their owne Lawes; and therein they may see, by your image, what life they should leade (Orgel 1975: 42–43; see also McIlwain 1918).

Such symbolism extended even to equate the king to the sun and to the god.

Why was the Roman origin advantageous? Other possibilities included, as John Speed listed, Britons, Saxons and Danes. In emphasising the Roman past Jones was not alone, however. Emerging historiography tended to discredit old chroniclers like Geoffrey and instead to rely on artefacts and vocabularies found at the site. According to William Camden, the word Britannia had nothing to do with Brutus, but was a Celtic and Greek compound meaning "land of the painted people" (Woolf 1990). Others who rejected Brutus included John Clapham (1602, 1606), John Selden and Richard Rowland (1605), and eventually Oxford University Almanac in 1675 (Levine 1987; Smuts 1987).

Coelum was the oldest in Roman theogony, and yet it was not necessarily a perfect representation, for Coelum was an archaic, and therefore less popular deity, and even in the Roman pantheon

had a rather shadowy existence . . ., for he was more a personification of the heavens than a god who was worshipped in the ancient world, and although he would have been credible as a figure in a Renaissance masque, he was less so as the centre of a Roman cult (Parry 1981: 157).

The choice of Coelum must have been architectural: it could easily be tied to a specific geometry, thus making the architect the supplier of symbolism, providing him with an advantage over theologians or poests. Jones's famous quarrel with poet Ben Jonson, long-term collaborator of court masques since 1605, stemmed from the desire of each to be superior to the other (Gordon 1975). A symbolism that was geometrical and therefore architectural must have made the architect the idea generator, while the poet was only the executor.

Where else did the notion of Coelum Britannicum appear?

If Jones considered Coelum important, then it should be natural for the same symbolism to appear in other works among his opus. The first of such instances is the design for James's catafalque of 1625 (Fig. 60.7) (Peacock 1982: 1–5; Harris and Higgott 1989). Its design sources included Domenico Fontana's Catafalque for

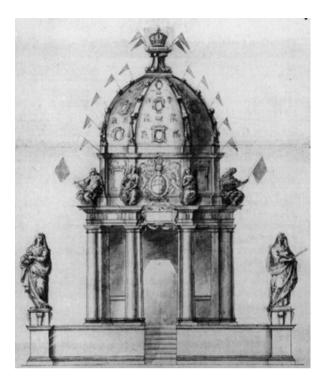


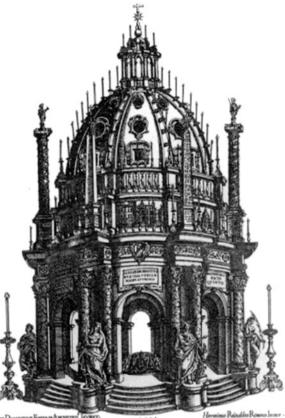
Fig. 60.7 Jones's design for the catafalque of James I, 1625. The Provost and Fellow of Worcester College, Oxford

Pope Sixtus V (Fig. 60.8) and Bramante's Tempietto; however, differences between Jones's and Fontana's designs are important here. Fontana's looks Corinthian in order, while Jones's was likely Tuscan. While Fontana used six sets of double columns on a circumference with an arched opening in-between, Jones's sets of two columns appear to line up in the radius, with a complete opening below the entablature. Jones's design is therefore closer to Vitruvius's description of monopteros. Another difference is in the dome, Fontana's being pointed and Jones's semi-spherical. All these characteristics correspond to Jones's symbolism of the heavens.

Jones's masque designs included Coelum Britannicum written by the young poet Thomas Carew, performed on Shrove Tuesday in 1633/1634 at Banqueting House, Whitehall. The allegory originated in Giordano Bruno's 1584 *Spaccio de la bestia trionfante* (The Explusion of the Triumphant Beast (1964)). Here the central figure was Jove, ageing father of the gods, who was to bring forth much-needed reform both of microcosm and macrocosm, or society as well as man, both disturbed by religious, philosophical, and scientific crises (Giordano Bruno 1964: 27).

The Devonshire Collection includes a scenery design that generations of scholars left unidentified (Fig. 60.9). Knowing the 60-year-old Jones had much control over author, story line and allegory, one cannot help but notice a small yet distinct depiction of a ring of stones in the center of this drawing. Additionally, the opening scene matches the features of this drawing, making it highly probable the

Fig. 60.8 Domenico Fontana's catafalque for Pope Sixtus V. Image: Catani (1591: Pl. 24)



Equa Donavarva Forman Anatra



Fig. 60.9 Sketch for a scenery design by Inigo Jones, with a small yet distinct ring of stones in the center. Image: Devonshire Collection, Chatsworth. Reproduction by permission of the Duke of Devonshire and the Chatsworth Settlement Trustees



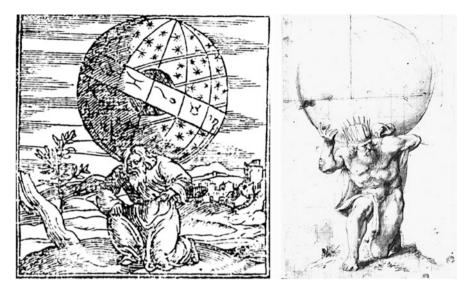


Fig. 60.10 Depictions of Atlas holding the spherical cosmos on his shoulders: (*left*) from Valeriano's *Hieroglyphihca* (1602); by Inigo Jones. Image: Devonshire Collection, Chatsworth. Reproduction by permission of the Duke of Devonshire and the Chatsworth Settlement Trustees

drawing was for this masque: "the scene, representing old arches, old palaces, decayed walls, parts of temples, theatres, basilicas and Thermae, with confused heaps of broken columns, bases, cornices and statues, lying as underground, and altogether resembling the ruins of some great city of the ancient Romans or civilised Britons" (Orgel and Strong 1973: vol. 2, 571). John Peacock has traced many elements of this scenery to Willem van Nieulandt's (Peacock 1995: 315–320). What is important, however, is the ring of stones appears only in Jones's scenery.

Jones's costume design for Atlas, a character in this masque, holding the spherical cosmos on the shoulders, resembles an illustration from Valeriano's Hieroglyphica, one of Jones's sources for Coelum (Figs. 60.10 and 60.11).⁹ Atlas's characteristics matched the Tuscan order:

As namely Tuscana, is applied unto Atlas, the kynge of Mauritania... This [Tuscan] pillor is the strongest and most able to beare the greatest of burteofal the others. And that same his stregthe cometh by his shortenes, therefore he is linked unto Atlas, kynge of Maurytania, and the piller is named Tuscana (Shute 1563).

In the same year as this masque production, Peter Paul Rubens was working in Antwerp on what would become the ceiling paintings of Banqueting House (Strong 1980: 13). A panel depicted James I as King Solomon in a circular edifice of Tuscan order under a semi-spherical dome (Fig. 60.11). Provided that Jones supplied the

 $^{^9}$ Frances A. Yates (1969: 180) made a passing remark that Jones used the 1602 edition of Valeriano's *Hieroglyphica* in Italian.



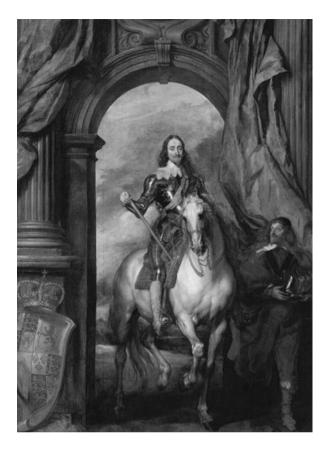
Fig. 60.11 Rubens's depiction of James I as King Solomon (Crown copyright)

allegory, we see that Jones made an explicit association of the deceased British monarch as Coelum Britannicum. This then constitutes the third instance of the symbolism.

The fourth possible instance is Charles I's portrait by Anthony Van Dyck (1638), who had come to London 6 years earlier on a royal invitation. The monarch, clad in Roman armour, is passing through a triumphal arch of Tuscan order (Fig. 60.12). Equestrian positions induced chivalry, endowing the monarch with much needed powers and virtues. The second sitter, carrying Charles's helmet and wearing a medal, stands slightly ahead of the horse, and looks up and back at the monarch. According to Oliver Millar and recent findings at Royal Collection,¹⁰ the figure is Antoine Bourdin, French equestrian teacher to Charles I. A teacher in an authoritarian portrait seems contradictory, however. Is it possible that the standing figure was our Jones himself? Enough resemblance points to Van Dyck's depiction of Jones (Fig. 60.13), including facial features, hair and scull cap, and plain but wide collars and shirt with many front buttons. While drawing the equestrian teacher officially, could Van Dyck have secretly depicted another individual? A concrete instance of such is *Emperor Theodosius Refused Entry into Milan Cathedral* by St

¹⁰ Letter from the Royal Collection to the present author.

Fig. 60.12 Anthony van Dyke, Charles I with M. de St. Antoine. Image: The Royal Collection [©]2002, Her Majesty Queen Elizabeth II

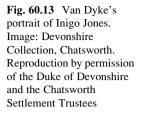


Ambrose, Archbishop of Milan, in which Van Dyck copied Rubens's painting,¹¹ but cast his contemporaries so that the allegory made sense (Gritsai 1996: 28). Just as Jones was the mastermind of court masques and of Rubens's court paintings, the architect could also have advised Van Dyck, a fairly new arrival in British court.

The painting then would reveal Jones's ideal image of the architect. To see it, we must go back to James I's coronation. A royal procession took place in London in March 1604, with a performance devised by poets Ben Jonson and Thomas Dekker and seven triumphal arches designed by Stephen Harrison.

Among them was Fenchurch arch (Fig. 60.14) with a London cityscape for the pediment, the British monarch immediately below, and a figure further below who

¹¹ Van Dyck's copy is in the National Gallery, London.

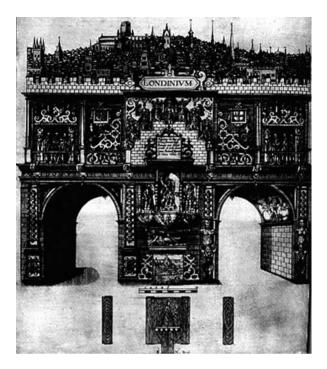




looked up the rest. Graham Parry identified this figure as Theosophia, or divine wisdom. Jonson characterized her as, all in white, a blue mantle seeded with starres, a crowne of starres on her head ... Shee was alwayes looking up; in her one hand shee sustayned a dove, in the other a serpent: ... Intimating, how by her, all kings doe governe, and that she is the foundation and strength of kingdomes, to which end, shee was here placed, upon a cube, at the foot of the Monarchie, as her base and stay.

The inscription in the entablature, "Par Domus Haec Coelo Sed minor est domino," predicated the city the monarch resided as Coelo, the heaven (Hart 1994). Now looking back in Van Dyck's composition, we see the architect, the source of wisdom to Charles I, who shone under a triumphal arch. And back in the masque Coelum Britannicum, Jones might have portrayed himself as Atlas.

Fig. 60.14 Fenchurch arch by Stephen Harrison. Image: British Library shelfmark G10866. By permission of the British Library



Conclusion

Jones's theory of Stonehenge is not a singular instance of erroneous interpretation, but an important piece of the grand ideal vision. We might interpret it as a political maneuver, but that would describe nothing but our present conditions. Jones believed in architectural symbolism if not for present, then for future, and if not for future, then for utopia. Geometry collaborated in the construction of the ideal.

Acknowledgments The author gratefully acknowledges supports provided by the Graham Foundation for Advanced Studies in the Fine Arts, and the University of Nebraska-Lincoln Research Council. Research assistants have been made available through the University Undergraduate Creative Activities and Research program.

Biography Rumiko Handa has a Bachelor of Architecture from the University of Tokyo, and a Master of Architecture, a Master of Science in Architecture, and a Doctor of Philosophy degrees from the University of Pennsylvania. She is a licensed architect (Japan), and taught architecture at the University of Michigan, Ann Arbor, and at Texas Tech University. She is currently a Professor at the College of Architecture at the University of Nebraska-Lincoln. Her research has been supported by the Graham Foundation for Advanced Studies in the Fines Arts and the University of Nebraska Research Council. She has won numerous teaching awards. Her latest publication is *Conjuring the Real: The Role of Architecture in Eighteenth- and Nineteenth-Century Fiction* (co-edited with James Potter, University of Nebraska Press, 2011).

References

- ANDERSON, C. J. 1993. Inigo Jones's Library and the Language of Architectural Classicism in England, 1580-1640. Cambridge: MIT Press.
- APOLLODORUS. *The Library of Greek Mythology*. R. Hard, trans. 1997. Oxford: Oxford University Press.
- AUBREY, J. 1862. *Wiltshire. The Topographical Collections of John Aubrey.* J. E. Jackson, ed. Devizes: Wiltshire Archaeological and Natural History Society.
- BURKE, E. 1887. An Essay towards an Abridgment of the English History in Three Books (1757). Pp. 159-488 in *The Works of the Right Honourable Edmund Burke*, vol. VII. London: John C. Nimmo.
- CATANI, B. 1591. La pompa funerale fatta dall'Ill.mo & Rev.mo S.R. Cardinale Montalto nella trasposizione dell'ossa di papa Sisto il quinto scritta & dichiarata da Baldo Catani. Rome: Stamperia Vaticana.
- CLAPHAM, J. 1602. *The Historie of England*. London: Printed by Valentine Simmes, for John Barnes, dwelling in Fleete-streete, at the signe of the Great Turke.
- DIODORUS OF SICILY. *Bibliotheca historica*. C. H. Oldfather, trans. 1935. Cambridge: Harvard University Press.
- GIORDANO BRUNO. 1964. The Expulsion of the Triumphant Beast. A. D. Imerti, trans. and ed. Lincoln and London: University of Nebraska.
- GORDON, D. J. 1975. The Renaissance Imagination. Berkeley: University of California Press.
- GRITSAI, N. 1996. Van Dyck. Kunsthistorisches Museum, Vienna.
- HANDA, R. 2006. Authorship of The Most Notable Antiquity (1655): Inigo Jones and Early Printed Books. *The Papers of the Bibliographical Society of America* **100**, 3: 357-378.
- HARRIS, J. and HIGGOTT, G. 1989. *Inigo Jones: Complete Architectural Drawings*. New York: Drawing Center.
- HART, V. 1994. Art And Magic in the Court of the Stuarts. London and New York: Routledge.
- HESIOD. The Works and Days, Theogony, the Shield of Heracles. R. Lattimore, trans. 1968. Ann Arbor: The University of Michigan Press.
- HUNTER, M. 1975. John Aubrey and the Realm of Learning. London: Duckworth.
- JOHNSON, A. W. 1997. Three Volumes Annotated by Inigo Jones: Vasari's Lives (1568), Plutarch's Moralia (1614), Plato's Republic (1554). Abo: Abo Akademi University Press.
- JOHNSON, F. R. and LARKEY, S. V. 1935. Robert Recorde's Mathematical Teaching and the Anti-Aristotelian Movement. Huntington Library Bulletin, 7: pp. 59-85. Cambridge: Harvard University Press.
- JONES, I. 1655. The most notable Antiquity of Great Britain, vulgarly called Stone-Heng, on Salisbury Plain. London:.
 - ——. 1972. The most notable Antiquity of Great Britain, vulgarly called Stone-Heng, on Salisbury Plain (1655). Restored ed. London: The Scholar Press.
 - —. 1971. The most notable Antiquity of Great Britain, vulgarly called Stone-Heng, on Salisbury Plain (1725). Restored ed. London: Gregg International Publishers Limited.
- KENDRICK, T. D. 1950. British Antiquity. London: Methuen.
- LEVINE, J. M. 1987. Humanism and History: Origins of Modern English Historiography. Ithaca and London: Cornell University Press.
- McILWAIN, C. H., ed. 1918. Political Works of James I. Cambridge: Harvard University Press.

- NEWMAN, J. 1992. Inigo Jones's Architectural Education before 1614. Architectural History 35: 18-50.
- ORGEL, S. 1975. The Illusion of Power: Political Theater in the English Renaissance. Berkeley: University of California Press.
- ORGEL, S. and STRONG, R. 1973. Inigo Jones: The Theatre of the Stuart Court. Berkeley and Los Angeles: University of California Press.
- PARRY, G. 1981. The Golden Age Restor'd. New York: St. Martin's Press.
- PEACOCK, J. 1982. Inigo Jones's catafalque for James I. Architectural History, 25: pp. 1-5. London : The Society of Architectural Historians of Great Britain.
- ———. 1995. The Stage Designs of Inigo Jones The European Context. Cambridge: Cambridge University Press.
- PHILANDER, G. 1549. Gulielmi Philandri castilionii galli civis ro. in decem libros M. Vitruvij Pollionis de Architectura Annotationes, ad Franciscum Valesium Regum Christianisimum, cum Indicibus Graeco & Latino locupletissimis. Parisiis: Ex officiano Michaelis Fezandat, in domo Albretica, e regione divi Hilarij.
- RECORDE, R. 1556. Castle of Knowledge. London.
- ROSINUS, J. 1645. Antiquitatum Romanarum. Köln: Kalcovius.
- ROWLAND, R. 1605. Restitution of Decayed Intelligence in Antiquities concerning the most Noble and Renowned English Nation. Anversa: Bruney.
- RYKWERT, J. 1980. The First Moderns. Cambridge: MIT Press.
- SAYCE, R. A. 1970. Preface. In: I. Jones, *Inigo Jones on Palladio being the notes by Inigo Jones in the copy of I Quattro Libri Dell'Architettura Di Andrea Palladio*. London: Oriel Press.
- SHUTE, J. 1563. The First and Chief Groundes of Architecture. London: Country Life Limited.
- SMUTS, R. M. 1987. Court Culture and the Origins of a Royalist Tradition in Early Stuart England. Philadelphia: University of Pennsylvania Press.
- STRONG, R. 1973. Jones and Stonehenge. In: J. Harris, S. Orgel and Roy Strong, *The King's Arcadia: Inigo Jones and the Stuart Court*. London: Arts Council of Great Britain.
- ———. 1980. Britannia Triumphant: Inigo Jones Rubens and Whitehall Palace. London: Thames and Hudson.
- SUMMERSON, J. 2000. Inigo Jones. New Haven and London: Yale University Press.
- TAYLOR, E. G. R. 1954. Mathematical Practitioners of Tudor and Stuart England. Cambridge: Cambridge University Press.
- VALERIANO, G. P. 1556. Hieroglyphica, sive de sacris Aegyptiorum aliarumque gentium litteris commentariorum libri LVIII. Basel.
- VITRUVIUS. 1511. M. Vitruvius per iocundum solito castigatior cactus, cum figuri et tabula, ut iam legi et intelligi possit. Venezia: Joannes Iucundus da Verona [Giovanni Taccuino].
- ———. 1567. *M. Vitruvii de architectura libri decem....* Daniele Barbaro, trans. Venice: Rev. ed. Venezia: Francesco de' Franceschi.
- WILKINSON, C. H. 1926. Worcester College Library. Transactions of the Oxford Bibliographical Society, I, iv: pp. 261-320. Oxford: Oxford University Press.
- WOOLF, D. R. 1990. The Idea of History in Early Stuart England. Toronto: University of Toronto Press.
- YATES, F. A. 1969. Theatre of the World. Chicago: University of Chicago Press.