

Geomantic Mathematical (re)Creation: Magic Squares and Claude Bragdon's Theosophic Architecture

Eugenia Victoria Ellis

Published in *Nexus V: Architecture and Mathematics* (June 2004): 79-92.

Abstract

The American architect Claude Bragdon (1866-1946) recognized magic squares to be "conspicuous instances of the intrinsic harmony of number" that interpret the "cosmic order which permeates all existence" by demonstrating their principles in his theosophic architectural theory and his constructed projects. With origins in ancient China, India, Islam and Hebrew *gematria*, the magic square is a mathematical (re)creation that is both an operation of the architectural imagination and a geomantic projection from the divine. The mathematical magic square is a numerical acrostic in the shape of a square of numbers so disposed with relation to one another that when summed each column, row, and diagonal equal the same magic number: opposing numbers along the crossing sum to equal the square's magic number, with the remaining numbers rotating in an implied circle with respect to the center. This figure of the encircled crossing additionally represents the divine androgyne, or the balance of opposites that equal the unity of the magic number. This androgynous figure is a magic square historically used to relate the body to the cosmos and the cosmic to the built environment. By looking at Bragdon's First Universalist Church (1907), this paper will demonstrate the relationship between the magic square as a mathematical (re)creation and the creation of a geomantic architecture regulated by the human form using lessons from the ancient Hindu *Vāstusūtra Upaniṣad* that teach divination of the constructed world through the squaring of the circle with the anthropomorphic *yūpa* and *vāstu puruṣa mandala* (magic square).



Figure 1. First Universalist Church, 1907, west façade (photo by author).

Claude Bragdon's Theosophic Architectural Theory

If it be true that the soul of the world is about to animate the materialism of modern life it will create for itself a new language of power and beauty, and architecture will again become a living art, for architecture deals in visible symbols, and visible symbols form the very language of mysticism.¹

Claude Bragdon
"Mysticism and Architecture," 1901

At first glance there appears to be nothing unusual about Claude Bragdon's First Universalist Church (figure 1). In looking at its west façade, the trained architectural eye would guess correctly that the plan of the church was patterned after the traditional Byzantine Greek-cross arrangement: the massing of the church piles up around a central dome-like structure, the square base of which projects through and is revealed to the exterior at the inter-cardinal

¹ Claude Bragdon, "Mysticism and Architecture," *The Interstate Architect and Builder* (July 13 and July 20, 1901): 10-14. This essay was read in its entirety before the third annual convention of the Architectural League of America, Philadelphia, May 24, 1901.

directions of the crossing, the limbs of the cross itself gesturing toward the cardinal directions.

Characteristic of the traditional Byzantine church is a primary west to east axis and a secondary south to north axis that emphasize an axial movement directly from the western entrance toward the east. Typically, the ancient Byzantine church would have an image of Christ the Pantokrator in the center of the dome with the Gospel in his left hand, blessing the liturgy below with his right. The square space under the spherical dome represented the earthly place where the human participant could encounter the divine. In Byzantium, this was a space where the liturgical action of the Eucharist transformed the participant into Christ through enlightenment and communion—this process had as its goal the intimate identification of the believer with Christ.²

Universalism, on the other hand, is a faith built upon a belief in the universals common to all life and the unity that binds all life into one indivisible whole. For that reason, Universalism embraces all the major world religions.³ In keeping with the faith of his client, Claude Bragdon looked toward the universal in the church's design. Bragdon would have described the design of the First Universalist Church as being in the "gothic spirit" for the similar reasons he labeled its inspiration, the Byzantine Hagia Sofia in Istanbul, a "Gothic building." However, Bragdon's definition of "gothic" was neither the popular conception at the time, nor its present-day meaning in the historical sense of the term. Bragdon's "gothic" was not an architectural style to be interpreted by distinguishing such characteristics as pointed arches, groined vaulting, and buttressed walls. Bragdon was referring to gothic in the metaphysical sense, in terms of a design process

that responds to prevailing contextual conditions: "...Gothic means organic, as opposed to arranged architecture,—spontaneous, as opposed to deliberate. It is a manner of building in which the form is everywhere determined by the function, changing naturally and inevitably as that changes..."⁴ When designed and built in the "gothic" way, architecture becomes a "living art" that relates to universals and to life itself.

The First Universalist Church is a visible symbol of Universalism that was composed using Bragdon's invisible, mystical architectural vocabulary that conflated gothic mysticism with eastern spirituality. This theory was founded on four inter-related parts that were distinct and yet indivisible due to their mutual correspondences: nature, the human body, number and geometry, and music. These four aspects formed the basis of Bragdon's gothic mysticism that emphasized a cosmological relationship between the body and the building through number, geometry and harmonic proportions.

Bragdon's theosophic architectural theory influenced those aspects of architecture *that could not be seen*. This invisible aspect of design, which is consistent throughout his work, is a symbolic emphasis on the crossing and the cardinal directions, together with encircling—a united duality of polar opposites within one "divine androgyne" (figure 2). Historically, this symbol has both gothic and eastern origins: its gothic beginnings can be traced to the "rose" and the "cross" of the Rosicrucians; and its eastern spiritual origins can be found in the Hindu "Golden Person" or *puruṣa*. In this one symbol can be found a cosmological relationship that unites aspects of nature, the body, number and geometry, and music. The encircled crossing is a "circle of orientation"⁵ that represents the primal act of architectural creation—a talismanic operation with divinatory

² Thomas F. Mathews, *Art and Architecture in Byzantium and Armenia* (Great Britain: Variorum, 1995) pp. 11-21. See also Thomas F. Mathews, *Byzantium: From Antiquity to the Renaissance* (New York: Abrams, 1998).

³ Mark D. Morrison-Reed, H. Keith Stott and Roland Bramlet, *Reaching for the Infinite: The First Universalist Church* (Rochester, NY: The First Universalist Society, 1983) pp. 4-5.

⁴ Claude Bragdon, "The Gothic Spirit," *Christian Art II/IV* (January, 1908): 165-172.

⁵ Matila Ghyka, *Le Nombre d'Or, Tome I: Les Rythmes* (France: Gallimard, 1931) pp. 65-66. See also Ghyka's *The Geometry of Art and Life* (New York: Dover Publications, 1977) p. 142.



Figure 2. Claude Bragdon, "The Divine Androgyne," *The New Image*, 1928.

roots in the geomantic act of mathematical (re)creation known as the magic square.

Magic Squares and the Cardinal Directions: Divining the Constructed World

*Though the formation of magic squares is classed today among mathematical recreations... a certain religious or mystical significance has always attached to such arrangements of numbers—perhaps because they are so mysterious, and suggest the operation of some supernal intelligence. Be that as it may, they are conspicuous instances of the intrinsic harmony of number, and as such serve as an interpreter to man of that cosmic order which permeates all existence.*⁶

Claude Bragdon, *The New Image*, 1928

Magic squares came to be known in the Western world via their documentation in the Islamic texts of the tenth century and were most probably brought into Europe by Jewish traders. Magic squares were common to the Muslims, Hebrews and Hindus; however, the most ancient documented magic square came from China.

⁶ Claude Bragdon, *The New Image* (New York: Alfred A. Knopf, 1928) pp. 164-5.

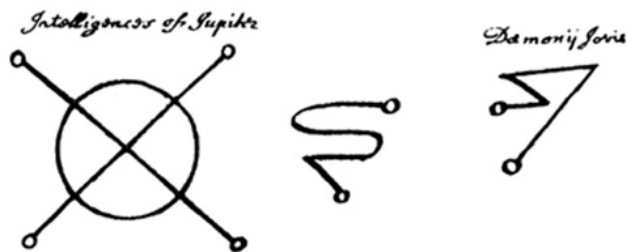


Figure 3. The Table of Jupiter, *A Treatise on Angel Magic*.

The square of three is the smallest square of numbers that can be constructed to have magical properties. Characteristic of all magic squares is that the opposing corners sum to equal $n^2 + 1$ (with n equaling the base number of the square). In other words, numeric squares become “magic” when they are “squared” at their four corners to which is added unity, the universal symbol for the divine creator, the Tao, Allah, and the Absolute (Brahman).

The magic square of three was first published in the Islamic world around the year 900 AD in an Arabic treatise traditionally ascribed to Jābir ibn Hayyān (known to Europeans as Geber). It was presented as a charm known as the *badūh* seal, which was written using the first nine numbers of an Islamic alphabet that equilibrates letters with corresponding numbers, called the *abjad* system.⁷ The first set of Islamic magic squares

⁷ The *abjad* system was a way of using Arabic letters with numerical values instead of numbers, as was done before the introduction of numerals from India. Since these letters were arranged in an archaic sequence, following the order of the Hebrew alphabet (the first four were *alef*, *bā*, *jīm* and *dāl* and corresponded to the numbers one through four), the initials of these names for the Arabic letters were taken to make the—otherwise meaningless—name *abjad* as a mnemonic device to be used in remembering them. As explained in Cammann, "Islamic

were presented in an encyclopedia published in 989 AD called the *Rasā'il*, which was composed by the Ikhwān as-Safā, a Muslim brotherhood known as the Brothers of Purity. These squares were presented as illustrations and text, and were described as small models of a harmonious Universe. Along with magic squares, the canon of the Brothers of Purity included numerical and musical correspondences that described a system of proportions based on the human figure.⁸

In the Islamic world the *badūh* seal is considered to be the seal of the archangel Uzrā'īl, each of the four archangels being associated with their own sigil derived from one of the first four magic squares. It additionally represents the planet Saturn, which is spelled *zūhal* in *abjad* letter-numerals that when summed equal 45 [(z = 7) + (h = 8) + (l = 30)], the magic sum of all the numbers in the square. Islamic magic squares often took the place of words themselves, and by interchanging numbers and letters to create sums and words that spelled the names of gods or planets, they were used as talismans to bring good fortune. The first seven Islamic magic squares from three through nine were to become associated with the seven astrological planets. In later European occult circles the magic path of the square of three, which connects the numbers in sequence, would become known as "the seal of Saturn." This Islamic science of calculating with letters was a secret science known only to "the authorities in divine learning."⁹

The first evidence of magic squares in Europe was the square of three as discussed by Abraham ibn Ezra of Toledo in twelfth century Spain. It was written with Hebrew letter-numerals in a style that became popular with later Cabalists. The earliest set of European magic squares was most probably derived from the Islamic planetary squares that were

translated by thirteenth-century Jewish and Christian scholars living in Spain. These squares are considered to be the source of the Islamic astrological and cosmological lore that helped to build the tradition of the Cabala.¹⁰ The Islamic method of interpreting letter-numeral squares and associating mathematical sums with names for God may have been influential in the development of *gematria*, a cabalistic method of interpreting the Hebrew scriptures by interchanging words whose letters have the same numerical value when added.

In the Table of Jupiter (figure 3) that was derived from 17th century alchemical and Rosicrucian sources,¹¹ we can see the "first Persian square of four" written in both Hebrew letter-numerals and Arabic numerals adjacent to a list of "divine names" and their magic sums. The origins of this square can be seen to be from Islamic sources due to its construction technique, which according to the Islamic method of writing begins with the upper right-hand corner: the diagonals are marked with a dot and the numbers are written horizontally in the dotted squares from right to left. The unmarked "houses" are filled in reverse by beginning with the lower left-hand corner. The square's construction emphasizes the diagonal and its crossing with the result that both the diagonals and the pairs of numbers encircling the crossing sum to equal thirty-four, the magic number of the square. Due to the mathematical reasoning of the square's construction, the "intelligence of Jupiter" is indicated by a talismanic sigil that is a cross inscribed within a circle: one "divine" source for the "rose" and the "cross" of the Rosicrucians and Bragdon's "divine androgyne."¹²

¹⁰ Cammann, "Islamic and Indian Magic Squares, Part I," p. 204.

¹¹ As found in *A Treatise on Angel Magic: Being a Complete Transcription of Ms. Harley 6482 in the British Library*, translated by Adam McLean (Grand Rapids, MI: Phanes Press, 1989).

¹² Bragdon's square was created using the Indian method of writing, which would begin in the upper left-hand corner and move horizontally through the rows from left to right. Although we refer to our numbering system in the West as being "Arabic numerals," these numbers most probably came from India. The first recorded use of "Arabic" numerals is in Baghdad, where an Indian scholar

and Indian Magic Squares, Part I," *History of Religions* 8/3 (February 1969): 181-209, p. 190.

⁸ Erwin Panofsky, *Meaning in the Visual Arts* (Chicago, University of Chicago Press, 1955) pp.76-77.

⁹ Tewfig Canaan, "Arabic Magic Bowls," *Journal of the Israel Oriental Society* XVI (1936): 79-127, pp. 89-92.

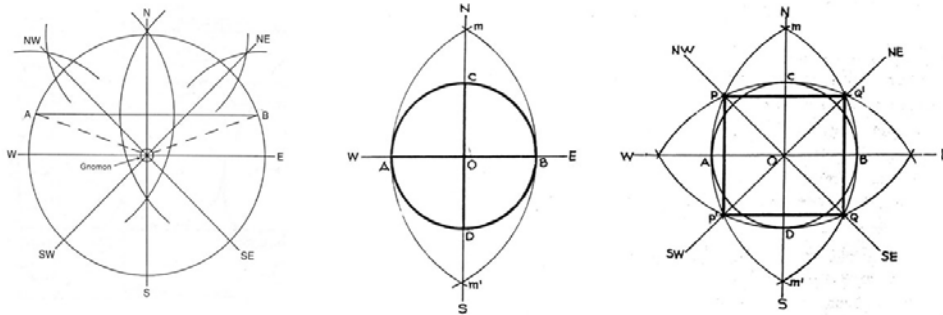


Figure 4. Determining the cardinal points with a gnomon and using circles to define the original square.

The Islamic magic square was worn about the neck as a talisman, or engraved on a ring and worn on the finger to ensure one's well-being and to bring good fortune to one's immediate environment. In the act of casting out evil spirits, magic circles, squares and figures were sketched on the ground aligned with the cardinal directions and then the demoniac person would be seated in the center while an incantation was read.¹³ The encircling of a person in danger was used as a means of protection from evil: the disciple would be protected within and oriented to the earth below and the universe above by becoming “square with the world.” The talismanic technique is a geomantic procedure that projects the divine from above to protect the earthly below to create auspicious conditions by guaranteeing alignment of the microcosmic with the macrocosmic.

Divining the constructed world was a geomantic magical procedure used by the Ancients to orient their earthly creations with the cardinal directions of the world. It was necessary to have “knowledge of the circle and the line” in order to square the earth.¹⁴ The word geomancy

is derived from the Greek *geo*, literally meaning the earth, and *manteia*, meaning divination or coming from above. Geomancy is the act of projecting lines onto the earth from the cosmos above through marking the ground and encircling. This talismanic operation projects the magic square’s properties upon the ground at the human scale as regulating lines to provide auspicious conditions for the construction of the built environment and to protect the constructed world. This is a “divine” act with heavenly origins. Common to the Muslims, Hebrews and Chinese was the belief that the source of the knowledge of constructing magic squares was divine: it was not a human invention, but was revealed by God to someone on earth.

The Ancients constructed according to divine co-ordinating principles to align their built works with the cardinal directions of the earth with respect to the cosmos.¹⁵ This was an operation intended to embody the divine in an earthly construction that began with the human body at its center and origin. The body marked the beginning and the first point of contact with the divine through its *axis mundi*. The divine

appeared in 771 AD with a treatise on astronomy using the Indian numerical system that was later transmitted to the West by the Arabs by way of Moorish Spain.

¹³ Shurreef, *Qanoon-E-Islam, or Customs of the Mussalmans of India*, (Madras, 1863 republished Lahore, Pakistan: Zulfiqar Ahmad, 1973) pp. 218, 231-239.

¹⁴ Alice Boner, Sadasiva Rath Sarma, Bettina Bäumer, *Vāstusūtra Upaniṣad: The Essence of Form in Sacred Art* (Delhi: Motilal Banarsidass Publishers, 1996) (original publication 1982). In India there is no principle distinction made between the Fine Arts and the Practical Arts. A *Sthāpaka* is one who has knowledge of the circle and the

line and can be either a sculptor or an architect. *Śilpa* refers to sculpture and *vāstu* refers to architecture. Although this *upaniṣad* is directed toward both the sculptor and the architect, it is called a *vāstusūtra* most probably because it does not have to do with “modeling” the three-dimensional qualities of a work or sculpture, but has to do with its layout and geometric composition, which in either disciplines has to do with the organization of the work in plan and in elevation.

¹⁵ Vitruvius discusses this procedure in Book I, Chapter VI.6 of *De Architectura*, translated by Frank Granger (Cambridge: Harvard University Press, 1931).

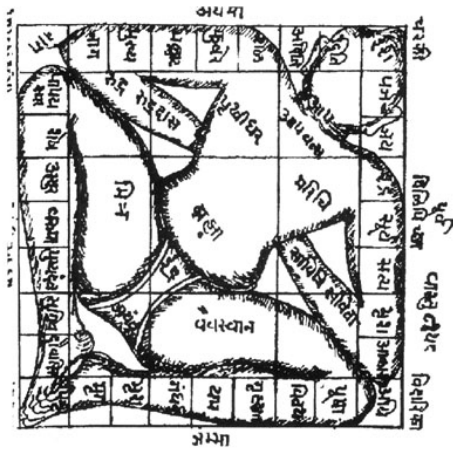


Figure 5. *Vāstu Puruṣa Mandala*.

resource for geomantic procedures included the positions and the paths of the sun, the moon, the stars and the planets. The instrument the Ancients used to take their measurements was the *gnomon*, which literally means interpreter. The *gnomon* is a stick, often in the form of the human body, which is used to orient one's position on earth with respect to the greater universe of the cosmos by being encircled: the intersection of the *gnomon's* cast shadow and the circle in the morning and the evening at the summer solstice locate solar east and west from which north and south can be determined (figure 4).

Geomancy in India is called *Vāstu Śāstra*: *vāstu* means to dwell and *śāstra* means science.¹⁶ *Vāstu Śāstra* is a talismanic procedure used to orient the built world to the cosmos through squaring the circle using a *gnomon* and the *vāstu puruṣa mandala* (figure 5), which is a magic square in the anthropomorphic form of a sacrificial victim lying face down in a *yantra*

¹⁶ *Vāstu Śāstra* is a geomantic art that was fully developed by +1st century. Its tenets were not written down in any one ancient manuscript but developed out of a corpus of over twenty texts referred to as *Vāstu Vidya* dating back to the +6th century, most of the previous material having been lost. The above information was found in: Jin Purush Ashok Padam, *Vāstu: Reinventing the Architecture of Fulfillment* (Dehradun, India: Management Publishing Co., 1998) and Vibhuti Chakrabarti, *Indian Architectural Theory: Contemporary Uses of Vastu Vidya* (Delhi: Oxford University Press, 1999).

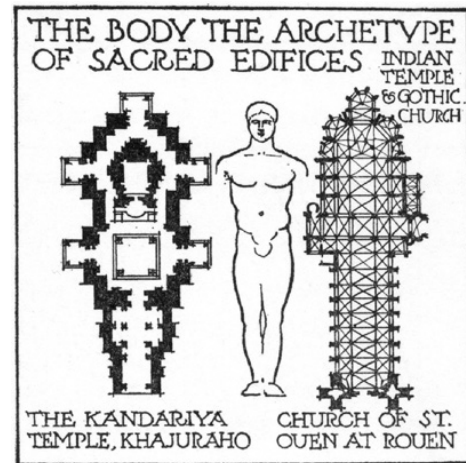


Figure 6. Claude Bragdon, "The Body, The Archetype of Sacred Edifices," *The Beautiful Necessity*, 1910.

that serves "as an interpreter to man of that cosmic order which permeates all existence." The individual "houses" (*pāda*) of the square correspond with parts of the human anatomy; the navel of the *vāstu puruṣa* is located at the square's origin in the center. The *pāda* (literally feet) are to human scale and are "regulated" by the human pace in moving through the houses. The individual *pāda* control the disposition of the whole and determine the function or use of the corresponding space to be constructed. In India, the human sacrifice is related to the sun, because "the Brahman in the Sun and the Brahman in Man are One."¹⁷ The human frame, the constructed temple, and the whole of the universe are analogical equivalents; therefore, the parts of the temple correspond both to the parts of the human body and to the parts of the universe itself.

The *yantra*¹⁸ represents an idealized sanctuary of the mind and is characteristic of Hindu temple architecture (figure 6).¹⁹ The temple's

¹⁷ This is a reference that Bragdon copied down from Max Müller's *Scared Books of the East, the Upaniṣads*, Bragdon Family Papers, Department of Rare Books and Special Collections, University of Rochester Library, A.B81, Box 36, Folders 1-3, dated 04/20/1891.

¹⁸ Material on the meaning of the *yantra* has been taken from Heinrich Zimmer, *Myths and Symbols in Indian Art and Civilization* (Princeton: Princeton University Press, 1946) and Ajit Mookerjee and Madhu Khanna, *The Tantric Way* (London: Thames and Hudson, 1977).

¹⁹ The Kandariya Temple in Bragdon's illustration is comprised of three sequential magic squares, or *yantras*.

central space is called the *brahmasthāna* and is in the shape of a square. This central area of the temple is open to the sky and acts as a conduit for the exchange of communication between the earth and the cosmos. Standing uprightly, the central *axis mundi* of the human body and that of the Hindu temple each communicate with the universe—located in the spine of the body and the *brahmasthāna* of the temple. The *brahmasthāna* is set within another square, both of which are oriented to be “square” with the path of the sun. The generic Hindu temple form is a nine-square grid, or magic square of three.²⁰

The magic square of the *puruṣa* is a *yantra* that becomes a *mandala* when it is encircled during the act of shadow casting to orient it with the sun. The geomantic art in India begins at the navel with the casting of a shadow using a gnomon, synonymous with the sacrificial post, or *yūpa* (figure 7), and symbolic of the upright sacrificial person. The geomancer is a “sacrificer” and the casting of the initial shadow to orient the *vāstu puruṣa mandala* to be “square with the world” is a rite of initiation and symbolic death.²¹ *Vāstu Śāstra* is body-centered science that relates the body of the building to the human body through divine analogy. This is a procedure that “protects” the constructed world by encircling and by providing a “divine” framework to ensure that architecture will correspond to cosmic laws. This is an anthropomorphic procedure that through analogy guarantees alignment of the earthly with the divine.

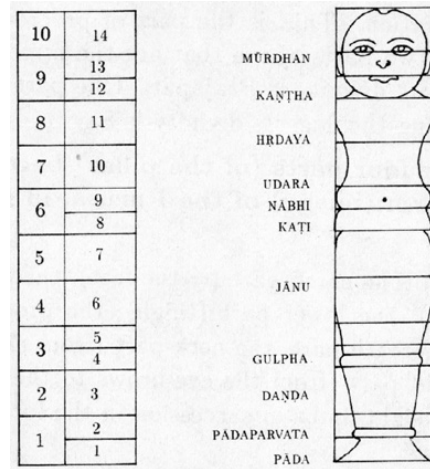


Figure 7. *Yūpa*, or sacrificial post (from *Vāstusūtra Upaniṣad: The Essence of Form in Sacred Art*).

Body Building: The Occult Anatomy of the First Universalist Church

*If the body is a temple, it is not less true that a temple, or any work of architectural art, is a larger body which man has created for his uses, just as the individual self is housed within its stronghold of bones and flesh. Architectural beauty, like human beauty, depends upon the proper subordination of parts to the whole, a harmonious inter-relation between and adjustment of these parts, the expressiveness of each of its functions, and when such functions are many and diverse, their reconciliation, one with another. In the ideally perfect human form are exemplified all those principles of natural beauty dispersed throughout nature.*²²

Claude Bragdon
 “Mysticism and Architecture,” 1901

The magic square is a universal symbol that was used to align the earthly with the cosmos. It is a mathematical (re)creation that is an operation of the active intellect, which guides the architectural imagination in orienting the constructed world to be square with the universe. Although the magic square itself is not visually apparent in the First Universalist Church, it is symbolically present in its overall design; and the symbol of the encircled

²⁰ Frederick W. Bunce, *The Iconography of Architectural Plans* (New Dehli: D. K. Printworld (P) Ltd., 2002).

²¹ The symbolism of the temple and the body in India was found in several writings of Ananda K. Coomaraswamy, “*Svayamātrnā: Janua Coeli*,” “An Indian Temple: The Kandarya Mahadeo,” and “The Symbolism of the Dome,” in *The Door in the Sky* (Princeton: Princeton University Press, 1997).

²² Claude Bragdon, “Mysticism and Architecture.”

crossing, or the “rose” and the “cross,” is evidenced throughout.

In looking at the schematic plans of the First Universalist Church together with its section (figure 8), the organization of the project is clear. The church is a tripartite scheme composed of the larger body of the temple, or sanctuary, connected with a link to a smaller body of support spaces. Its west-east axis is emphasized due to this hierarchical sectional configuration that lengthens the building along this line. Its design is “universal” because it is a conflation of eastern and western traditions. Consistent to both traditions is a major axis in the west to east orientation; however, Bragdon is selecting symbolic attributes from several sources and combining them into one unique whole specifically for this “universal” project.

The Byzantine Greek-cross plan of the larger body of the temple is expressed in the section drawing where it can be seen to be rising out of the whole. Characteristically, the movement into and through a traditional Byzantine church is axial: the participant would enter the western elevation and move in an eastern direction through the nave of the church toward the altar, which is also true of the traditional Christian church. Contrary to tradition, there is an axial shift at the entrance to Bragdon's church.

The First Universalist Church is located on what is today a broad, heavily trafficked street. Nowadays, members of the church enter in the center of the north elevation and move into the sanctuary from the eastern end. When the church was designed in 1907, Clinton Avenue was a broad boulevard with slower traffic conditions and churchgoers would be dropped off in front of the church and would enter through the two porticos at the west elevation that face toward Washington Square Park across the street. These porticos are symmetrically placed to the north and the south of a loggia that provides a transition space to separate the sanctuary from the outside world. The participant would enter from the west and then shift to move along a north-south axis prior to

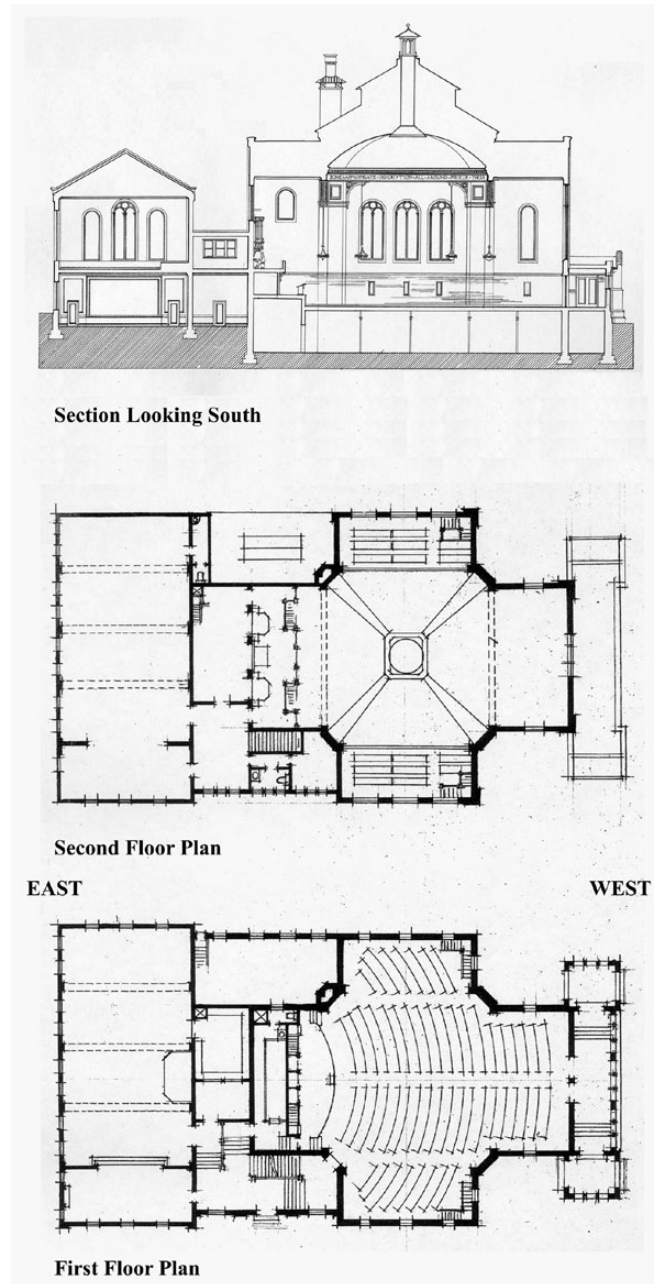


Figure 8. First Universalist Church, 1907, schematic floor plans and section (Department of Rare Books and Special Collections, University of Rochester Library).

entering the nave itself. This axial shift is a very “modern” solution to a traditional design problem that has medieval origins.

On the first floor plan, the two porticos and loggia appear almost as appendages to the Greek-cross, or as feet to this anthropomorphic plan. Bragdon's inspiration came from a

diagram in Hargrave Jennings' book *The Rosicrucians* first published in 1870, the key points of which Bragdon reproduces for the readers of his *House and Garden* article of 1902 on "The Bodily Temple" (figure 9).²³ It is apparent from Bragdon's drawing that he sees there to be a relationship between the body and the building: symmetrical to the upper left-hand corner drawing of a Christian church is a representation in the upper right-hand corner of a crucified Christ—a one-to-one body-building analogy. The male and female pillars of the central diagram form a gateway into the nave, or the belly of the building. In the First Universalist Church the two porticos were most probably modeled after these pillars; however, Bragdon's porticos are gateways themselves that transition the sacred and profane spaces.

On the second floor plan, simultaneous conditions are shown of the sanctuary: to the north and south are the two choir loft plans and to the east is the organ loft plan; however, over the nave the reflected ceiling plan is represented with a "belly-button" indicated at its center. In section, this center-point is connected directly to the lantern above.

The original First Universalist Church in Rochester was built in 1846 and was extensively renovated in 1901, which included the addition of many magnificent stained glass windows. In 1907, the parishioners were made a generous offer for the church property by real estate promoters. Bragdon was given the commission for the design of a new building to be located a few blocks south of the original church, with the caveat that the stained glass windows be incorporated into the new church. An unusual feature of Bragdon's design was the relocation of the "rose window" to the ceiling at the center of the nave. Although the church's design is a conflation of eastern and western Christian traditions, Bragdon's intention was other than simply replacing a Byzantine Christ the Pantokratōr with a Christian rose window.

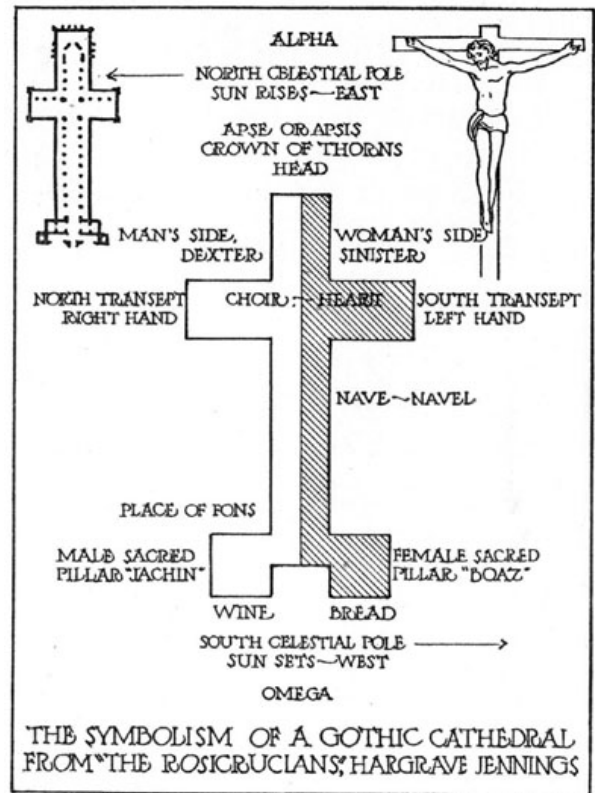


Figure 9. Claude Bragdon, "The Symbolism of a Gothic Cathedral," *House and Garden*, 1902.

Later in 1911 Bragdon was to write "that God works by sacrifice: that His universe is itself His broken body." At first thought, it would seem that Bragdon was referring to Christ; however, he prefaces this comment by referring to "the Golden Person, the Light of the World."²⁴ The "Golden Person" is the *puruṣa*, the cosmic person who is man and God alike. Unlike the Byzantine who identifies with Christ through enlightenment and communion, the Hindu body-image is inseparable from God, because Brahman is one in both man and the sun—hence, the Golden Person. The First Universalist Church is a temple modeled after God's broken body, and as such man's broken body, which "depends upon the proper subordination of the parts to the whole." Used in the design process, this symbolic sacrifice regulates the lines of architecture by reconciling functions part by part to be in harmony with the whole, which is what makes architecture a "living art."

²³ Claude Bragdon, "The Bodily Temple," *House and Garden* (May 1902): 192-196, p. 195.

²⁴ Claude Bragdon, "Symbols: A Fragment of Thought," *Orpheus* 15 (July 1911): 307-311, p.308.

In looking at the section drawing, it is apparent that Bragdon's intent was for the First Universalist Church to correspond to the bodily temple. This is a schematic drawing and not the final design, which more clearly illustrates Bragdon's imaginative design process than the final built work. It is evident that the sanctuary was thought of as a *brahmasthāna* that could communicate directly with the cosmos through its central vertical *axis mundi*. The light from the lantern above theoretically could be channeled to the rose window below to become a sun-column for the sanctuary. In plan the rose window is represented as a navel; in section it defines the central spine of the sanctuary. Although the functional use of the rose window may have been to provide light central to the nave, it has far greater symbolic meaning as a Rosicrucian rose positioned at the intersection of a cross—a symbol that is repeated as ornament throughout the building.

The First Universalist Church is a visible symbol that was composed using Bragdon's invisible, theosophic architectural theory that conflated gothic mysticism and eastern spirituality. Embodied within this church is a symbolic emphasis on the crossing and the cardinal directions, together with encircling—a united duality of polar opposites within one “divine androgyne” that Bragdon symbolized through number in the magic square. The magic square is a mathematical (re)creation and operation of the architectural imagination that demonstrates the cosmological relationship between the body and the building through number, geometry and harmonic proportions. According to Bragdon, number is the foundation of all creation, and because the ideally perfect human form exemplifies all the principles of nature, Man is the Magic Square (figure 10).

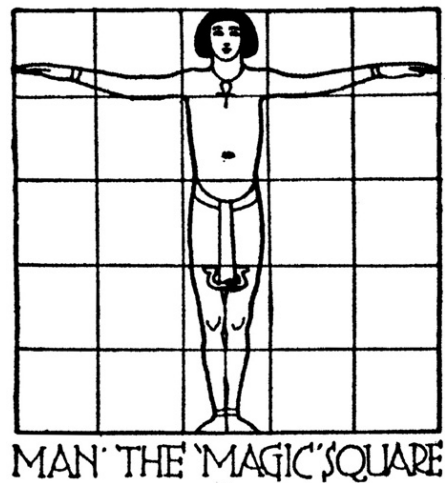


Figure 10. Claude Bragdon, Man the Magic Square, *The New Image*, 1928.