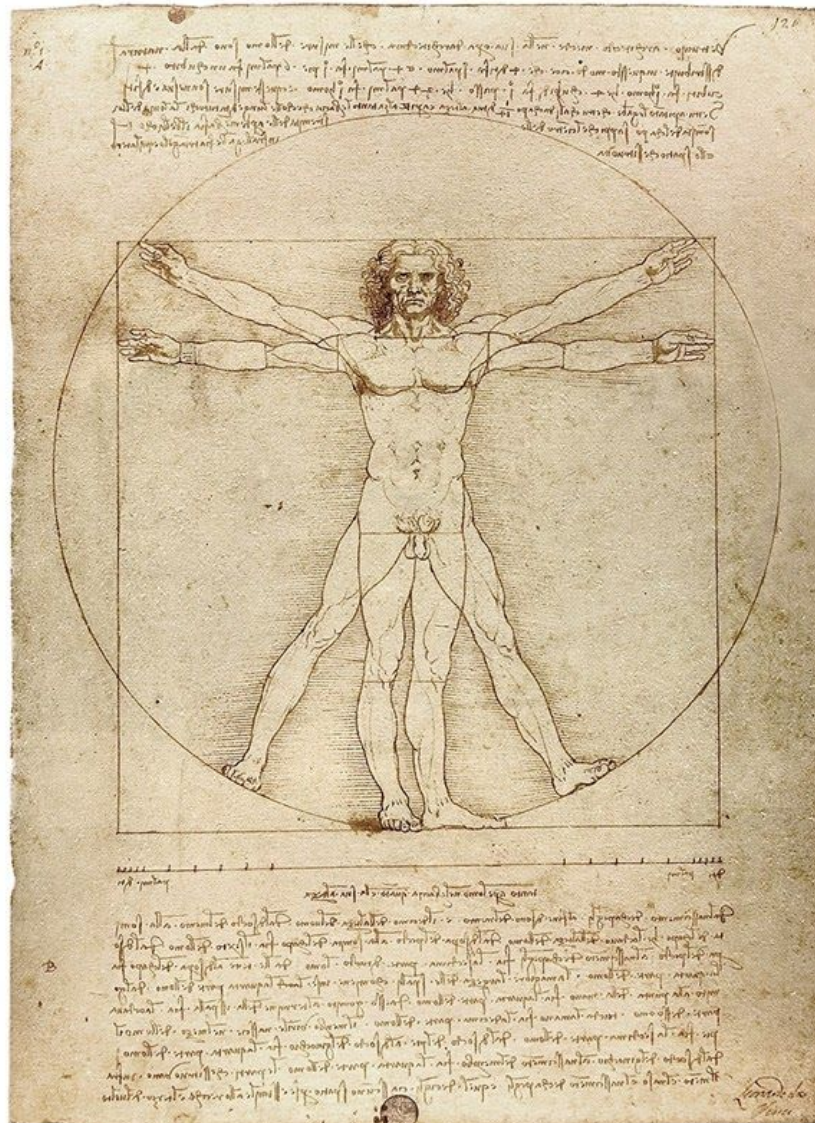


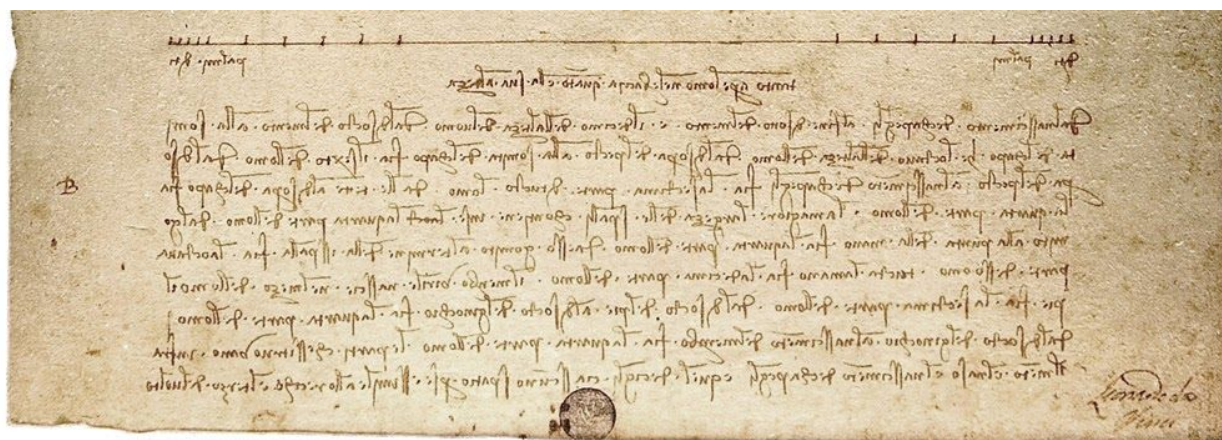
## *Vitruvian Man*



Leonardo da Vinci, *Vitruvian Man*, 1490, 13.6" by 10", Ink on Paper, Venice, Italy

Shelley Lake  
Artists Writing (APG-5330-OL): Revised Final  
December 15, 2019

Completed around the year 1490, *Vitruvian Man* is a pen and ink drawing by Leonardo da Vinci. Rendered on a 13.6 by 10 inch sheet of paper, the five hundred year old antiquity is kept in dark storage at the Gallerie dell'Accademia in Venice, Italy and is displayed only on special occasions due to its fragility.<sup>1</sup>



Leonardo da Vinci, *Vitruvian Man* (mirrored writing in bottom detail), 1490, 13.6" by 10", Ink on Paper, Venice, Italy

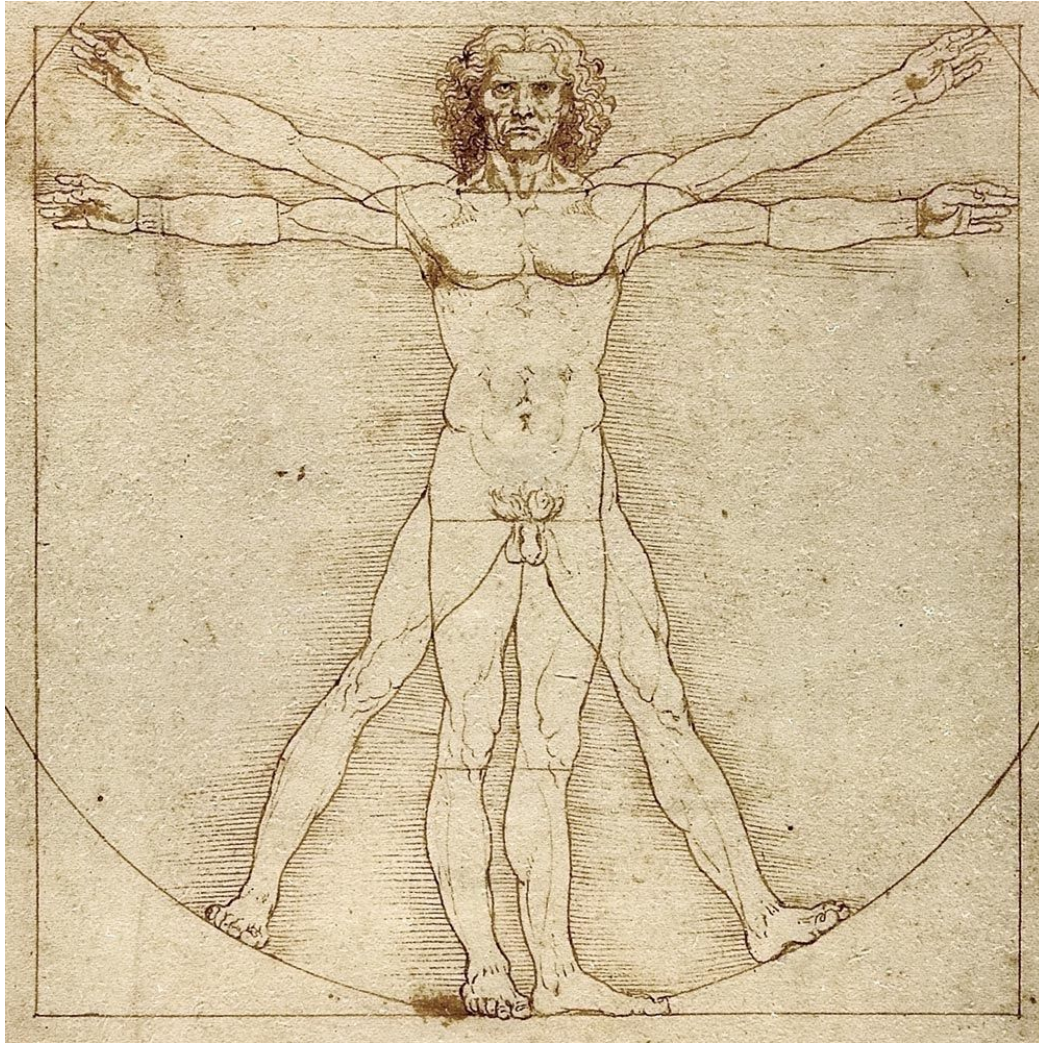
Leonardo's title, *Vitruvian Man*, acknowledges the ancient writing of Roman architect Marcus Vitruvius Pollio. Vitruvius is the author of *Ten Books on Architecture*, entitled *De Architectura, Libri Decem*. In Volume III, Chapter I, Vitruvius elaborates on the proportions of the human body in relation to a house of prayer:

Just so the parts of temples should correspond with each other, and with the whole. The navel is naturally placed in the centre of the human body, and, if in a man lying with his face upward, and his hands and feet extended, from his navel as the centre, a circle be described, it will touch his fingers and toes. It is not alone by a circle, that the human body is thus circumscribed, as may be seen by placing it within a square. For measuring from the feet to the crown of the head, and then across the arms fully extended, we find the latter measure equal to the former; so that lines at right angles to each other, enclosing the figure, will form a square.<sup>2</sup>

<sup>1</sup> Sushmitha Hegde, "Why Do You See This Man Everywhere?," *Science ABC* (blog), March 15, 2019, <https://www.scienceabc.com/social-science/the-vitruvian-man-leonardo-da-vinci.html>.

<sup>2</sup> Marcus Vitruvius, "De Architectura • Book III," accessed December 12, 2019, [http://penelope.uchicago.edu/Thayer/E/Roman/Texts/Vitruvius/3\\*.html](http://penelope.uchicago.edu/Thayer/E/Roman/Texts/Vitruvius/3*.html).





Leonardo da Vinci, *Vitruvian Man (square detail)*, 1490, 13.6" by 10", Ink on Paper, Venice, Italy

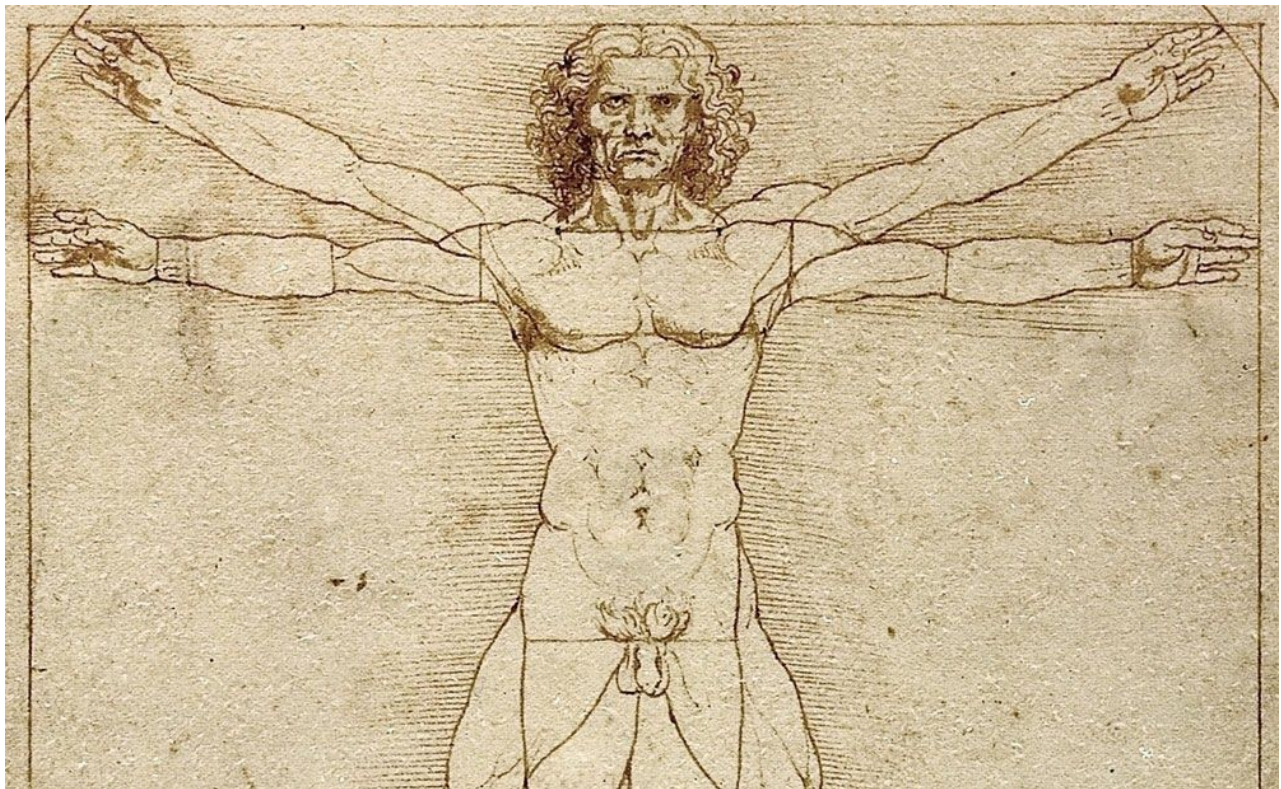
More than fifteen centuries would pass between the writings of Vitruvius and the creation of Leonardo's *Vitruvian Man*.

In his illustration for a book on Vitruvius, da Vinci draws one man in two positions, simultaneously superimposed on one another. Two coexisting representations of mankind strive for authority—the terrestrial and the celestial. This duality induces an ambiguous illusion—both figures alternate in and out of our visual cortex. The head, torso and genitalia of *Vitruvian Man* is singular, only the upper and lower extremities are represented twice.



A subtle sepia wash underlies the eyes, chin, face, armpits, chest, neck, palms and feet suggesting shadows cast from overhead sunlight. Dark, sepia ink is carved deep into the paper with penetrating, deliberate strokes that outline the contours of the model's musculature.

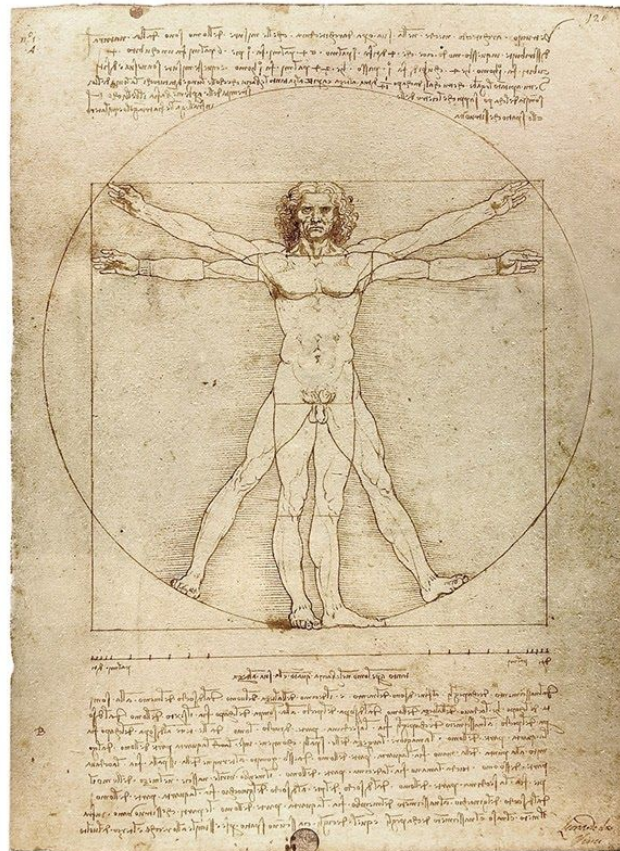
Leonardo hatches numerous horizontal parallel lines around the figure, advancing the character forward into stark relief. Limited to the confines of the square from above, bounded by the confines of the circle below, da Vinci places *Vitruvian Man* inside a cosmological gray area.



Leonardo da Vinci, *Vitruvian Man (detail)*, 1490, 13.6" by 10", Ink on Paper, Venice, Italy

Facial expression is mature, intense, slightly downturned with both eyes engaging the spectator. The figure's cranial hair is full, wavy, shoulder length, off the face and parted down the middle. Pubic hair adorns the superior aspect of the male reproductive anatomy. Musculature is sculpted, bilaterally symmetrical and well defined with a golden shoulder to waist ratio.

Centuries of handling have produced dark stains on the left and right margins of the paper, with emphasis on the right. The tooth of the paper casts an oblique shadow. Rough, deckled, irregular edges decorate the paper's surround. Leonardo's signature resides at the bottom right, a small dark circle rests at the center bottom edge of the page.



Leonardo da Vinci, *Vitruvian Man*, 1490, 13.6" by 10", Ink on Paper, Venice, Italy

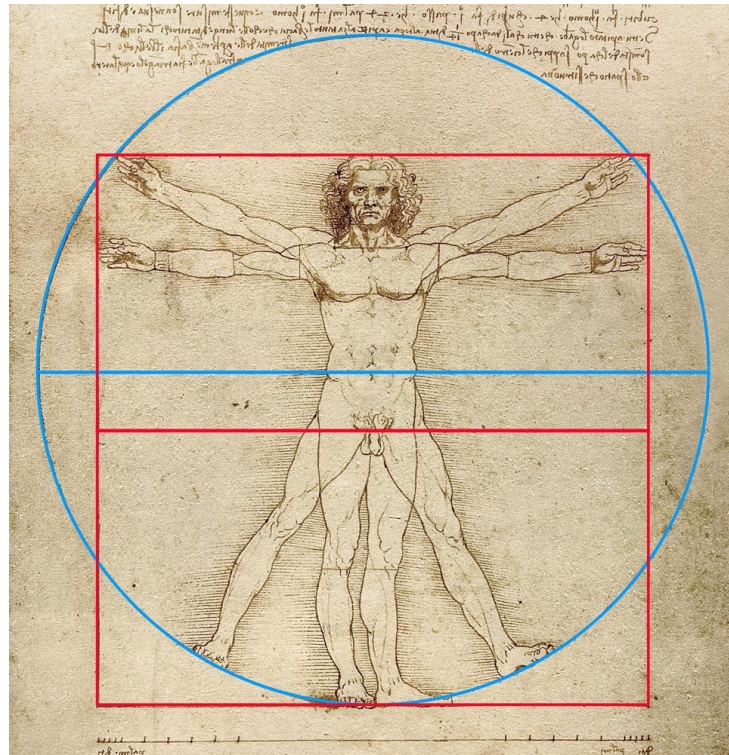
The top six lines of text are broken by the circle. A straight edge underneath the illustration delineates units of measurement—fingers, palms and cubits. Leonardo's mirrored text above and below the drawing is a direct translation from Vitruvius's *De Architectura*:

...four fingers make one palm, and four palms make one foot, six palms make one cubit; four cubits make a man's height. And four cubits make one pace and twenty four palms make a man; and these measures he used in his buildings.<sup>3</sup>

<sup>3</sup> Leonardo da Vinci, *The Notebooks of Leonardo Da Vinci*, vol. 1 (Dover, n.d.).



Vertical and horizontal lines define specific joints at the knee, hip, chest, clavicle, shoulder, elbow and wrist. Additional markers accentuate the roots of the hair, eyebrows, nose and chin—indicating significant proportional relationships.



Shelley Lake, *Vitruvian Man Overlay*, 2019, digital combine

The square and circle are centered and bottom justified under the feet of the standing model. The square extends slightly beyond the circumference of the circle dictated by the proportions of the man's outstretched fingertips. In one figure, the man's arms are abducted ninety degrees to reach the edge of the square. This implies that the height of a man is equivalent to the length of his outstretched arms.

When hyper abducting his arms, the figure is able to reach the circumference of the circle and his fingertips meet at the intersection of the circle and the square. The legs, also in abduction, approximate the circle's edges. The left leg of the figure planted on the circle is

slightly externally rotated. The left leg of the figure planted on the square is externally rotated ninety degrees, both in contrast to the opposite leg. Perpendicular orientation of the foot facilitates measurement. The navel is at the center of the circle—male genitalia is at the center of the square.

The mortal in the square stands, the soul in the circle dreams. The square is an earthly representative of gravity, the four directions, the four seasons. The circle is the embodiment of the stars, planets and orbital trajectories. *Vitruvian Man* occupies the middle ground between heaven and earth, infinity and mortality, science and art. Divine alignment between a circle and square is da Vinci's metaphysical masterstroke. In *Vitruvian Man*, Leonardo da Vinci combines sacred geometry with human aesthetics—solving the mathematical mystery between a circle, a square and human proportions.

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