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Emily Wilcox

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Anthropomorphism in Architecture:

An Investigation into Anthropomorphism through
Ancient Greco-Roman Religious Structures

Emily Wilcox

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ABSTRACT

This paper will outline and detail an investigation into religious Greco-Roman structures of antiquity through the lens of anthropomorphism. Through defining anthropomorphism, three lenses of thought have presented themselves as means of inquiry: metaphor, scale and proportion, and ergonomics. Previous research into these structures and cultures has shown that there was indeed consideration for the human body in designing in construction; this project hopes to solidify these claims and present new supporting information regarding specific relationships to the body using anthropomorphism. Many contemporary buildings approach the relationship to the human body as a mask or an afterthought, disregarding what reflecting the human body can do. This inquiry looks back to the foundations of western architecture to show the importance of this rationale and what we have moved away from, as well as specific points detailing how to achieve and repeat this thinking. Most notably, a relationship between average heights of females and males during relevant periods in history and the height of feminine and masculine columns in temples have been discovered. This information could reframe the mindset of antiquity as well as the approach to contemporary architecture. I anticipate this discovery to represent the creation of new knowledge.

INTRODUCTION

Anthropomorphism is the attribution of human characteristics or behavior onto a god, animal, or object. It is a subconscious function of human psychology. The human figure can be identified in unintentional places, pointing to the inherent desire of our brains to identify our own characteristics. (Fig. 1)

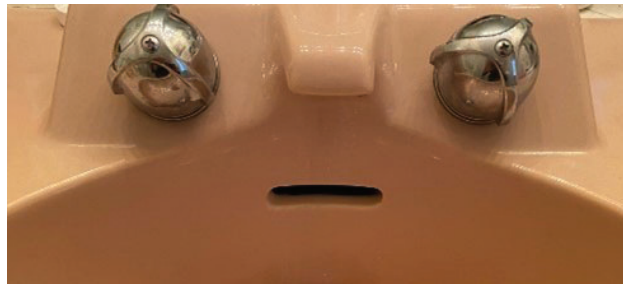


Fig. 1. An anthropomorphic sink.

In *Architectural Symbolism*, Vlad Ionescu points out that anthropomorphism isn't just the resemblance of the human in something—it can also entail the projection of oneself onto something. Placing one's emotions, feelings, or experiences onto something can humanize it just as much as if it resembles a human itself.¹ People often think that behaviors exhibited by their pets mean they reciprocate love, affection, or other, when oftentimes that is not the case. *The Life of Pi* shows the relationship formed between human and animal. While their bond grows throughout the movie, Pi and his tiger companion eventually have to part. As the tiger, called Richard Parker, walks away, Pi wishes for him to turn around for a parting glance to show his affection. He does not, showing that despite their relationship, Richard Parker is still an animal. (Fig. 2)



Fig. 2. *The Life of Pi*.

If anthropomorphism involves inanimate objects, it can also occur in terms of the built world. How can a building reflect a human, in terms of a physical manifestation, or a metaphor?

Since the twentieth century, anthropomorphism in architecture has often been seen as an old, or potentially outdated, idea. At its height in the 17th century, it was widely used to facilitate an agreement between a body and a

¹ Ionescu, *Architectural Symbolism*, 2.

building. Ionescu calls on Alberti to claim that “architectural parts are analogous to the arrangement of the body’s limbs.”² Entry could be a mouth, or a handshake; structure could be bones; cores and hearths could be heart. In religious buildings, a sacred center is often compared to a womb. The ‘cella’ or ‘naos’ in Greek temples of antiquity, reserved solely for the most holy, was a womb in that it was the place considered closest to the holy entity of the temple. The development of anthropomorphism can also be associated with the idea of humanism in architecture. Our body interprets forms into experiences as something we physically feel.³

My intuition is that anthropomorphism may be overlooked today and should play a more significant role in contemporary thinking—the relationship to the body and the place in which it is housed should still be considered one of significance. The act of creating a building for a human versus making space for the body as an afterthought, in murals or other explicit images, creates a more intense feeling of belonging and place. This can be seen specifically in ancient Greco-Roman structures, investigated here through the lens of religious temples and structures. Dedicated to various feminine and masculine deities, these structures deeply embed human characteristics within their experience, scale and functions.

Through looking at examples of anthropomorphic buildings of antiquity, I hope to find ways in which architects consider the human body through modes of anthropomorphism—scale and proportion, metaphor, and the theory of ergonomics.

² Ionescu, *Architectural Symbolism*, 5.

³ Hart, *Rethinking Humanism’s Place in Architecture*.

BACKGROUND

To look at human-centered design through a scientific lens contains the theory of ergonomics. Formally, ergonomics is defined as the scientific discipline of form and space; design accommodating the user, specifically to enable proper physical movement and functioning, and decrease discomfort or possibility of injury. It can also be considered as “the material framework for the human life.”⁴ Only established in the 1960’s, ergonomics is young as a field of study; nevertheless, it is essential in the design of workplaces and public buildings. Ergonomics is derived from the Greek words ‘ergon’ for work and ‘nomos’ for law. If ergonomics is something designed in a way to best suit the user, one could say it is designed with the user in mind. Buildings are designed for human occupation.

Ergonomics involves the optimization of five facets:

Comfort: personal factors, health and well-being, thermal and visual comfort, indoor air quality, noise nuisance;

Reliability: tools and procedures implemented to increase meeting of requirements within its environment and duration of lifetime;

Safety: design and construction with minimal danger or risk of harm;

Effectiveness: producing a decided, decisive, or desired effect, preferably in the minimal amount of time;

Aesthetics: the nature and expression of beauty.

The synthesis and consideration of these factors is what creates ergonomic design. Each factor considers the feeling and operation of a person in space. Ergonomic principles can be used in layout, furniture design, or site response.

Thus, ergonomic design can be considered at the least a factor of, and at most equivalent to, humanized design. Vink, Koningsveld, and Dhondt put it best:

“The main burden of implementing ergonomics ideas lies on technical sciences forming a new model of technical culture, i.e. *humanized technique*, which replaces old habits, customs, and patterns of thinking that were technocentric in character by a new anthropocentric approach expressed in *thinking in ergonomics terms*.”⁵

This creates a correlation between ergonomics and anthropomorphic design. The implementation of ergonomics requires that design be looked at through the lens of the human, as its implication and entire function is to improve the lives of people.

Scale and proportion offer another lens through which to approach anthropomorphism. The human body has a particular set of proportions; wingspan and heights align, height (typically) corresponds to a number of head heights.

⁴ Vink, Koningsveld, and Dhondt, *Human Factors*, 357.

⁵ Vink, Koningsveld, and Dhondt, *Human Factors*, 360.

When a head is too large or too small, arms are too long, and the like, it is immediately noticed. The same goes for buildings—if a ceiling is too tall or too short, it feels off.

Frank Zollner speaks on proportion, referencing Vitruvius in stating how units of measure are derived from the human body.⁶ For example, the ‘cubit’ unit of measure, originating from ancient Egypt, came from the length of a man’s elbow to the tip of the middle finger; the ‘foot’ is clearly based on the measure of a man’s foot.

Our familiarity with our bodies is what helps us establish a sense of familiarity with measures all around us. We can picture how our bodies occupy space to get a feel of size. Sometimes there may be hints—the size of a light fixture, a door frame, etc., that can cue us into the scale, but one may not be conscious of picking up on these. In drawings, scale figures allow us to picture ourselves in a space. Le Corbusier found issue with how scale was visualized, and thus, created his own scale figure. The Modulor connected human dimensions with nature and harmony between spaces. (Fig. 3) His inquiry stemmed from a dissatisfaction with the existing:

“Le Corbusier accused the meter of being abstract, bloodless and without emotion and describes its use as degenerating architecture... emphasizing the romantic desire for a type of architecture that is humane...”⁷

Proponents of the meter may say it does work to unite the earth and human; its origin definition was ten-millionth of the distance from the equator to the North Pole. I must agree with Le Corbusier here—with no mention of the human body, what makes this particularly humane? Additionally, as it was developed in 1950, we may take issue with its basis on a standard white man as the norm today. Despite this, he still showed an attempt to bring the actual scale of the human into play of design and representation.

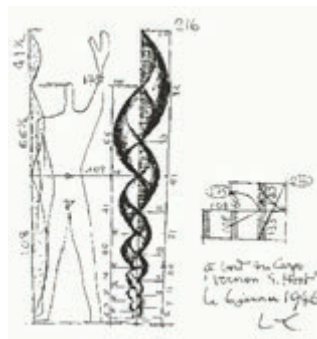


Fig. 3. *The Modulor*, Le Corbusier, 1948.

Scale can also help contribute to our understanding of space, even if not from a perspective we can interpret. In Aldo Rossi’s San Cataldo Cemetery, the plan resembles an upside-down body laying on the ground. (Fig. 4) Rossi’s own theories included the representation of typologies and translations of the past, relevant as the site was originally an ancient cemetery for the area. While quite morbid, it is an enlarged version of the purpose of the project—a cemetery. The ossuary building serves as head; burial rows as ribs; bounding walls as arms. The motif of death is inescapable, as it is immediately occupied upon entry. However, the form of the human body is never directly

6 Zollner, *Anthropomorphism*, 444.

7 Zollner, *Anthropomorphism*, 465.

experienced, as it is only perceptible cohesively from a bird's eye view. Thus, the occupant is forced to encounter the image in pieces, putting them together as a matter of a single body uniting the project.

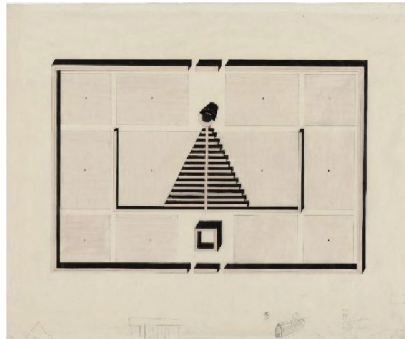


Fig. 4. San Cataldo Cemetery Plan, Aldo Rossi, 1971.

Our initial encounter with a space is how we feel within it—compressed, elevated, uncomfortable. All of this is an attribution of scale. Whether a space is large or small, the scale of its elements correlate to the human body.

Calling upon Feuerstein, and Freudian theory:

“The openings of the human body are interpreted by Freud as analogies to the openings of a building, as gates, doors, and windows. By this reversed substitution, a building is not explained as being but a person, and his actions and existence are represented by an architectural structure: the building’s body and the human are interchangeable.”⁸

Buildings may serve as metaphors for the human body through adopting similar functions in parts. If the human body is a kit of parts (skin, bones, muscles, circulatory systems, orifices), a building is as well. Envelope, structure, and circulation are all analogous to the operations of the human body. Thus, it is easy, even natural, to project ourselves onto something we can compare ourselves to.

Heinrich and Selzer continue:

“Physical forms possess a character only because we ourselves possess a body... as human beings with a body that teaches us the nature of gravity, contraction, strength, and so on, we gather the experience that enables us to identify with the conditions of other forms.”⁹

We sense the weight of our bodies every day. One doesn’t have to lift a car to know it is heavy— same with a building. We can feel it pressing down into the earth, compression over our heads, merely by our own awareness of ourselves. We can determine when a building feels ‘light’ or ‘heavy’ through this same lens.

The ability to relate forces upon our body to inanimate objects around is a purely human characteristic; not only is the characteristic anthropomorphic, but the act of attributing it as well.

8 Feuerstein, *Architecture as Speaking Person*, 85.

9 Heinrich and Selzer, *Prolegomena*, 151.

A grounded example of metaphorical architecture is the Angkor Wat Temple in Cambodia. (Fig. 5) Aside from the anthropocentric imagery on the exterior walls of the temple, the Central Shrine of the Temple is only accessible by priests, typically only post-bath and freshly clothed. The small, dark, enclosed room is the womb of the shrine. The womb is the closest a fetus can get to its mother; the shrine is the closest the priest can be to the deity. The projection of this intimate relationship onto a building shows how the attribution of human characteristics creates increased meaning to an already significant structure.



Fig. 5. Angkor-Wat Temple, Cambodia, 12th Century.

A building can additionally take on anthropomorphic characteristics in its form, using numerous methods to achieve effectiveness. Referencing Imperiale, she states:

“The metaphor of the living body whose skin is a continuous surface in its depth is thus translated to the mathematical model of topological surfaces.”¹⁰

The curvatures of the body can be reflected onto buildings through an organic or free-flowing form, creating harmony between nature, the built world, and humanity. Often referred to as the ‘Dancing House’ or ‘Fred and Ginger’ Building, Gehry’s Nationale Nederlanden Building resembles a man and a woman mid-dance. (Fig. 6) Its sway responds to its corner condition and proximity to a public square. The decision to design in the form of people works in this scenario as its dynamic movement mimics the adjacent river and movement of people in the square.



Fig. 6. The Nationale Nederlanden Buildings, Gehry Partners, 1994

Heinrich and Selzer also approach anthropomorphism in form in addressing symmetry:

“The demand for symmetry derives from the structure of our body. Because we are built symmetrically, we expect to find symmetry in every structural body... The effect of asymmetry... gives us physical discomfort.

¹⁰ Imperiale, *Smooth Bodies*, 27.

This is because, in our anthropomorphic perception of the object, we identify with it just as if the symmetry of our own body were disturbed or a limb were mutilated.”¹¹

Our bodies have a balanced form; we are drawn to what resembles such forms. While asymmetry can be utilized to achieve particular affects, possibly reacting to site or programmatic factors, it can create discomfort in a space. Think: in a solid, four-walled room, one may not be compelled to move in any direction, because all are the same. In a room of three solid walls and one of windows, it is more than likely that the wall of windows would pull the occupant towards it, as it is different from the rest.

11 Heinrich and Selzer, *Prolegomena*, 161.

PROJECT DEVELOPMENT PLAN

Firstly, case studies were selected based on undermentioned criteria. Research proceeded by investigating each precedent individually, working simultaneously through physical drawing, digital drawing, and written record to develop information regarding metaphor, scale and proportion, and ergonomics. Information was then organized into a formatted manner to produce work for committee meetings. Following multiple rounds of critique, the work has thus been organized as such.

METHOD AND APPROACH

The project uses case study analysis as the mode of investigation. The case studies have been selected according to the umbrellas of feminine, masculine, and an individual category of miscellaneous religious structures as a means of cross-referencing particular examples to span both Greek and Roman religious structures of antiquity. Dedication to a gendered deity and construction in antiquity were the only constraints to the case study selections, as it is hypothesized that any structure meeting these criteria can be analyzed in this manner. The scope of femininity and masculinity come from necessity regarding the material at hand. To neglect the attribution of sex in this instance would be disregarding some of the primary drivers and characteristics of these examples.

As outlined, each case study was investigated through the lenses of metaphor, scale and proportion, and ergonomics, i.e.: metaphor speaking to characteristics of the physical form, scale and proportion to the designed relationships to the male and female form, and ergonomics in reference to how someone would move in or around the space. Looking through these lenses simultaneously creates a comprehensive picture of anthropomorphic traits that work to connect the human to the dedicated deity.

The created product is a visual essay composed of original diagrams and text to outline both existing and found information.

CASE STUDY ANALYSIS

RELIGIOUS STRUCTURES

Umbilicus Urbis Romae, c. 3rd cen. AD

The Umbilicus Urbis Romae (Fig. 7) resides on the western edge of the Roman Forum next to the Rostra. Umbilicus, meaning navel, and Urbis Romae, meaning the city of Rome, combine to define the structure as the ‘navel of the city of Rome’. This nickname immediately references the symbolic anthropomorphism at play. Navel immediately implies a kind of centering and birth, a sacred mark of the procession to life.

METAPHOR. The Umbilicus can immediately be associated with the physical form of the human navel in its roundness. (Fig. 8) Even the small indent in the rim could draw a comparison to the unique properties to an individual’s navel. Symbolically, the Umbilicus is representative of the center of Rome, as the navel is the symbolic center of the human form.

SCALE AND PROPORTION. Roman tradition notates the Umbilicus as the original location of the Arch of Septimius Severus, the point at which Romulus measured out the perimeter of Rome.¹² As such, many Roman streets can be extended to see the Umbilicus as the point of collision. (Fig. 9)

ERGONOMICS is not included as a point of analysis because the Umbilicus was not intended to host visitors inside, but instead was a circumambulatory demarcation of place.

Omphalos at Delphi, c. 4th cen. BC

Similarly to the Umbilicus Urbis Romae, the Omphalos at Delphi (Fig. 10) is representative of the navel. However, the Omphalos is known as the ‘navel of the world’. The Omphalos has been used as precedent in cities across the world to mark center points in a similar fashion.

METAPHOR. The Omphalos immediately provokes associations with the navel due to its rounded form. This shows continuity in the physical form of structures associated with the navel across time and culture. (Fig. 11)

SCALE AND PROPORTION. The Omphalos serves as the physical mark of a sacred place in its position outside of the Temple of Apollo, which houses the Oracle. The navel is the marking within the realm of the profane body of the sacred relationship in utero. Similarly, the Omphalos is the marking within the realm of the profane representative of the Oracle within the sacred space of the Temple. (Fig. 12) The Oracle is also referred to as Vox Dei, meaning the instrument through which divinity expressed itself on earth.¹³ This relationship can also lend itself to our purposes, meaning that the Omphalos is the instrument through which birth has expressed itself on earth, similarly to the human navel.

¹² Aronson, A Brief Inspection of the Navel.

¹³ Green, Possession and Pneuma, 27.

ERGONOMICS is not included as a point of analysis because similarly to the Umbilicus, the Omphalos was intended as a circumambulatory demarcation of place.

FEMININE TEMPLES

Temple of Vesta at the Roman Forum, c. 3rd cen. BC

The Temple of Vesta at the Roman Forum (Fig. 13) was the host to the eternal flame of the city, guarded by priestesses known as the Vestal Virgins. The Cult of Vesta represented the sister of Jupiter, the patron of domestic hearth.¹⁴ Chosen in childhood and destined to serve for thirty years, the priestesses were to remain virgins and suffered severe punishment if they did not. They received many benefits that ordinary women did not, such as the right to own their own property. This speaks to the high level of significance these women had; the temple of their occupancy was to match their status.

METAPHOR. The Temple is highly ornamented with botanical imagery. This immediately invokes a sense of femininity, as women are often associated with flora. The Temple utilizes the Corinthian order which is known to represent a young woman. These elements together clearly reference the Temple's function and occupants—that of woman. (Fig. 14)

SCALE AND PROPORTION. The height of the Temple is three times the average height of a woman at the time¹⁵ of its construction. The number three is incredibly significant.¹⁶ It is referential to birth/life/death, mind/body/soul, as well as the three decades the Vestal Virgins were to serve. By using the average height of a woman to determine the ceiling height of the occupiable space, the Temple is very directly relating itself to its user. (Fig. 15)

ERGONOMICS. The Temple is composed of a circumambulatory space as well as a sacred center. Due to the function of the Temple, the center can easily be compared to the heart of the human body. The human heart powers the body as the eternal flame powers the city, both protected by some form of an outer shell. This comparison influences the way the Vestal Virgins occupy space as the access to the sacred center was limited and reserved. (Fig. 16)

Temple of Vesta at Tivoli, c. 1st cen. BC, restored 16th cen. AD

With the same dedication to that of the Temple of Vesta at the Roman Forum, there are many attributes that are shared with the Temple of Vesta at Tivoli. (Fig. 17) However, the temple at Tivoli was built centuries after that at the Roman Forum, as evidenced in numerous differences between the two.

METAPHOR. Using the Corinthian order like its predecessor, the order expresses multiple unique

14 Gorski, and Packer, *The Temple of Vesta*, 320.

15 Griggs, *How Big were Romans' Feet*.

16 Lease, *The Number Three*, 58.

characteristics that relate it to anthropomorphic femininity. The hibiscus flower represents the Greek symbol of youth, femininity, and regeneration. It is intrinsically related to the Vestal Virgins themselves; selected young women who serve in their prime before retirement. Fruit is associated with abundance and fertility, not only feminine ideals, but also associated with the wishes for the city. The bovine motif is representative of sacrifice, speaking to the sacrifice the priestesses make for their city. These connections directly speak to both the function and occupants of the Temple. (Fig. 18)

SCALE AND PROPORTION. The column height of the Temple can be expressed through four times the height of the average woman, standing atop one another's shoulders.. The number four symbolizes strength and stability, justice, and unity. Four would have been referenced as a way to express these desires for the prosperity of the city. Additionally, as the Temple of Vesta at Tivoli was built later than that of the Roman Forum, its expansion in size is a natural progression of development. (Fig. 19)

ERGONOMICS. The Temple uses the form of a tholos, much like that at the Roman Forum. Thus, the comparison to the heart of the city still stands. (Fig. 20)

MASCULINE TEMPLES

Temple of Saturn at the Roman Forum, c. 4th cen. BC

The Temple of Saturn at the Roman Forum (Fig. 21), adjacent to the Temple of Vesta, was used as the state treasury repository. Saturn was the god of time, wealth, agriculture, so the civic function is appropriate.

METAPHOR. The Temple utilizes the Ionic order. Commonly associated with a matronly figure, the Ionic order is representative of health and dignity, reasonable hopes for a treasury. Despite the reference to femininity, considering the dedication of the Temple to Saturn, these coupled together imply abundance throughout the passage of time. (Fig. 22)

SCALE AND PROPORTION. The Temple is characterized by seven times the height of the average male at the time.¹⁷ The number seven is significant for being the sum of three and four, previously recognized as significant numbers. By utilizing this proportion, the Temple seeks to humble to occupant by piling in comparison to the height of the Temple and thus, the god. (Fig. 23)

ERGONOMICS. The Temple is lifted upon a great plinth, immediately pointing to the separation of the sacred and the profane. The interior of the Temple is a large, open space. Not only does this allow for the function, but it harkens back to Greek ideals of masculinity, characterized by openness. (Fig. 24)

The Temple of Olympian Zeus at Athens, c. 2nd cen. BC

The Temple of Olympian Zeus at Athens (Fig. 25), dedicated to god Zeus, was one of the largest temples of its time, second to the Pantheon. Greek culture regarded temples as physical manifestations of gods themselves, hence the

¹⁷ Killgrove, Average Roman Foot.

pursuit of perfection.

METAPHOR. Using the Corinthian order, although commonly associated with femininity, is used here not for the attribution of sex but instead as the Corinthian is regarded as the highest order. It is only fit that the highest order be used for the highest god.

SCALE AND PROPORTION. As established, the largest temple is clearly the embodiment of the highest god. Its oversized scale, reflected in its relationship to the height of the average male of the time, indicates as such.¹⁸ Stylobate through abacus heights are equal to ten times the average male height at the time. The number ten is considered the most perfect number in Greek culture, as it symbolized all mathematical spaces. Additionally, humans have ten fingers and toes.¹⁹ This is once again an example of using the proportions of height to humble the occupant in the face of a god. (Fig. 26)

ERGONOMICS. The dipteral octastyle speaks to the high regard of the god, as it attributes its masculinity in its openness and angular shape. (Fig. 27)

Temple of Isthmia at Corinth, c. 7th cen. BC

The Temple of Isthmia at Corinth (Fig. 28) is dedicated to Poseidon, god of the sea. The most primitive Temple within this investigation, its form appears different due to construction methods of the time. However, even with constraints in building, the Temple achieves mindfulness and quality of building, both in physical and inherent characteristics.

METAPHOR. One of the most archaic temples, it presents itself through its low, broad ceiling. Temples to other gods often reach up to the heavens to represent their dedications; the Temple at Isthmia is low to reach to the sea to represent its dedication.²⁰ Not only does this represent its specific god, but also the masculinity of the Temple. (Fig. 29)

SCALE AND PROPORTION. Upon entering the Temple, the average human male would feel the compression of the space only a few times higher than his own height, pressing down into the sea. (Fig. 30)

ERGONOMICS. This temple once again correlates to the Greek representation of masculinity through openness. The Temple sits within an open courtyard and presents an open porch before its interior enclosure. (Fig. 31)

¹⁸ Cartwright, Temple of Olympian Zeus.

¹⁹ Stewart, Pythagoreanism.

²⁰ Gebhard, Archaic Temple at Isthmia.

CONCLUSION

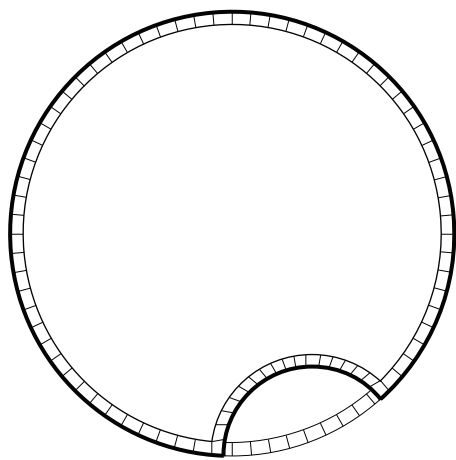
Through this process of analysis, it has been discovered that these chosen case studies can be viewed through the defined lenses of metaphor, scale and proportion, and ergonomics. In doing so, with the clarity of what has been represented here, we can assert some notion as to the intentions of the design and construction of antiquity.

Most notably, the analysis of scale and proportion has produced a most significant result: the relationship between the average male and female height of the appropriate time with the built height of temple columns dedicated to male and female deities, respectively. This is no coincidence. Established even in the earliest of structures, by carrying this principle across time and cultures, we can see that this relationship was indeed vital to temple construction as a means of connecting the deity and the user.

This brings us to the relevance of this discovery. As previously established, design that regards the human form is necessary to comfortable functioning within the built environment. By using this method from antiquity, we could establish a connection both with ourselves and with our past, strengthening our understanding of space going into the future.



Fig. 7. Umbilicus Urbis Romae.



UMBILICUS PLAN

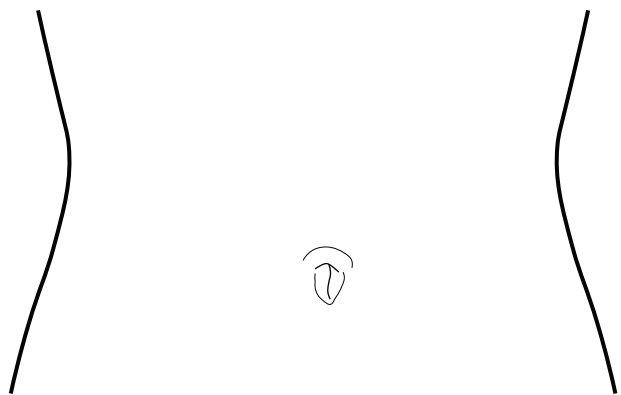


Fig. 8. Umbilicus Urbis Romae shape comparison to navel. Rounded form as direct and immediate reference to navel associations.

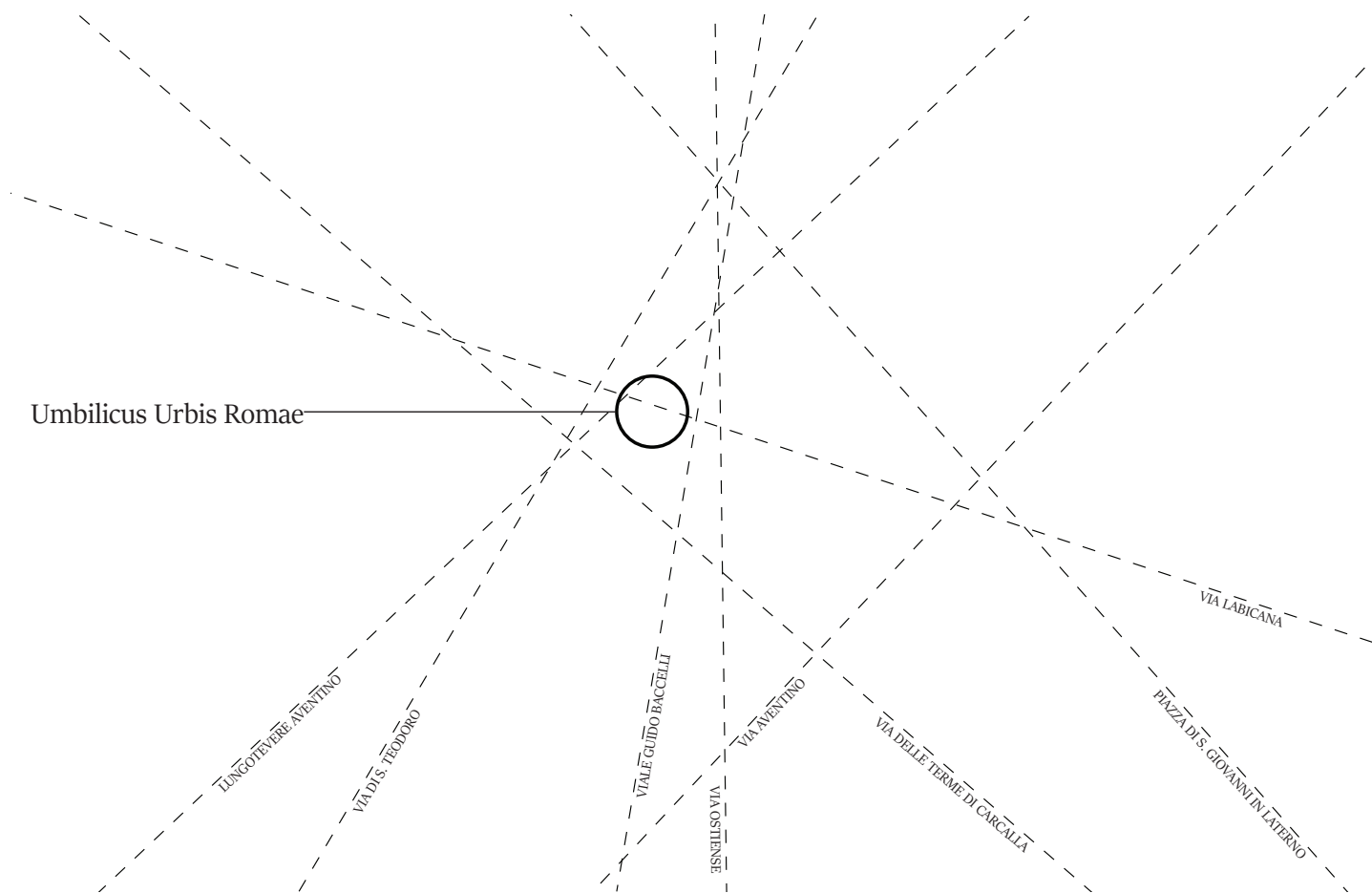
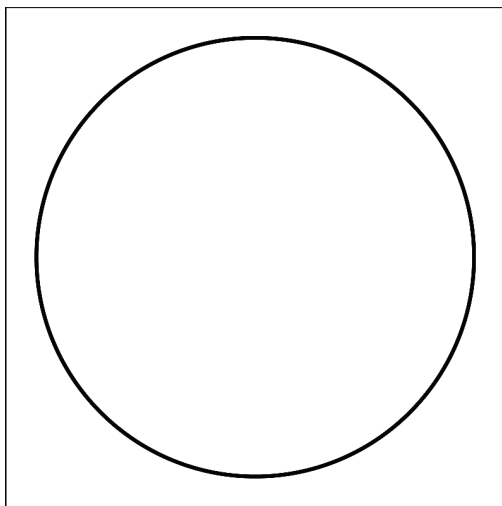


Fig. 9. Umbilicus Urbis Romae in relation to city planning. Existence at the approximated intersection of Roman streets; significance of center point as navel.



Fig. 10. Omphalos at Delphi.



OMPHALOS PLAN

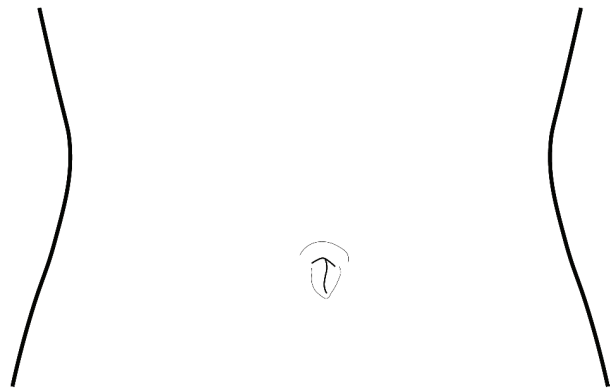


Fig. 11. Omphalos shape comparison to navel. Rounded form as direct and immediate reference to navel associations.

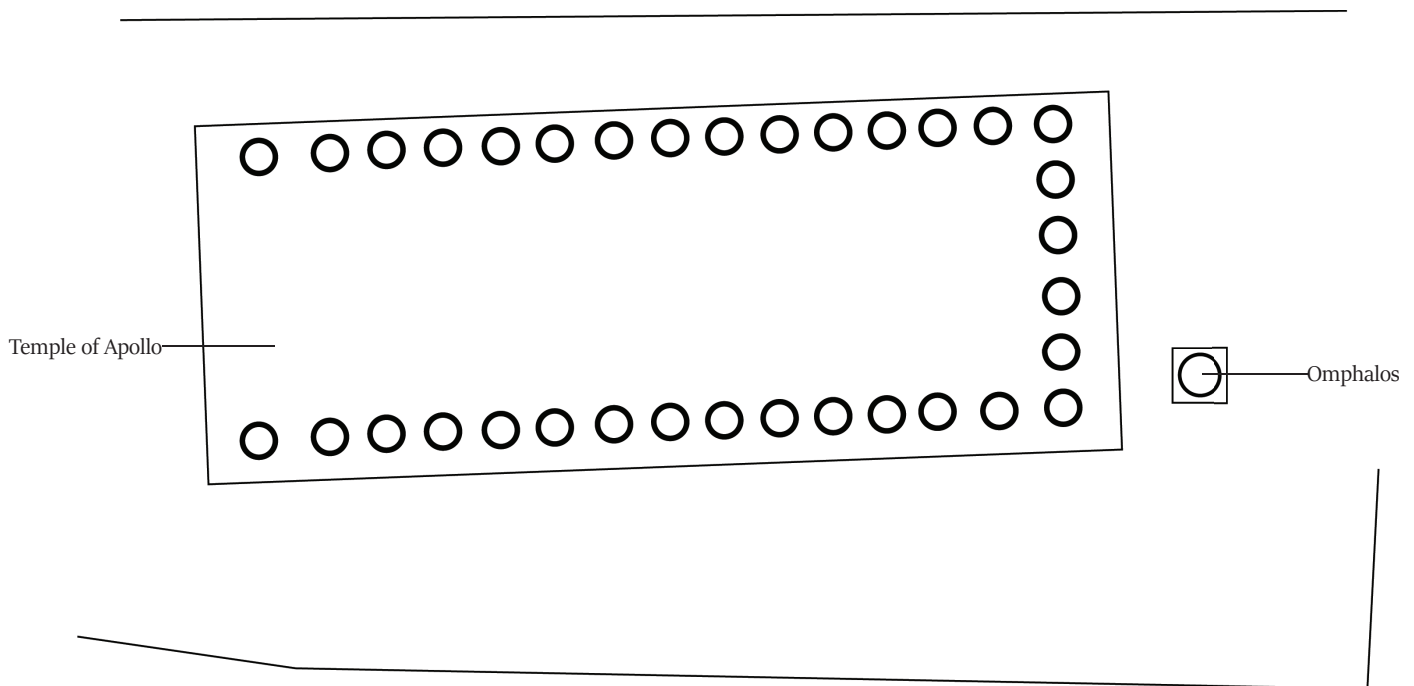


Fig. 12. Location of Omphalos outside the Oracle. Sacred Oracle in interior, physical marking of Omphalos in profane exterior; Sacred form in utero, profane marking of navel.



Fig. 13. Temple of Vesta at the Roman Forum.

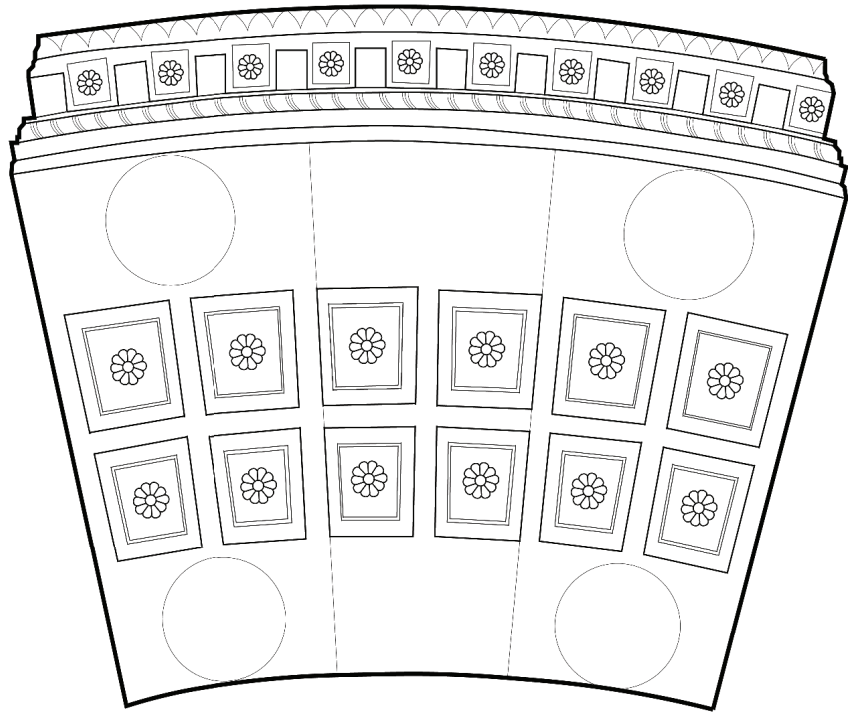
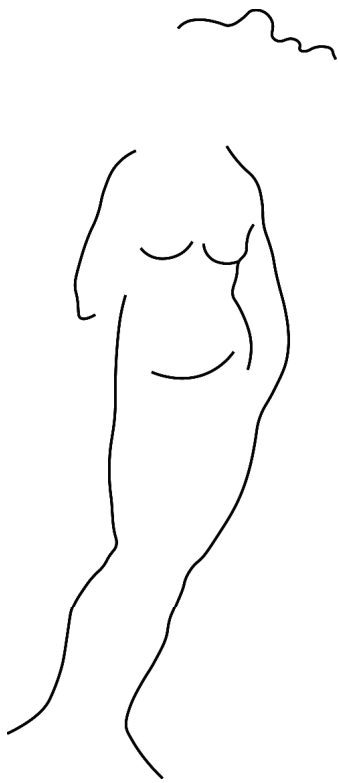


Fig. 14. The *Birth of Venus* and the Temple of Vesta ceiling ornament. Organic ornament as inherently feminine.

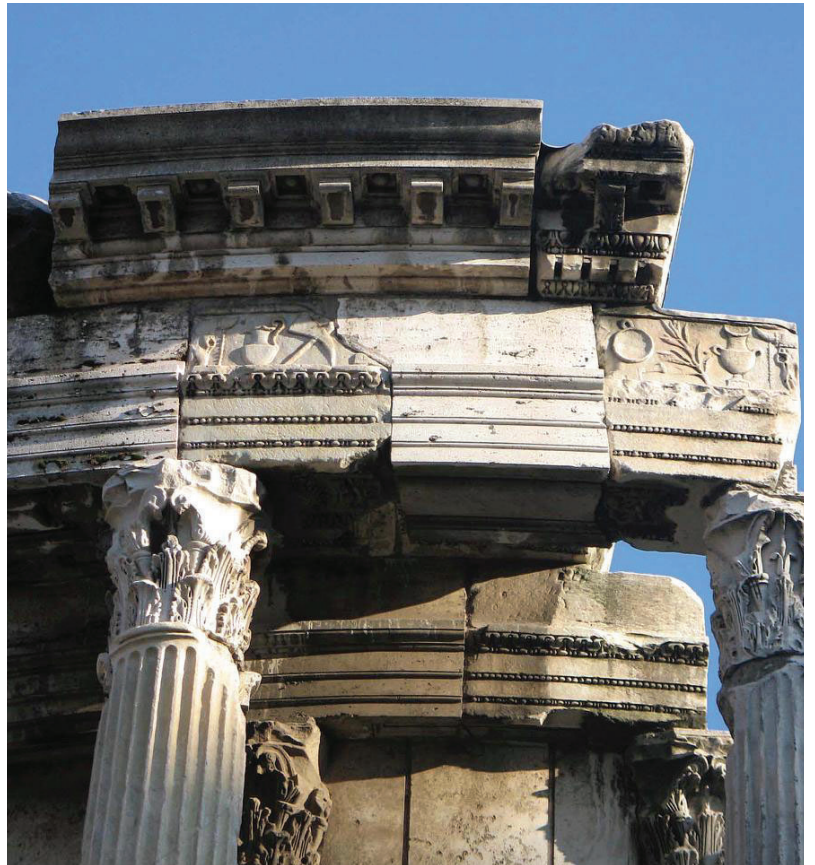
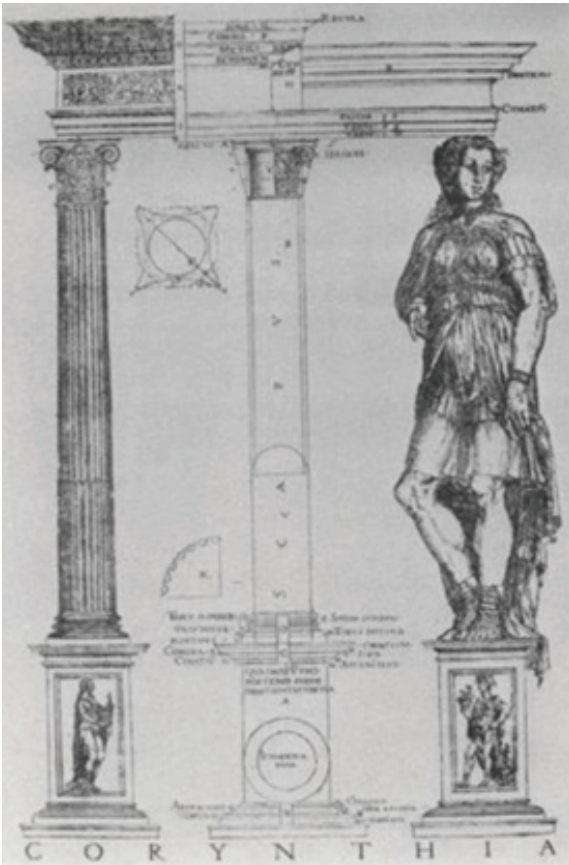


Fig. 15. Corinthian order as young woman; Temple of Vesta columns. Corinthian columns as inherently feminine; correlation to priestess guardians.

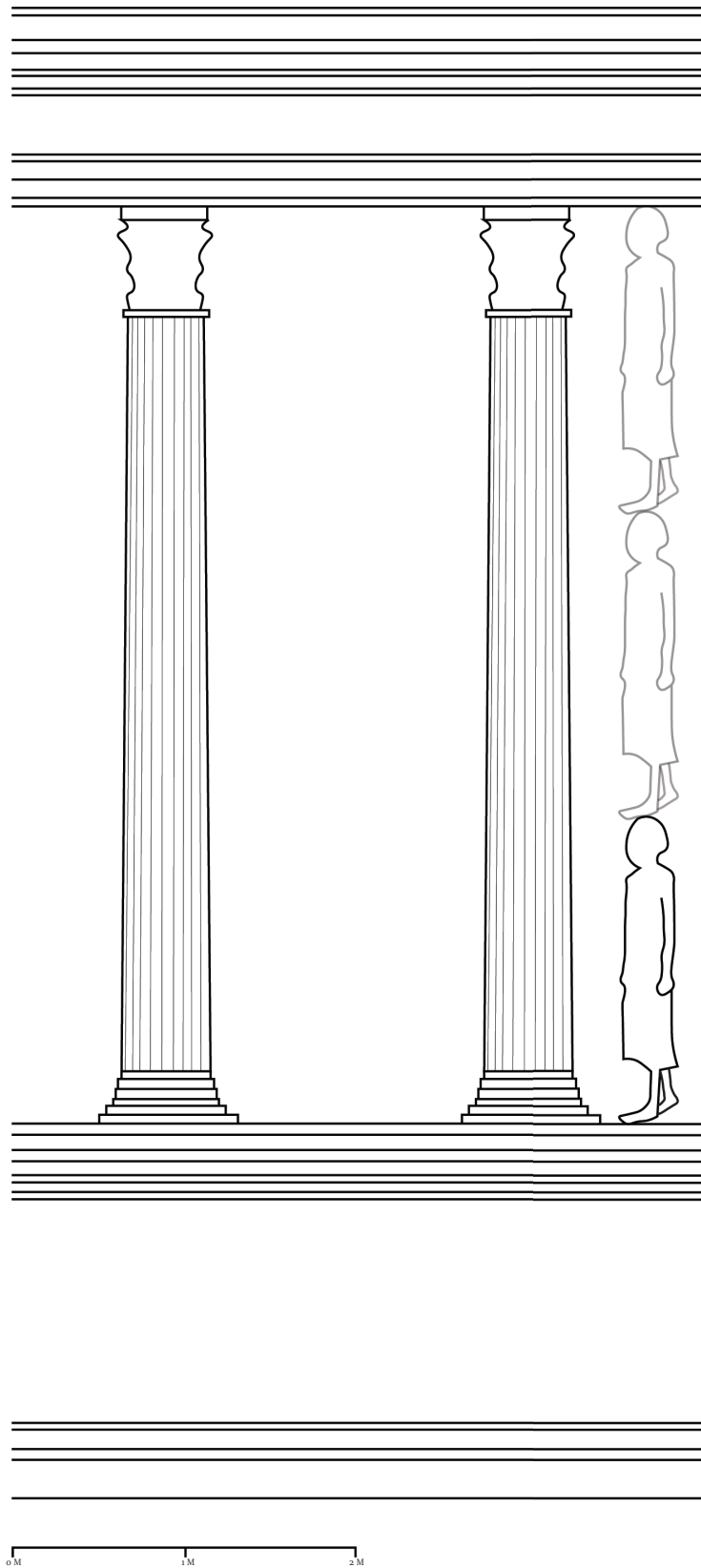


Fig. 16. Temple of Vesta body proportions. Scale of columns in terms of average female body; height determined by 3 heights of body; significance of 3.

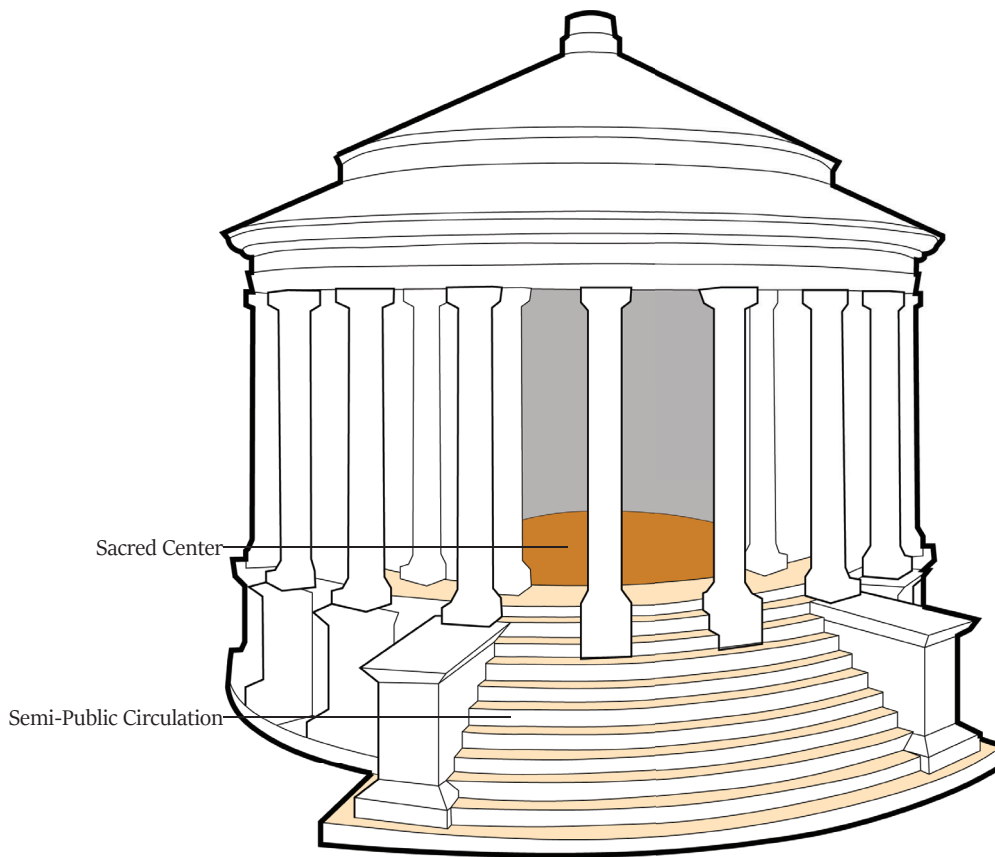


Fig. 17. Temple of Vesta circulation. Sacred nature of center exemplified through comparison to heart; shown through exclusivity in access and metaphor of fire.



Fig. 18. Temple of Vesta at Tivoli.

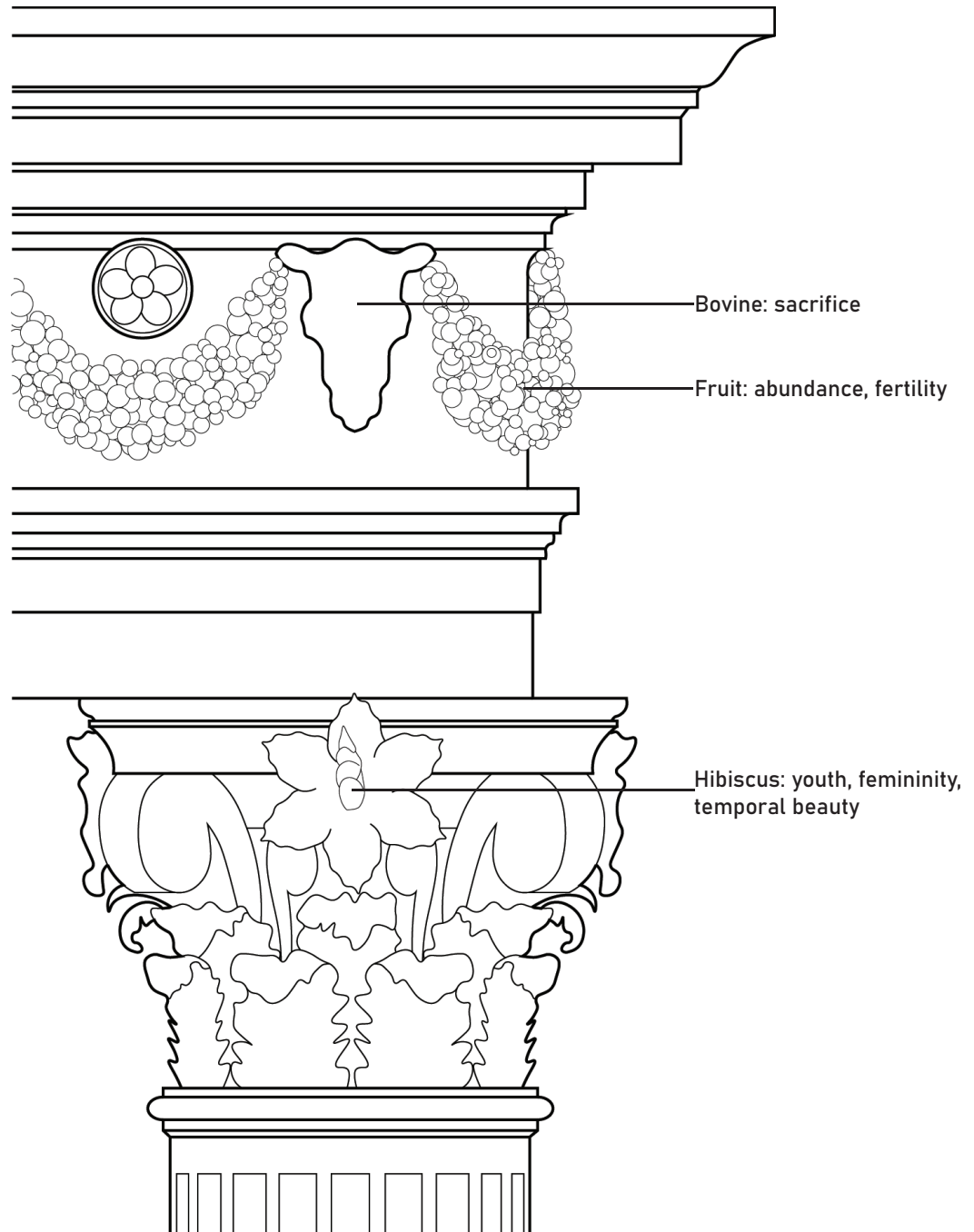


Fig. 19. Temple of Vesta capital ornament. Symbology in oversized hibiscus with large pistols, fruit, and bovine motif.

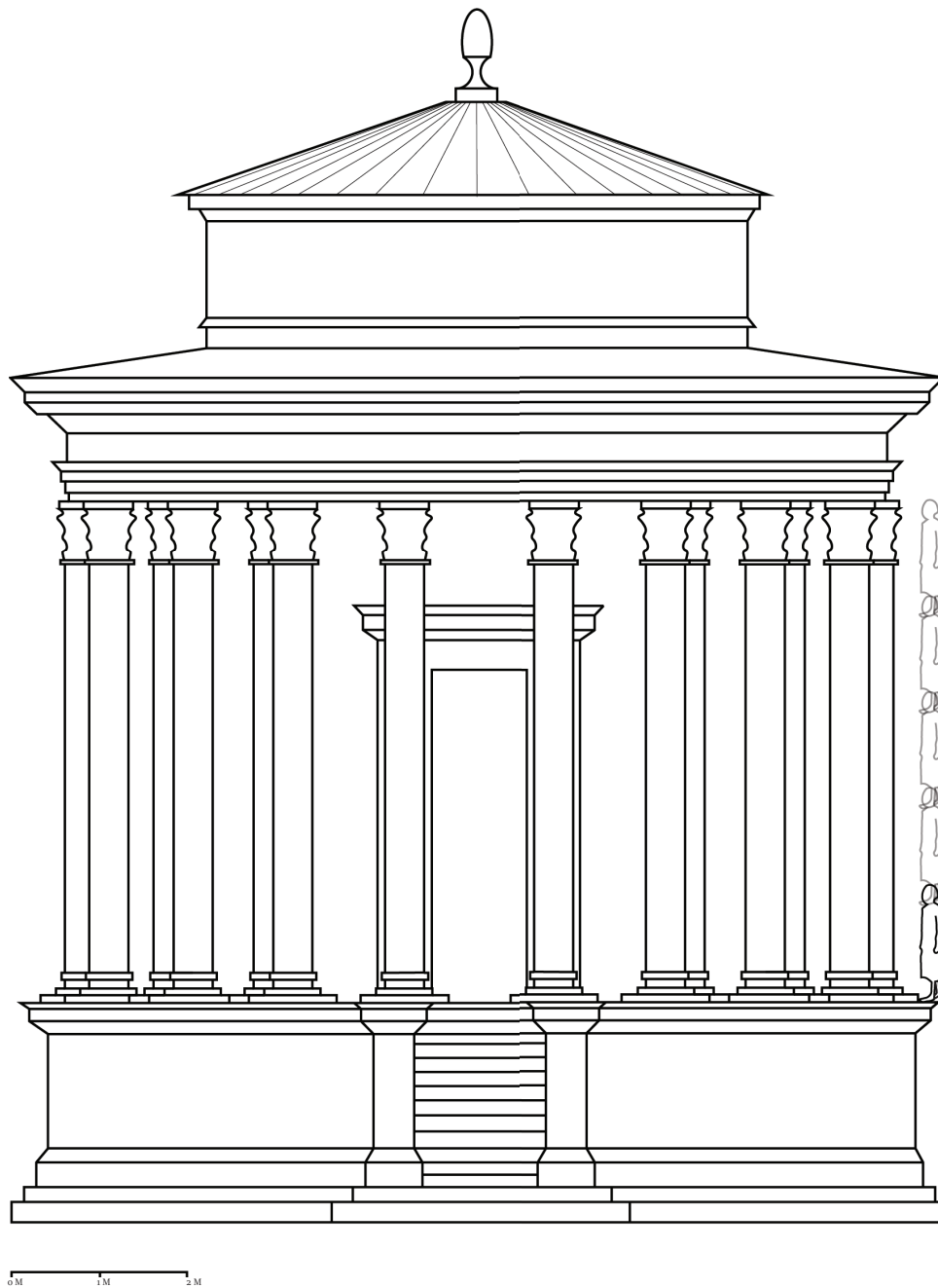


Fig. 20. Temple of Vesta body proportions. Scale of columns in terms of average female body; height determined by 4 heights of body; significance of 4.



Fig. 21. Temple of Saturn at the Roman Forum.

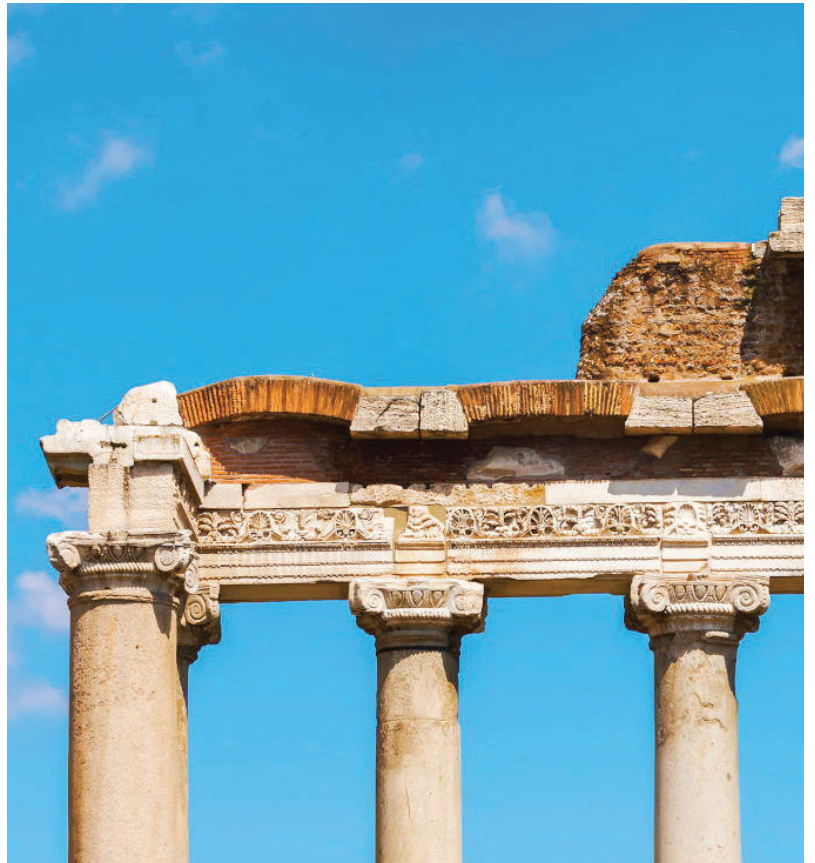
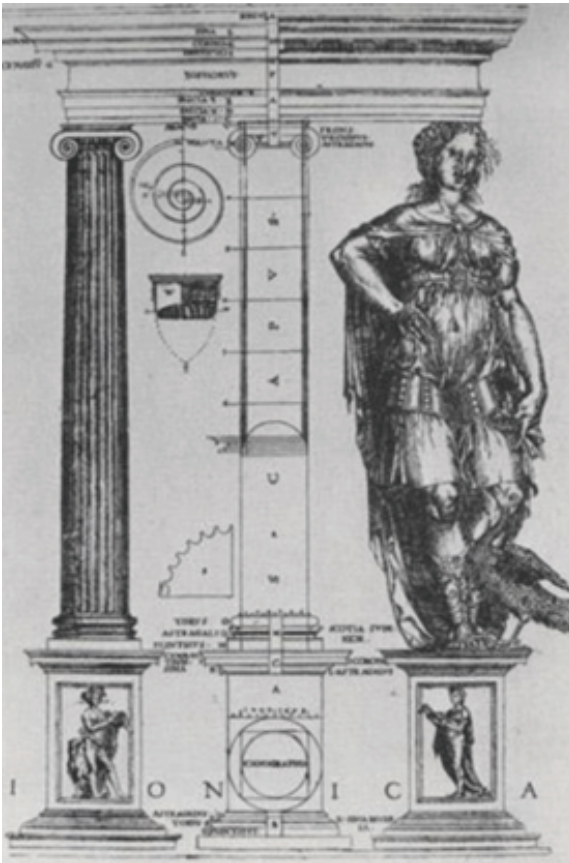


Fig. 22. Ionic order as matron; Temple of Saturn capitals.

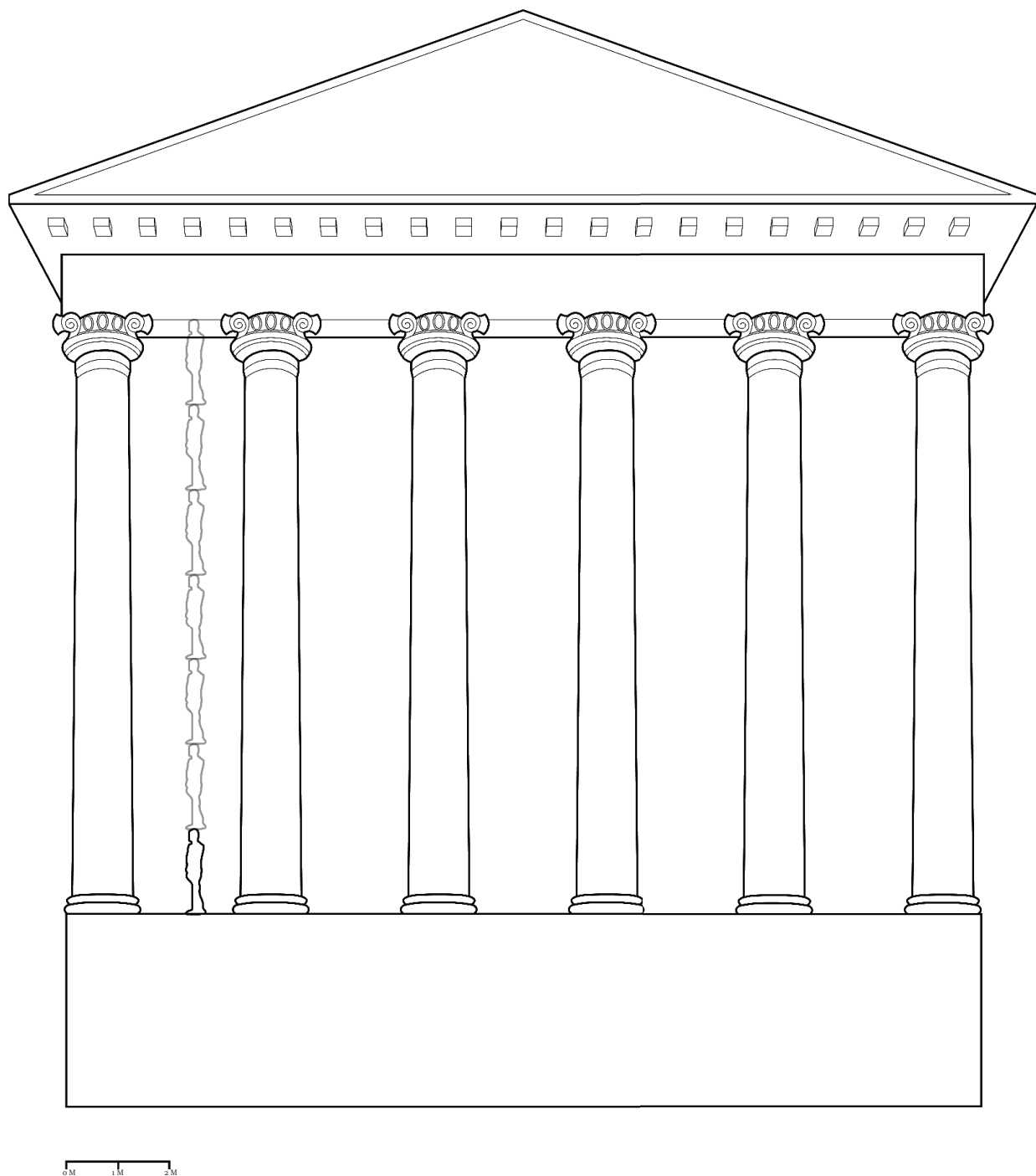


Fig. 23. Temple of Saturn body proportions. Scale of columns in terms of average male body; height determined by 7 heights of body; significance of 7.

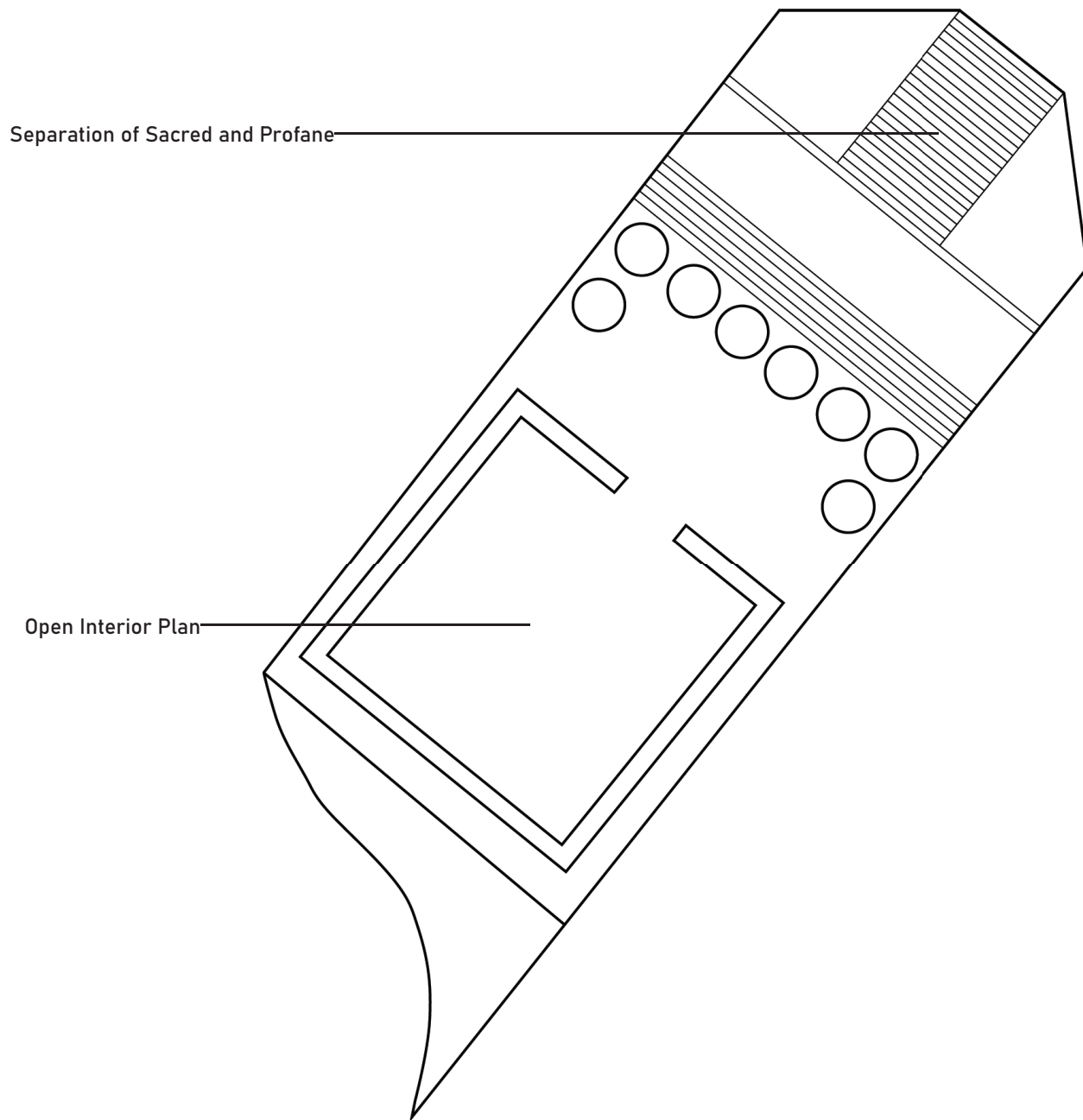


Fig. 24. Temple of Saturn plan. Open interior allows function related to attributes of Saturn while height indicates significance.



Fig. 25. Temple of Olympian Zeus at Athens.

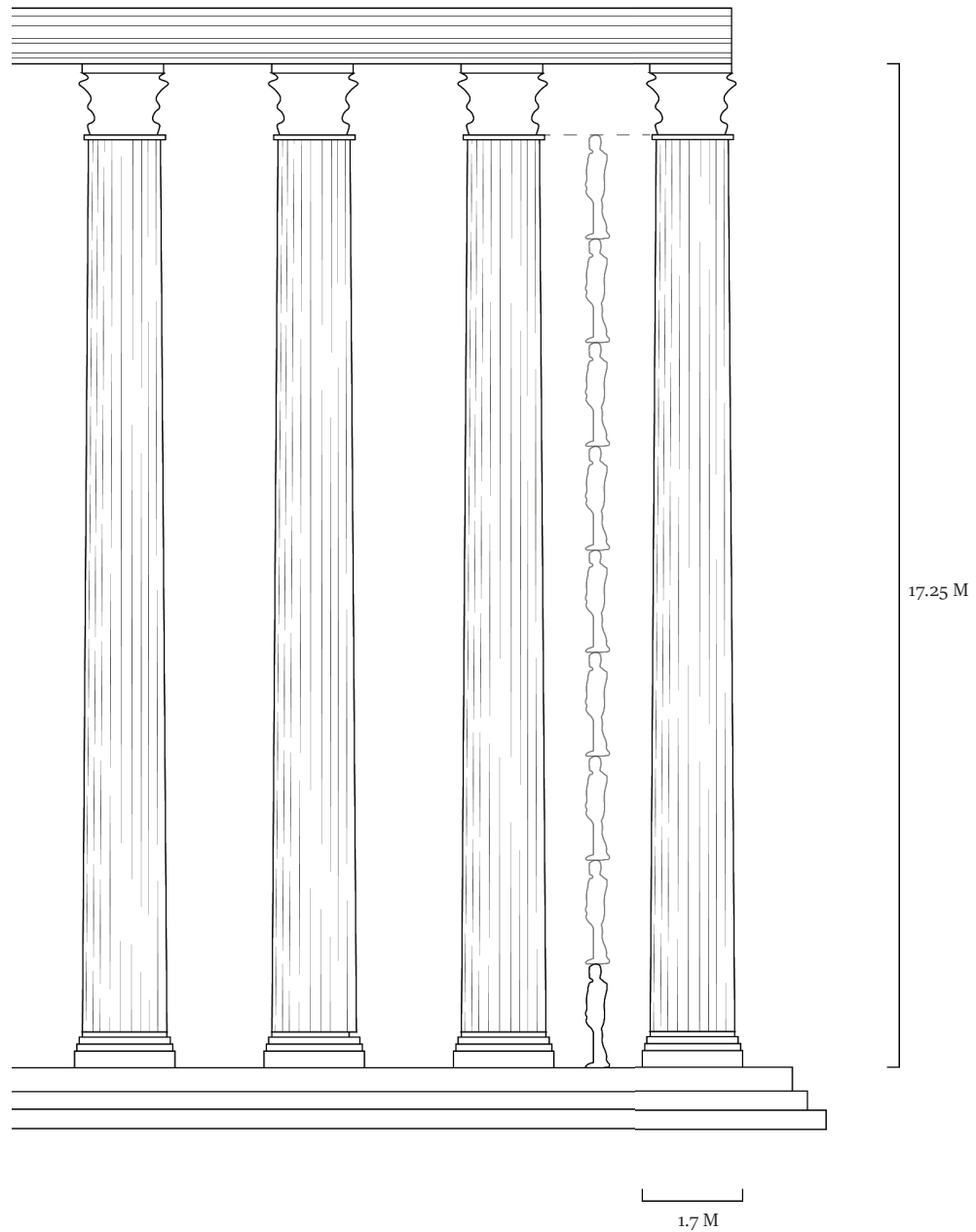


Fig. 26. Temple of Olympian Zeus body proportions. Monumental and oversized scale symbolizes dedication to highest god; Scale of columns in terms of average male body; height determined by 10 heights of body.

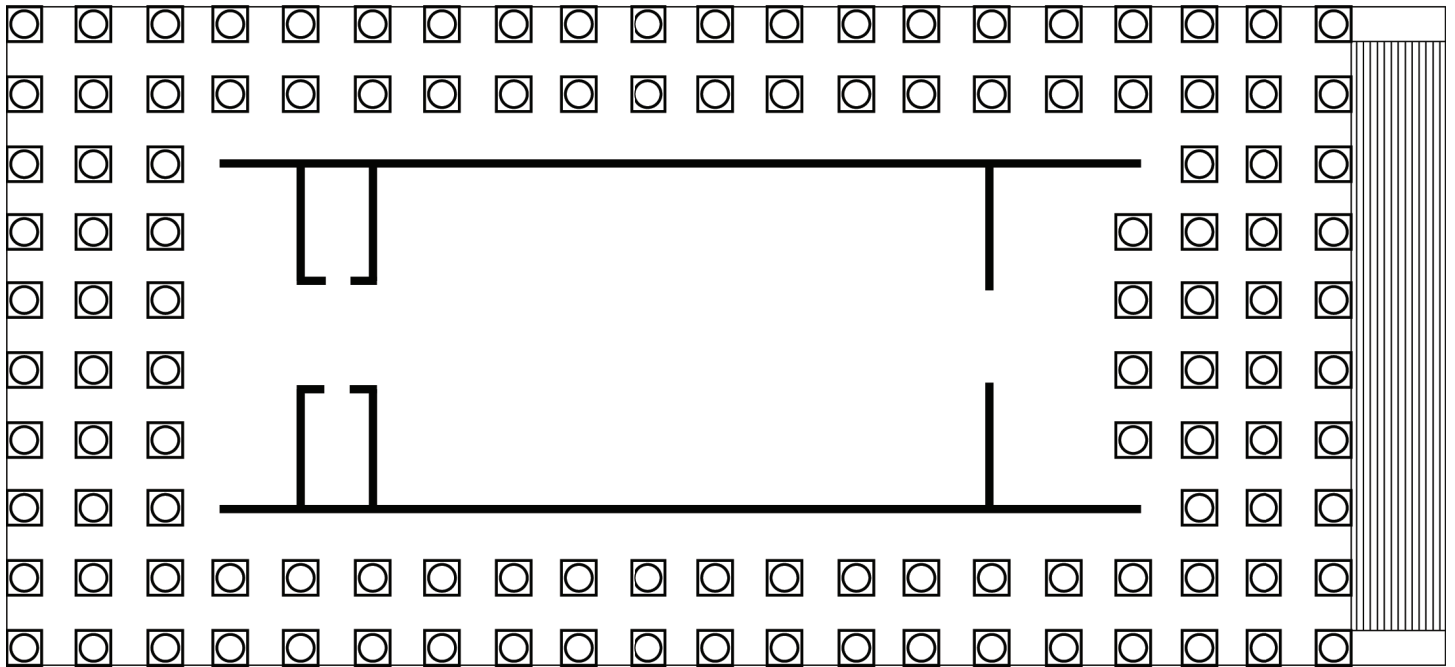


Fig. 27. Temple of Olympian Zeus plan. Greek ideals of masculinity in open dipteral octastyle and open plan.



Fig. 28. Temple of Isthmia at Corinth.

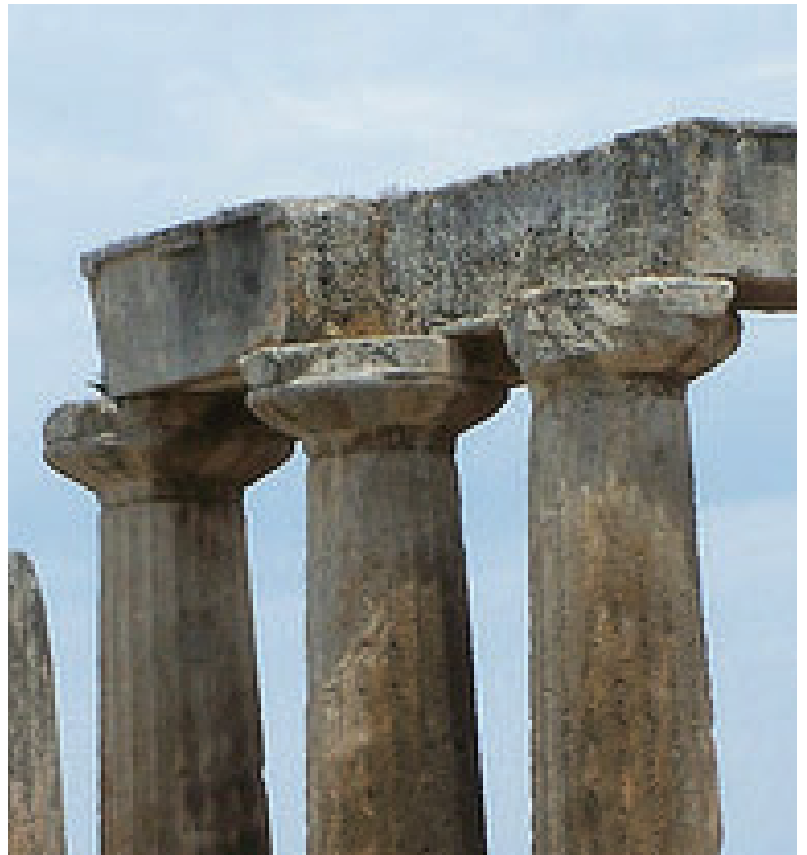


Fig. 29. Doric order as man; Temple of Isthmia ancient Doric order.

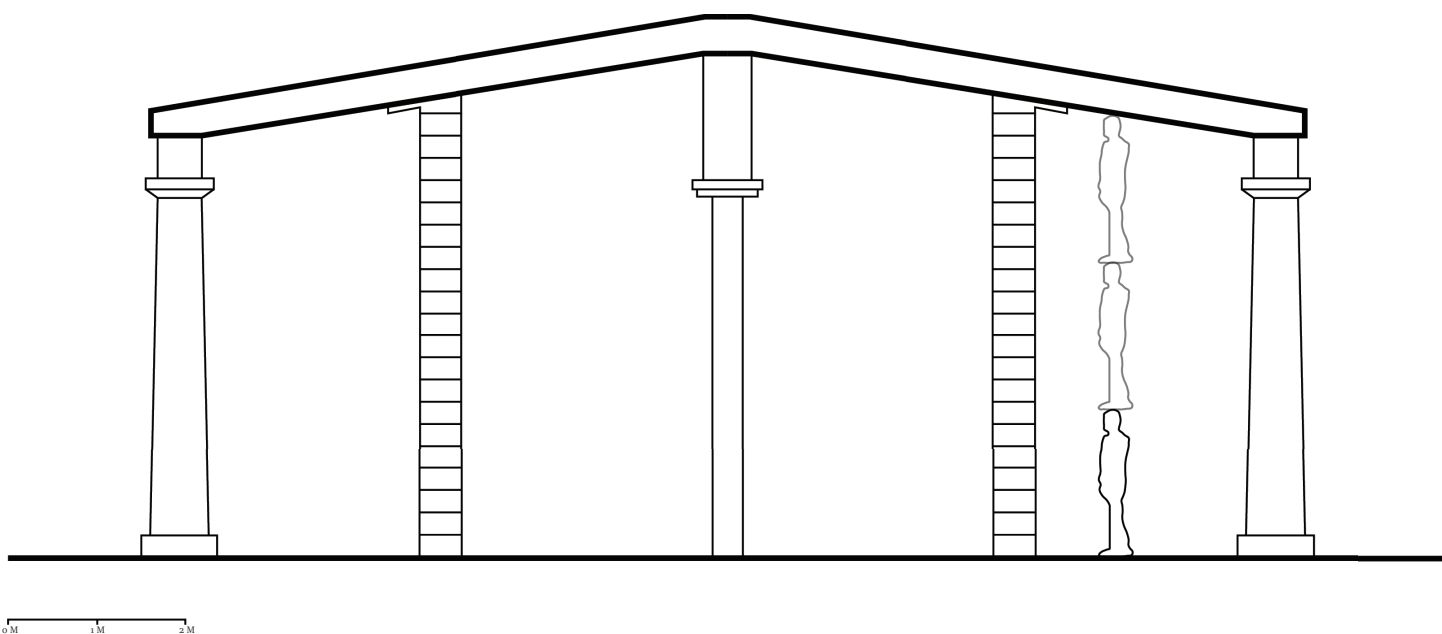


Fig. 30. Temple of Isthmia body proportions. Broad and low proportions imply masculinity and proximity to the earth indicates relationship to dedicated god; Scale of columns in terms of average male body; height determined by 3 heights of body.

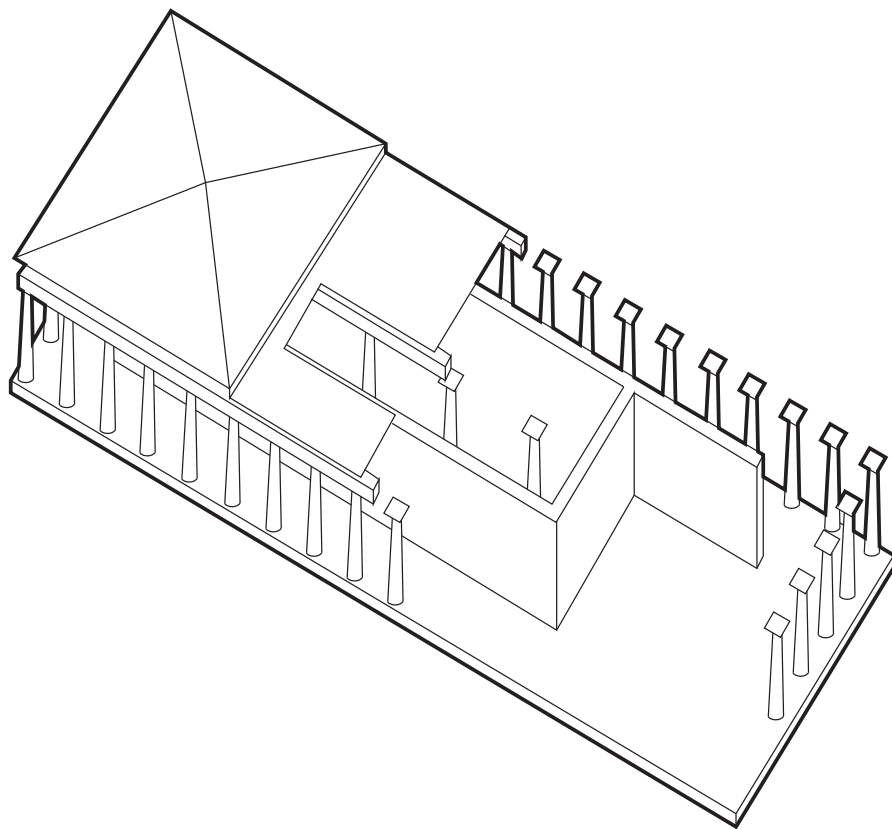


Fig. 31. Temple of Isthmia plan in axonometric. Greek ideals of masculinity in open plan.

HONORABLE MENTION

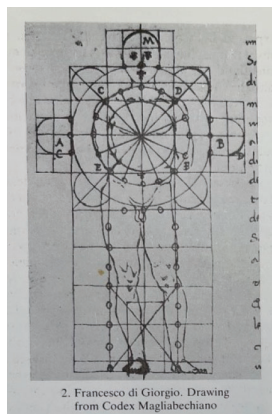
The following buildings are instances that could be investigated upon future study and expansion of the scope of this project. They range in location, time period, and style, but all use anthropomorphism to achieve their purposes.



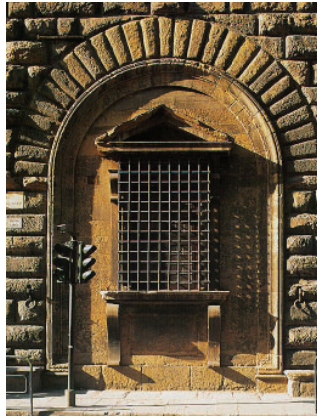
Glass House, New Canaan, Philip Johnson, 1949.



MIT Chapel, Cambridge, Eero Saarinen, 1955.



Representation of Renaissance Churches, Francesco di Giorgio, 1470.



Palazzo Medici, Florence, Michelozzo, 1460.



University of Porto, Porto, Alvar Siza, 1996.



L' Hemisfèric, Valencia, Santiago Calatrava, 1998.

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