

Presentation of Thesis

May 3rd, 2022, 3:30pm Renaissance Hall 5th Floor

Guest Critique:

Professor Christopher Bardt, Rhode Island School of Design

Faculty Critique:

Michael Strand, Director of NDSU School of Design, Architecture and Art

The following pages hold the manuscript of the presentation; for reference, thumbnails of the corresponding images are placed throughout.

Beyond the manuscript are slides presented during the presentation.

This project aims to identify the shift in architecture's role of creating transformative environments and atmospheres that give a place to comprehensible and purposeful reflection for the subject. Places that recognize and amplify the human desire for something beyond ourselves, something *other*. Places of spirituality.



1

“...feelings are not merely secondary aspects of consciousness, annoying or pleasurable sensations that act as obstacles to our proper functioning. They are important both because they obviously affect us emotionally but also because...it mobilizes and coordinates virtually every aspect of the organism.”



2

Those that have read this introduction from *Attunement* will recognize Alberto Pérez-Gómez's words as he initiates his discussion on the importance of the environment in which we live. Not as a conservation clause of saving rainforests and reducing carbon emissions but, as an increasingly underrecognized aspect to our bodily and mental condition as human-beings.

The physical world we exist in serves multiple roles, one being the function of providing shelter and sustenance, both relatively easy to recognize and calculate. Adjacent, the influence our environment has on our consciousness is not as perceptible to the eye, however, it is just as important.



3

In the past, architecture itself was manifested in spaces that gave people intersubjective direction by weaving culture and symbolism to create space for our “embodied consciousness.” This was often done with religious intent to connect the cosmos and earth through materiality, the meaning found in the environment created was presented for everyone, in turn enriching cultural contributions. This cohesive public presence hosted

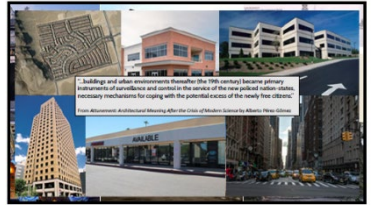
and prioritized by meaningful architecture contrasts today’s focus on the “solitary consumer”, where an influx of content claiming to enrich our lives is served endlessly, void of materiality and place.

Pérez-Gómez points to nineteenth-century Europe as a point where the urban scene shifted to a less attractive, relatively unhealthy environment that serves as a vein to commute and consume.



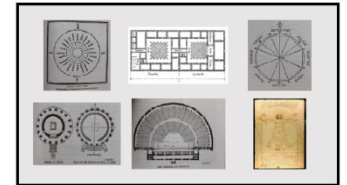
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As Pérez-Gómez states, “buildings and urban environments thereafter (the 19th century) became primary instruments of surveillance and control in the service of the new policed nation-states, necessary mechanisms for coping with the potential excess of the newly free citizens.” In a sense, projecting the opposite direction of **traditional** city function.



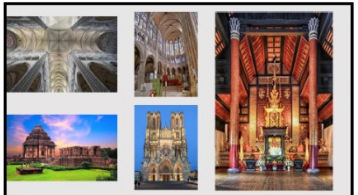
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For Vitruvius, in the time-period of the Greek empire, a well-designed city provided an environment for a healthy existence. It should host balance (temperance) in alignment with the human body. Accounting for natural phenomena and oriented with the cosmos, it would serve as the base for development of functions within the city. Subsequently designed theatres and temples brought divinity to a human scale, through proportion and symbolic ornament these built environments reflected the cosmos to the people and simultaneously the people back to the cosmos.



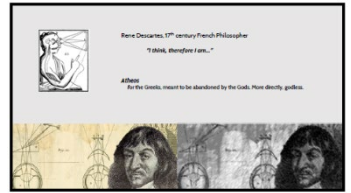
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Further on, Gothic cathedrals served as the most impressive, influential buildings that fit a similar purpose. Looking eastward we can see the same historic celestial alignment in architecture, with temples and mosques framing the dawn of the new day, enveloping the people in rich stories, insight and purpose.



7

Rene Descartes, a French philosopher from the early 17th century, is credited with his popular hypothesis of the mind and body existing as separate entities that are closely intertwined. Subsequently, given they are separate entities they ought to be able to exist apart from one another and operate on their own. Although it is a debatable philosophic theory, taken to relatively extreme levels the condition does align with the hedonistic gravity of the world that is now broadly more pronounced. As we evolve towards a painless world, in this hedonistic sense, parallels of *atheos* is evermore present. Seen in global homogenization, self-driving vehicles and the Metaverse of virtual reality, there is evidence to suggest we are traveling toward autonomy at its most catastrophic level.



8

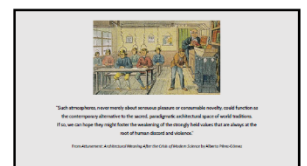
The worst scenario for architecture, and broadly humankind, would be the actualization of dystopian civilizations automated by technology. A truly autonomous being exists, in the Cartesian sense, as a mind free from the body. The draw to participate in anything communal holds no value, whether in culture or with nature, because to attain self-fulfilling prophecy within one's own mind, apart from physical happenings, would be the pinnacle of existence. If this is true, there is no reason to exist beyond the mind. Rendering our sensuous world of experience irrelevant, this is the problem presented to architecture.



9

“Such atmospheres, never merely about sensuous pleasure or consumable novelty, could function as the contemporary alternative to the sacred, paradigmatic architectural space of world traditions.

If so, we can hope they might foster the weakening of the strongly held values that are always at the root of human discord and violence.”



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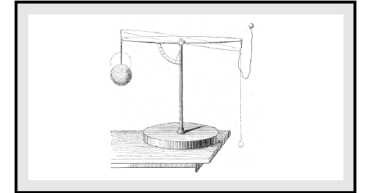
– Alberto Perez-Gomez, *Attunement: Architectural Meaning After the Crisis of Modern Science*

I set forth this condition of architecture in the most optimistic light. It is not completely my own, and it is not meant to set our world on a live stage of apocalyptic collapse, especially within the practice of architecture. This condition is presented to question architecture's current intent, to broadly question both the architect's and the user's intent but, more specifically with this project, to question how architecture might **continue** to inspire our distinguished and communal desire for interconnection beyond traditional sacred forms as they have arguably attained their most spectacular moments.

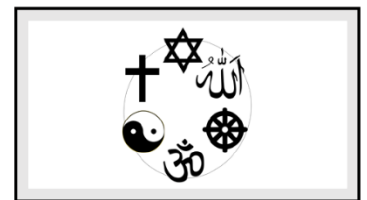
I offer then that there is a balance act in place, as large as existence itself, beyond architecture but, not inaccessible or invincible to architecture.

A scale that is continually overweighted to the less poetic.

Before we might attempt to right the scale, we must establish the depth spirituality holds as a concept in our world today as an **enhancement** of our human principles and functions. Religion is the most recognized structure of spirituality and, is present around the world with titles of Atheism, Buddhism, Christianity, Daoism, Hinduism, Islam, Judaism and many others. Events throughout the entirety of history up to today show us the differences in these religions, the atrocities and conflict cannot be ignored. Despite the differing views, however, the very thin thread that ties them together is that they are beliefs, schools of thought, methods of meditative thinking.

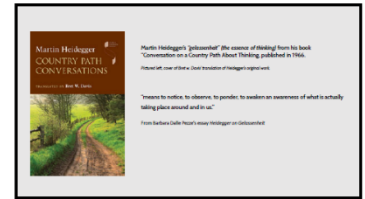


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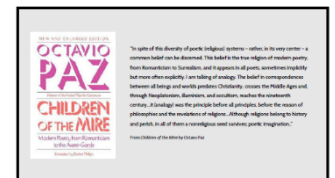
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In Barbara Dalle Pezze’s essay investigating what 20th century German philosopher Martin Heidegger means by the term ‘Gelassenheit’, she presents Heidegger’s “calculative thinking” and “meditative thinking”. Calculative thinking gives us answers to mathematical equations, spells out our goals and helps us decide to wear either a red or black shirt. It provides relatively quick, qualitative information that ends one thought with the beginning of the next. Meditative thinking, as Dalle Pezze states, “means to notice, to observe, to ponder, to awaken an awareness of what is actually taking place around and in us.” This does not mean we enter a tranced state of mind that renders us useless in the practical sense, but rather broadens our **understanding** of the practical, completely conscious.



13

If we can identify this difference between calculative and meditative thinking, tying the later to our spirituality, and search for a communal core in the meditative, what we may find is the “poetic imagination” (Paz). Octavio Paz, Mexican author and poet who produced his work in the 20th century, wrote of this in his book “Children of the Mire” published in 1991.

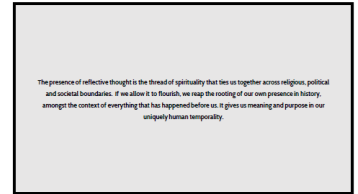


14

“In spite of this diversity of poetic (religious) systems – rather, in its very center – a common belief can be discerned. This belief is the true religion of modern poetry, from Romanticism to Surrealism, and it appears in all poets, sometimes implicitly but more often explicitly. I am talking of analogy. The belief in correspondences between all beings and worlds predates Christianity, crosses the Middle Ages and, through Neoplatonism, illuminism, and occultism, reaches the nineteenth century...it (analogy) was the principle before all principles, before the reason of philosophies and the revelations of religions...Although religions belong to history and perish, in all of them a nonreligious seed survives; poetic imagination.”

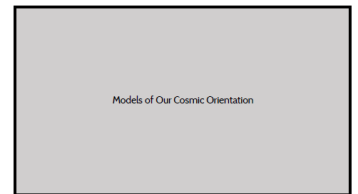
This realization is not meant to belittle any religions values and beliefs, they hold great positions in society and guide us along paths of fulfillment. But it must be noted, what identifying the poetic imagination does in establishing a communal bond.

The presence of reflective thought is the thread of spirituality that ties us together across religious, political and societal boundaries. If we allow it to flourish, we reap the rooting of our own presence in history, amongst the context of **everything** that has happened before us. It gives us meaning and purpose in our “uniquely human temporality”. (Attunement pg. 227).



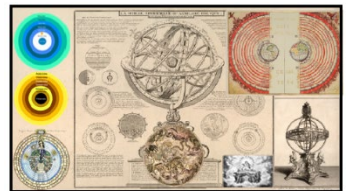
15

Before I move to the architectural intervention at the end of this project, I will address namely this model of our cosmic orientation.



16

The project’s artefact models our universe today, in reference to Plato’s cosmologies spelled out in his dialogue *Timaeus*, Ptolemy’s geocentric model revolving around earth, Copernicus and Galileo’s heliocentric model centered on the sun, and other models of the cosmos that both predate and succeed those mentioned including Vitruvius’ earth-centered axis and Giordano Bruno’s infinite universe.



17

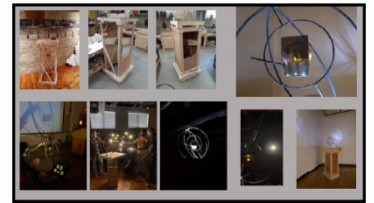
Pérez-Gómez summarizes Bruno’s model of the universe succinctly in *Attunement*, “...Bruno unified celestial and terrestrial physics; he believed that we inhabit an infinite universe, on a moving earth. Yet because he (Bruno) also believed that nothing is outside the realm of human experience – the mind-body-world continuum as it emerges as consciousness – Bruno believed that the divine is not entirely distinct from the human, and is therefore present in everything, in nature and cultural

artifacts. For him, infinity is coupled with the idea of every creature's participation in the divine; in the infinite space of a love-permeated universe, all things are fused."

Thus, calling upon fragments of these forementioned models, the importance of the specific fragments is perhaps not so much as the **presence** of the fragment itself.

Part of what has designated traditionally spiritual places as such was the use of analogy, of language, and fragments, or symbols, within them. I relate the ideas of fragment and symbol in the sense that they serve similar purpose in representing a smaller part of a larger whole.

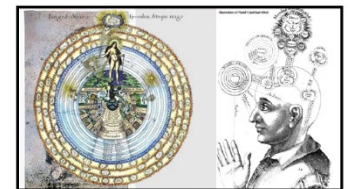
What resulted from this consideration of past interpretations and stories is this collage that holds an infinitely reflected plastic light within a demonstration of amateur welding set atop a block of wood. I describe this model in that way because without meaning, without stories, without analogy, without the poetic imagination, it is simply a grossly oversized nightlight.



18

I believe I'm on course in saying built architecture follows suite. Without a basis of poetic materiality and form, especially concerning spiritual architecture, our buildings exponentially lose their utility.

As the poetic imagination has evolved, we see beliefs and desire outside of religion. 17th century physicist, mathematician and cosmologist Robert Fludd published *Utriusque Cosmi*. A fragment of which set our human relation to the cosmos, in that every star in the heavens has it's seed in the plants of the earths. A reflection of this analogy can be interpreted from



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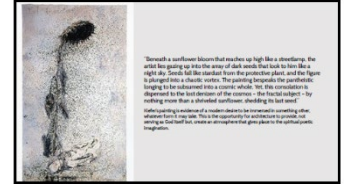
German artist Anselm Kiefer's painting *Sol Invictus* completed in 1995.
From Markus Brüderlin's description,

“Beneath a sunflower bloom that reaches up high like a streetlamp, the artist lies gazing up into the array of dark seeds that look to him like a night sky. Seeds fall like stardust from the protective plant, and the figure is plunged into a chaotic vortex. The painting bespeaks the pantheistic longing to be subsumed into a cosmic whole. Yet, this consolation is dispensed to the lost denizen of the cosmos – the fractal subject – by nothing more than a shriveled sunflower, shedding its last seed.”

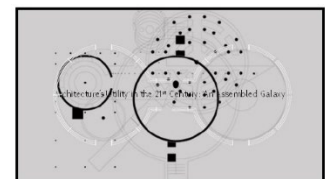
Kiefer's painting is evidence of a modern desire to be immersed in something other, whatever form it may take. Presenting the opportunity for architecture to provide. Not serving as God itself, but, as the atmosphere that gives place to the spiritual poetic imagination.

I'll now present an architectural cosmology. A net of observatories set across the world, each fragment with their own unique elements, connected by cosmic orientation, historic tradition and engagement of the poetic imagination.

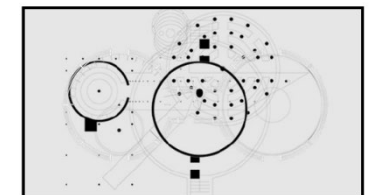
Comprised of a continual work of twelve observatories, I will present four.



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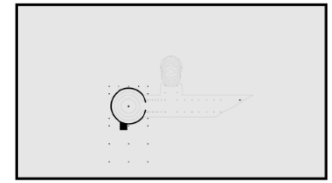


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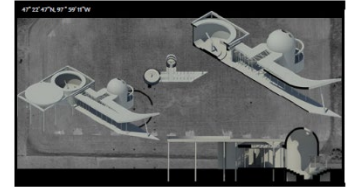


22

First, Plainer View. Located nine miles south and east of Cooperstown, North Dakota, the observatory holds both a telescope and unaided viewing. The roofline suggests a peeling upward of the expansive Great Plains region, grounding the building for participation in its heavenward stare. Slices in the canopy cast a broken moonlight, illuminating paths to the oculi. The telescopic space acts as a basin, holding the cosmic rainfall of the night sky. Two benches are set perpendicular to the raised viewing platform where the telescope is set. The adjacent unaided viewing area is terraced, again to a basin that catches moonlight from three openings above. Outward from the stepped seating a moment is framed. The collision of innumerable stars above falling upon earthly expanse.



23



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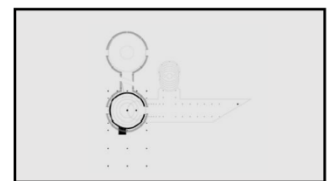
Seasonal conditions certainly play a role here, but with the ideal condition of a clear sky on the longest night of the year, the winter solstice, one might witness this magnificent presence through the form of the architecture.



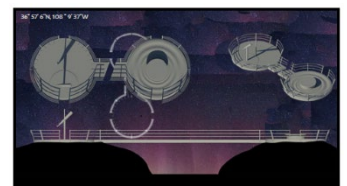
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Next, we move to New Mexico's Chain-of-Craters Wilderness Study Area.

Eighty miles west of Albuquerque, in the desert forest, this observatory was designed from the language of Pulitzer Prize Finalist Mei-Mei Berssenbrugge in her poems *Star Beings* and *Scalar*, written in reflection of her time living and hiking in New Mexico. The open-sky observatory spans the unnamed crater's basin bridging the telescopic and unaided



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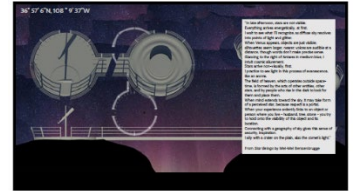


27

viewing areas. Spanning 400ft, the walkway connecting the pair of platforms shows a very direct connection across a distance. That connection is often addressed in the poems.

From Berssenbrugge's poem *Star Beings*,

“In late afternoon, stars are not visible.
Everything arrives energetically, at first.
I wait to see what I'll recognize, as diffuse sky resolves into points
of light and glitter.
When Venus appears, objects are just visible; silhouettes seem
larger, nearer; voices are audible at a distance, though words don't
make precise sense.
Glancing to the right of Antares in medium blue, I intuit cosmic
allurement.
Stars arrive non-visually, first.
I practice to see light in this process of evanescence, like an aroma.
The field of heaven, which operates outside space-time, is formed
by the acts of other entities, other stars, and by people who rise in
the dark to look for them and place them.
When mind extends toward the sky, it may take form of a
perceived star, because respect is a portal.
When your experience ardently links to an object or person where
you live - husband, tree, stone - you try to hold onto the visibility
of this object and its location.
Connecting with a geography of sky gives this sense of security,
inspiration.
I ally with a crater on the plain, also the comet's light.”

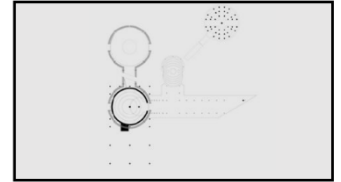


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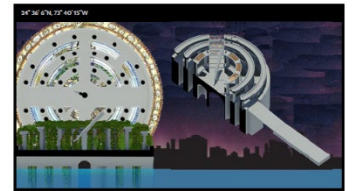
Following the language from the first stanza in *Star Beings*, Berssenbrugge continues to dictate this relation to the cosmos. This observatory follows the language across this distance to waves reflected in

the scattered light. Setting a place for the collapsible distance between our eyes, the eyes of our soul, and the light-stricken web of infinity above.

In continuous tracing of this architectural cosmos, we land in northern India. Built on Fateh Sugar Lake as its own island in Udaipur, Rajasthan, this observatory sets together the seven upper Lokas in Hindu cosmology over Robert Fludd's *Amina Mundi* cosmic model, where earth and all its conditions are encircled by atmosphere and celestial beings. Earth, the base of the seven upper Lokas, is at the center of the observatory where the telescope is set extending above the visual plane. Flowered vines grow down through the concentric rings of the Lokas, reaching to the water below. The plantings remain as a constant of our earthy condition, encircling the observer, protecting them from bustling noise from the surrounding city. The greater axis anchors the walkways, aligning with the summer solstice, framing the arrival of the sun's light over Udaipur's skyline. The lesser axis aligns with the axis of the neighboring, less publicly accessible Udaipur Solar Observatory, where state funded scientific observation occurs.



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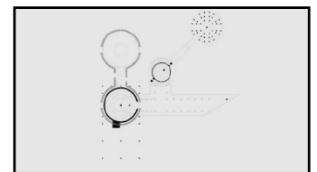


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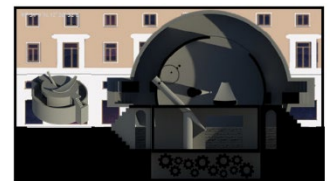
The final stop here today brings us to Rome. In alignment with the Vatican City, across the Tiber River, sits Piazza di San Silvestro. Formerly a hub for the city's public bus transit, this center is now a public plaza and, the envisioned site for *The Distance of the Moon* Observatory.

In the absence of local observatories as the Vatican's own was pushed out of the boundaries of the Vatican, and eventually to Arizona as consequence of artificial light pollution, the placement of this observatory is evermore justified.

Inspired by Italian poet Italo Calvino's *The Distance of the Moon*, the observatory continues the overarching rubric of public accessibility.



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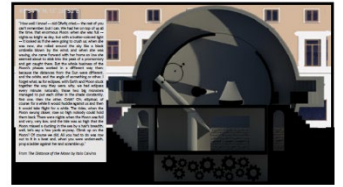


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I'd like to read to you, a piece of the *Cosmicomics* as these are inscribed around the outer walls of the observatory. From the beginning of Calvino's writing,

“How well I know! -- *old Qfwfq cried*, -- the rest of you can't remember, but I can. We had her on top of us all the time, that enormous Moon: when she was full -- nights as bright as day, but with a butter-colored light -- it looked as if she were going to crush us; when she was new, she rolled around the sky like a black umbrella blown by the wind; and when she was waxing, she came forward with her horns so low she seemed about to stick into the peak of a promontory and get caught there. But the whole business of the Moon's phases worked in a different way then: because the distances from the Sun were different, and the orbits, and the angle of something or other, I forget what; as for eclipses, with Earth and Moon stuck together the way they were, why, we had eclipses every minute: naturally, those two big monsters managed to put each other in the shade constantly, first one, then the other. Orbit? Oh, elliptical, of course: for a while it would huddle against us and then it would take flight for a while. The tides, when the Moon swung closer, rose so high nobody could hold them back. There were nights when the Moon was full and very, very low, and the tide was so high that the Moon missed a ducking in the sea by a hair's breadth; well, let's say a few yards anyway. Climb up on the Moon? Of course, we did. All you had to do was row out to it in a boat and, when you were underneath, prop a ladder against her and scramble up.”

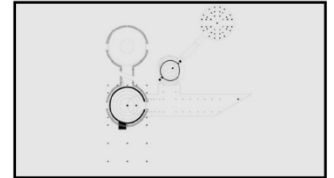
The split-level observatory calls participation of multiple parties, as the telescope viewing below and the crescent seat above rotate with user input, driven by motors in the lowest chamber. In an unseen dance,



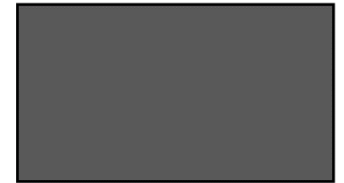
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twirling together beneath a clear night sky permeated by the *Cosmicomics* of Italo, the users might find a collective moment of longing. A desire to set their own ladder to the moon.

In the continuation of the project, architecture's spiritual utility for the 21st century might be found in the framing of our constant human condition, inherent longing for connection to something beyond us. Built beside the traditionally sacred architecture of our world, spiritual architecture must strive to provide a wholeness, a summation of intellect and emotion through its actions: a place for self-understanding and reflection. A place rich with encompassing engagement of the poetic imagination.



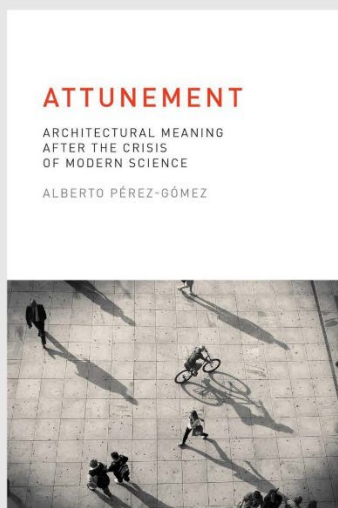
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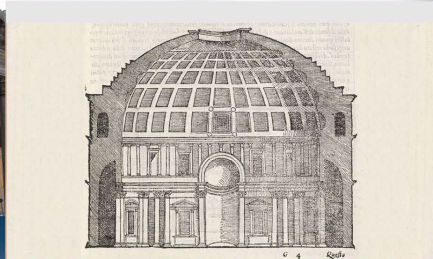


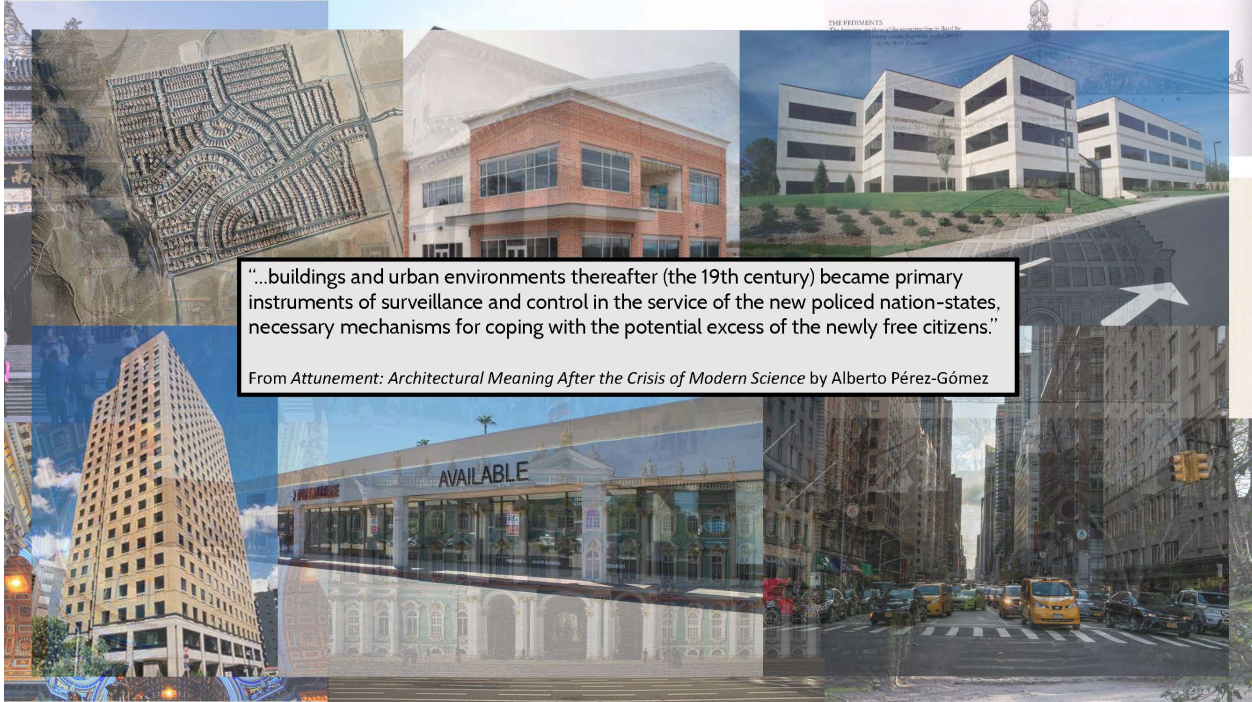
Architecture's Spiritual Utility in the 21st Century



"...feelings are not merely secondary aspects of consciousness, annoying or pleasurable sensations that act as obstacles to our proper functioning. They are important both because they obviously affect us emotionally but also because...it mobilizes and coordinates virtually every aspect of the organism."

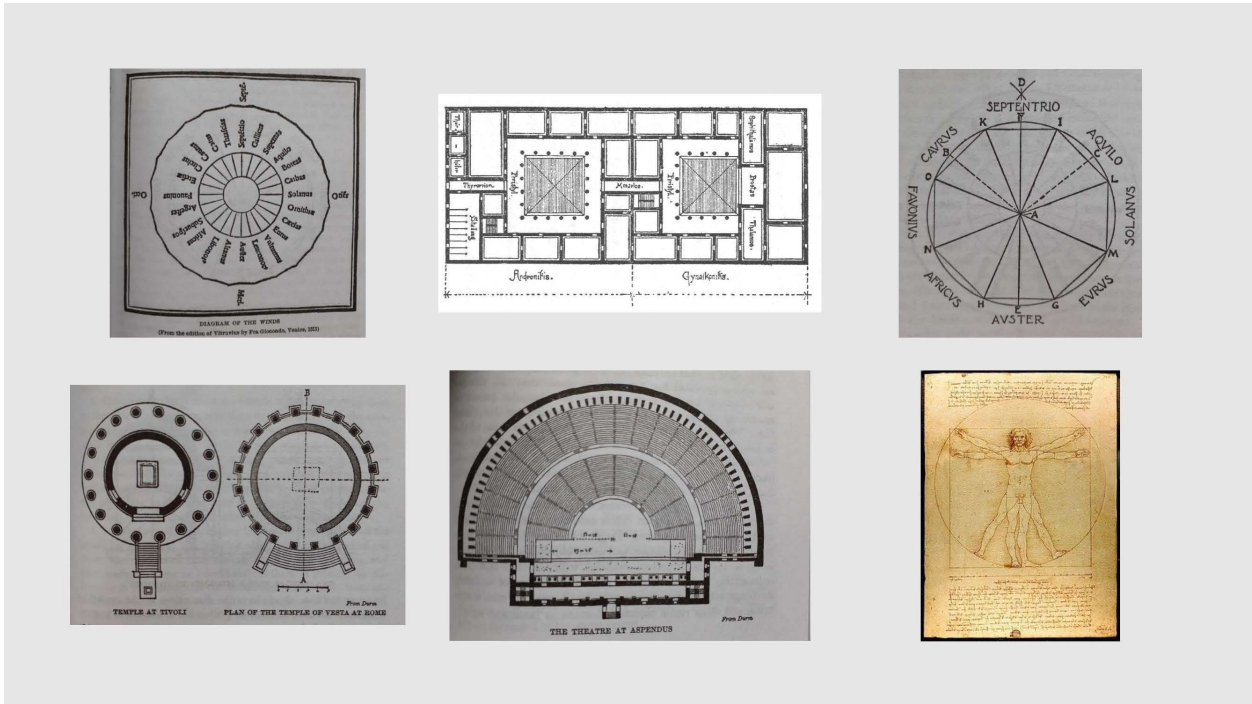
From Attunement: Architectural Meaning After the Crisis of Modern Science by Alberto Pérez-Gómez

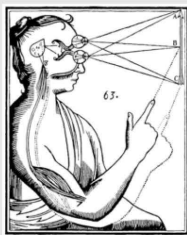




“...buildings and urban environments thereafter (the 19th century) became primary instruments of surveillance and control in the service of the new policed nation-states, necessary mechanisms for coping with the potential excess of the newly free citizens.”

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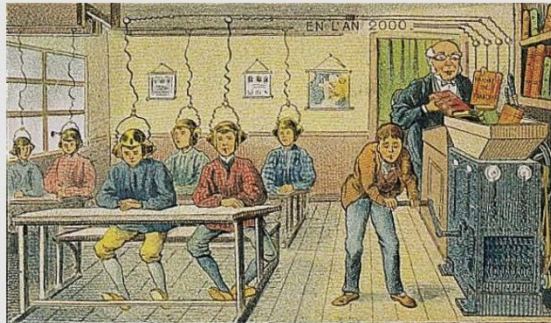
Rene Descartes, 17th century French Philosopher

"I think, therefore I am..."

Atheos

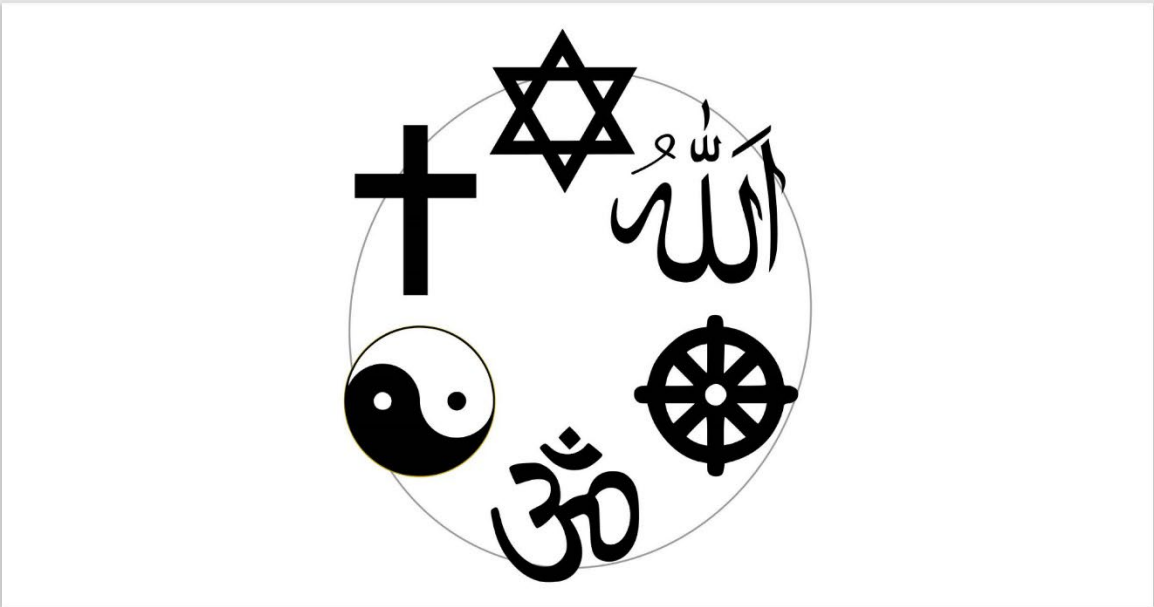
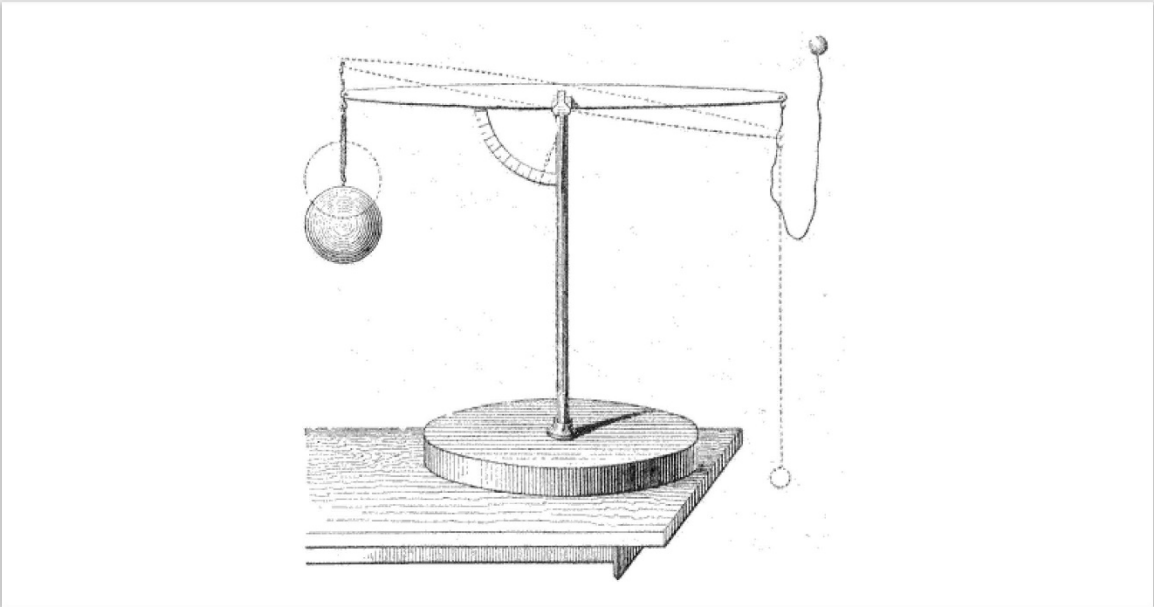
for the Greeks, meant to be abandoned by the Gods. More directly, godless.

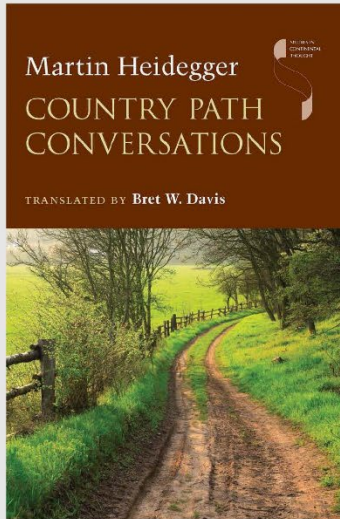




“Such atmospheres, never merely about sensuous pleasure or consumable novelty, could function as the contemporary alternative to the sacred, paradigmatic architectural space of world traditions. If so, we can hope they might foster the weakening of the strongly held values that are always at the root of human discord and violence.”

From Attunement: Architectural Meaning After the Crisis of Modern Science by Alberto Pérez-Gómez



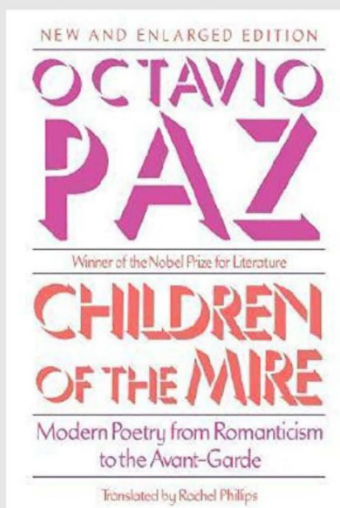


Martin Heidegger's "gelassenheit" (*the essence of thinking*) from his book "Conversation on a Country Path About Thinking, published in 1966.

Pictured left, cover of Bret w. Davis' translation of Heidegger's original work.

"means to notice, to observe, to ponder, to awaken an awareness of what is actually taking place around and in us."

From Barbara Dalle Pezze's essay *Heidegger on Gelassenheit*

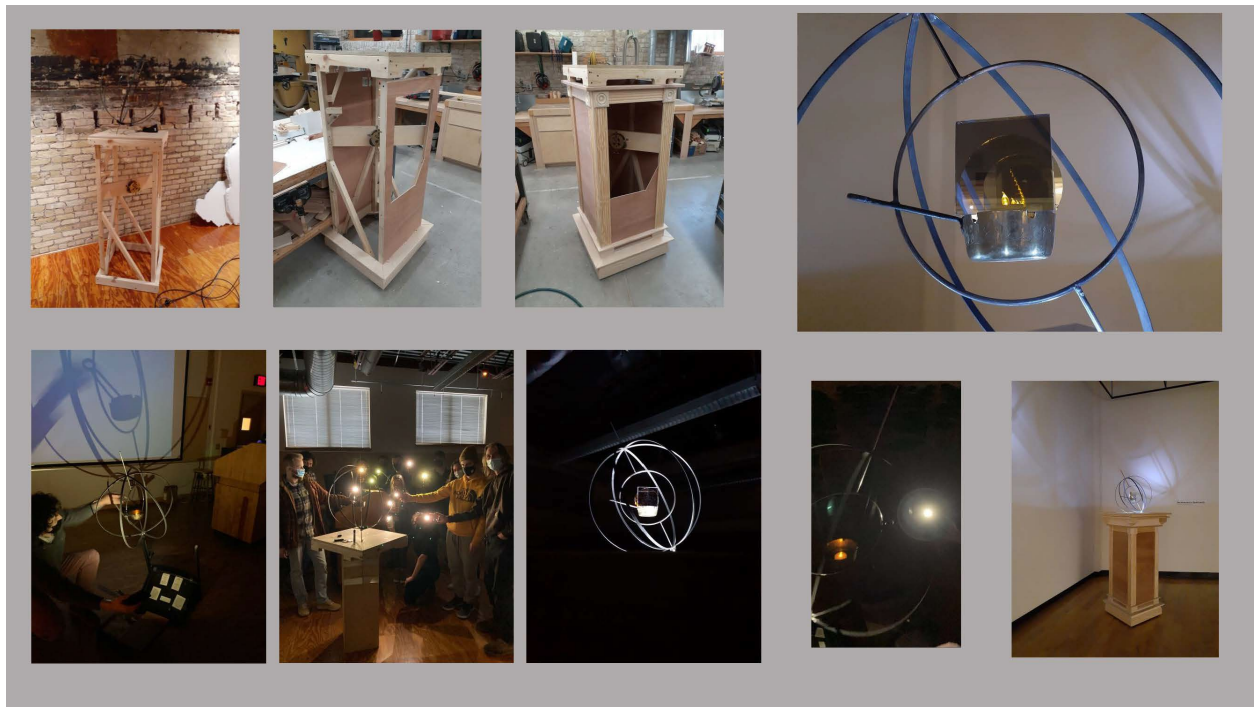
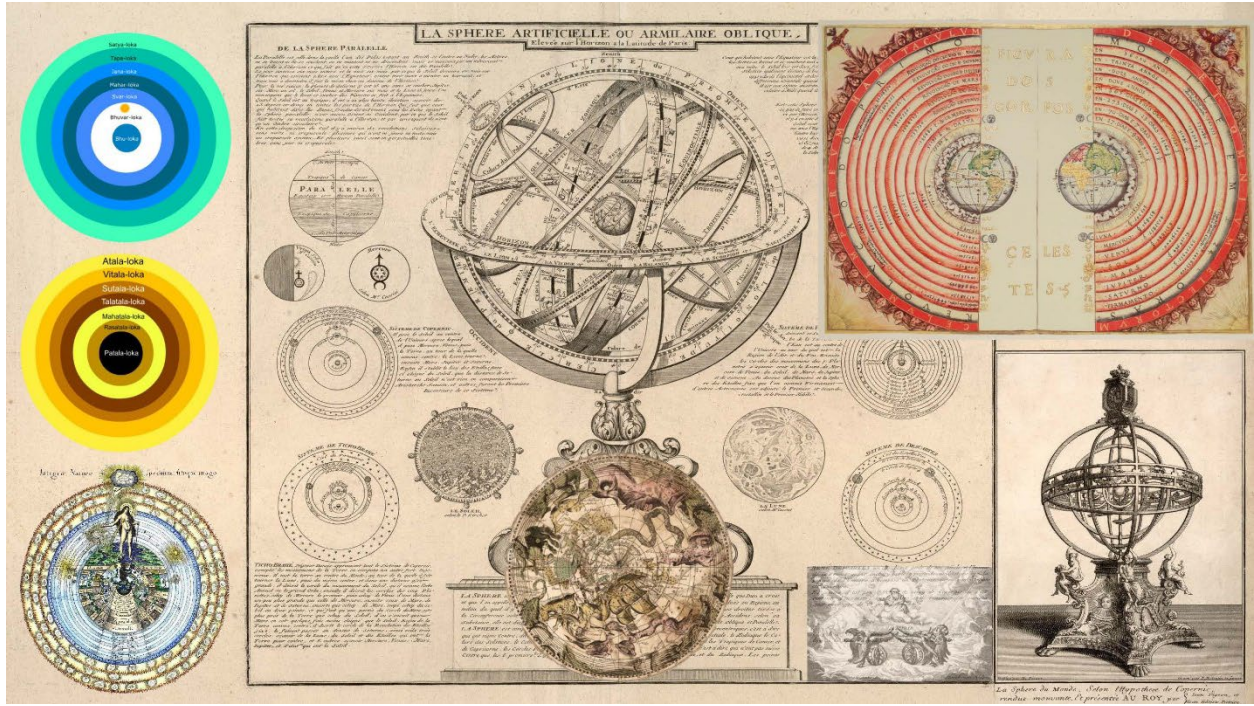


"In spite of this diversity of poetic (religious) systems – rather, in its very center – a common belief can be discerned. This belief is the true religion of modern poetry, from Romanticism to Surrealism, and it appears in all poets, sometimes implicitly but more often explicitly. I am talking of analogy. The belief in correspondences between all beings and worlds predates Christianity, crosses the Middle Ages and, through Neoplatonism, illumism, and occultism, reaches the nineteenth century...it (analogy) was the principle before all principles, before the reason of philosophies and the revelations of religions...Although religions belong to history and perish, in all of them a nonreligious seed survives; poetic imagination."

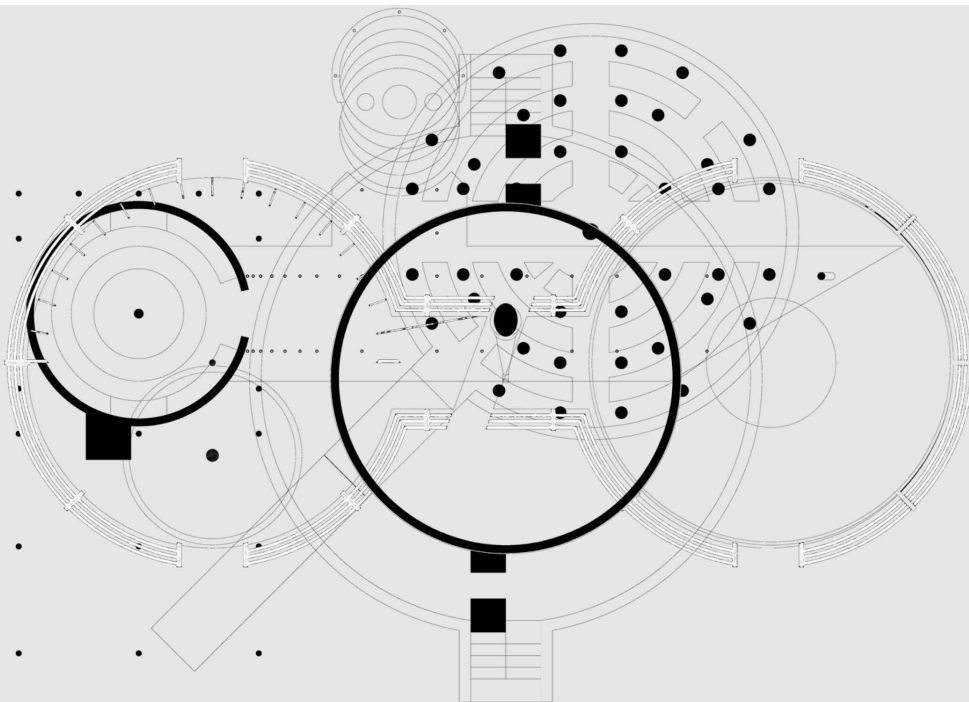
From *Children of the Mire* by Octavio Paz

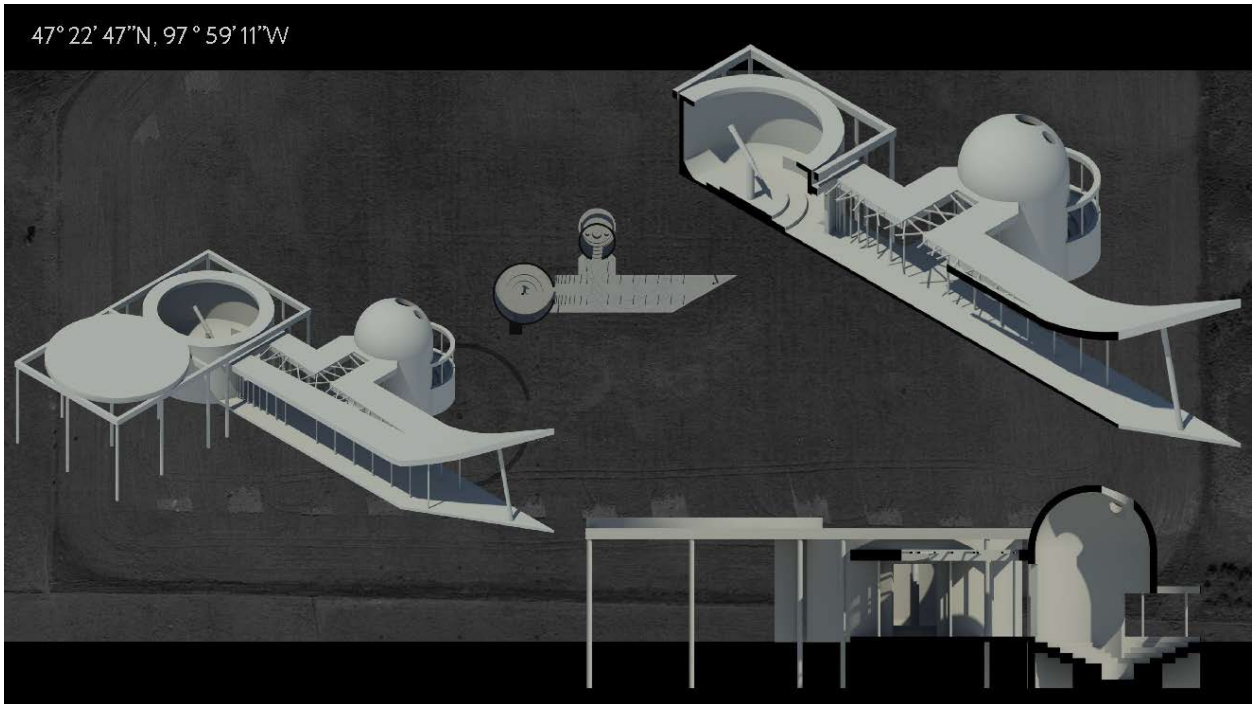
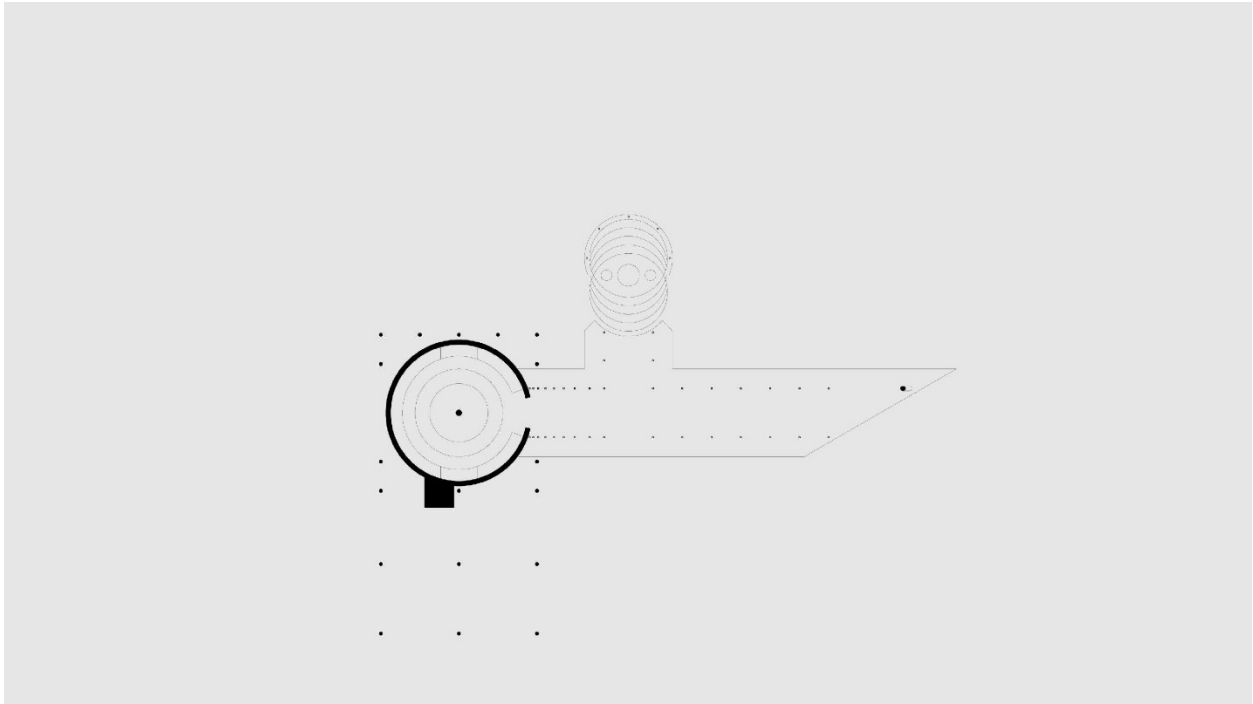
The presence of reflective thought is the thread of spirituality that ties us together across religious, political and societal boundaries. If we allow it to flourish, we reap the rooting of our own presence in history, amongst the context of everything that has happened before us. It gives us meaning and purpose in our uniquely human temporality.

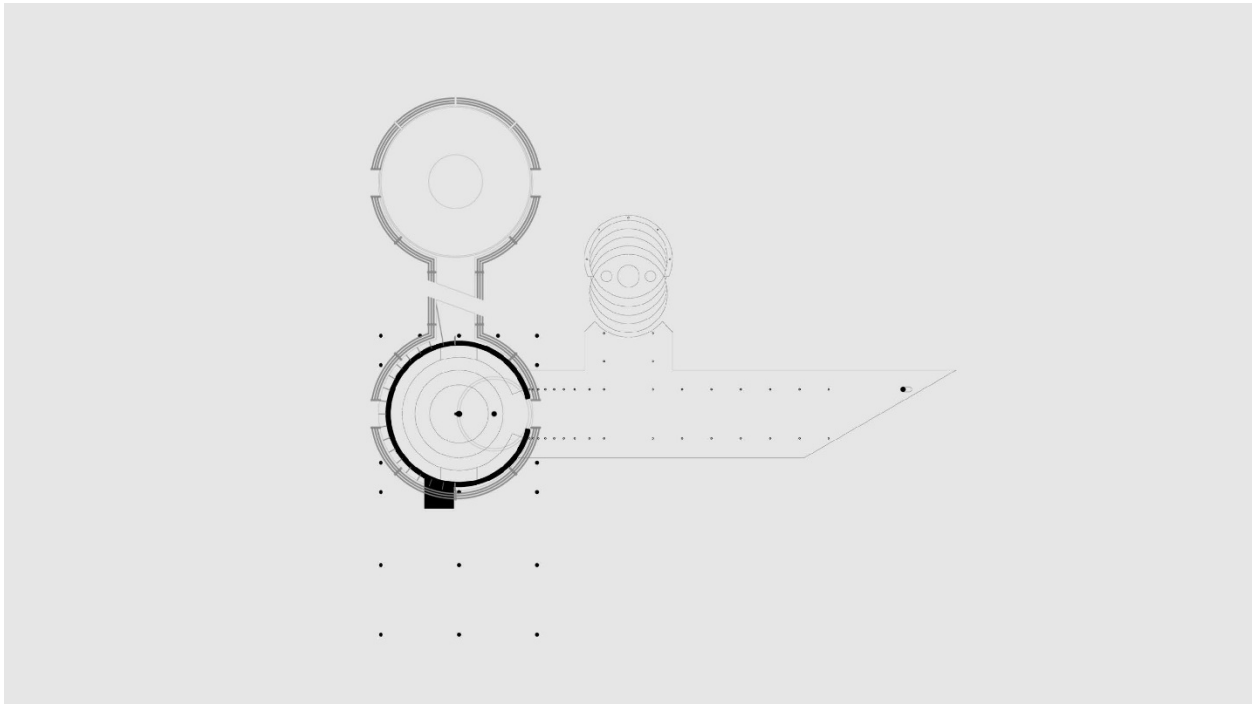
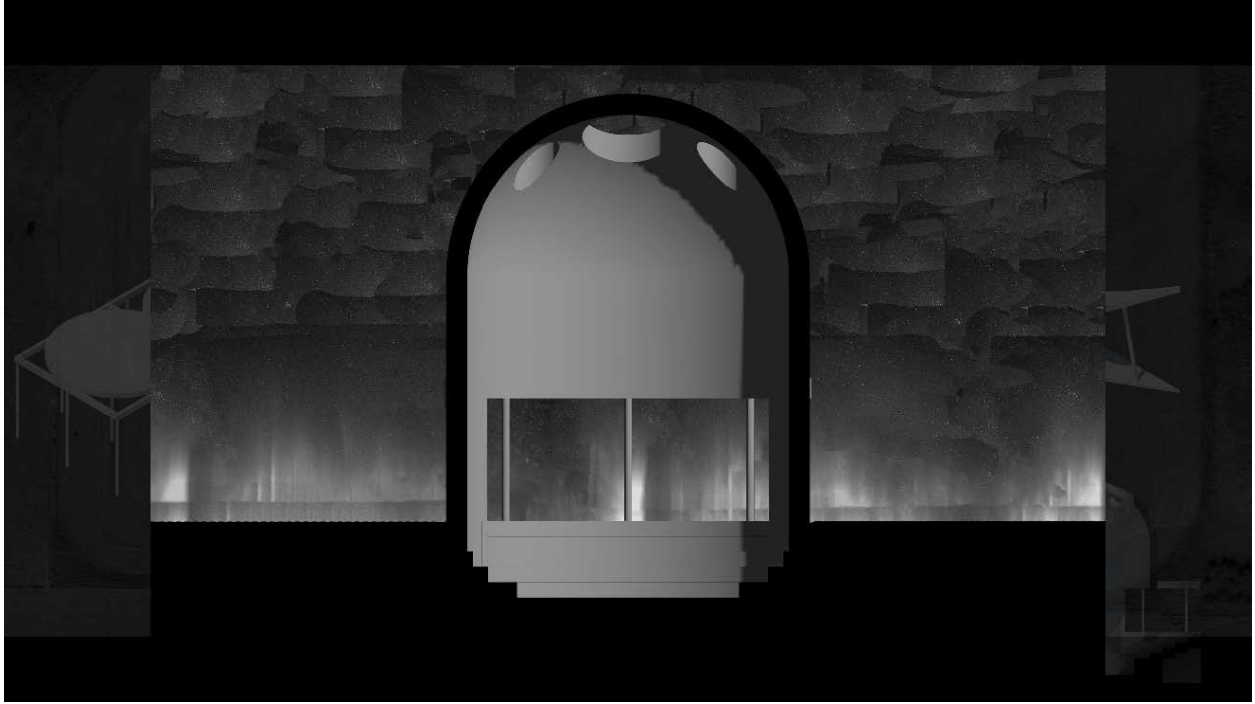
Models of Our Cosmic Orientation

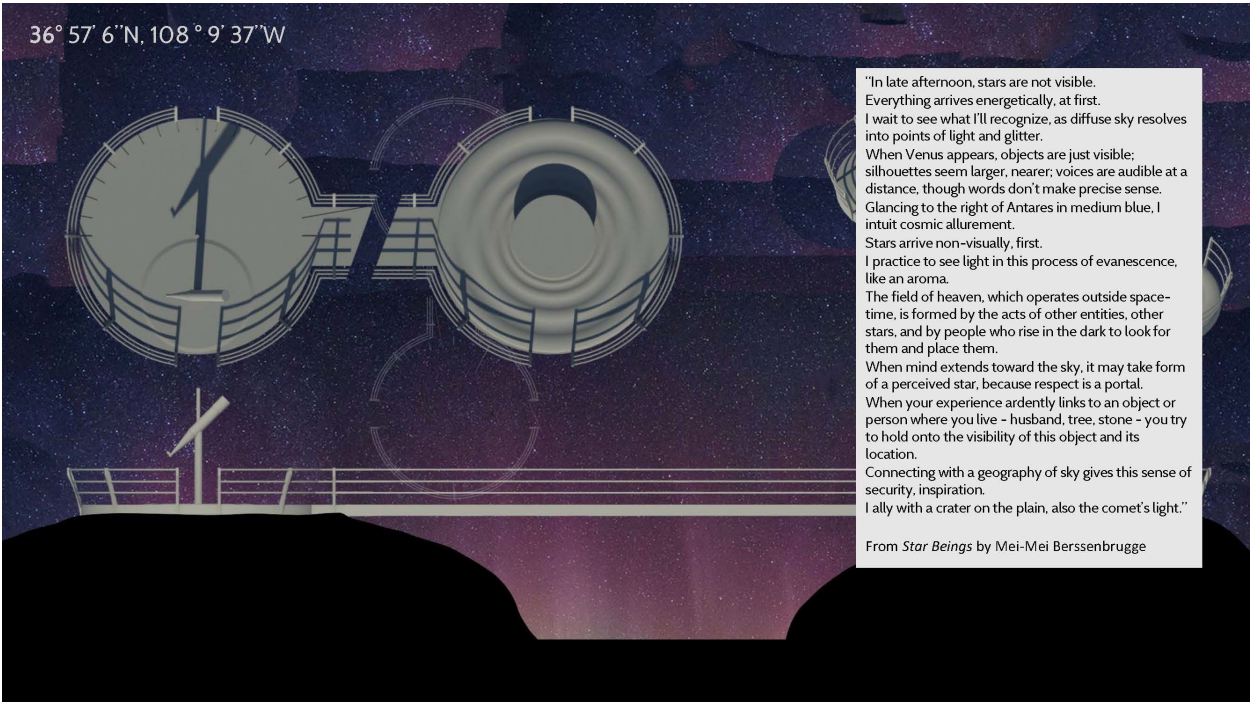
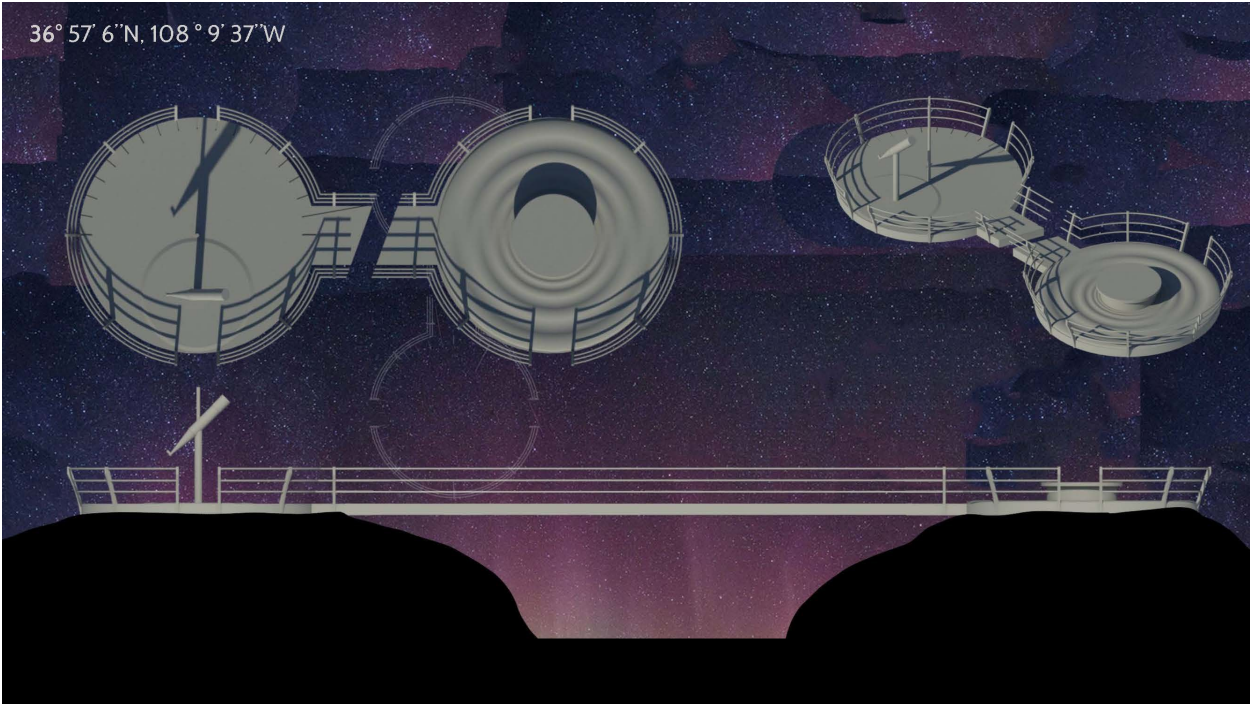


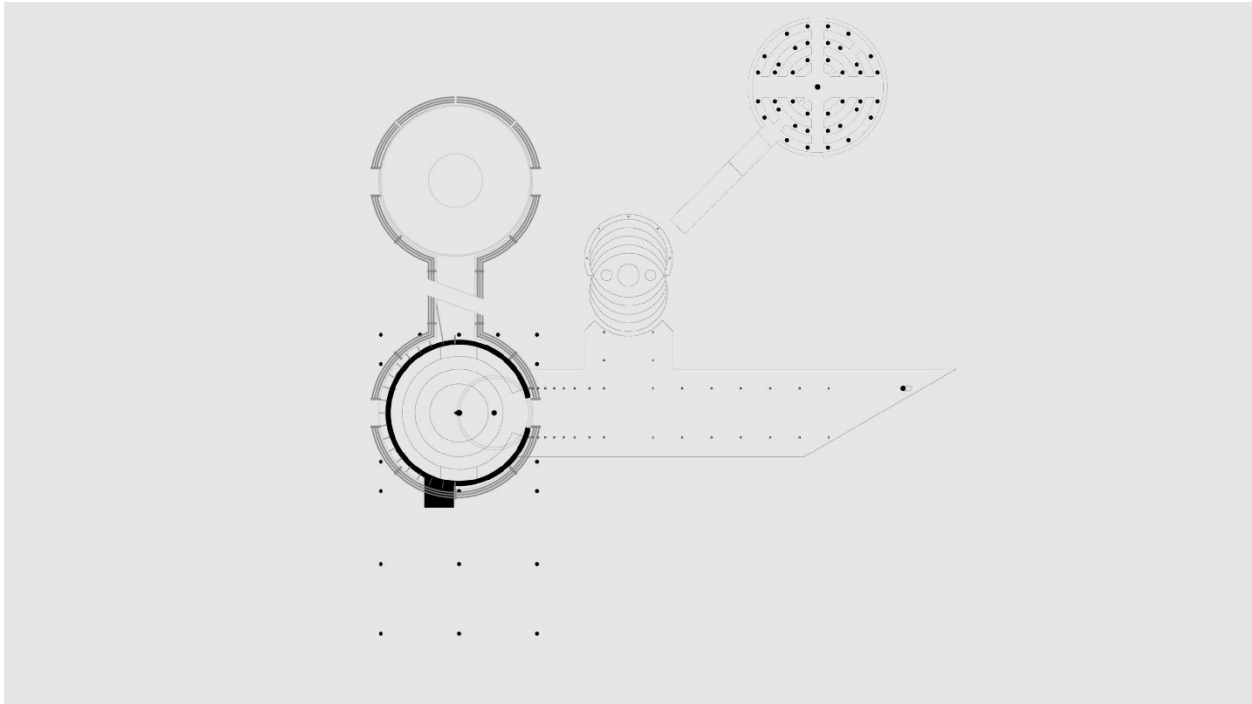
Architecture's Utility in the 21st Century: An Assembled Galaxy

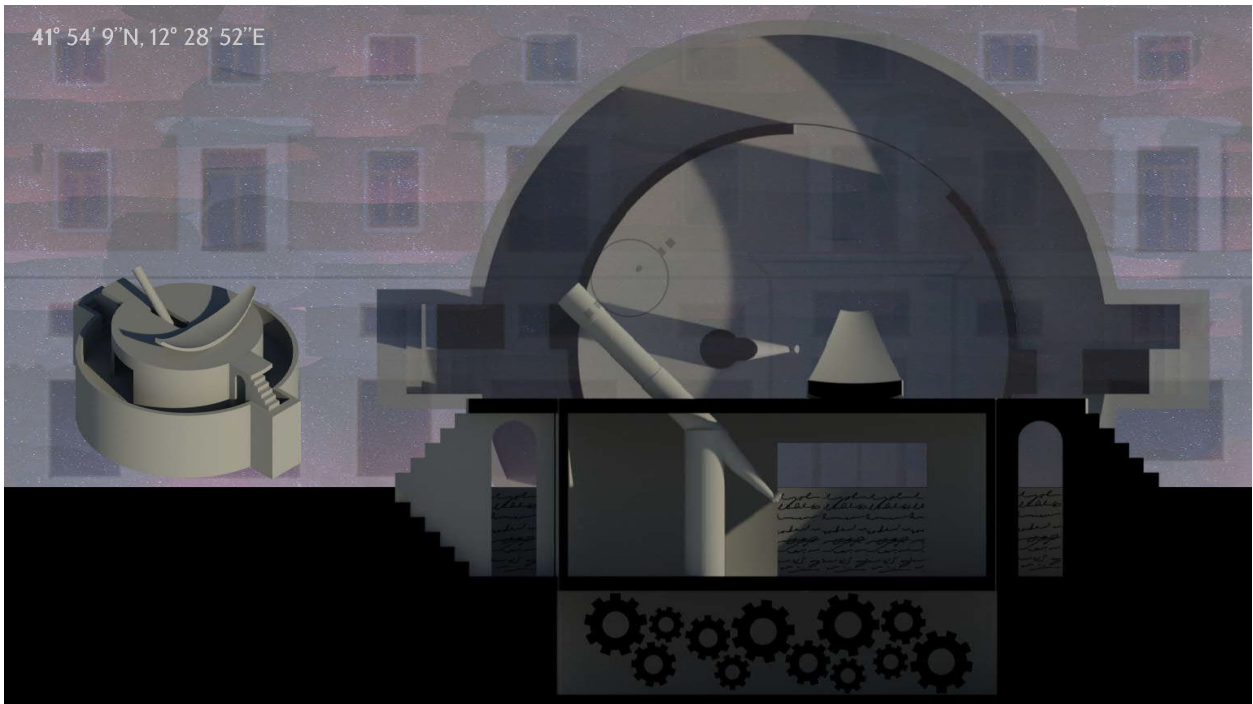
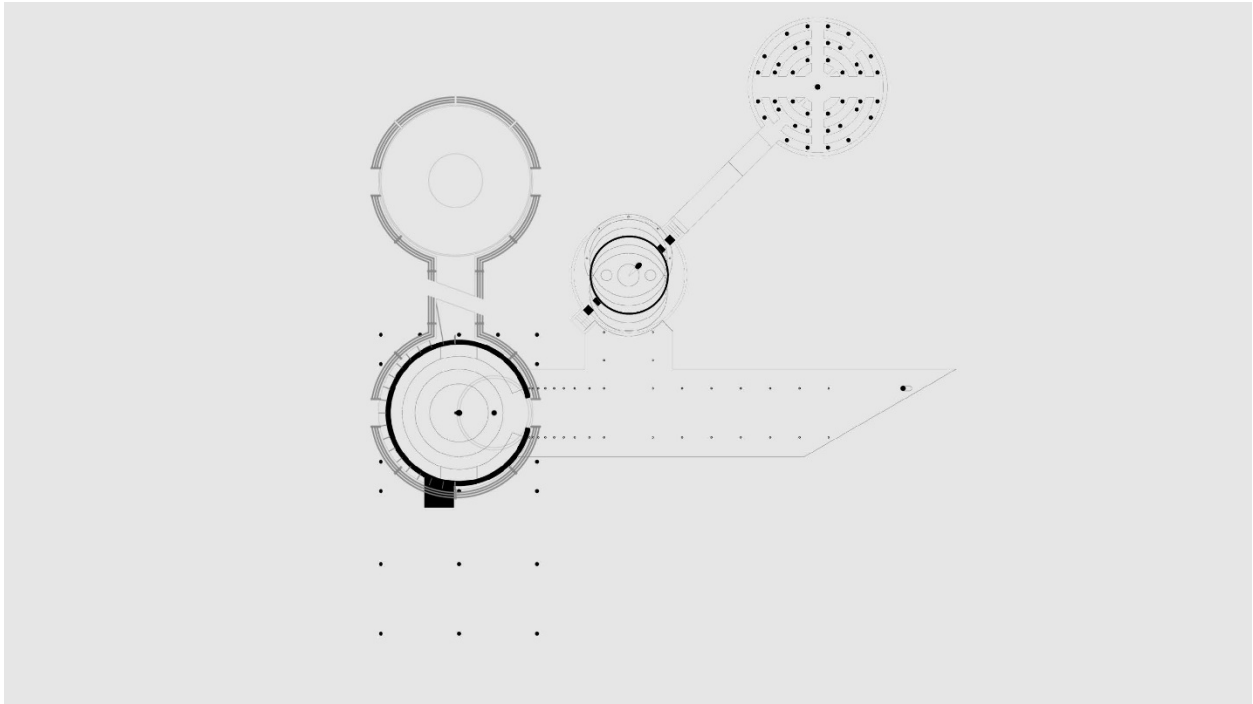








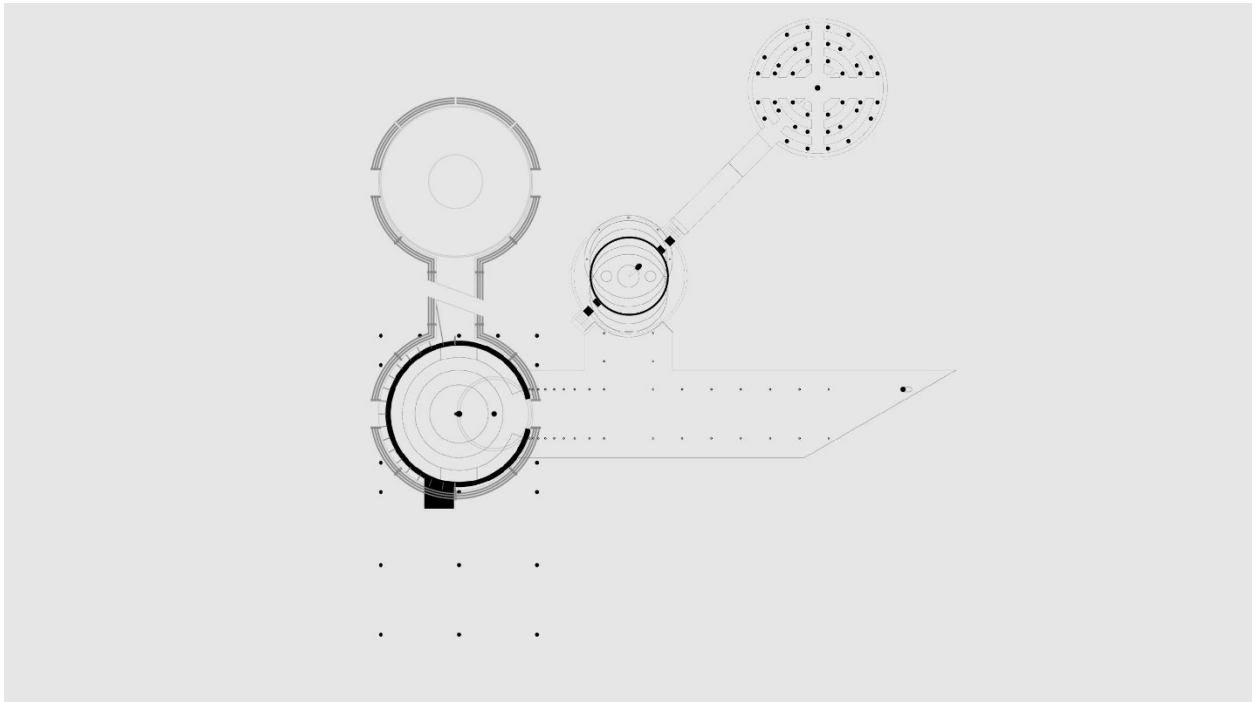
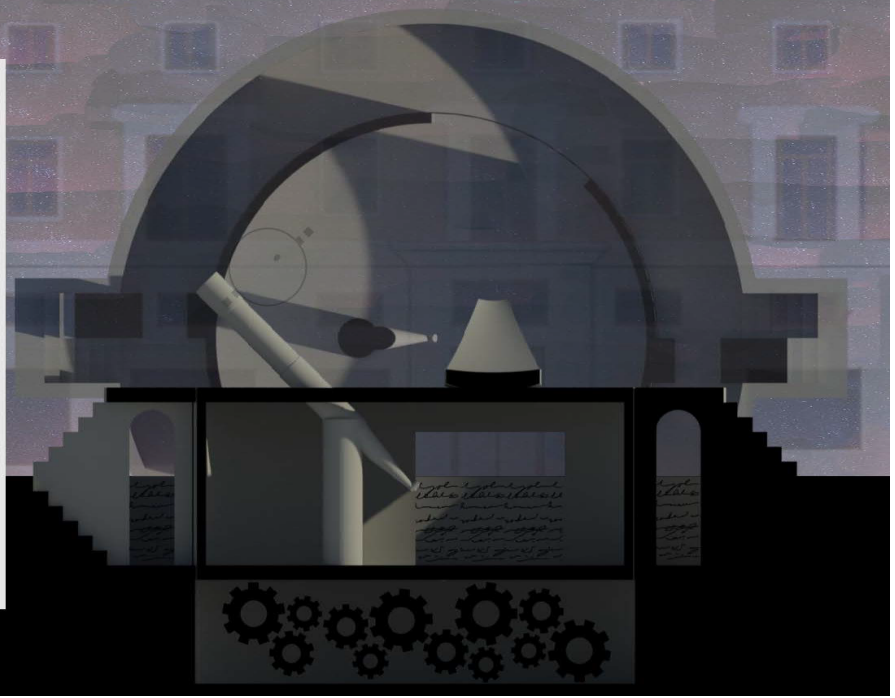


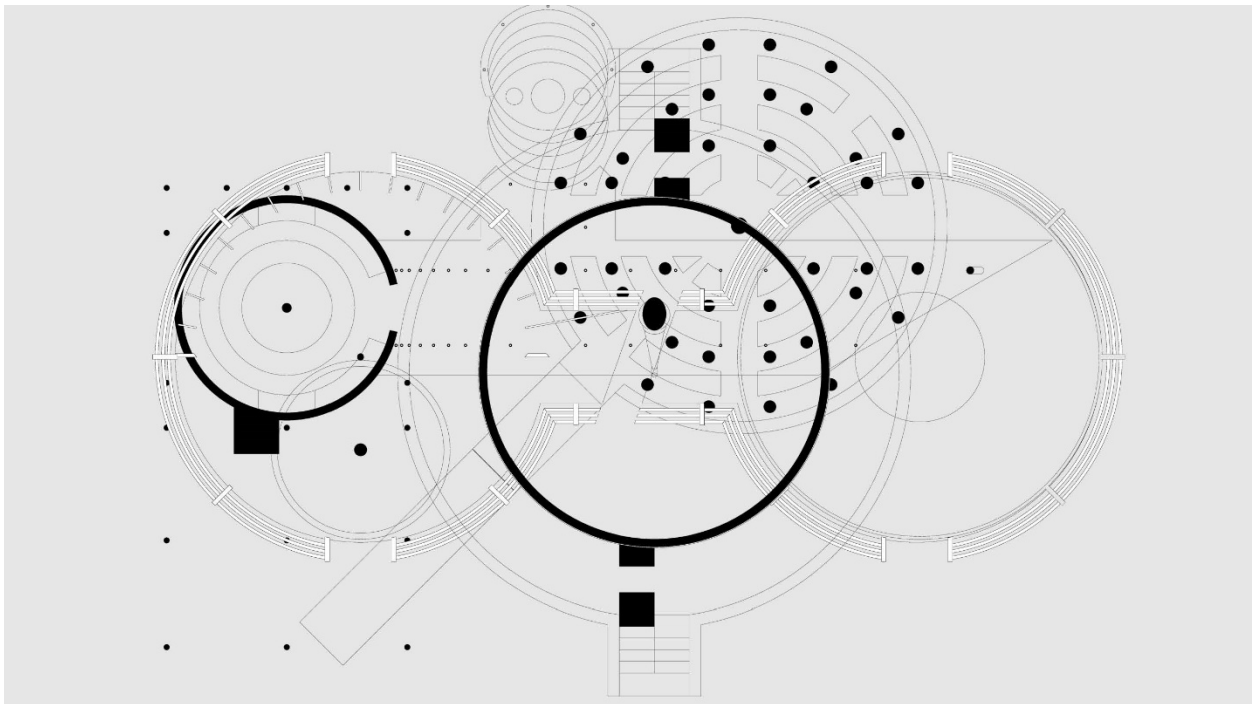


41° 54' 9"N, 12° 28' 52"E

"How well I know! -- old Qfwfq cried,-- the rest of you can't remember, but I can. We had her on top of us all the time, that enormous Moon: when she was full -- nights as bright as day, but with a butter-colored light -- it looked as if she were going to crush us; when she was new, she rolled around the sky like a black umbrella blown by the wind; and when she was waxing, she came forward with her horns so low she seemed about to stick into the peak of a promontory and get caught there. But the whole business of the Moon's phases worked in a different way then: because the distances from the Sun were different, and the orbits, and the angle of something or other. I forget what, as for eclipses, with Earth and Moon stuck together the way they were, why, we had eclipses every minute: naturally, those two big monsters managed to put each other in the shade constantly, first one, then the other. Orbit? Oh, elliptical, of course: for a while it would huddle against us and then it would take flight for a while. The tides, when the Moon swung closer, rose so high nobody could hold them back. There were nights when the Moon was full and very, very low, and the tide was so high that the Moon missed a ducking in the sea by a hair's breadth; well, let's say a few yards anyway. Climb up on the Moon? Of course we did. All you had to do was row out to it in a boat and, when you were underneath, prop a ladder against her and scramble up."

From *The Distance of the Moon* by Italo Calvino





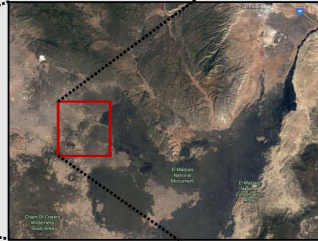
Plainer View Observatory
Cooperstown, North Dakota



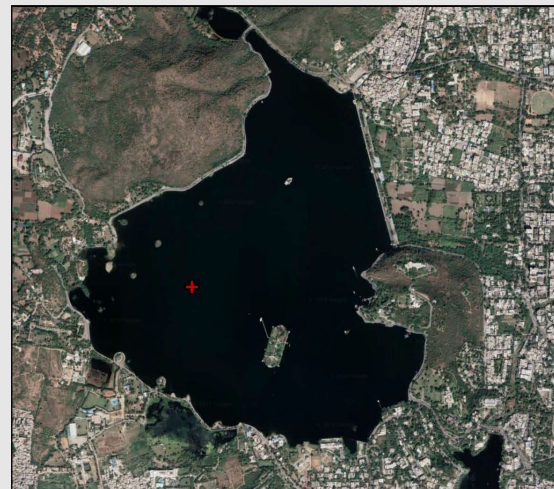
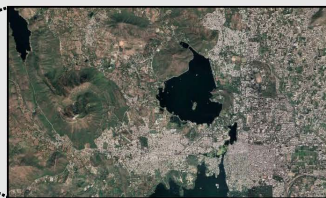
Plainer View Observatory
Cooperstown, North Dakota



A Treatise on Stars
Chain-of-Craters Wilderness Study Area, New Mexico, USA



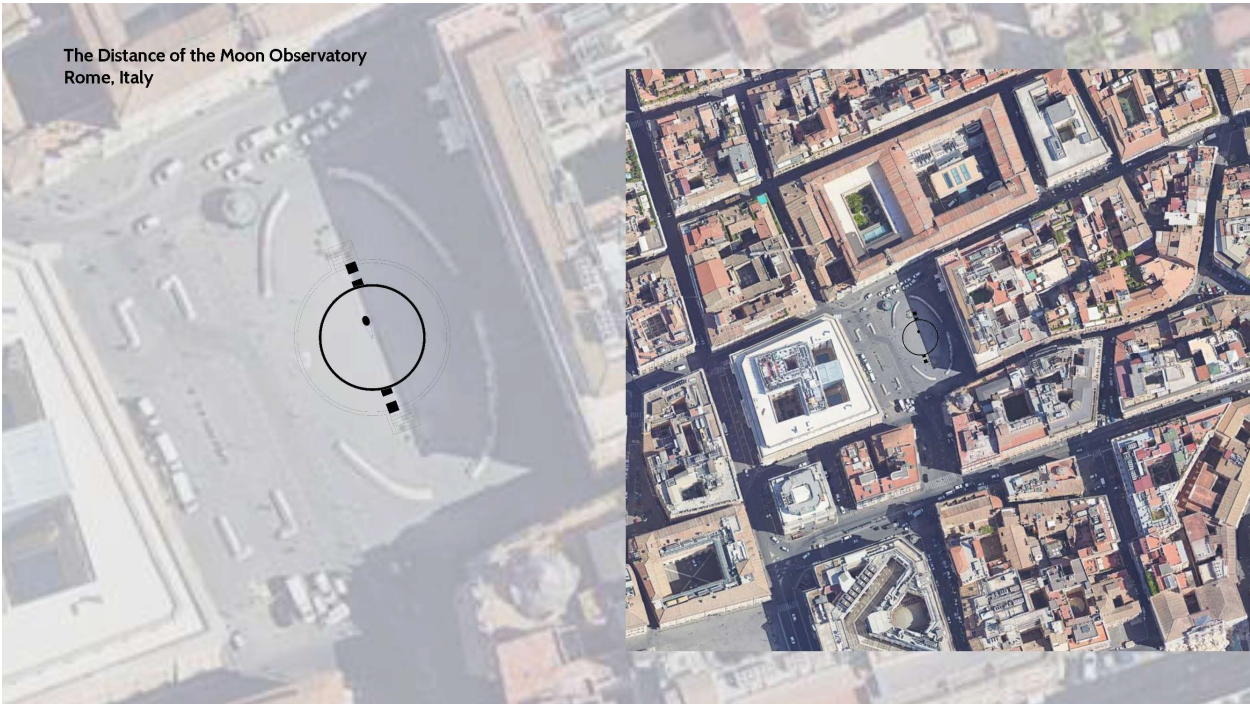
Fateh Sugar Lake Observatory
Udaipur, Rajasthan, India



The Distance of the Moon Observatory
Rome, Italy



The Distance of the Moon Observatory
Rome, Italy



Model of Our Cosmos
Artefact

