



TECHNISCHE
UNIVERSITÄT
WIEN
Vienna University of Technology

DIPLOMARBEIT

Aither, from Alpha to Omega Church of the Unity of Mankind in Kyiv, Ukraine

Ausgeführt zum Zwecke der Erlangung des akademischen Grades
eines Diplom-Ingenieurin
unter der Leitung von

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E259-01
Forschungsbereich Digitale Architektur und Raumplanung

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Wien, am

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◦ Abstract

This master thesis explores the conceptualization and design of a multi-religious prayer space in Kyiv, Ukraine.

Architecture can be seen as a powerful tool for communicating ideas. The universal church of unity of mankind is a shared praying room that welcomes individuals from all faiths and nations and serves as a symbol of peace and harmony in one of the many war-torn regions of the world. The designed space should become a place for communication and understanding between different nations and religions, fostering an environment where the faithful from various backgrounds can gather in individual or common prayer.

The architectural design of this multifaith space is based on geometric principles derived from the laws of nature, incorporating basic elements from different religious traditions to create a visual representation of unity. The work consists of a theoretical part explaining the approach to the concept and its basic design ideas and a practical part with the representation of the project itself.

Keywords

Religious Architecture, Sacred Architecture

◦ Kurzfassung

Diese Masterarbeit untersucht die Konzeptualisierung und Gestaltung eines multireligiösen Gebetsraums in Kiew, Ukraine.

Architektur kann als wirkungsvolles Werkzeug zur Kommunikation von Ideen angesehen werden. Die Universalkirche der Einheit der Menschheit ist ein gemeinsamer Gebetsraum, der Menschen aller Glaubensrichtungen und Nationen willkommen heißt und als Symbol für Frieden und Harmonie in einer der vielen kriegszerrütteten Regionen der Welt dient. Der gestaltete Raum soll ein Ort der Kommunikation und des Verständnisses zwischen verschiedenen Nationen und Religionen werden und ein Umfeld schaffen, in dem sich Gläubige mit unterschiedlichem Hintergrund zum individuellen oder gemeinsamen Gebet versammeln können.

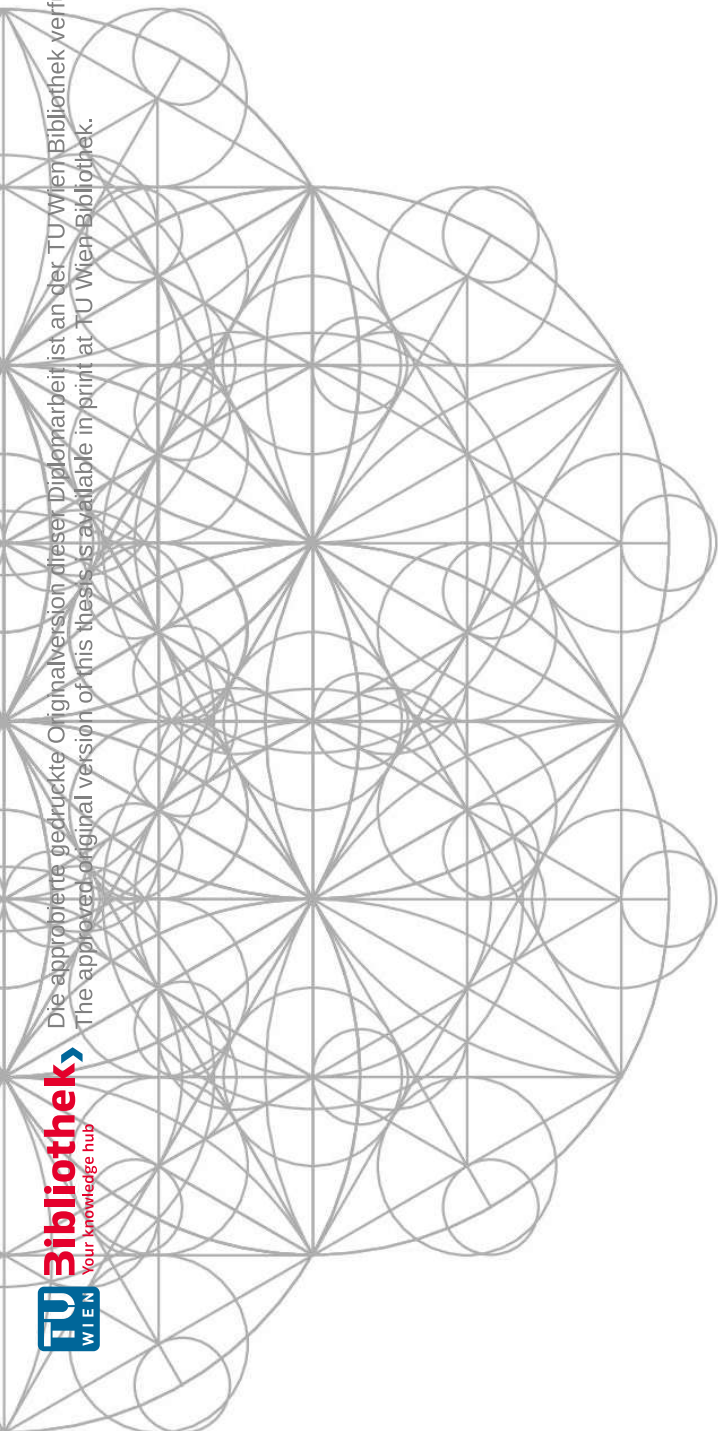
Die architektonische Gestaltung dieses multireligiösen Raums basiert auf geometrischen Prinzipien, die aus den Naturgesetzen abgeleitet sind, und bezieht Grundelemente aus verschiedenen religiösen Traditionen ein, um eine visuelle Darstellung der Einheit zu schaffen. Die Arbeit besteht aus einem theoretischen Teil, der die Herangehensweise an das Konzept und seine grundlegenden Gestaltungsideen erläutert, und einem praktischen Teil mit der Darstellung des Projekts selbst.

Schlüsselwörter

Religiöse Architektur, Sakrale Architektur



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◦ Introduction

Religion is one of the most important and influential components of a person's culture and identity, as there are a huge number of religious beliefs in the world, and each of them has its own history, rituals and norms of behaviour. Therefore, due to such great diversity, there is a problem of fragmentation among world religions. On this basis, over a long historical period, conflicts, wars, misunderstandings and disunity arose among people.

Religious groupings may become tense and even violent due to the fragmentation of beliefs (see crusades and religious disputes across the world). This frequently results in bloodshed, destruction, and grave injury to the international community.

The diversity of various faiths might give rise to prejudices and misconceptions. Stereotypes and biases can arise in those who are not familiar with other people's religious practices and beliefs. This can lead to a loss of spiritual balance, creating barriers to communication and understanding between different cultural and religious groups, as each has a unique worldview of the universe and the role that humans play in it. Therefore, it is historically proven that if there is no single universal doctrine among believers, it leads to a feeling of alienation and separation.

Thus, using the possibilities of architecture, I plan to create a functional and connecting space for many cultures and religions, creating a space that promotes contact, understanding, and communication. Such a concept for the church, in my opinion, where people could share their world views and exchange experiences and perspectives, could help to strengthen tolerance and prevent conflicts based solely on religious beliefs. So, after the analysis, I came to identify the five most important factors to consider when designing:

Tolerance and respect: The Church of All Religions must serve as a safe haven where people of all faiths can gather together to conduct respectful discussions and exchange ideas without fear of persecution. Tolerance and respect for the diversity of world views require special attention, as it is important to create an environment in which everyone feels comfortable.

Education and openness: In order to promote a deeper understanding of other religions and cultures, lectures, seminars, and other educational activities can be held in the Church that can promote cooperation and peace by helping to combat ignorance and prejudice.

Promotion of dialogue: it is important to promote communication between people of different intellectual and religious traditions, which can lead to mutual respect and understanding. The activities of Churches of All Religions can greatly benefit from activities devoted to comparative religious philosophy, the study of world religions and civilizations, and interreligious interaction. After all, the possibility of open dialogue also facilitates the opportunity to look at many problems and issues from different perspectives.

Conflict resolution assistance: The Church of All Religions can act as a mediator in disputes and conflicts arising between different religious and cultural communities. Its impartiality and its desire for harmony and peace can help resolve disputes and alleviate tensions.

Promoting peace and harmony: it can act as a symbol of harmony and peace, bringing together people from many cultures and faiths to work towards common goals (including combating environmental problems, poverty, and violence).

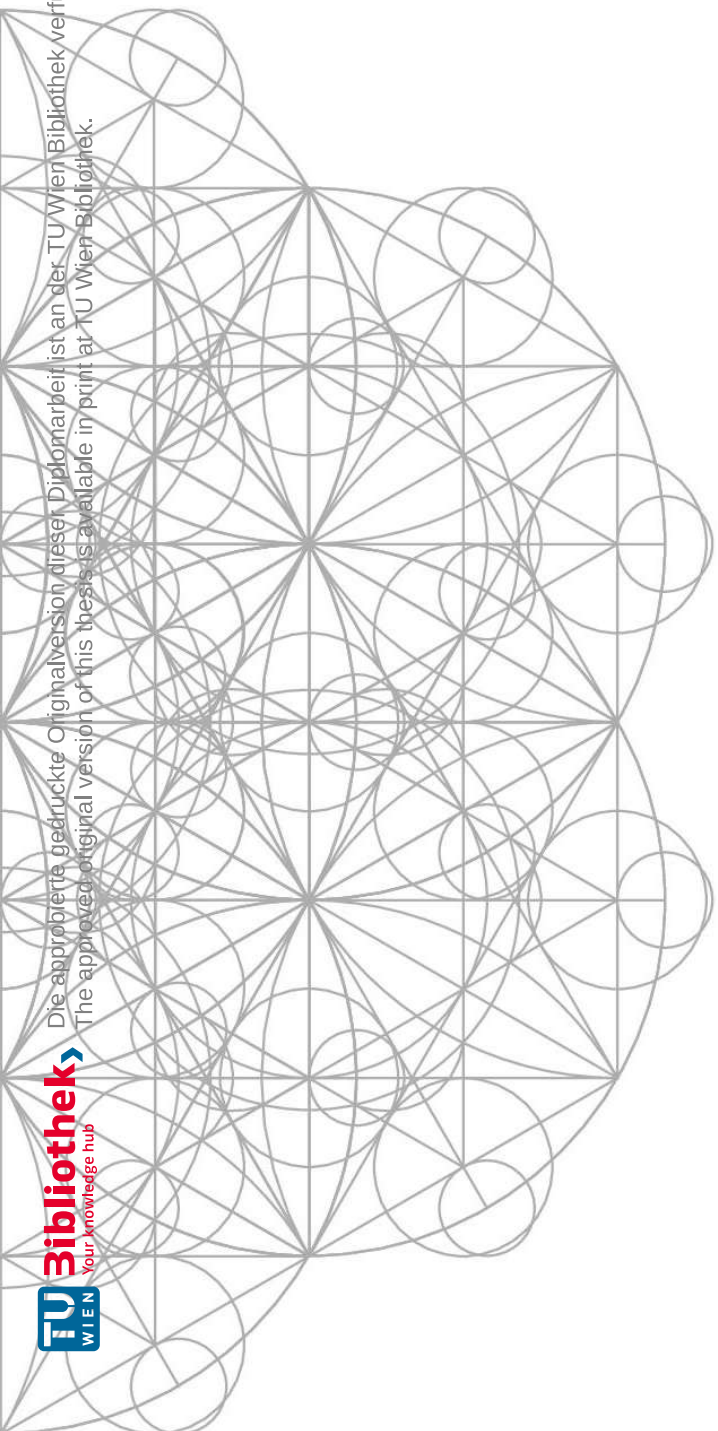
Currently, the main objective is to transform all these elements into an architectural form and create a space that can combine these concepts suitable for different prayer rooms to form a single church for all without exception.

And if it promotes dialogue, tolerance, education, and respect, then the church can have a positive impact on society by bringing different religions and cultures closer together, creating peace and harmony, and spreading the idea of unity, in which the diversity of religion and worldview is one way of enriching its inner peace and understanding, not disagreements and conflicts.

Ukraine was my choice as a place to build because of its historical diversity and cultural richness. In the current military situation in the country, it is very important to strengthen unity and mutual understanding between people. The idea of creating a place where all religions can coexist emphasises the importance and relevance of this project. The Church of All Religions can serve as a reminder that, despite our religious and cultural differences, we can still strive for mutual respect and understanding, especially in difficult times.



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1. Approach

In his treatise on architecture, Vitruvius developed the golden formula “Strength-Utility-Beauty” (Latin: “Firmitas - Utilitas - Venustas”)¹. To build a building harmoniously, it is necessary to take into account each of three properties: technical perfection, aesthetics and ergonomics. None of these properties can be compensated by the other; for example, the inconvenient use of a building cannot compensate for its beauty. Vitruvius divides the aesthetic elements of architecture in six groups:

Systematicity - *Ordinatio* - includes the general principles of architecture, including planning the foundations of a building in relation to size, proportions and volume. The Ionic, Doric, Tuscan and Corinthian orders described by Vitruvius are considered the classical styles of world architecture. He used a conventional unit to measure the various parts of the orders: a module equal to the lower diameter of the column. With this module, it is easy to calculate order proportions using simple number ratios.

Layout - *Dispositio* - involves designing a specific building, planning its shape, organizing the space and displaying it all in drawings, including the general plan, elevation and perspective.

¹ Vitruv (2015). Zehn Bücher über Architektur De Architectura libri decem, übersetzt und durch Anmerkungen und Zeichnungen erläutert von Franz

1.1. Harmony and Architecture

Proportionality, or *Eurythmia*, is the bringing of all parts of a building in harmonious proportions to ensure a beautiful composition.

Symmetry - *Symmetria* - Vitruvius believed that the harmony of human forms and proportions were closely related. He highlighted this criterion of anthropomorphism separately, arguing that parts of the building are likened to parts of the human body.

Design - *Decor* - is a category of aesthetics that describes how the form and design of the temple correspond to religious purposes, that is, it is a historically and logically predetermined component of aesthetics.

Distribution - *Distributio* - is the extent to which buildings correspond to their owners and purposes, that is, they take into account benefits, not just beauty. When approaching the design in this project, special attention is paid to the interpretation of the concept of order ("ordinatio"). Transferring the idea of a higher order and harmony to architecture, or rather expressing the beauty of this order in architecture, has probably always been a concern throughout the history of architecture. The Greek word harmony means

Reber, (1865) auf Grundlage der lateinischen Fassung von Gottlob Schneider, Leipzig 1807. 3. Auflage, Matrix Verlag.

connection or unification of different or opposite things into an ordered whole unity.

From the point of view of Vitruvius, the aesthetics of architecture also derive from scientific research, in particular, from the widespread at the time natural philosophical concept of the universality of numerical values and proportional relations, which can be described as the structure of man and the universe, a precisely working mechanism and an aesthetically harmonious building. The Vitruvian man uses this theory to demonstrate the perfect geometry of the proportions of the human body. A person with his arms spread out perpendicular to his body can be represented as a square, the sides of which touch the head, arms and legs, and a person with wide arms can be presented in a circle, the center of which coincides with the umbilical cord. It is not known what the original drawing of Vitruvius was, but everyone knows that the most famous illustration belongs to the hand of Leonardo da Vinci². [Fig.1]

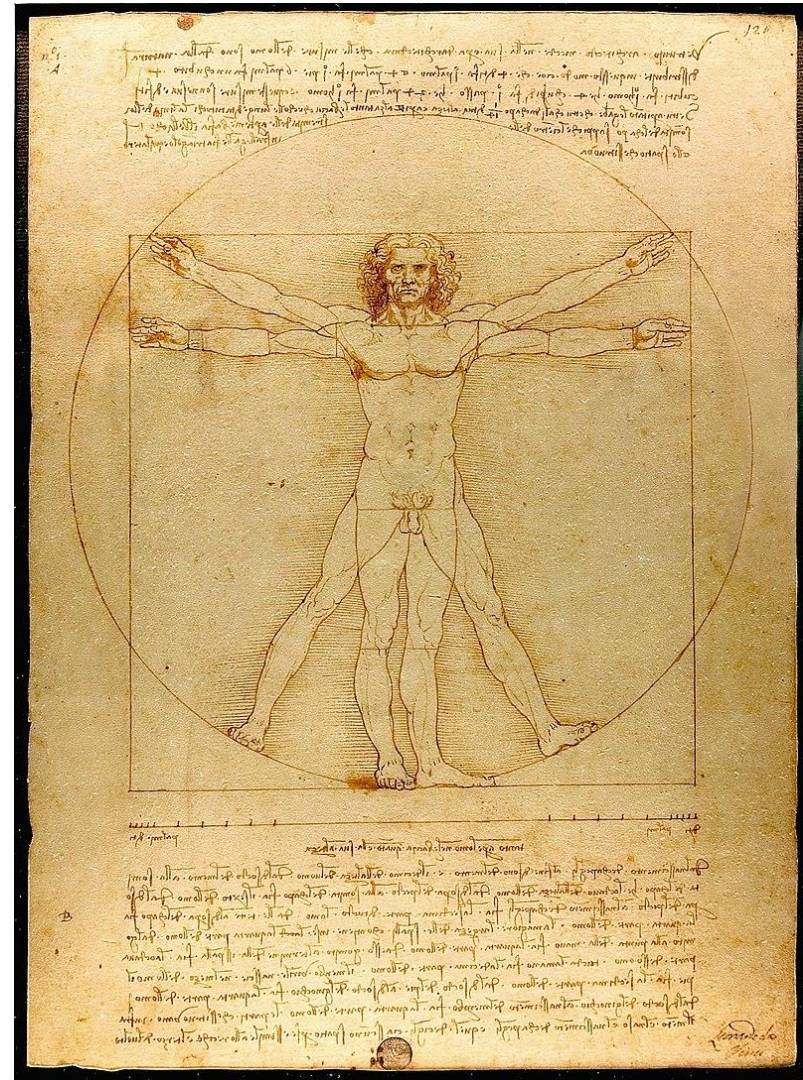


Fig. 1. Vitruvian Man. Leonardo da Vinci

² Kemp M. (1981). Leonardo Da Vinci: The Marvellous Works of Nature and Man. London: J.M. Dent & Sons. ISBN 978-0-19-920778-7.

Quantitative thinking plays an important role in man's elementary endeavor to understand and order the relationships between himself and his environment. Quantitative comprehension of reality is made possible by numbers. Counting, organizing and describing the world in the form of numbers is a primal human experience. The understanding of numbers ranges from the magical perception of numbers to their theoretical application in the modern natural sciences. Numbers are carriers of symbols. Especially in architecture they have an important meaning. Just like the numbers themselves, even the simplest geometric shape can have symbolic character.³

1. Most people view the *Number 1* as a symbol of unification. For this reason, it frequently represents God or the cosmos in monotheistic religions.
2. Numerous fundamental dualities are represented by the *Number 2*: me/you, male/female, yes/no, alive/dead, left/right, yin/yang, and so on. Human perspectives on the world frequently contain dualities, most likely due to our inclination towards two-valued logic—that is, true/false duality.
3. A common motif in folktales is the *Number 3*, which is mysterious and spiritual (three wishes, three

³ Paul von Naredi-Rainer (1995). *Architektur & Harmonie. Zahl, Maß und Proportion in der abendländischen Baukunst.*

1.2. Number, Form and Religion

guesses, three tiny pigs, three bears, three billy goats gruff). The three main gods of ancient Babylon were Anu, also known as Bel (Baal), and Ea, who stood for Heaven, Earth, and the Abyss. Similar to this, the Egyptian sun deity had three facets: Atum (setting), Re (midday), and Khepri (rising). The Trinity—God the Father, God the Son, and God the Holy Spirit—is recognised in Christianity. According to Plato, the number three represents the triangle, the most basic spatial form, and triangles are the building blocks upon which the universe is constructed.

4. The elements of earth, air, fire, and water; the four seasons; the four compass points; and the four phases of the moon (new, half-moon waxing, full, and half-moon waning) are all examples of the universe's number of order: four. Buddhism is embodied in the Four Noble Truths. The Pythagoreans believed that the most perfect number, $1 + 2 + 3 + 4 = 10$, came from the square root 4. There aren't many superstitions related to the *Number 4*, as it's often a practical and tangible number. The only place it's not lucky is in China, where the numbers four ("she") and shi ("death") have similar pronunciations. The Four Horsemen of the Apocalypse devastate humanity in the biblical Revelation to John.

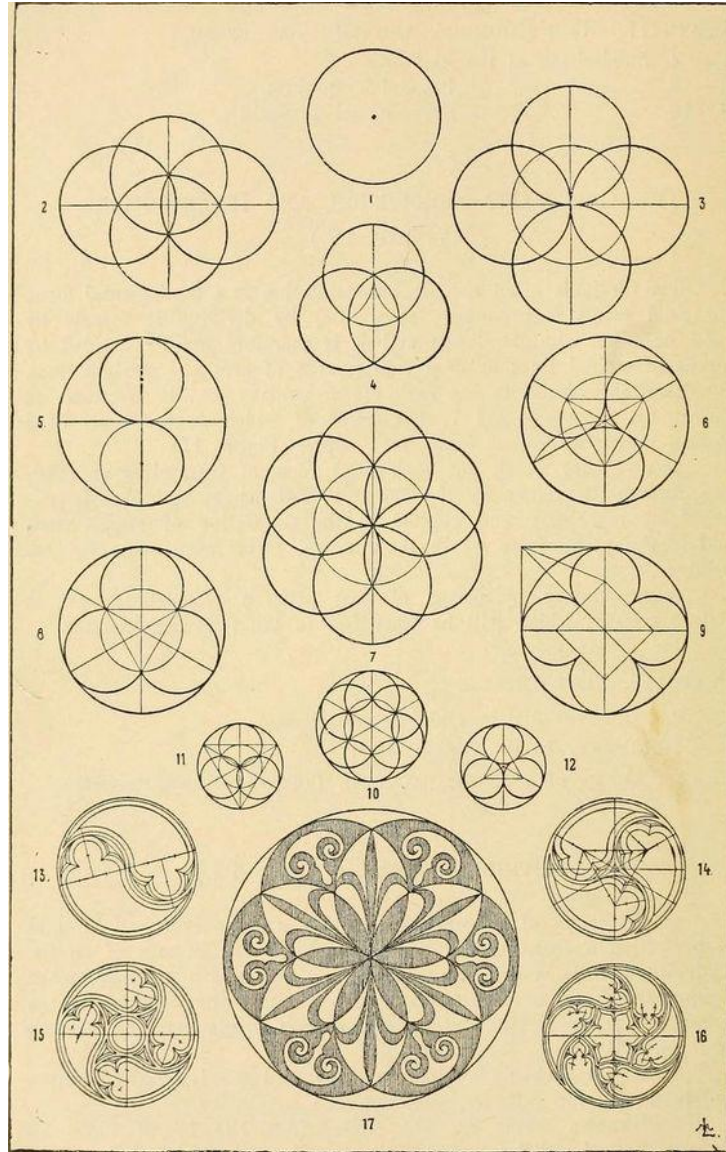


Fig. 2. *Handbook of ornament: a grammar of art, industrial and architectural designing in all its branches (1900)*

5. The first even and odd number ($2 + 3$) added together equals 5. (The Pythagoreans believed that 1 was neither odd nor a number.) As the product of the feminine 2 and the masculine 3, it represents human existence as well as marriage in the Platonic and Pythagorean traditions. The five-pointed star, or pentagram, served as a sign for both Venus, the Roman counterpart of the Babylonian goddess Ishtar, and the *Number 5*. The Maya put a fifth point in the middle of the compass's four points, indicating that they also placed great significance on the number five. The human hand's five fingers and the body's five extremities—two arms, two legs, and the head. It is also a holy number in Islam. The five pillars of Islam are as follows: hajj (the trip to Mecca) and fasting during Ramadan, zakāt (almsgiving), prayer, and statement of faith (shahādah). Every day, five prayers are recited. Islamic law is divided into five categories, just as there are five prophets who gave law: Abraham, Moses, Jesus, Muhammad, and Noah.

6. Six is the product of the first three numbers ($1 \times 2 \times 3$) and the sum of the first three numbers ($1 + 2 + 3$), via a marvellous confluence of mathematical coincidences. The six days of Creation described in Genesis, during which God rested on the seventh, demonstrate the perfection of six. The Creation story is structured similarly to the whole $1 + 2 + 3$. Day 1 sees the creation of light, days 2 and 3 see the appearance of heaven and earth, and days 4, 5, and 6 see the creation of all living things.

7. The material 4 plus the spiritual 3 equal 7. During the Middle Ages, students studied seven courses known as the liberal arts, which included the trivium (grammar, rhetoric, and logic) and the quadrivium (music, arithmetic, geometry, and astronomy). Seven has a special place in Pythagorean mathematics since there are seven different notes in the musical scale, which approximately correspond to the white notes on a piano.

8. Numerologists usually believe that the number 8 is lucky for you. It is mathematically provable that the square of any odd integer, less one, is always a multiple of eight (e.g., $9 - 1 = 8$, $25 - 1 = 8 \times 3$, $49 - 1 = 8 \times 6$). According to Babylonian mythology, the gods resided in eight realms, known as the fixed stars, in addition to the seven spheres. Consequently, Number of 8 is frequently connected to paradise. Muslims hold that

The number 7 is believed to be a sign of grace and spiritual gifts as well as a symbol of the human being consisting of body and soul. First and foremost, however, the number seven is the number of the calm, because according to the Old Testament, God rested on

there are eight paradises instead of seven hells, which represent God's benevolence. Buddhism considers 8 to be a lucky number, maybe due to the lotus flower's eight petals, which is a beloved Buddhist emblem and a plant linked to good fortune in India.

9. Unlike 8, the *Number 9* frequently denotes suffering or melancholy. The Ninth Psalm foretells the arrival of the Antichrist, as noted by Catholic theologian Peter Bungus in the sixteenth century. The cosmos is composed of nine spheres in Islamic cosmology: the eight classical spheres of Ptolemy and the ninth sphere, which was introduced around 900 CE by the Arab scientist Thābit ibn Qurrah to account for the equinox precession. Cloud nine is the happiest place on earth. Nine lives are possessed by cats. The River Styx, which souls were transported to the underworld across, is said to have nine twists in Greek mythology.⁴

1.3. The Number of 7

the seventh day of creation. As a symbol of eternal rest, the number seven also stands in direct contrast to the number eight as the number of the resurrection. Because of its meaning of calm and quiet it seems the

⁴ Encyclopædia Britannica. Number symbolism. Cultural associations of some numbers.

most appropriate number for the architectural order in the design of a church of unity.

The subsequent sections list arguments for this choice and describe where and in which areas of life the number 7 plays a role.

In everyday life

Week: One of the most noticeable ways in which the number of 7 affects daily life is through the division of time into weeks. The week consists of seven days: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday and Sunday⁵. This division of time into seven days has become the accepted standard in most cultures, and the days of the week are often named with this system in mind.

Rituals and Holidays: Families and societies in many cultures have rituals and holidays associated with the number 7. For example, in some cultures, the seventh day after the birth of a child is considered especially important and is celebrated with special traditions.⁶

⁵ Brown, Cecil H. (1989). Naming the days of the week: A cross-language study of lexical acculturation. *Current Anthropology*. 30 (4): 536–550. doi:10.1086/203782.

⁶ Nigosian, Solomon Alexander (2004). *Islam: Its History, Teaching, and Practices*. Indiana University Press. ISBN 978-0-253-21627-4.

⁷ The Ties That Unbind (2000). *Psychology Today*.

⁸ Cox, Reg; Morris, Neil, 1946-; Field, James, 1959- illustrator (2001). *The seven wonders of the medieval world*. urn:oclc:record:1036857737.

Also, seven years of happiness is a popular belief in wedding customs.⁷

Seven Wonders of the World: In art and tourism, the "Seven Wonders of the World"⁸ are a significant symbol. This is a list of seven amazing architectural and engineering structures that inspire travelers and explorers. Such wonders include the Pyramids of Giza, the Hanging Gardens of Babylon and others.

Cultural Rituals: Some cultural and religious practices are also associated with the number 7. For example, in Christianity, a wedding is often accompanied by seven blessings⁹, and in Islam, Muslims recite seven rites during the Hajj¹⁰. These numbers symbolize spiritual perfection and well-being.

Signs and beliefs: In different cultures, there are many signs and beliefs associated with the number of 7. For example, "seventh heaven" is often associated with high levels of happiness and well-being¹¹. People may also place special importance on the number 7 when choosing dates for important events such as weddings or religious holidays.

⁹ Rabbi Daniel Gordis. *Nissuin: The Second of the Two Ceremonies*. My Jewish Learning.

¹⁰ Karen Armstrong (2002). *Islam: A Short History*. Modern Library Chronicles (Revised Updated ed.). Modern Library. pp. 10–12. ISBN 0-8129-6618-X.

¹¹ Hetherington, Norriss S. (2014) [1993]. *Encyclopedia of Cosmology: Historical, Philosophical, and Scientific Foundations of Modern Cosmology*. Routledge Revivals. Routledge. pp. 267, 401. ISBN 978-1317677666.

“... Where there is structure, the parts of the structure must function together with a degree of consistency and purpose...” Thomas Saaty (University of Pittsburgh)¹²

In science

Chemistry: 7 is the number of nitrogen in the periodic table¹³. Nitrogen (N) is a key element found in amino acids, DNA¹⁴ and proteins. It is an integral part of organic chemistry and life on Earth.

Mathematics: 7 is a prime number that has no divisors other than 1 and itself¹⁵. Prime numbers are fundamental in the theory of numbers and cryptography. The number 7 is also found in various mathematical concepts, such as the seven colors of the rainbow¹⁶ and the seven basic units of measurement in the SI system¹⁷.

Astronomy: The seven visible objects in the solar system include the Sun, the Moon, and the five visible planets: Mercury, Venus, Mars, Jupiter and Saturn¹⁸. These are the seven “noble” planets that were known to ancient astronomers¹⁹.

Biology: The number of 7 can appear in various contexts. For example, there are seven levels of classification for living organisms: kingdom, phylum, class, order, family, genus and species²⁰. This system was developed by Carl Linnaeus and remains important in biology to this day.

¹² Thomas Saaty (2016). Seven is the magic number in nature. University of Pittsburgh. Journal: Proceedings of the American Philosophical Society. Vol.: 160. Issue: 4.

¹³ Standard Atomic Weights: Nitrogen. CIAAW. 2009.

¹⁴ International Human Genome Sequencing Consortium Publishes Sequence and Analysis of the Human Genome. National Human Genome Research Institute. National Institutes of Health, U.S. Department of Health and Human Resources.

¹⁵ Lehmer, D. N. (1982). List of prime numbers from 1 to 10,006,721. Vol. 165. Washington D.C.: Carnegie Institution of Washington. OL 16553580M. OL16553580M.

¹⁶ Tony Buick (2010). The Rainbow Sky: An Exploration of Colors in the Solar System and Beyond. Springer Science & Business Media. p. 200. ISBN 9781441910530.

¹⁷ Interpretation of the International System of Units (the Metric System of Measurement) for the United States (2008). Federal Register. National Institute of Standards and Technology. 73: 28432.

¹⁸ Solar System Overview. NASA.

¹⁹ Bhayro, Siam (2020). Cosmology in Mandaean Texts. Hellenistic Astronomy. Brill. pp. 572–579. doi:10.1163/9789004400566_046.

²⁰ Moore, R. T. (1974). Proposal for the recognition of super ranks. Taxon. 23 (4): 650–652. doi:10.2307/1218807. JSTOR 1218807.

In religions

Christianity: The number of 7 is a symbol of perfection and is associated with the Bible. In the First Testament, God created the world in six days and rested on the seventh day, which is why the Sabbath is considered a holy day of rest²¹. In the New Testament, in the Book of Revelation, "seven" is often used to denote perfection and completion, as there are seven churches, seven angels, and seven seals²².

Judaism: The seventh day, Saturday, is also considered a holy day of rest²³. Biblical tradition introduces "seven" into many aspects of spiritual practice, including the seventh year, known as Shemitah, when the land is left unsown, and the seventh day of Passover, when the celebratory seventh ceremony is performed.

Islam: The number of 7 is mentioned in the context of various rites and rituals. For example, Muslims practice seven circles around the Kaaba in Mecca during the Hajj, one of the main pilgrimage rites of Islam²⁴. Also, seven days can have meaning in various Islamic traditions and rituals.

Buddhism: 7 can symbolize the seven factors of enlightenment²⁵ or the seven treasures²⁶. One example is the seventh factor of enlightenment - concentration (samadhi), which helps to achieve inner peace and enlightenment.

Hinduism: 7 has various meanings in the context of mythology and religious texts. For example, there are seven chakras (energy centers) in the human body and seven rishis (holy sages) who are the authors of the ancient texts of the Vedas^{27 28}.

Other religions: Similar symbolic aspects of the number of 7 may also occur in different religious systems. For example, seven angels in the Iranian Zoroastrian

²¹ Leeming, David A.; Leeming, Margaret (2004). A Dictionary of Creation Myths. Oxford University Press. ISBN 978-0-19-510275-8.

²² Bauckham, Richard (2007). 81. Revelation. In Barton, John; Muddiman, John (eds.). The Oxford Bible Commentary (first (paperback) ed.). Oxford University Press. pp. 1287–1306. ISBN 978-0199277186.

²³ Hamilton, Victor P (1990). The Book of Genesis: chapters 1–17. Eerdmans. ISBN 978-0-8028-2521-6.

²⁴ Wensinck, A. J; Ka'ba. Encyclopaedia of Islam IV p. 317

²⁵ Piyadassi Thera (2013). The Seven Factors of Enlightenment, Access to Insight (BCBS Edition).

²⁶ Germano, David Francis (1992). Poetic Thought, the Intelligent Universe, and the Mystery of Self: The Tantric Synthesis of Dzogchen in Fourteenth Century Tibet (Ch. 2, pp. 10-38). PhD Thesis. The University of Wisconsin - Madison.

²⁷ Jones, Constance; Ryan, James D. (2006). Encyclopedia of Hinduism. Infobase Publishing. p. 102. ISBN 978-0-8160-7564-5.

²⁸ White, David Gordon (2003). Kiss of the Yogini. Chicago: University of Chicago Press. p. 221. ISBN 0-226-89483-5.

religion²⁹, the Seven Lucky gods or Seven gods of Fortune in Japanese mythology³⁰ and so on.

The general tendency to use the number of 7 in various religions is due to its symbolic power and associations with perfection, completeness and spiritual development. Despite differences in beliefs and practices, this number continues to be an important and recognizable element in religious traditions, reminding believers of spiritual growth and practice.

In music

The number of 7 permeates musical history and culture, representing not only a mathematical basis but also deep symbolic meanings in various genres and traditions. As in other areas of art, it acquires mystical, religious and aesthetic power, contributing to the creation of musical works.

In various cultures and religious traditions, the number of 7 is often associated with the sacred and spiritual. In music, it can manifest itself in the structure of works, in the number of days of the week, in mystical beliefs, and even in the personal beliefs of composers.

Examples of the number of 7 being used in musical structure can be found in various genres. In classical music, the seven notes of the diatonic scale have become the basis for many pieces of music³¹ [Fig.3]. The seven degrees of major and minor scales form a harmonic basis, creating a variety of melodies and chords³² [Fig.4].

In the folklore traditions of various cultures, musical rhythms based on septenary structures are often found. There are also many folk songs that talk about the seven wonders of the world³³ or the seven wise men, which complement the mystical aura of the number of 7.

²⁹ Boyce, Mary (1983). Aməša Spənta. Encyclopaedia Iranica. Vol. 1. New York: Routledge & Kegan Paul. pp. 933–936.

³⁰ Reiko, Chiba (1966). The Seven Lucky Gods of Japan. Charles E. Tuttle Co. pp. 9–10. OCLC 40117755.

³¹ Clough, John (1979). Aspects of Diatonic Sets, Journal of Music Theory 23. pp. 45–61.

³² Kolb, Tom (2005). Music Theory, p. 16. ISBN 0-634-06651-X.

³³ The Seven Wonders. Traditional song. Collected from Mick Tems of Pontardawe from the Alps of Wales. It was sung by Maddy Prior and June Tabor on their album Silly Sisters.

In jazz and blues, septenary rhythms and structures also have their place. For example, forms such as the 12-bar blues pattern can be divided into two septenary parts³⁴, which gives the compositions special dynamics and expressiveness.

Seven measures and meters are also found in rock music³⁵. Many rock band songs and albums incorporate septenary elements into their structure, which can create unpredictability and uniqueness in sound.

It is also important to note the religious and mystical aspects of the number of 7 in music. Many composers in different eras have used septenary structures to express their spiritual experiences and symbolize various aspects of faith.

7 is not only a mathematical constant in music, but also a rich symbolic element that gives works depth, mystical meaning and uniqueness in the context of various musical traditions and styles.

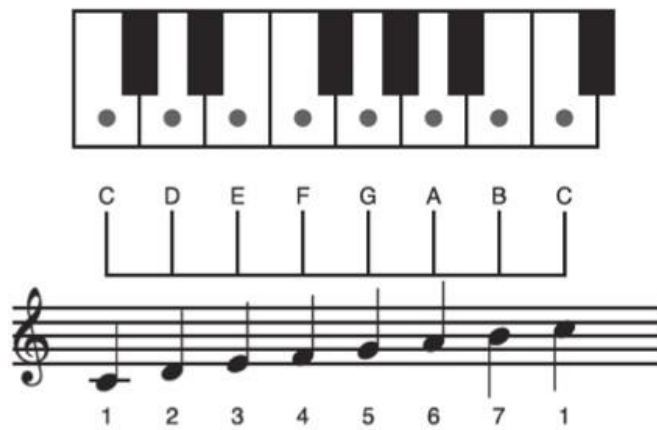


Fig. 3. The seven notes of the diatonic scale

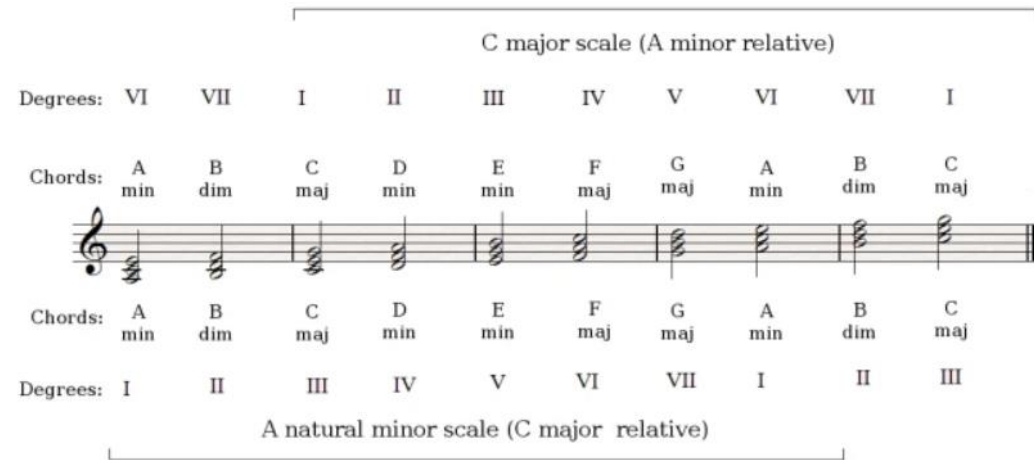


Fig.4. Major (C) and minor (A)scales

³⁴ The 12 bar blues progression. Music Theory Academy. From MusicTheoryAcademy--Web Resource.

³⁵ Guide to Time Signatures in Music: 7 Common Meter Signatures. MasterClass. From MasterClass--Web Resource.

In architecture

The number of 7 plays an important role in architecture, representing not only a mathematical parameter but also a rich symbolism that permeates various aspects of the design and construction of buildings. This number can be expressed through the number of elements, shape and structure, as well as through its mystical and cultural connotations.

Examples of the use of the number of 7 can be seen in the details of architectural compositions. For example, in classical Greek architecture, the seven columns of a temple portico may symbolize the seven days of the week or the seven arts³⁶. In medieval Catholic cathedrals, the number of domes or arches may also reflect a mystical connection with the number of 7 in Christian tradition³⁷.

³⁶ Boardman, John; Dorig, Jose; Fuchs, Werner; Hirmer, Max (1967). *The Art and Architecture of Ancient Greece*. London: Thames and Hudson.

³⁷ Hartog, E., (2014). 1, 2, 3, 6: Early Gothic Architecture and Perfect Numbers. *Architectural Histories*, 2(1), p.Art. 17. DOI: <http://doi.org/10.5334/ah.bu>.

In Asian architecture, especially in traditional Chinese palaces, compositions of seven bridges³⁸ or seven terraces are often found, reflecting the philosophy of balance and harmony. Indian temple architecture may use seven tall towers representing different aspects of the cosmos or spiritual evolution³⁹.

Even in modern architecture, the number of 7 can serve as a source of inspiration. For example, in the design of high-rise buildings, you can find facades with seven distinct lines, creating a unique and memorable appearance.

Thus, the number of 7 in architecture turns out to be not only a functional aspect but also a deep symbol, revealing the richness of cultural, religious and aesthetic perspectives in building design.

³⁸ Knapp, R.G., Miller, T.E. & Liu, J (2020). China's corridor bridges: heritage buildings over water. *Built Heritage* 4, 10. DOI: <https://doi.org/10.1186/s43238-020-00010-w>.

³⁹ Prasanna Kumar Acharya (2010), *An encyclopaedia of Hindu architecture*, Oxford University Press (Republished by Motilal Banarsidass), ISBN 978-81-7536-534-6.

Tangram

The tangram is a Chinese puzzle consisting of seven geometric shapes: five triangles (two small, one medium and two large), a square and a parallelogram. With these seven shapes you can create a variety of images and geometric compositions. It is important to note that the seven tangram shapes are used to create countless shapes and figures⁴⁰.

Here is an example of a tangram and one of its possible solutions [Fig.5]:

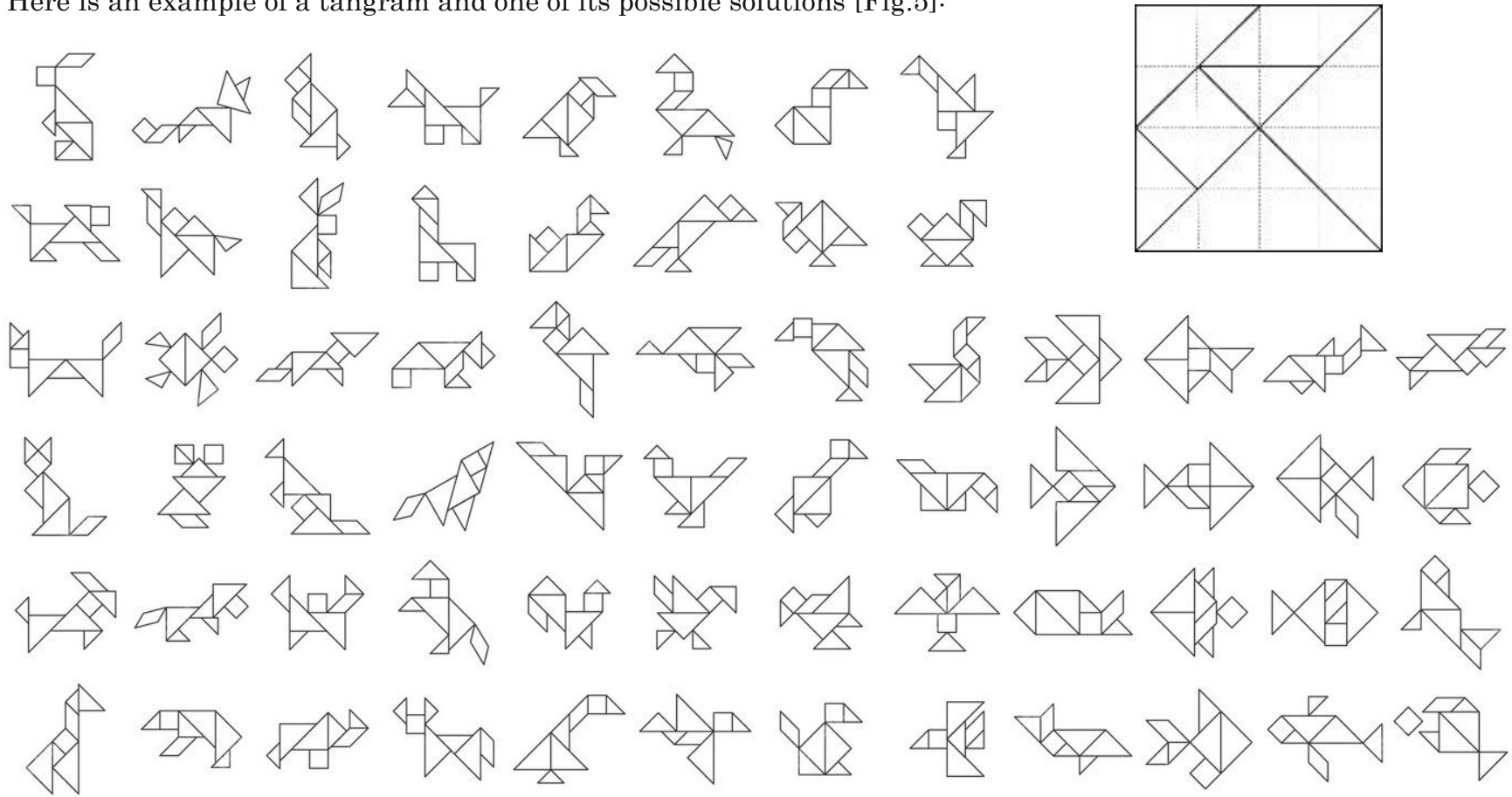


Fig.5. Tangram

⁴⁰ Slocum, Jerry (2003). The Tangram Book. Sterling. ISBN 978-1-4027-0413-0.

Seed of Life

“In all chaos there is a cosmos, in all disorder a secret order” Carl Jung⁴¹

The "Seed of Life" is a geometric pattern consisting of seven equal circles that form a specific geometric configuration. This pattern has deep symbolic and metaphysical roots and is associated with the idea of spiritual evolution and unity^{42 43}. The seven circles in the seed of life form a harmonious and symmetrical pattern that can be seen as an archetypal symbol of cosmic and spiritual harmony. It is often associated with the concepts of unity, balance and spiritual harmony in various cultural and spiritual traditions [Fig.6].

Thus, the number of 7 in the context of the tangram and the seed of life is expressed through different geometric shapes and symbols, each of which has its own symbolic meaning and influence. In the tangram, the seven elements are used for creativity and fun, while the seed of life, the seven circles, symbolizes harmony and spiritual unity.

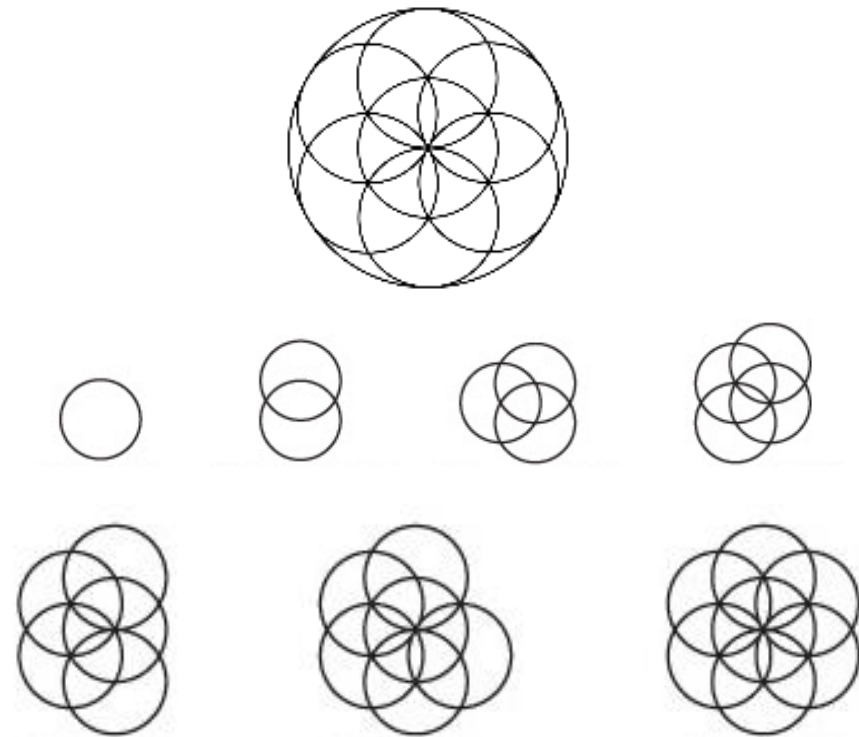


Fig. 6. Seed of Life

The "Seed of Life" and the ovum, despite their obvious differences in origin and nature, show amazing parallels in the context of the creation and development of life.

⁴¹ Jung, C. (1934). *The Archetypes and the Collective Unconscious*. Princeton University Press. p. 32 (1981 edition). ISBN 0691018332

⁴² Weisstein, Eric W. *Seed of Life*. From MathWorld--A Wolfram Web Resource.

⁴³ *Seed of Life Meaning and Symbolism*. Kristen M. Stanton. From UniGuide--Web Resource.

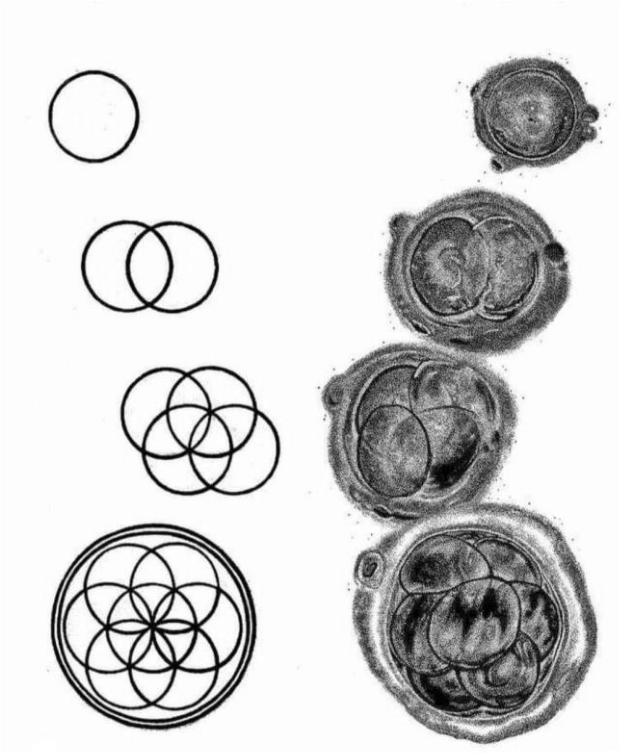


Fig. 7. Seed of Life and The Egg

The Seed of Life symbol is a geometric shape consisting of seven circles that overlap harmoniously to create a complex pattern. Often associated with spiritual and esoteric concepts, this symbol expresses the idea of unity, harmony and cosmic order.

Let's compare this with the process of human formation from a fertilized egg⁴⁴ [Fig. 7]. After fertilization, the egg goes through a series of divisions, and at a certain stage, division into seven cells occurs. These cells, with their unique genetic material, are the starting point for the development of the organism.

The similarity between the “Seed of Life” and the egg is manifested in the symbolism of the beginning of a new life and the unity of the cosmic order. Both structures serve as archetypes, reflecting harmony and integrity in the process of life formation.

It is important to note that these similarities extend beyond geometric shapes and cell divisions. Both symbols are associated with the idea of evolution, development and the formation of complex structures. They are unique keys to understanding the harmony in nature and its constant connection with the beginning of life.

Thus, The Seed of Life and The Egg, each in its own context, serve as reminders of the great mystery of life, where geometry and biology intertwine to create the magnificent and complex dance of new life becoming.

⁴⁴ Nieschlag E., Ursula-F. Habenicht (1992). Spermatogenesis — Fertilization — Contraception: Molecular, Cellular and Endocrine Events in Male Reproduction. ISBN 978-3-662-02817-9.

Sacred geometry⁴⁵ looks at the structure of human DNA as a symbol of sublime harmony and cosmic order. The double helix formed by nucleic acid molecules, upon closer inspection, becomes an amazing representation of sacred principles in nature [Fig.8].

First, you can see perfect symmetry in the double-spiral. The two intertwining helices formed by the basic pairs of genetic codes create a geometric pattern that resembles a magnificent work of art. This harmony reflects the principles of balance and interconnection inherent in sacred geometry.

The second aspect is the symbolism of the double-spiral as a representative of unity. Each spiral represents a unique but, at the same time, interdependent part of the whole. This interconnection symbolizes the deep uniqueness of all living things and emphasizes the sacred nature of life.

The third aspect is the double-spiral as a code of life. Sacred geometry perceives this pattern as a coded language that provides instructions for the formation and functioning of the body. This symbolic language, embedded in the genetic code, reveals the depth of wisdom, personifying the connection between the earthly and cosmic.

The fourth aspect is the principle of evolution. Sacred geometry sees the double-spiral as a dynamic symbol of development. Its constant turns reflect a continuous process of change and improvement, which corresponds to the basic principle of evolution.

In general, human DNA is recognized as a symbol of harmony, unity, life and evolution. This pattern reveals to us the deep laws of nature, providing the keys to understanding the greatness of the living world through the prism of symbolism and geometry.

⁴⁵ The Meaning of Sacred Geometry (2012). Sacred Geometry International by Randall Carlson. From SacredGeometryInternational --Web Resource.

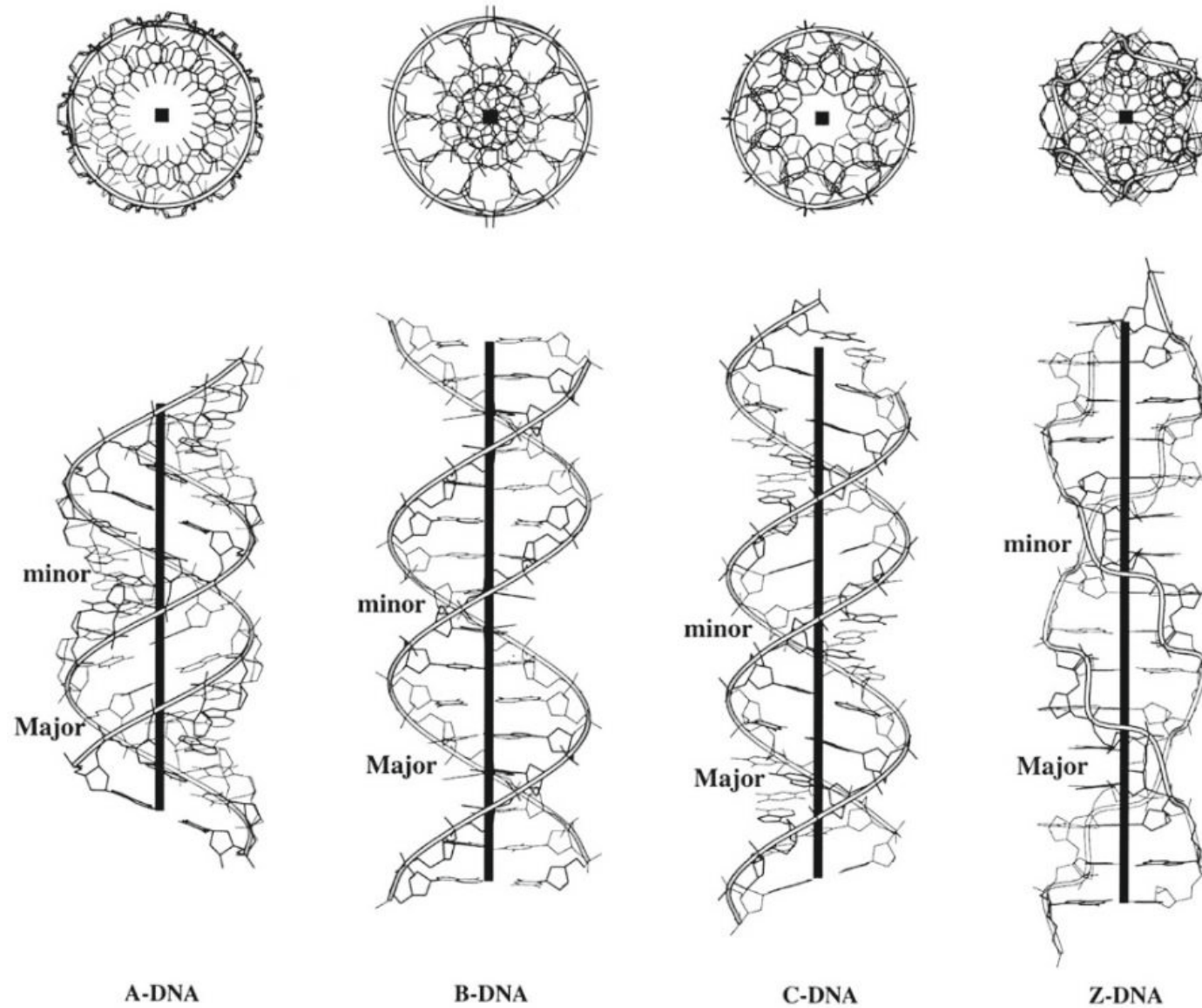


Fig.8. Top and side views illustrating the characteristic features of the regular helical DNA structures A, B, C and Z, derived from representative X-ray diffraction models. The ribbons represent the development of the backbone defined by the phosphorus atoms, and the thick black lines (squares) represent the helix axes.

1.4. Buildings using the of Number 7

The facade of the **Tempio Malatestiano in Rimini** is not only an architectural masterpiece, but also a symbol of a deep connection with sacred geometry.

Designed by Leon Battista Alberti, the majestic exterior was inspired by the shape of the Roman triumphal arch. The building is built on a high base of Istrian stone, framed by ropes taken from the base of the Arch of Augustus, and decorated with a garland of bas-relief friezes, characteristic of Malatesta decoration. The wreath contains and alternates four Malatesta types: elephant, intertwined "I" and "S", double plaid ribbon and Isolde flowers. There are seven arches on the sides, separated by columns: the right arch houses important sarcophagi from Malatesta's court, while the left arch remains empty.

The seven arches located on the side facade are a perfect example of sacred geometry. Integrated into the structure of the building, the number of 7 carries deep symbolic and spiritual meanings, as it is considered particularly mystical.

In this project it can be interpreted as the personification of the seven days of creation, the seven planets or the seven chakras from Hindu philosophy. The arches of the facade, designed in exquisite detail, create an impressive visual effect, emphasizing the harmony of this number. Septenary motifs can be found in every geometric detail - from the curve of the arches to the patterns decorating the facade, giving the building not only aesthetic beauty, but also spiritual significance [Fig.9].⁴⁶

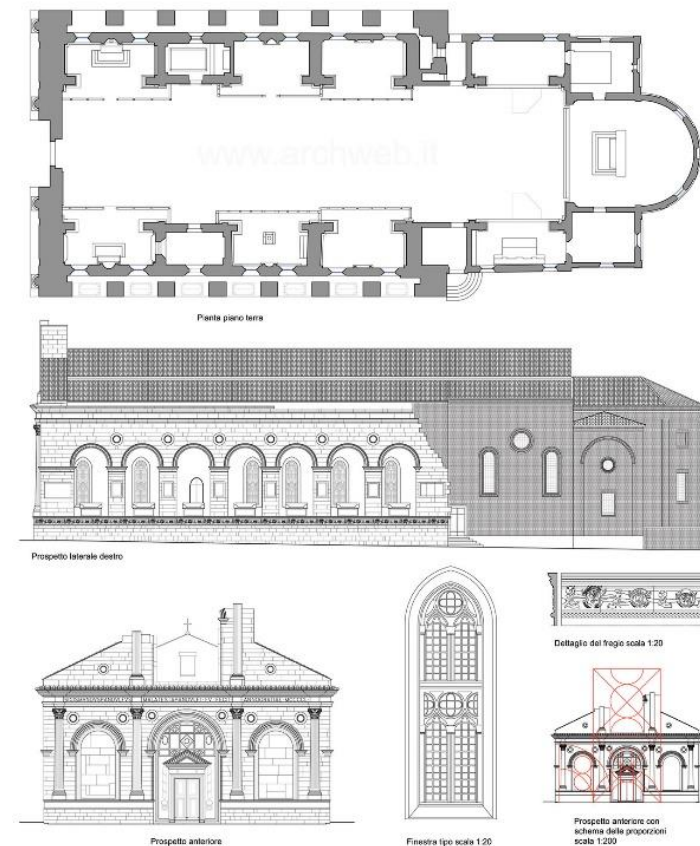


Fig.9. Tempio Malatestiano in Rimini. Floor plan, facade and its details

⁴⁶ Rimini: Tempio Malateatiano (2012). p.3. From Archivio Fotografico Claudio Pagliarani – Web Resource.

Canterbury Cathedral, the Corona. The Corona of Thomas Becket in Canterbury Cathedral, which holds the top portion of the saint's skull that was broken off at his martyrdom on December 29, 1170, may also have been designed with the ideal number 28 in mind. Four times seven equals twenty-eight, the ideal number of one hundred. If one does not include the exceptionally broad entry side, the current Corona is a seven-sided rotunda. Its elevation is tripartite, with a double-arched triforium in the centre, a pointed clerestory window on top, and a pointed window at the bottom of each bay. This means that there are seven arches overall—7 on the bottom, 14 in the centre, and 7 on top—for a total of $7 + 14 + 7 = 28$ arches. There are only five windows on the ground floor and clerestory, for a total of 10 windows; the arches on the ends are blind due to the flanking towers, despite the fact that the number of arches perfectly complements this plan [Fig. 10].

All saints would have been appropriate for the number seven, as it represented the seven virtues and the seven gifts of the Holy Spirit. However, there is more to the story of Thomas Becket, who was canonised in 1173. The Canterbury monks placed a strong emphasis on Becket's connection to the number seven and were highly interested in auspicious numbers, as Kay Brainerd Slocum demonstrates in her book “Liturgies in Honour of Thomas Becket”⁴⁷. It would thus make perfect sense if it also had a major impact on the architecture of the Corona⁴⁸.

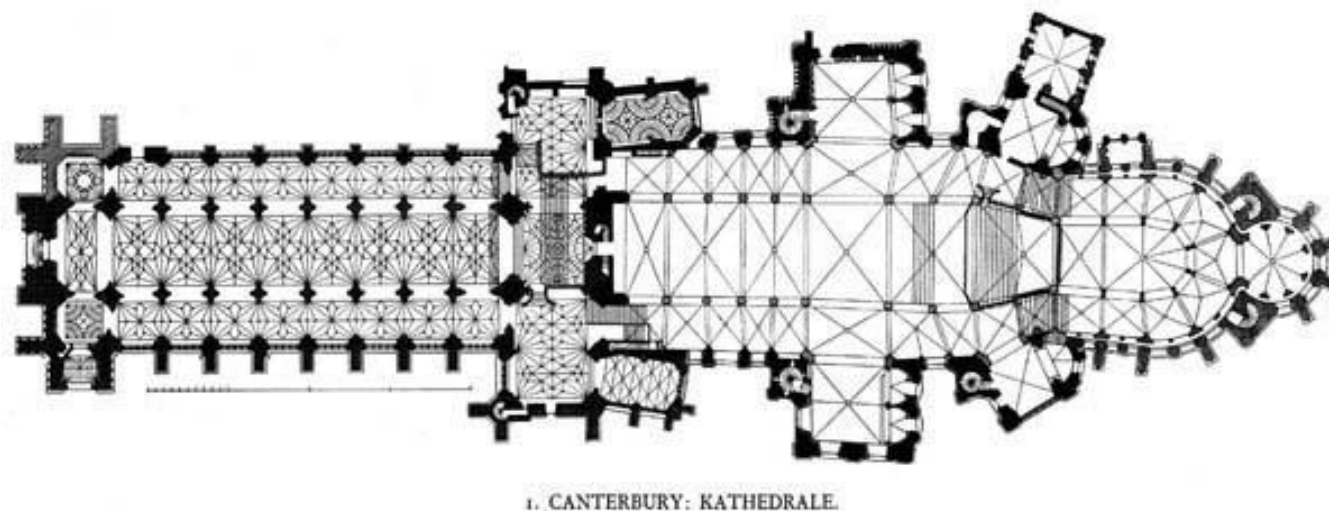


Fig.10. Canterbury Cathedral Plan, from G. Dehio and G. von Bezold

⁴⁷ Slocum K.B. (2002). *Liturgies in Honour of Thomas Becket*. University of Toronto Press. doi.org/10.3138/9781442676749.

⁴⁸ Hartog, E., (2014). 1, 2, 3, 6: Early Gothic Architecture and Perfect Numbers. *Architectural Histories*, 2(1), p.Art. 17. DOI: http://doi.org/10.5334/ah.bu.

1.5. Frequency and Pattern

The human body is amazingly synchronised with nature, and one of the interesting aspects of this harmony is water, because 70% of our bodies are made up of it, and it has a significant impact on our physical and emotional state. Recently, the effect of sound and, in particular, musical vibrations on the body, especially the frequencies 432 Hz and 440 Hz, has been actively discussed.

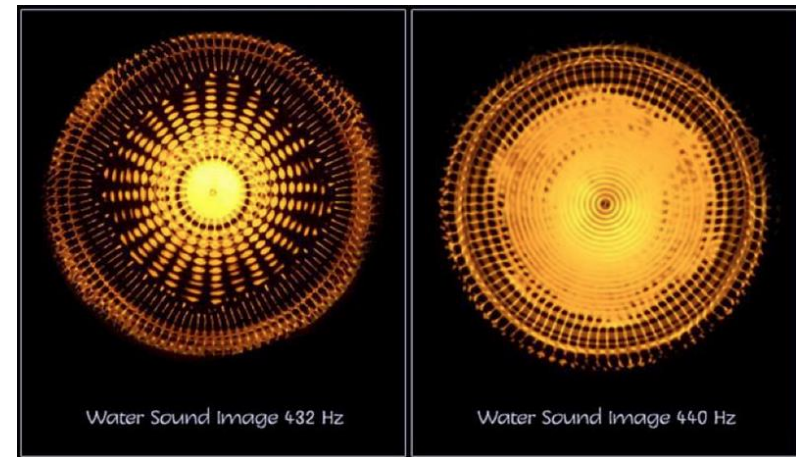
The theory being studied is that 432 Hz may have more beneficial effects on the body than a more standard frequency of 440 Hz. This theory is based on the idea that 432 Hz is in better harmony with nature, as this frequency is associated with many natural phenomena, such as the rotation of the Earth and cosmic constants. Proponents of the theory argue that the sound of music at a frequency of 432 Hz promotes balance and harmony in the body, activates energy centres, and has a beneficial effect on the emotional state.

Experiments with water confirm the effect of sound frequencies on its structure. [Fig.11] And, as mentioned earlier, given that the human body is 70% water, we can assume that similar vibrations affect us. Thus, the choice of music frequency can be one of the factors affecting our emotional and mental state.

Scientific studies on the effects of different sound frequencies on the human body, including 432 Hz and 440 Hz, are limited, and the results of such studies may be mixed. To date, there is no convincing evidence that a frequency of 432 Hz or 440 Hz has a significant effect on human physical or mental health.

It is worth noting that the theme of the frequency of 432 Hz has attracted the attention of musicians and esotericists, who claim that this frequency has special healing properties. Some argue that music at a frequency of 432 Hz is more harmonious and contributes to psycho-emotional well-being. However, these claims are not supported by convincing scientific evidence.

Fig.11. Water sound vibration at 432 Hz and 440 Hz



In terms of books, there are a limited number of scientific researches and publications on the effects of 432 Hz and 440 Hz frequencies on humans. The original study by authors Diletta Calamassi and Gian Paolo Pomponi, “Music Tuned to 440 Hz Versus 432 Hz and The Health Effects: A Double-blind Cross-over Pilot Study,”⁴⁹ aimed to identify differences in life parameters and perceptions after listening to music at different frequencies - 440 Hz and 432 Hz. The results showed that music with a frequency of 432 Hz was able to lower heart rate more than music with a frequency of 440 Hz.

According to Richard Heusken, music tuned to 432 Hz has a softer, calmer sound, bringing greater clarity and ease to the ear⁵⁰. Designed for meditation using the 432 Hz frequency, it promotes relaxation of the body and mind, and is also perceived as more harmonious and pleasant compared to the 440 Hz frequency. Thus, despite scientific disputes, there are studies and statements that highlight the influence of musical frequencies on the human organic state.

As we can see, the vibration created at a frequency of 432 Hz has a pronounced center and envelope, while at a frequency of 440 Hz, the inner contents of the center are dispersed all the way to the edges of the circle⁵¹ [Fig.11]. This makes you think - the difference between the frequencies is only 8 Hz, but since this value has such an impressive effect on a small amount of water, what will it be like in its effect on our body?

”At the root of all power and motion, there is music and rhythm, the play of patterned frequencies against the matrix of time. We know that every particle in the physical universe takes its characteristics from the pitch and pattern and overtones of its particular frequencies, its singing. Before we make music, music makes us.” Joachim-Ernst Berendt⁵²

The power of healing is being revealed in the amazing field of sound science. Sri Yantra, a mandala generated by sound and, according to legend, created by a yogi in a state of deep meditation, is the embodiment of one of the oldest sounds in the whole world. This image is often described as a manifestation of divine sound. The triangles found in

⁴⁹ Calamassi D., Pomponi.G. P. (2019). Music Tuned to 440 Hz Versus 432 Hz and The Health Effects: A Double-blind Cross-over Pilot Study. Article. DOI:10.1016/j.explore.2019.04.001.

⁵⁰ Healing Benefits of 432 Hz Music you didn't know. Meditative Mind. From MeditativeMind --Web Resource.

⁵¹ Sound Frequencies in Water: A=440 Hz & A=432Hz Using Sine, Square & Sawtooth Waves. Video Web Resource.

⁵² Berendt J.-E. (1983). The World Is Sound: Nada Brahma: Music and the Landscape of Consciousness. ISBN: 9780892813186.

the Sri Yantra are harmoniously combined with the use of the divine number Pi, which is also the basis of the golden ratio Phi. Pythagoras, the ancient Greek philosopher, deeply understood the connection between sound and divine geometry, and Euclid described this connection in his work The Elements around 300 BC. This "cosmic" mathematics and its healing power have been known to many generations for centuries⁵³.

Since in my thesis I use the reference to the number of 7, 432 Hz cannot be divided by it, nor can 440 Hz.

$$(432 / 7 = 61.7143...)$$

$$(440 / 7 = 62.8571...)$$

Since my search for the “ideal” vibration was based on the decision to use its visual image in the future to construct the planning structure of the building, I decided to settle on a vibration of 14 Hz, which is ideally divided into two identical parts - 7 and 7.

The frequency of 14 Hz is part of the low-frequency range that can affect the human body. However, effects may vary depending on the context of use and the individual. Some research suggests that low frequencies, including 14 Hz, may promote relaxation and stress relief. This may be useful for improving your overall psycho-emotional state. The frequency of 14 Hz also corresponds to the frequency of alpha waves in the brain, which are associated with states of rest and relaxation. This can help improve concentration, reduce anxiety, and increase overall emotional stability. 14 Hz can also be used in the context of meditation to achieve deep concentration and a state of relaxation⁵⁴.

Also, the image on this vibration shows a more diverse system of lines, which makes it more flexible for various planning variations [Fig.12].

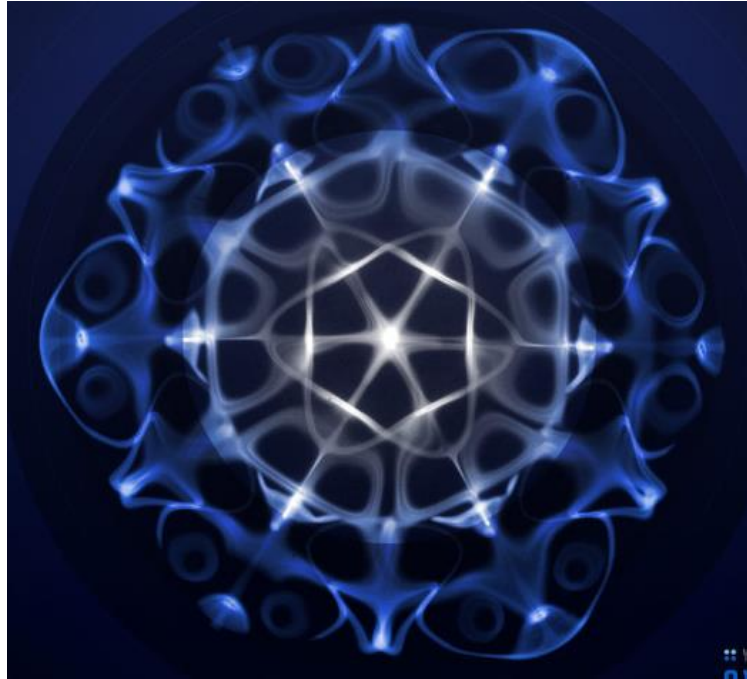
Establishing a church of all religions based on this structure offers a unique perspective, combining spiritual and scientific elements. Here are a few benefits that can be associated with this idea:

⁵³ Sarich C. (2015). Why Sound Heals. From TheMindUnleashed -- Web Resource.

⁵⁴ Smith L. (Medically reviewed by Andrew Gonzalez, M.D., J.D.) (2019), What are binaural beats, and how do they work?. MSN. From MedicalNewsToday – Web Resource.

Harmonization with the Environment: Using the 14 Hz frequency, which is associated with relaxation and tranquility, can help create an atmosphere of harmony and peace within the church. This will allow parishioners to feel closer to nature and the world around them.

Psycho-Emotional Well-Being: The 14 Hz frequency can be used to create an atmosphere that promotes peace and calm, which will positively impact the psycho-emotional well-being of parishioners.



A visual image based on this frequency can serve as inspiration for architectural forms and patterns within a church. They can symbolize the unity of different religions and express spiritual values, creating a unique space. A layout structure inspired by the frequency of 14 Hz can contribute to the creation of a universal space that is open and welcoming to all believers. The use of 14 Hz can also affect the sound design of a church. Audio systems tuned to this frequency can create music that promotes meditation and contemplation.

Fig. 12. Vibration of water at 14Hz (Square wave & water)

Since the 14 Hz vibration was taken as a basis, the next step was to find the main guide lines [Fig.13]

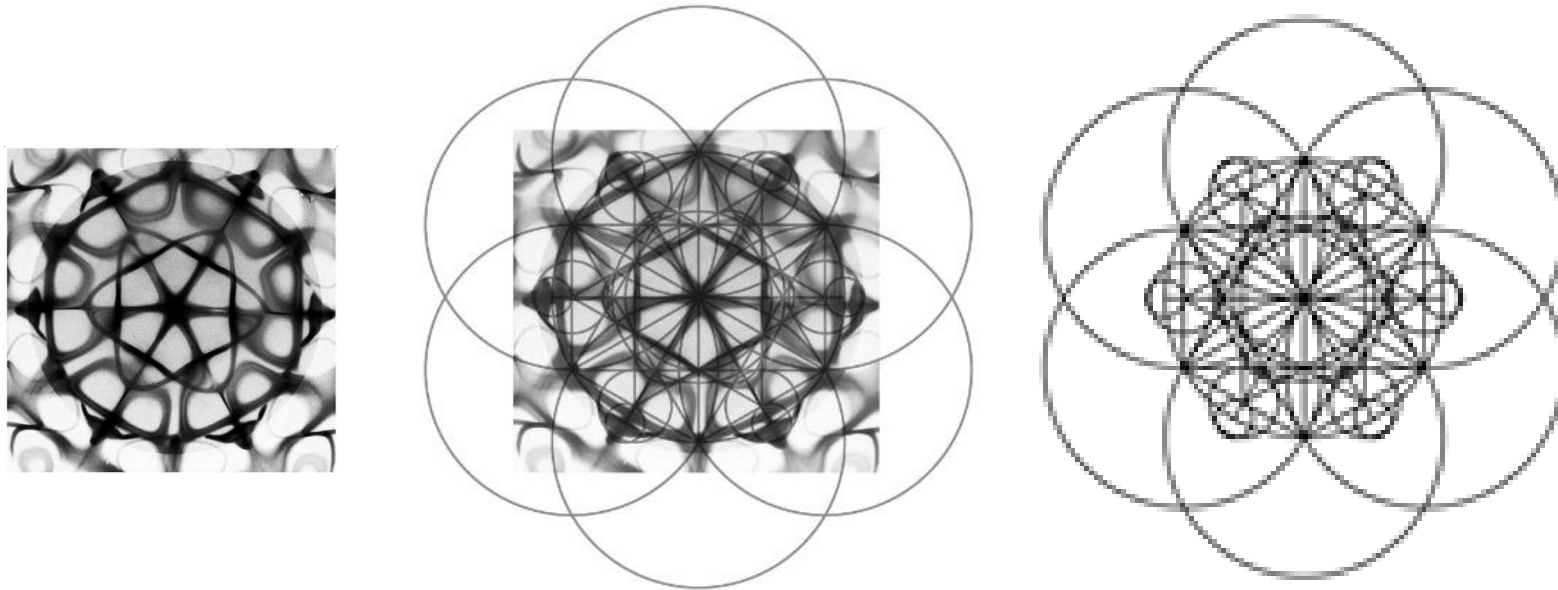


Fig.13. Transformation of the Image of water vibration at 14 Hz into Lines

In this context, lines are presented in two color variations - black lines for a general overview of the system design and colored lines for a better understanding of the various elements of the image. In the center, you can also notice the “Seed of Life”, consisting of 7 circles. On the left is the base image. On the right, duplication of the base image and overlaying it on each of the seven circles [Fig.14].

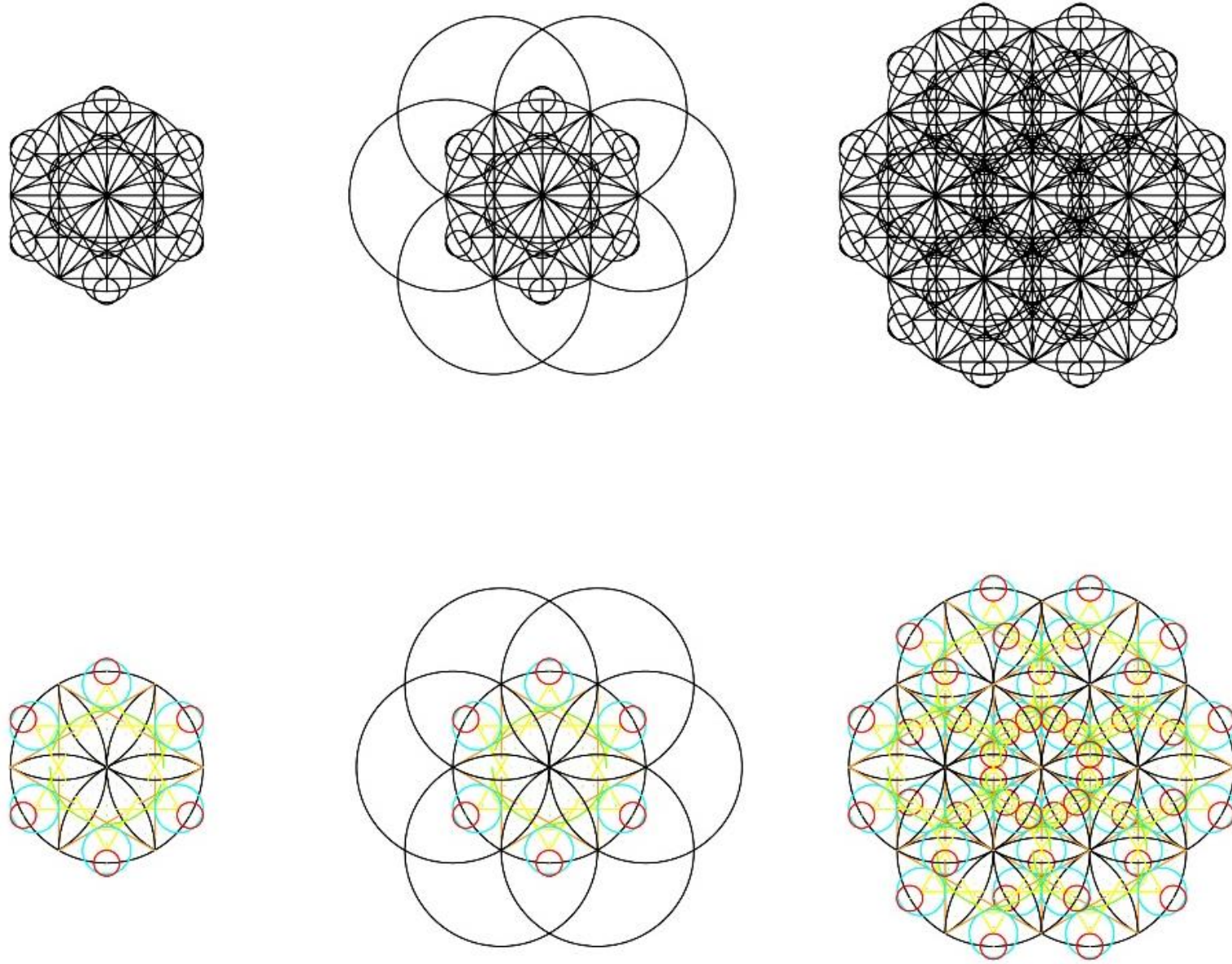


Fig.14 Converting baselines

“A spatial exploration into the interplay of materials, construction techniques, and delicate and precise design...”



Fig.15. “Thousand Line Construction” Hamish Macpherson

Thousand Line Pavilion:



Thousand Line Pavilion: Model (1:50) Elevation



Central Weaving Detail



External Weaving Detail



Floor Plan



Wood Plan

Thousand Line Pavilion:

The Thousand Line Pavilion is a construction of species 1 and 2. The resulting plating techniques that were successful in the previous two alternate were merged to produce the final design. The base ring was better horizontal to adequately reveal the weaving detail lines. To enhance the delicacy of the hanakago baskets, each component individually consisted of 10 rings. The central cone was a result of overlapping the structures so they embrace the space. The construction produces a series of complex and beautiful geometries that can be seen in the central and external weaving details. Built on well on defining the secondary spaces within the design. (Floor plan above)
The layered effect creates extraordinary shadows to be cast from the design.



“...Inspired by Hanakago; the craft of Japanese Bamboo basketry, to celebrate the western discovery of tea and its associated culture during the renaissance”⁵⁵

Fig.16. “Thousand Line Construction” Hamish Macpherson

⁵⁵ Macpherson H. (2015). Thousand Line Construction. Diploma Studio 10 at Westminster University School of Architecture.

Symbolism plays a key role in religion because it allows believers to perceive and express spiritual truths through symbols that have deep meanings and reinforce faith. In various religious traditions, symbols serve as a bridge between the physical and spiritual worlds, enriching the understanding of faith and creating a common language for the community.

One of the most famous religious symbols is the cross in Christianity. This symbol reflects Christ's sacrifice and resurrection and also serves as a reminder of salvation and hope. In Christian art, the cross can take many different shapes, adding depth to its symbolic meaning.

In Islam, the crescent moon and star are often associated with Islamic symbolism. These symbols have their roots in Islamic history and are often associated with various spiritual concepts. They have also become important elements of national flags in many Muslim countries.

In Hinduism, symbols such as om (ॐ) and swastika have deep spiritual meanings. Om represents the first sound in the universe, symbolizing the divine principle.

1.6. Religious Symbols

The swastika, despite its use in Nazi symbolism, in Hinduism represents prosperity, luck and the cyclical movement of time.



In Buddhism, the lotus flower is a powerful symbol. The lotus grows from mud, but its color and purity symbolize enlightenment and spiritual transformation. Buddhism also often uses symbols of wisdom, such as the eightfold wheel of dharma, which represents the basic principles of Buddhism.

In Judaism, the holy book, the Torah, serves as a symbol of divine revelation. The Torah is the law and guidance of Jews, and its study and practice are central aspects of religious practice. Also, symbols such as the shofar (a sheep's horn used in religious rituals) have their own spiritual meanings.⁵⁶

Symbols in religion often transfer their meanings to the level of metaphors and allegories. They help believers perceive abstract truths through concrete images, making faith more accessible and understandable. Symbols can also serve as a connecting element within religious societies, creating shared experiences and identities.




⁵⁶ Baer, Hans A. (1998). William H. Swatos Jr (ed.). Symbols, in Encyclopedia of Religion and Society. Walnut Creek, CA, USA: Hartford Seminary, AltaMira Press. p. 504. ISBN 0761989560.

Symbolism in religion is not only a means of visual expression of spiritual concepts but also plays an important role in the formation and maintenance of faith, enriching its semantic depth and creating a common language for believers.

Religion	Name	Symbol	Origrn	Notes
Christianity	Christian cross		32 AD	The Christian cross ⁵⁷ , outstanding for its simplicity and deep meaning, has become the embodiment of Christianity. Used since early times, it, despite its modesty, has become the most recognizable symbol of faith. During the period of early Christianity, when Christians faced persecution in the Roman Empire, the cross served as a hidden and, at the same time, powerful sign of solidarity.
Islam	Star and crescent		1900s	The star and crescent symbol ⁵⁸ first appeared on the Ottoman flag in 1844 and gradually became closely associated with Islam. Its associations with religion deepened through its widespread use in Ottoman mosque decorations in the late 19th century. Although the symbol has occasionally been used as an emblem of Islamic organizations, such as the All India Muslim League in 1940 (which later became the flag of Pakistan) and the American Nation of Islam in the 1970s, its perception as an Islamic symbol has strengthened over time.

⁵⁷ McGrath E. A. (2006). Christianity: an introduction. pp. 321-323. ISBN 1-4051-0901-7.



⁵⁸ Glassé C. (revised ed. 2001). The New Encyclopedia of Islam. p. 314. urn:oclc:record:1150801673

Hinduism	Om			<p>The syllable "om"⁵⁹ or "aum" first found its description in the Upanishads as an all-pervading mystical reality. Hindus believe that at the beginning of creation, the all-pervading divine consciousness took the form of the first vibration, manifested as the sound "OM". Until this moment, there was only "Shunyakasha", emptiness. The vibration "OM" symbolizes the manifestation of God in form ("saguna brahman"). He is a reflection of the absolute reality known as "Adi Anadi", which has no beginning and no end, encompassing all things. The mantra "OM" is not just a sound, but the name of God, the vibration of the Almighty. Each letter - A-U-M represents the divine energy (Shakti), united in three elemental aspects: Bhrama Shakti (creation), Vishnu Shakti (preservation) and Shiva Shakti (liberation or destruction).</p>
Judaism	Star of David		17th century CE	<p>Flags decorated with hexagrams, along with other images, began to be present in Jewish culture as early as the 14th and 15th centuries AD. The first official use of the Star of David as a symbol for the Jewish community was recorded in Vienna in the 17th century AD.⁶⁰</p>
Shinto	Torii			<p>Most often found at the entrance to or within Shinto shrines, the traditional Japanese gate is a symbol of the transition from the mundane to the sacred. This gate, called a Torii⁶¹, consists of two posts and two crossbars, symbolizing separation. Their</p>

⁵⁹ Paramhans Swami Maheshwarananda, The hidden power in humans, Ibero Verlag, p. 15., ISBN 3-85052-197-4

⁶⁰ Schwandtner, Scriptorum Rerum Hungaricarum, ii. 148. Facsimile in M. Friedmann, Seder Eliyahu Rabbah ve-Seder Eliyahu Ztza, Vienna, 1901

⁶¹ JAANUS. Torii.

				appearance in Japan can be traced back to at least the mid-Heian period. Contrary to popular belief about Torii as a Shinto symbol, for most Japanese, they are more likely to represent a gateway, marking the entrance to a sacred area. Despite the associations with religious contexts, many Japanese view torii primarily as an architectural element indicating the location of Shinto shrines on maps.
Sikhism	Khanda		1920	A graphical representation of the Sikh slogan Deg Tegh Fateh (1765), adopted by the Shiromani Gurdwara Parbandhak Committee in 1920. ⁶²
Buddhism	Wheel of Dharma			Since the third century BC, at the latest, the Wheel has served as a symbol for the idea of Dharma. It symbolises the teachings of Gautama Buddha on the route to Nirvana. It is included in the logos of Buddhist groups in Mongolia, Sri Lanka, and India. According to one definition, it symbolises Buddhism as a religious tradition and was chosen as one of the insignia for US military chaplains in 1990. ⁶³ But rather than the Dharma Wheel, the Swastika is the traditional Buddhist emblem in the majority of nations where Mahayana Buddhism is practiced, including China, Taiwan, Korea, and Japan.

Tab.1. Main symbols in different religions

The symbol of the unity of religions should embody the idea of harmony, agreement and mutual understanding between different faiths. This symbol should express respect for the diversity of religious traditions, emphasize common values, promote tolerance and dialogue between believers of different beliefs. An ideal symbol of the unity of religions would be an image that combines various symbols and elements from different beliefs to create a

⁶² Cole, W. Owen; Sambhi, Piara Singh (1997). A Popular Dictionary of Sikhism (rev. ed.). Richmond, UK: Curzon. p. 28. ISBN 0-203-98609-1.

⁶³ Huntington C. J., Bangdel D. (2003). The Circle of Bliss: Buddhist Meditational Art, p. 524. ISBN-10: 1932476016

harmonious whole. It should be something that inspires mutual respect, understanding and cooperation, emphasizing a common desire for peace and spiritual well-being.

Thus, using the guidelines derived from the 14 Hz vibration as a basis, the religious symbols have been placed so that they resonated with the existing lines [Fig.17].

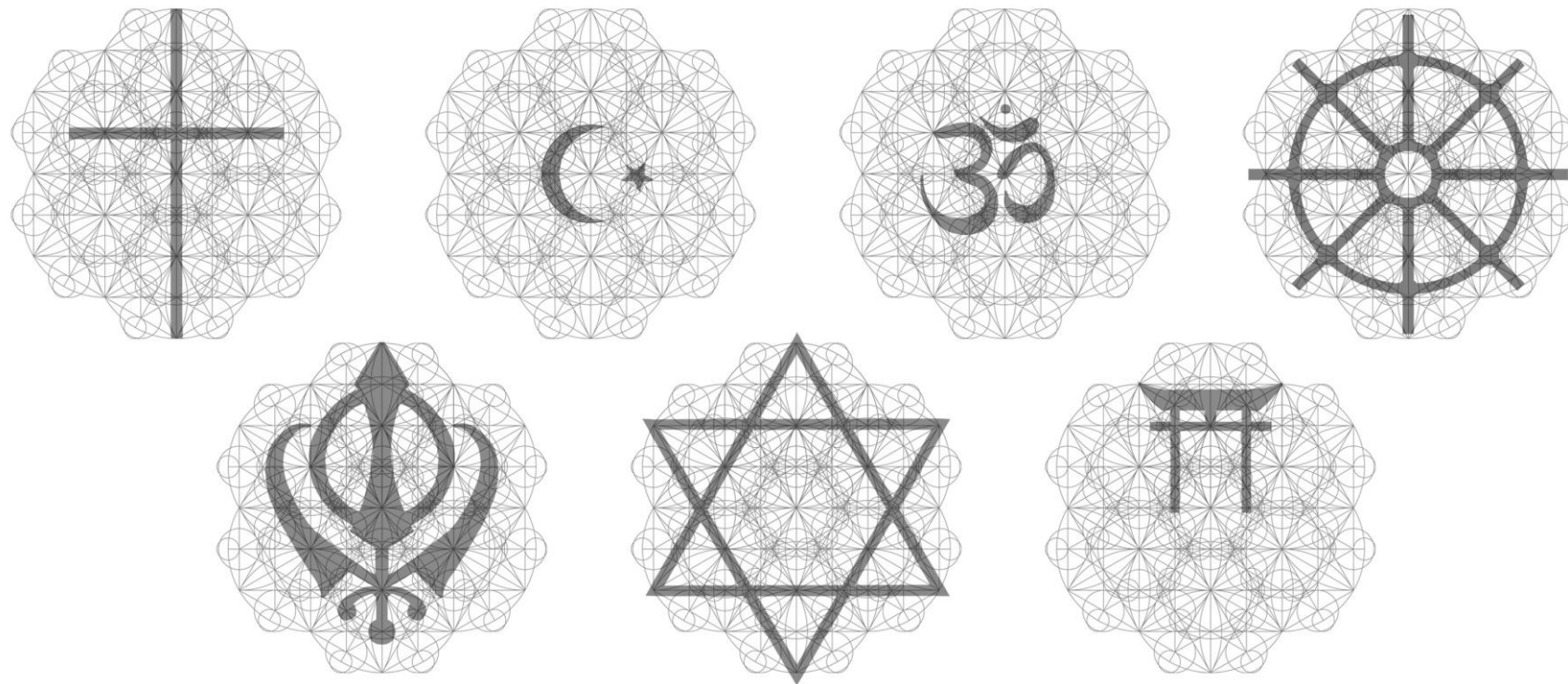


Fig.17. Religious symbols in vibration lines from a frequency of 14 Hz

1.7. Seven Examples of Sacred Architecture

Christianity

The Cattedrale di **Santa Maria del Fiore** in Florence⁶⁴, the epitome of the splendor of the Italian Renaissance, is deeply imbued with sacred geometry. The most impressive aspect is the monumental dome created by Filippo Brunelleschi⁶⁵. Its proportions, based on the golden ratio, express harmony and divine order [Fig.18]. The eight side windows and eight ribs of the dome form a structural figure of eight, often associated with infinity and the spiritual cycle. The symbolism of the number eight is often found in sacred geometry, and here it gives the dome an additional spiritual dimension. The side clocks and frescoes, rich in symbolism, create an atmosphere of sublimity and harmony.

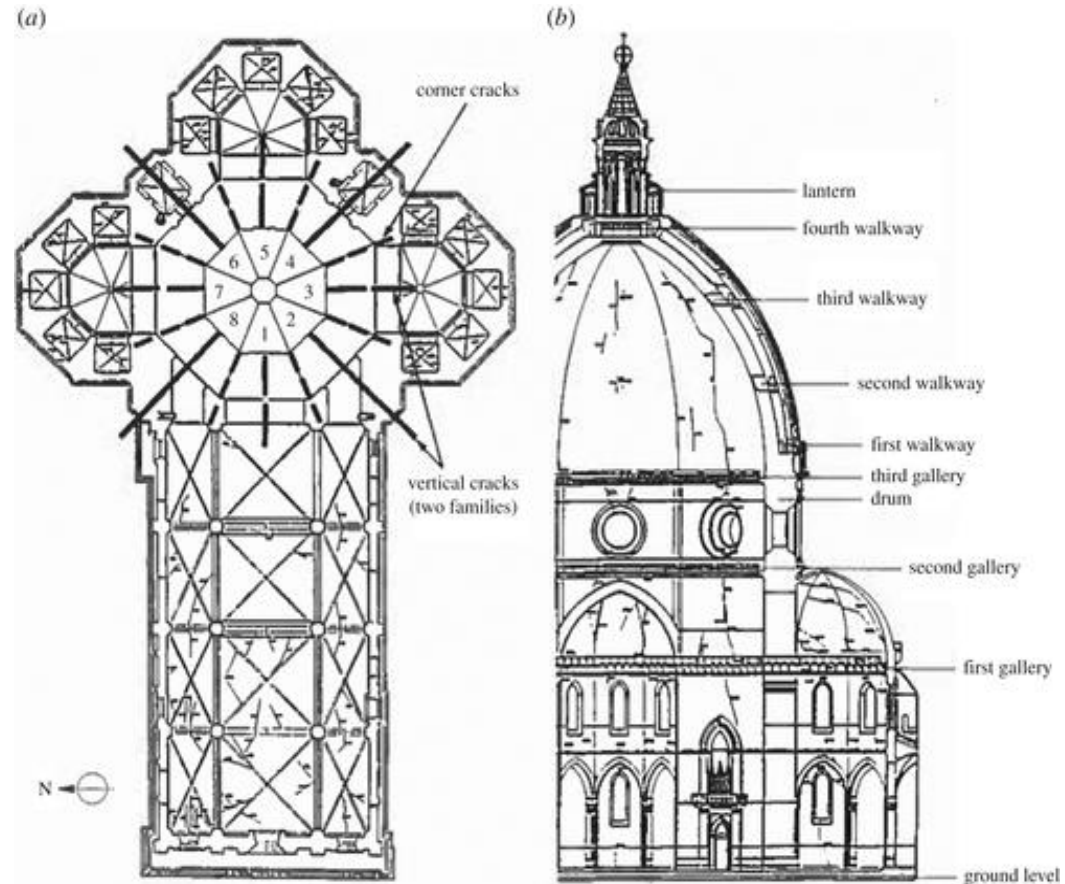


Fig.18. Plan (a) and cross-section (b) of Santa Maria del Fiore showing the location of the main cracks.

⁶⁴ Ermengem, Kristiaan Van. Duomo di Firenze, Florence. A View On Cities - Web Resource.

⁶⁵ King, Ross (2000). Brunelleschi's Dome: How a Renaissance Genius Reinvented Architecture. New York: Bloomsbury. p. 1. ISBN 978-0-8027-1366-7.

Judaism

Princes Road Synagogue. William James Audsley and George Ashdown Audsley, two brothers from Edinburgh who are Scottish architects, designed the synagogue.

The synagogue, which has been called "eclectic" for its harmonious blending of elements from several architectural styles, is claimed to be an example of the type of building that fits this description⁶⁶.

The synagogue is made of brick, and colored terracotta bricks are frequently used to decorate it. The building's layout, which includes aisles and a nave, is visible from the facade. The middle section protrudes

from the aisles. Deeply buried in arches, it features a massive Moorish gateway split by a central column, and a great Romanesque-style wheel window above it [Fig.19].

The synagogue is composed of a central nave with aisles flanking it on either side. The aisles are supported by galleries above the nave and are divided by an arcade supported by thin octagonal columns. The barrel vault in the nave is illuminated by clerestory windows. The interior is distinguished by its opulent design, which makes unreserved use of the best marbles and timbers, as well as gilding⁶⁷. [Fig.20]

⁶⁶ Meek H. A. (1995). *The Synagogue*, Phaidon Press, London, p. 204. ISBN 10: 0714829323.

⁶⁷ Sharples, J. (2004). *Liverpool – Pevsner Architectural Guide: Pevsner City Guide*. Yale University Press, p. 249. ISBN-10: 0300102585.

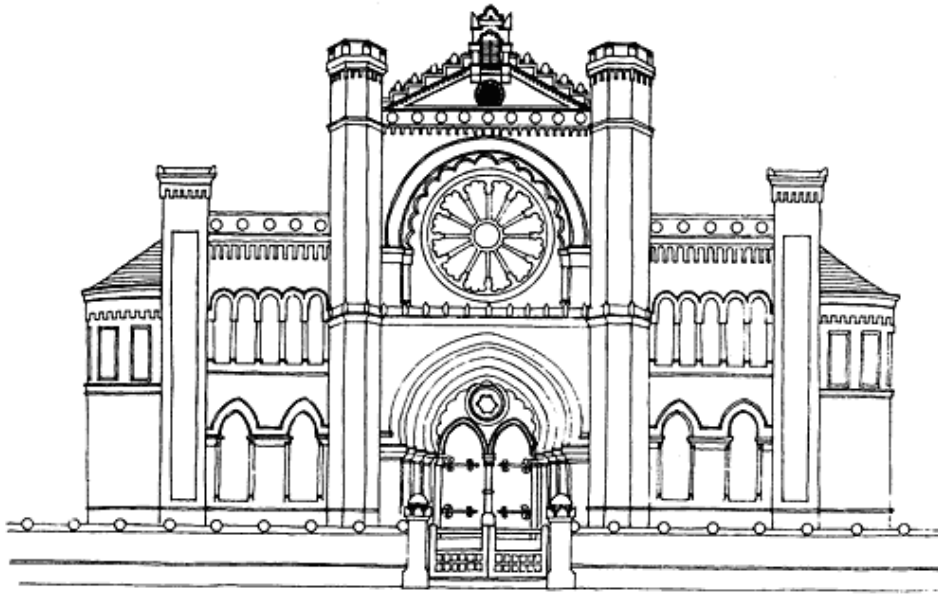


Fig. 19. Princes Road Synagogue. Facade.



Fig. 20. Princes Road Synagogue. Interior.

Islam

Blue Mosque, Istanbul. The prayer hall features a central dome that is 23.5 meters in diameter and room size by 64 by 72 meters⁶⁸. Four semi-domes round the dome, with three smaller semi-domes, or exedrae, flanking each semi-dome. [Fig.21]. The prayer hall's corners are covered by four smaller domes. The mosque features six minarets, ablutions areas, and a sizable courtyard in front of the prayer hall⁶⁹.

The mosque courtyard's interior features a traditional rectangular peristyle design with an arcaded and domed portico (also known as a riwaq) lining each side. The porticos are held up by a total of 26 columns, with 30 domes situated above them⁷⁰.

The building combines elements of Islamic and Byzantine architecture from the nearby Hagia Sophia, reflecting the traditional Ottoman style of the time⁷¹.

The dome and cascading semi-domes dominate the interior of the mosque. The height of the main dome is forty-three metres. Four huge cylindrical pillars

maintain the dome's weight. Four lengthy, elegant pendentives provide the transition between the central dome and the pillars. Transitions between the semi-domes and their exedrae and between the corner domes of the hall and the surrounding building are accomplished using smaller pendentives. Stucco muqarnas, or stalactite-like sculpture, cover the transitions between the smaller exedrae and the supporting walls or arches.

Similar to the inside, the exterior create a softer profile that climbs up gradually towards the summit of the central dome by combining more curved and multi-tiered supporting parts with a cascade of domes and semi-domes.

There are three entrances to the mosque's courtyard: two side entrances and the main entrance on the northwest. The largest entrance is near the centre, where a small dome perched atop a tall, projecting doorway greets visitors^{72, 73}

⁶⁸ Blair, Sheila S.; Bloom, Jonathan M. (1995). *The Art and Architecture of Islam 1250-1800*. Yale University Press. pp. 228-229. ISBN 9780300064650.

⁶⁹ Goodwin, Godfrey (1971). *A History of Ottoman Architecture*. London: Thames & Hudson. pp. 343-347. ISBN 978-0-500-27429-3.

⁷⁰ Sumner-Boyd H., Freely J. (2010). *Strolling Through Istanbul: The Classic Guide to the City* (Revised ed.). Tauris Parke Paperbacks. pp. 107–111. ISBN-10: 1838600027.

⁷¹ Blair S. S.; Bloom J. M. (1995). *The Art and Architecture of Islam 1250-1800*. Yale University Press. pp. 213 and after. ISBN 9780300064650.

⁷² Goodwin, Godfrey (1971). *A History of Ottoman Architecture*. London: Thames & Hudson. pp.345-346. ISBN 978-0-500-27429-3.

⁷³ Kuban, Doğan (2010). *Ottoman Architecture*. Translated by Mill, Adair. Antique Collectors' Club. pp. 363–364. ISBN 9781851496044.

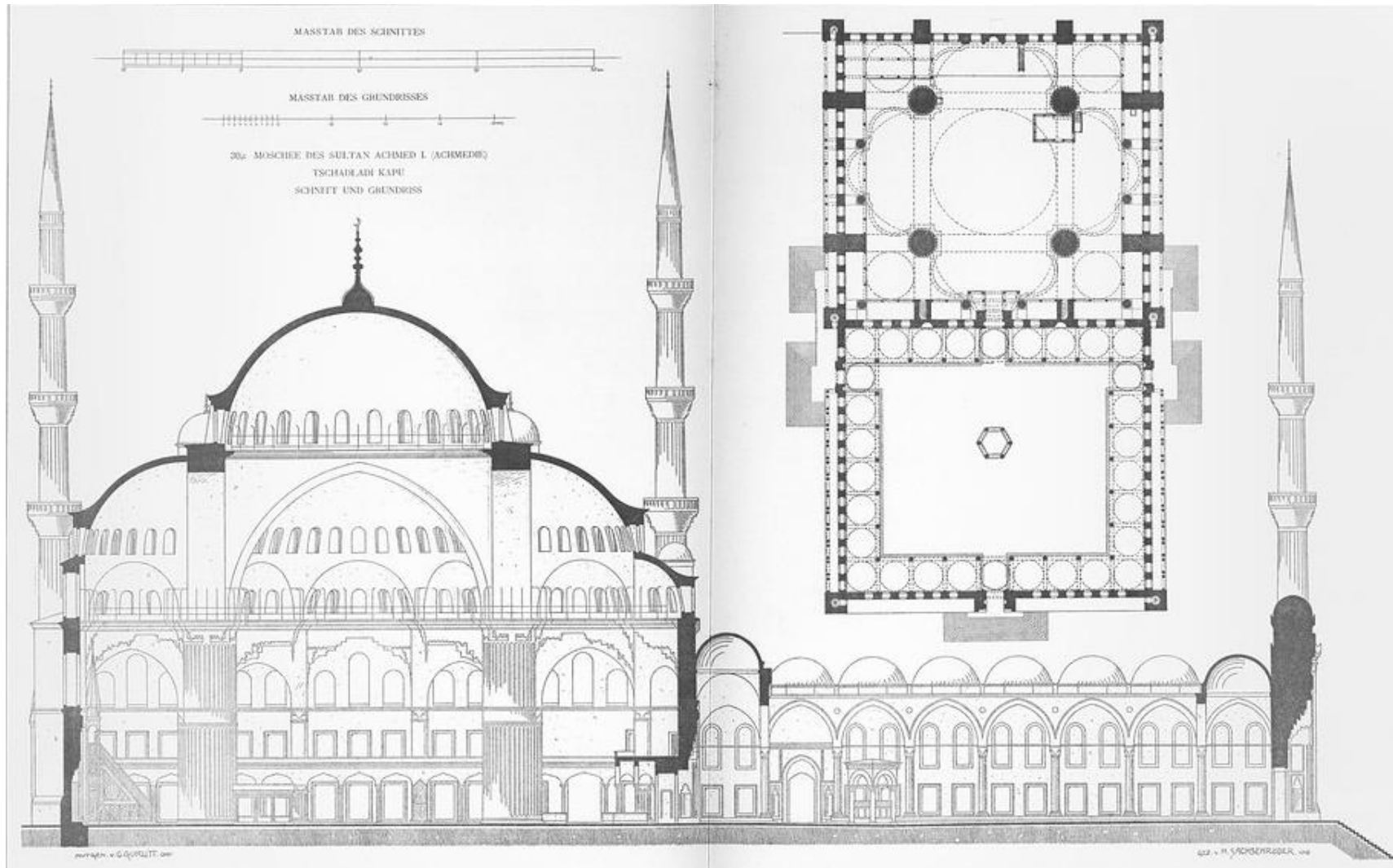


Fig. 21. Blue Mosque longitudinal cross section and floor plan.

Hinduism

The Shaivite⁷⁴ ⁷⁵ Hindu **Brihadishvara Temple**, also known locally as Thanjai Periya Kovil (lit. "Thanjavur Big Temple"), India. It was constructed in the Chola⁷⁶ architectural style and was named Rajarajesvaram (lit. "Lord of Rajaraja"). It is a prime example of Tamil architecture and one of the biggest Hindu temples⁷⁷.

The axial and symmetrical geometry rules⁷⁸ are applied in the design and construction of the Peruvudaiyar temple. The temple complex spans 240.79 meters from east to west and 121.92 meters from north to south. It is shaped like nearly two stacked squares. The main community hall (mukhamandapam), the great gathering hall (mahamandapam), the pavilion that connects the great hall and the sanctum (Antrala), and the sanctum with its towering superstructure (sri vimana) are the five main sections of this space.

Within its expansive courtyard, the temple complex incorporates a sizable covered veranda (prakara) with pillars that allows visitors to walk around its almost 450-meter circumference. [Fig.22]

⁷⁴ Ka Ta Tirunāvukkaracu, Rajaraja I (Chola King) (1984). *Rajaraja the Great: A Garland of Tributes*. Department of Museums, Government Museum. [ark:/13960/t7tn5xf9z](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-638784-p0191-7).

⁷⁵ *India Perspectives*. PTI for the Ministry of External Affairs. 1995.

⁷⁶ Rao R. (1989). *Indian Heritage and Culture*. Sterling Publishers. p. 32. ISBN 9788120709300.

There used to be a water moat surrounding the temple, which faces east. This ditch is currently surrounded by the fortification wall. The elaborate entrances to the two walls are known as gopurams. These have entablature and are built of stone. On the east side, there are the primary entrances. "Sacred Gate of the Keralantakan" is how the first one is known, and it is named the Keralantakan tiruvasal. The monarch Rajaraja, who constructed it, went by the surname Keralantakan. The inner courtyard gopuram, known as the Rajarajan tiruvasal, is located about 100 metres ahead. The shrines in the large courtyard that is reached via the inner eastern gopuram are all oriented towards the cardinal directions of east, west, and north. A five-story gopuram on one axis or a smaller free-standing gopuram on the other axis provide direct access to the expansive main square. Compared to the vimana, the main entrance's gopuram is 30 metres higher. This courtyard is centred on the great tower and the principal monuments associated with the temple⁷⁹.

⁷⁷ Keay J. (2000). *India, a History*. New York, United States: Harper Collins Publishers. p. 19. ISBN 0-00-638784-5.

⁷⁸ Thapar 2004, pp.43.

⁷⁹ Balasubrahmanyam S.R. (1975), *Middle Chola Temples*, Thomson Press. Pp 16-19. ISBN 978-9060236079.

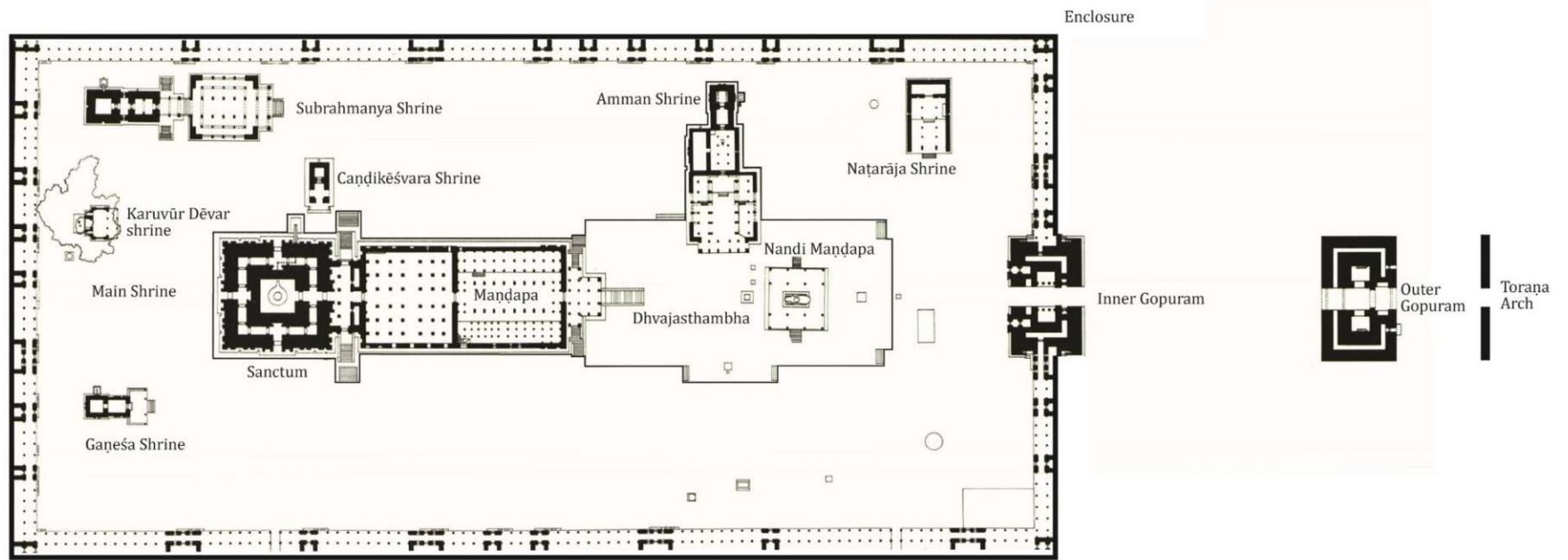
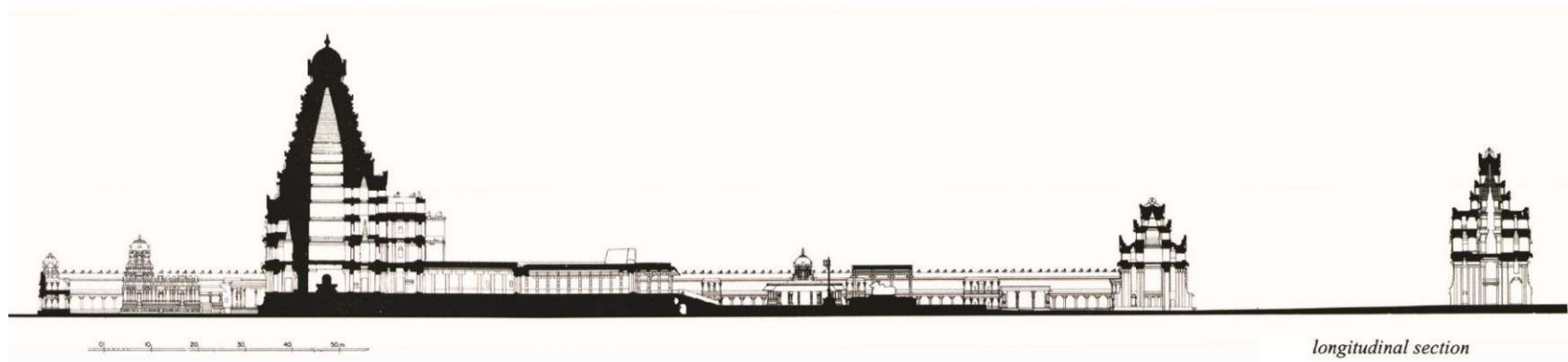


Fig. 22. Brihadishvara Temple. Complex Plan and Elevation.

Buddhism

Different regions have different structures and architectural designs. Typically, a temple is made up of both its external surroundings and its physical structures. Five elements are represented by the architecture of Buddhist temples: fire, air, water, earth, and nothingness (space)⁸⁰.

800 meters north of Prambanan in Central Java, Indonesia, is the eighth-century Mahayana Buddhist temple known as **Sewu** (Javanese: ꦱꦺꦮꦸ), romanized: Sèwu). The term "candi" refers to a Hindu or Buddhist temple in Indonesian, which is why "Candi Sewu" is the colloquial name.

This Javanese term means 'a thousand temples,' even though the complex only has 249 temples. It comes from a well-known local folktale called The Legend of Loro Jonggrang. Manjusri is said to have been the temple compound's original name by archaeologists⁸¹.

The Sewu temple complex, whose rectangular grounds span 185 meters north-south and 165 meters east-west, is the biggest Buddhist compound in the Prambanan region. Although there are entrances on each of the four

cardinal directions, the primary entrance is on the east side. Twin Dvarapala sculptures stand sentry at each entryway. [Fig.24]

Around the main central hall of the compound, 249 structures are organized in a Mandala design. The Mahayana Buddhist conception of the cosmos is expressed in this arrangement. There are 240 smaller temples with comparable patterns that are grouped in four concentric rows of rectangles, known as Perwara (guardian) temples. There are two inner rows with 72 temples spaced at certain intervals and two outside rows with 168 smaller temples positioned closer together. All 249 of the temples in the second precinct had square frames, although their sculptures and orientations differed. A large number of the statues have vanished, and the ones that remain are arranged differently from how they were originally⁸².

The main temple rises to a height of 30 meters and has a diameter of 29 meters. [Fig.23] The main temple has a 20-sided polygon with a cross-shaped ground plan. There are four outwardly projecting constructions, each with its own staircase, entrance, and apartments, capped with stupas that create a cross-like

⁸⁰ BBC (2006). Buddhism: Buddhist Worship.

⁸¹ Schliesinger J. (2016). Origin of Man in Southeast Asia 5: Part 2; Hindu Temples in the Malay Peninsula and Archipelago. Booksmango. p. 7. ISBN 9781633237308.

⁸² Jacques D. (1978). edited and translated by Smithies M.; Borobudur. Oxford University Press. pp. 46–47. ISBN 978-0-19-580379-2.

arrangement, on each of the main temple's four cardinal points. Andesite stones are used to construct each and every building.

There are five chambers in the main temple: four smaller rooms in each cardinal direction and one larger garbhagriha in the center. These four chambers are joined by outside corner galleries that have rows of little stupas encircling the balustrades⁸³.

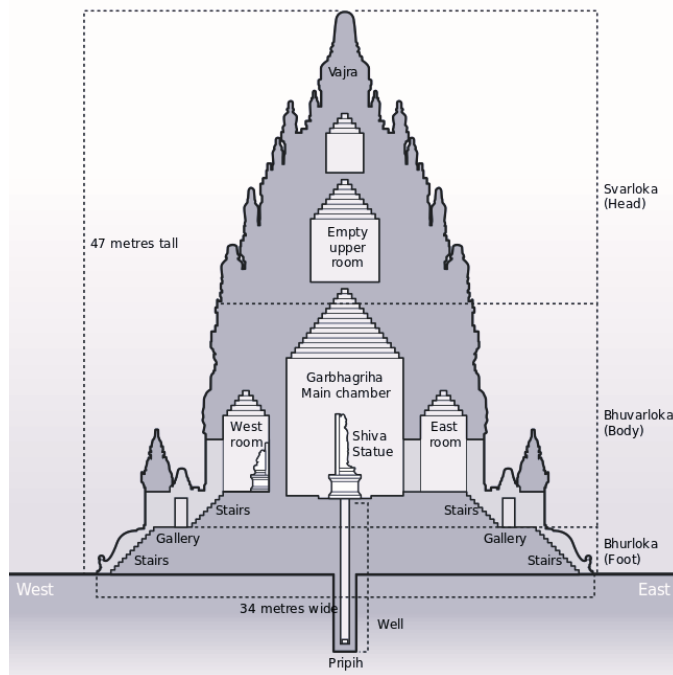


Fig. 23. Prambanan Cross Section. Sewu

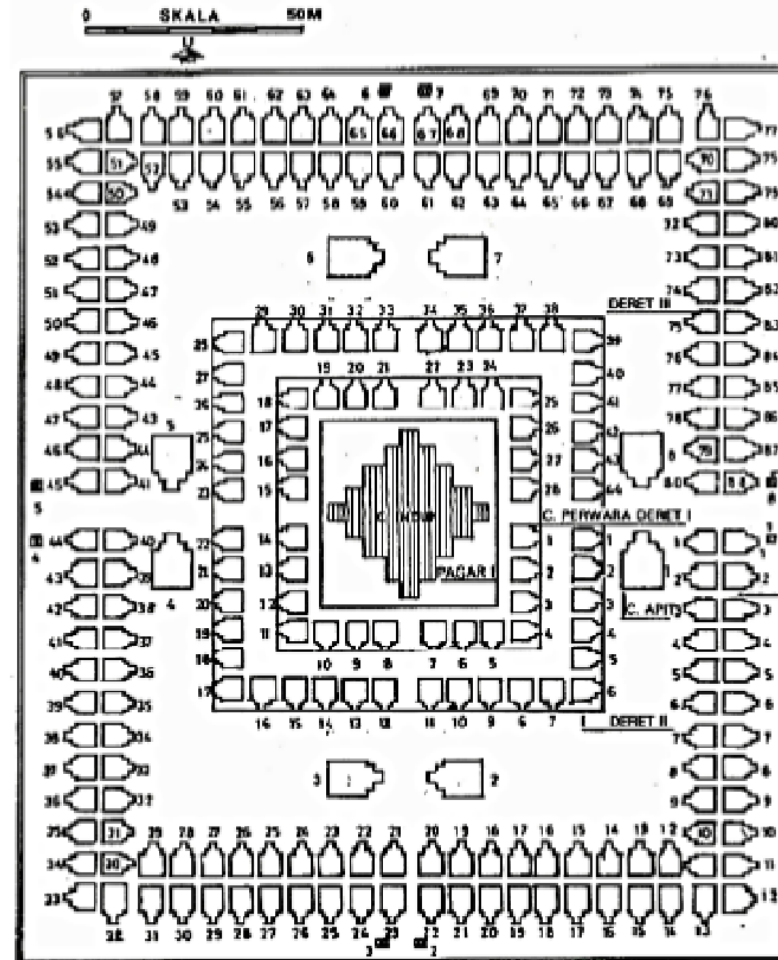


Fig. 24. Floor plan of the Sewu Temple Complex.

⁸³ Soetarno, Drs. R. second edition (2002). *Aneka Candi Kuno di Indonesia* (Ancient Temples in Indonesia). Dahara Prize. Semarang. pp. 53–54. ISBN 979-501-098-0.

Shinto

A shrine may have many buildings on its property, each serving a distinct function. These include the *heiden*, or hall of offerings, where gifts and prayers are made, the *honden*, or sanctuary, where the *kami* are housed, and the *haiden*, or hall of worship, where there can be seats for worshippers. The structure known as the *honden* houses the *shintai*, or literally, "the sacred body of the *kami*". Just the *haiden* is accessible to the laity among these. The *honden*, which lies behind the *haiden*, is often considerably smaller and simpler in design. The *shamusho* (社務所), that oversees the shrine, and the *temizuya*, the fountain where visitors wash their hands and mouths, are two more noteworthy shrine characteristics. Shrines can range in size from enormous to tiny, like a beehive, as seen by the *hokora*, which are tiny shrines usually found by roads⁸⁴.

Following the arrival of Buddhism from China and Korea around the middle of the sixth century, Buddhist temples and Shinto shrines started to coexist in the same complex of buildings.

The larger Chinese-style Buddhist temples had an impact on the Shinto shrine building, which became increasingly ornate. Simple *torii* were replaced with four- or eight-post gates, curved roofs and auxiliary

structures were added, and walls enclosing shrines were replaced with corridors. Red paint was used on several shrines, which is obviously Chinese in influence. Ornaments made of wood and metal were added; these frequently had the same ornamental themes as Buddhist temples. While wood is still the most frequent building material for shrines, several contemporary shrines have added cement due to budgetary and fire safety concerns⁸⁵.

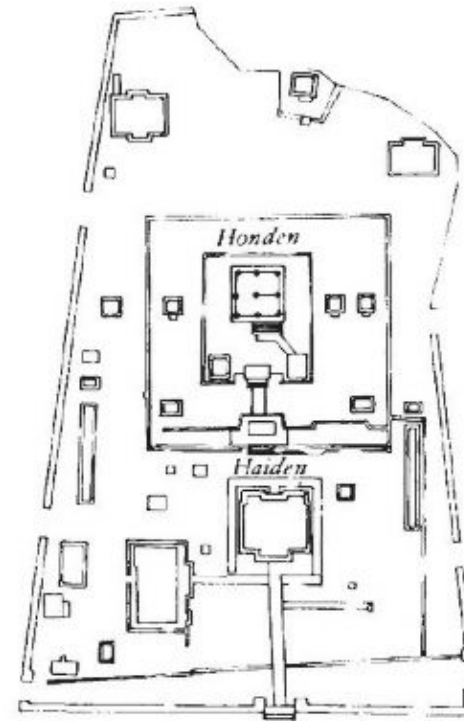


Fig.25. Drawing of Izumo shrine complex. Plan.

⁸⁴ The History of Shrines. Encyclopedia of Shinto

⁸⁵ Delattre M., Rujivacharakul V., Nelson J. (2000). Architecture and Sacred Spaces in Shinto. From Berkeley Orias - Web Resource.

The residence of the kami is centrally located in the honden. Pilgrims do not worship within the kami sanctuary. The haiden, or worship hall, for this purpose is considered to be a later addition to the shrine [Fig. 25-26].

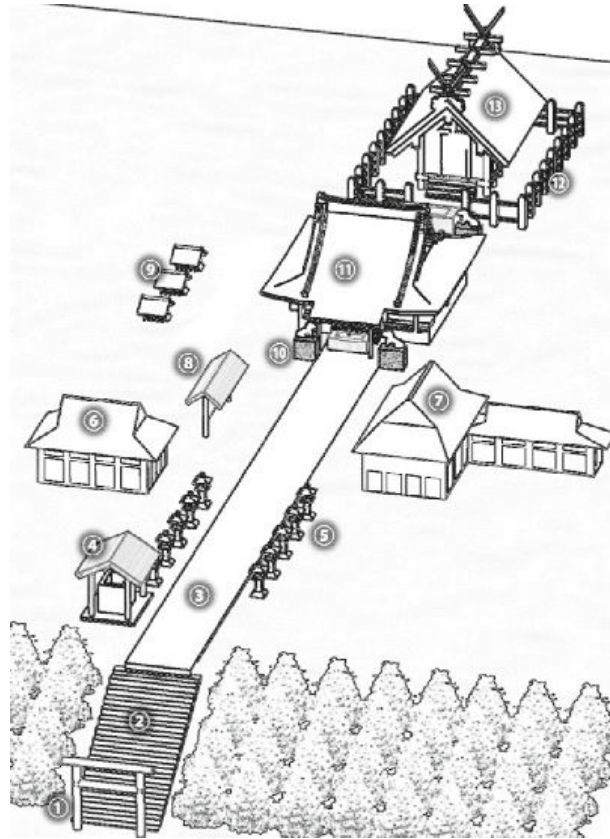


Fig.26. Drawing of Izumo shrine complex.

(1) entrance gate featuring a torii or a Chinese-influenced two-storey romon, (2) stone stairs, (3) pathway (sandō), (4) washing place (chōzuya), (5) lantern (tōrō), (6) Kagura dance platform (kagura-den) building dedicated to Noh or the sacred Kagura dance, (7) shrine office (shamusho), (8) votive picture repository (ema-den) where worshippers leave small wooden plaques (ema), (9) auxiliary shrines or under-shrines connected to larger shrines (sessha/massha), (10) stone lions (komainu) - of Chinese origin, (11) worship hall (haiden), (12) fence surrounding the shrine (tamagaki), (13) the sanctuary, most sacred building (honden or shinden).

Sikh

The **Golden Temple**, often referred to as the Suvaran Mandir⁸⁶ or the Harimandir Sahib (literally, "House of God," Punjabi pronunciation: [ɦə̀rˈmən̪d̪ə̀r̪ saːɦ(i)b̪]), or the Darbār Sahib (literally, "exalted court," [d̪ə̀rˈbaːr̪ saːɦ(i)b̪]), is a gurdwara situated in Amritsar, Punjab, India^{87 88}.

In terms of spiritual significance, the Golden Temple is the most important Sikh temple. It became a centre of the Singh Sabha Movement between 1883 and the 1920s, and the Punjabi Suba movement between 1947 and 1966⁸⁹.

For people of various backgrounds and beliefs, the Golden Temple provides an accessible place of prayer. The plan of it is square, with four entrances and a road encircling the pool. The four gurudwara doors represent the equality that Sikhs uphold and the idea that everyone is welcome to their sacred site⁹⁰. The sanctuary and the pool are surrounded by a group of structures that make up the complex. Akal Takht, the principal Sikhism⁹¹ religious authority center, is one of these.

⁸⁶ McLeod, W.H. (2014). *Historical Dictionary of Sikhism*. Rowman & Littlefield Publishers. p. 146. ISBN 978-1442236011.

⁸⁷ Kerr, I. J. (2011). Harimandar. In Harbans Singh (ed.). *Encyclopaedia of Sikhism*. Punjabi University Patiala. pp. 239–248. ISBN: 8173801002.

⁸⁸ Nesbitt E. (2016). *Sikhism: A Very Short Introduction*. Oxford University Press. pp. 64–65. ISBN 978-0-19-874557-0.

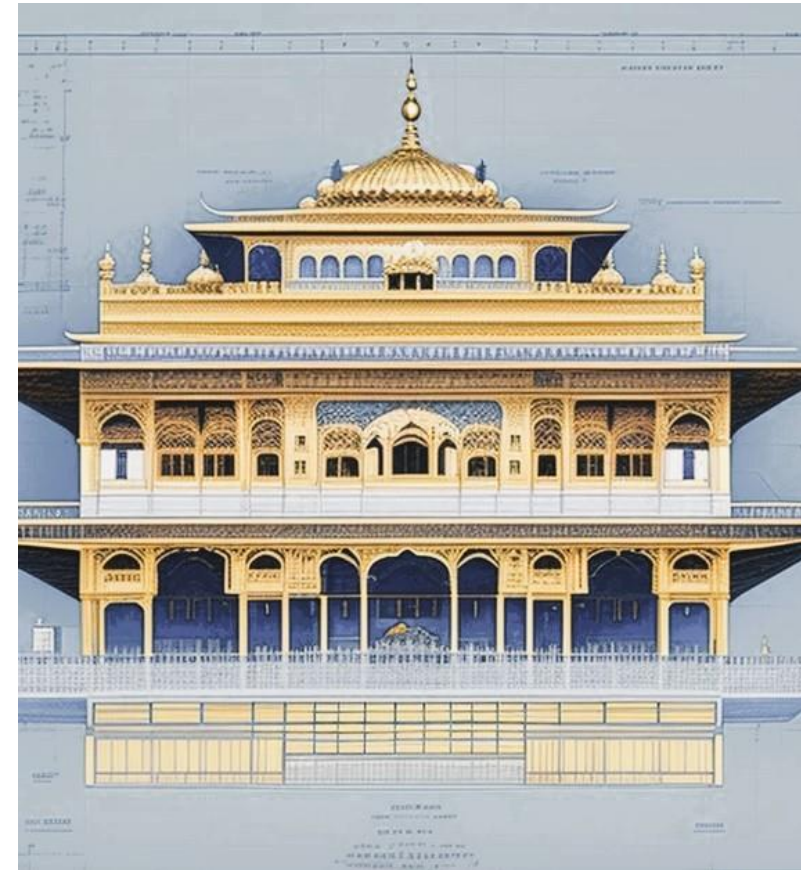


Fig.27. Golden temple. Amritsar. Facade

⁸⁹ Fenech L. E. (2014). *The Oxford Handbook of Sikh Studies*. OUP Oxford. pp. 30–31. ISBN 978-0-19-969930-8.

⁹⁰ BBC (GCSE Religious Studies Revision ed.). *Nature and importance of Harmandir Sahib – Pilgrimage*.

⁹¹ *Encyclopedia Britannica* (2014). *Harmandir-Sahib*.

The sanctuary has a gold leaf dome, measuring 12.25 by 12.25 meters and has two stories. The marble platform in this sanctuary is 19.7 by 19.7 meters in square footage. It is situated inside a nearly square (154.5 x 148.5 m²) swimming pool known as Amritsar or Amritsarovar (sar is short for "sarovar," which means pool, and amrit means nectar). [Fig. 27-28] Encircling the 5.1-meter-deep pool in a clockwise direction is a 3.7-meter-wide marble circumambulatory path. A causeway connects the sanctum to the platform, and the Darshani D̥eorhi (from Darshana Dvara) is the entry into the causeway⁹².

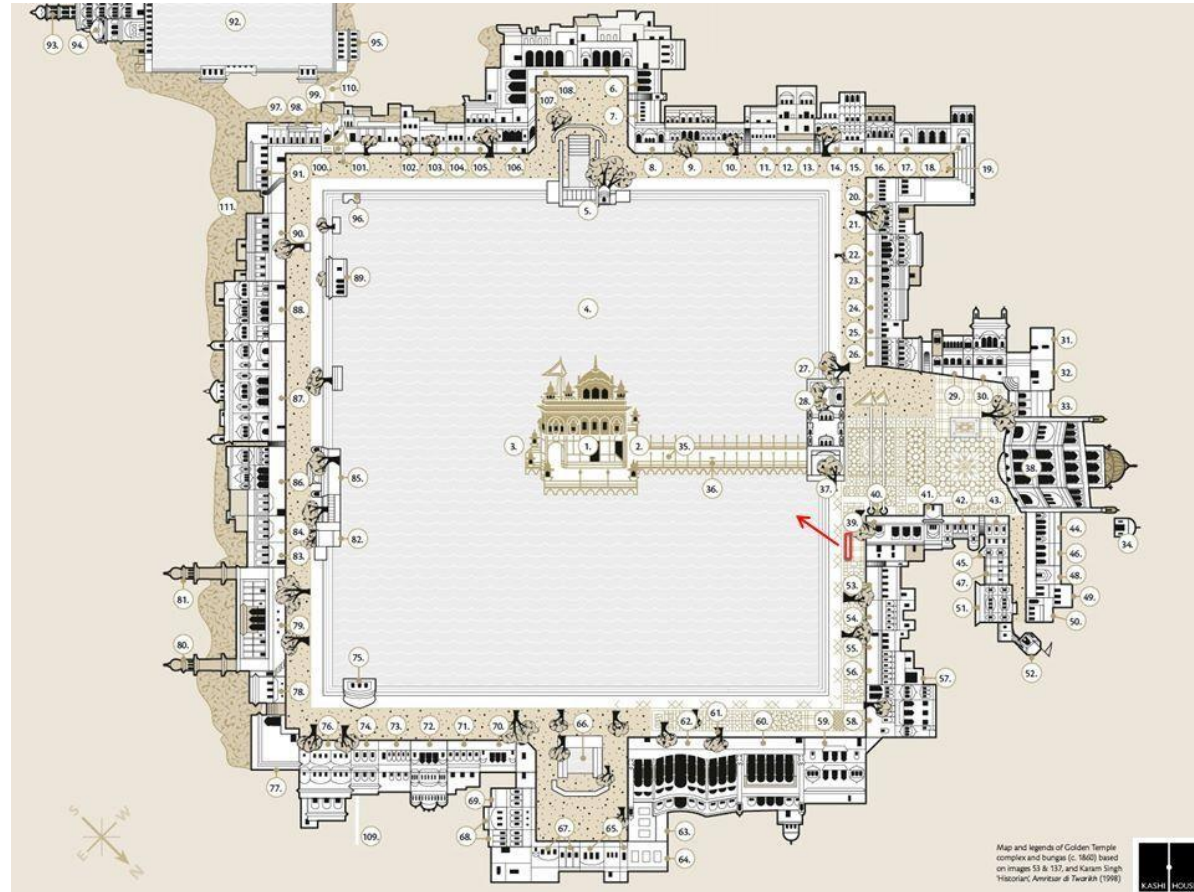


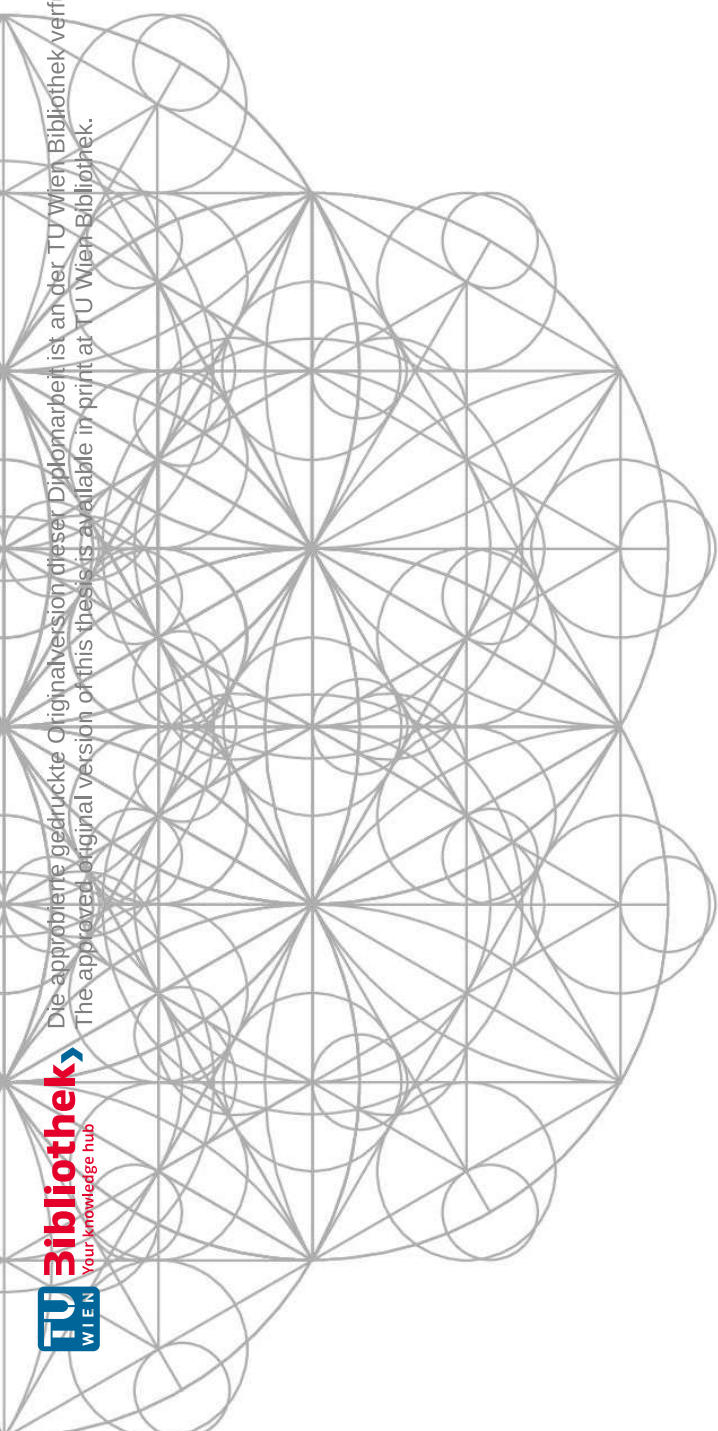
Fig.28. Layout of Harimander Sahib (The Golden Temple).

⁹² Pardeep Singh Arshi (1989). *The Golden Temple: history, art, and architecture*. Harman. pp. 97–116. ISBN 978-81-85151-25-0.



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2. Project

Meaning:

Mythology: In ancient Greek mythology, “ether” is the upper (mountain), especially the thin, transparent and shining layer of air, which serves as the breath of the gods.⁹³

Alchemy: In alchemy, "ether" is presented as the fifth element of history, which has special properties and plays an important role in processes of transformation.⁹⁴

Physics: In physics, the “ether” is also referred to as the all-pervasive medium in which, according to one theory, electromagnetic waves propagate⁹⁵. The term was used to explain physical phenomena in the 18th and 19th centuries.

Cosmology: The ether is also considered as a medium that fills all cosmic space and the spaces between substances such as molecules and atoms.⁹⁶ In this context, "ether" was used to explain the propagation of electromagnetic waves and other physical processes.

⁹³ Smith W (Edited) (1849, originally published 1844). Dictionary of Greek and Roman Biography and Mythology.

⁹⁴ Lloyd, G. E. R. (1968). Aristotle: The Growth and Structure of his Thought, Cambridge: Cambridge Univ. Pr., pp. 133–139, ISBN 0-521-09456-9.

⁹⁵ Born M. (1964), Einstein's Theory of Relativity, Dover Publications, ISBN 978-0-486-60769-6.

Alpha and omega

"Alpha and Omega" is a symbolic expression with roots in religious traditions, especially Christianity⁹⁷. These two Greek letters, alpha (Α) and omega (Ω), are the first and last letters of the Greek alphabet.

In a Christian context, "Alpha and Omega" is used in the Bible, in the Book of Revelation⁹⁸. This expression is used to emphasize the infinity, eternity and all-encompassing presence of God. Revelation 1:8 says, “I am the Alpha and the Omega, the beginning and the end, says the Lord God, who is, who was, and who is to come, the Almighty.”

This symbol may also be found in other religious traditions and cultures, representing similar concepts of eternity and divine influence. In various beliefs, "Alpha and Omega" serves as a reminder of the omnipotence and infinite power of a higher principle.

⁹⁶ Kumar P. A. (2021). Structure of Space Fabric. Universal Theory Research Centre, Jawahar Lal Nehru Marg, Jaipur, Rajasthan, India. DOI: 10.4236/ns.2021.1312041.

⁹⁷ Gauding M. (2009). The Signs and Symbols Bible: The Definitive Guide to Mysterious Markings” New York, NY: Sterling Pub. Co. p. 84. ISBN 9781402770043.

⁹⁸ Martin, Dale B. (2012). The Last Trumpet. The New York Times.

Thus, in religious and philosophical traditions where “Alpha and Omega” are associated with the divine beginning and end, the ether can be perceived as that very all-accessible environment where the divine will is manifested. In this context, it serves as a kind of

2.2. Location

2.2.1. Ukraine

The choice of Ukraine to build a church of all religions is justified by the diversity of cultural and religious traditions in the country. It has a historical reputation for tolerance and respect for different beliefs, which creates a favourable environment for combining different religious symbols and practices. This approach promotes interreligious dialogue and promotes the desire for mutual understanding between different faiths. Additionally, Ukraine's unique cultural and historical setting can inspire the creation of a symbolic place that brings together a diversity of beliefs in unity and harmony.

transcendental medium in which the divine influence is revealed, and the symbols "Alpha and Omega" express the infinity of this divine influence throughout existence.

I selected the 7 most common religions for further analysis. These are Christianity, Islam, Judaism, Hinduism, Buddhism and Sikhism. About Shinto Temples in Ukraine I didn't find any information.

Fig. 29 shows the main temples of these six religions combined. In Fig. 30 - 35, the locations of the temples will be shown separately, and the following Table 2 will indicate the geographical coordinates of each of the temples.

It was interesting to note that when the main lines from the image at 14 Hz vibration were superimposed on the map of Ukraine, almost all the temples and churches coincided with these leading lines.

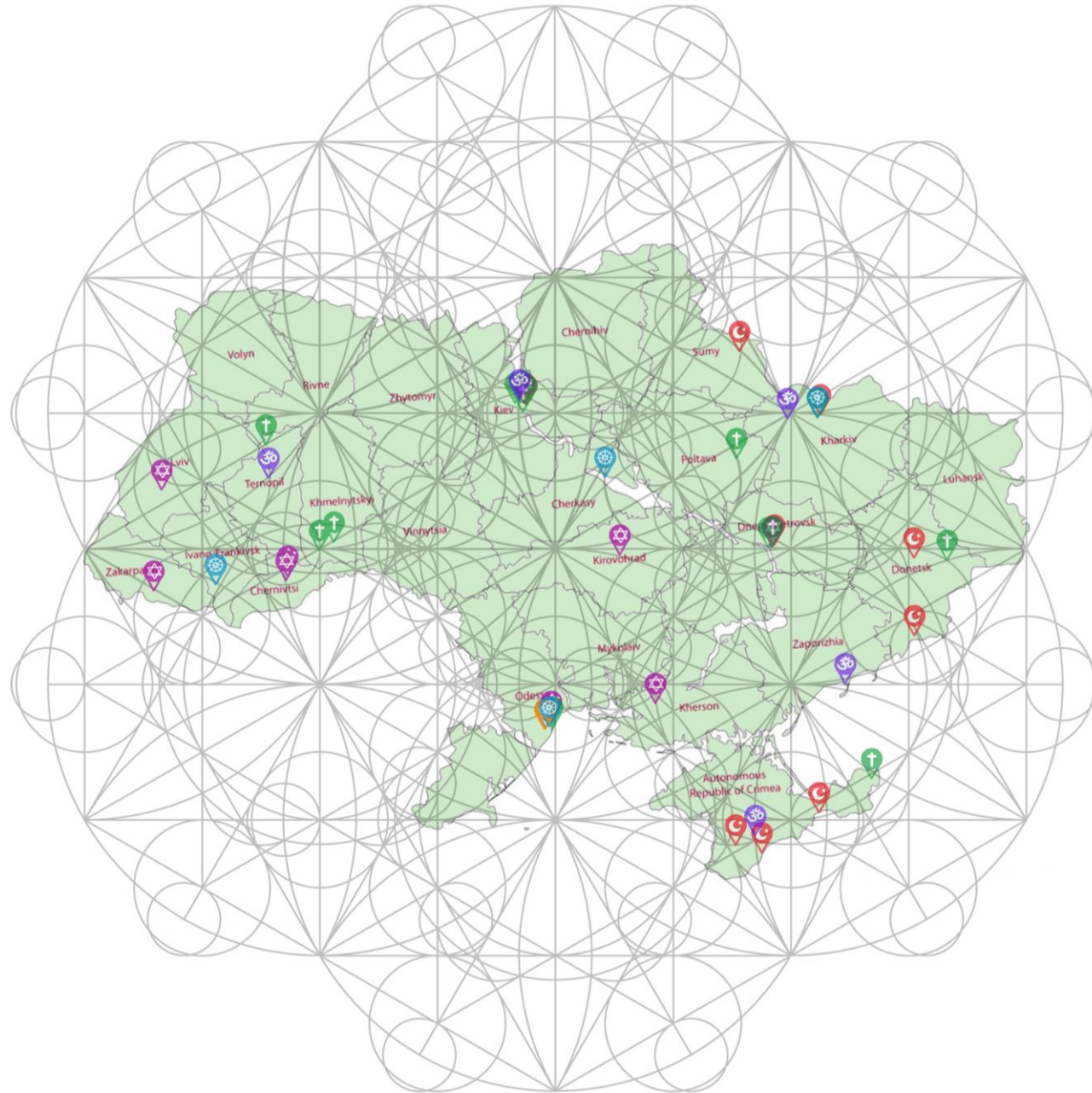


Fig. 29. Location of the main religious prayer buildings on the territory of Ukraine

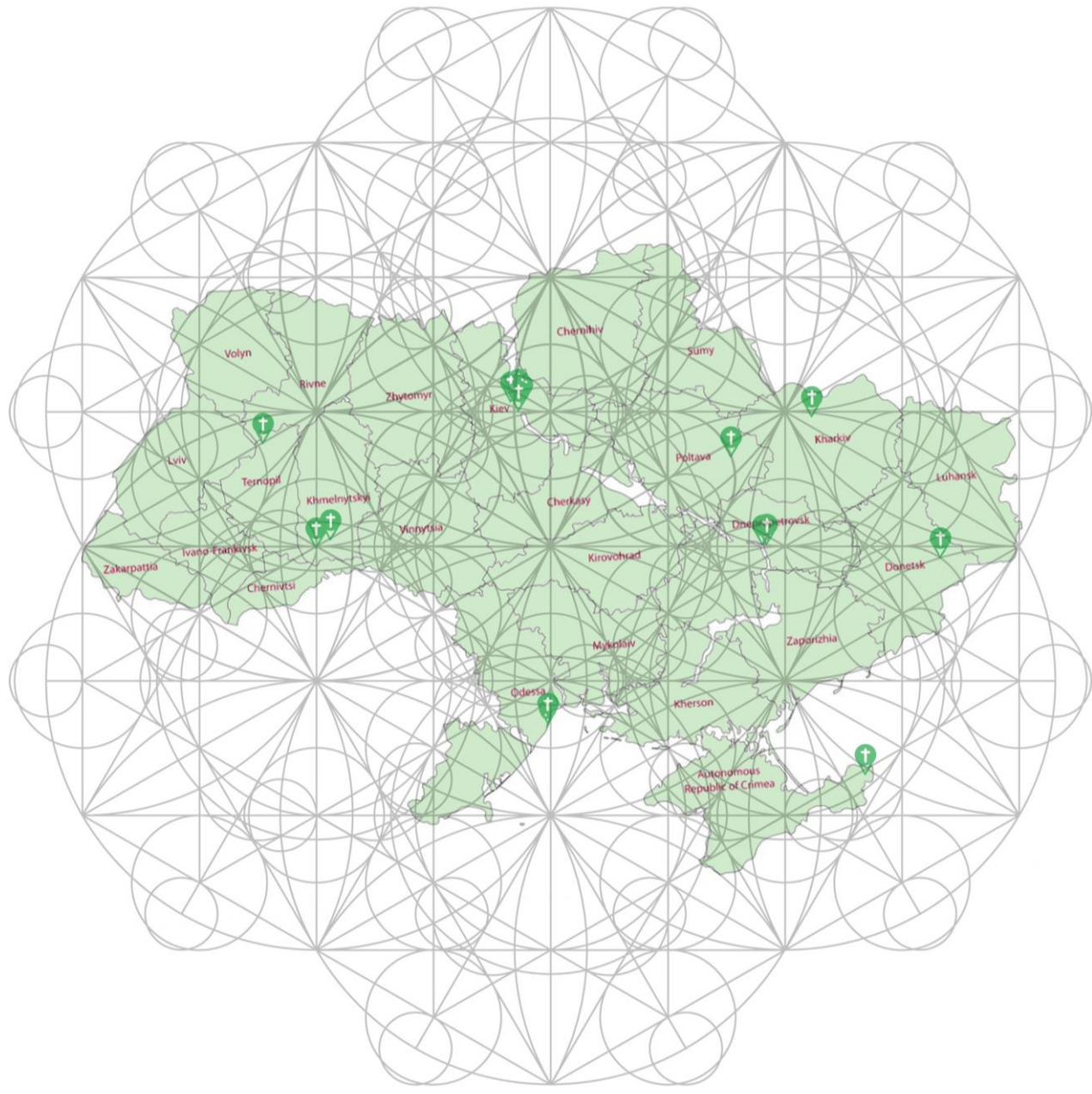


Fig. 30. Major Christian churches

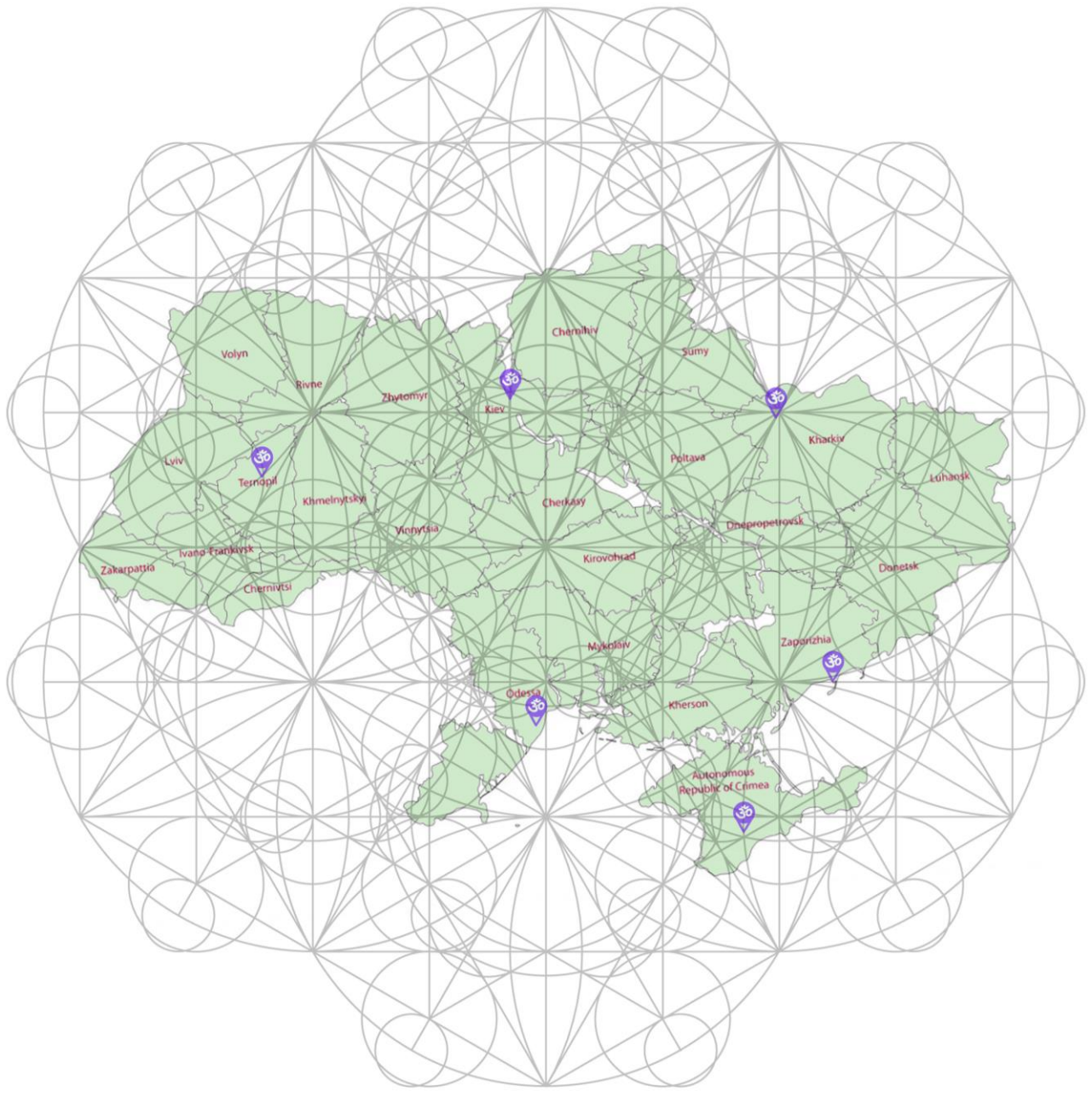


Fig. 31. Hindu temples

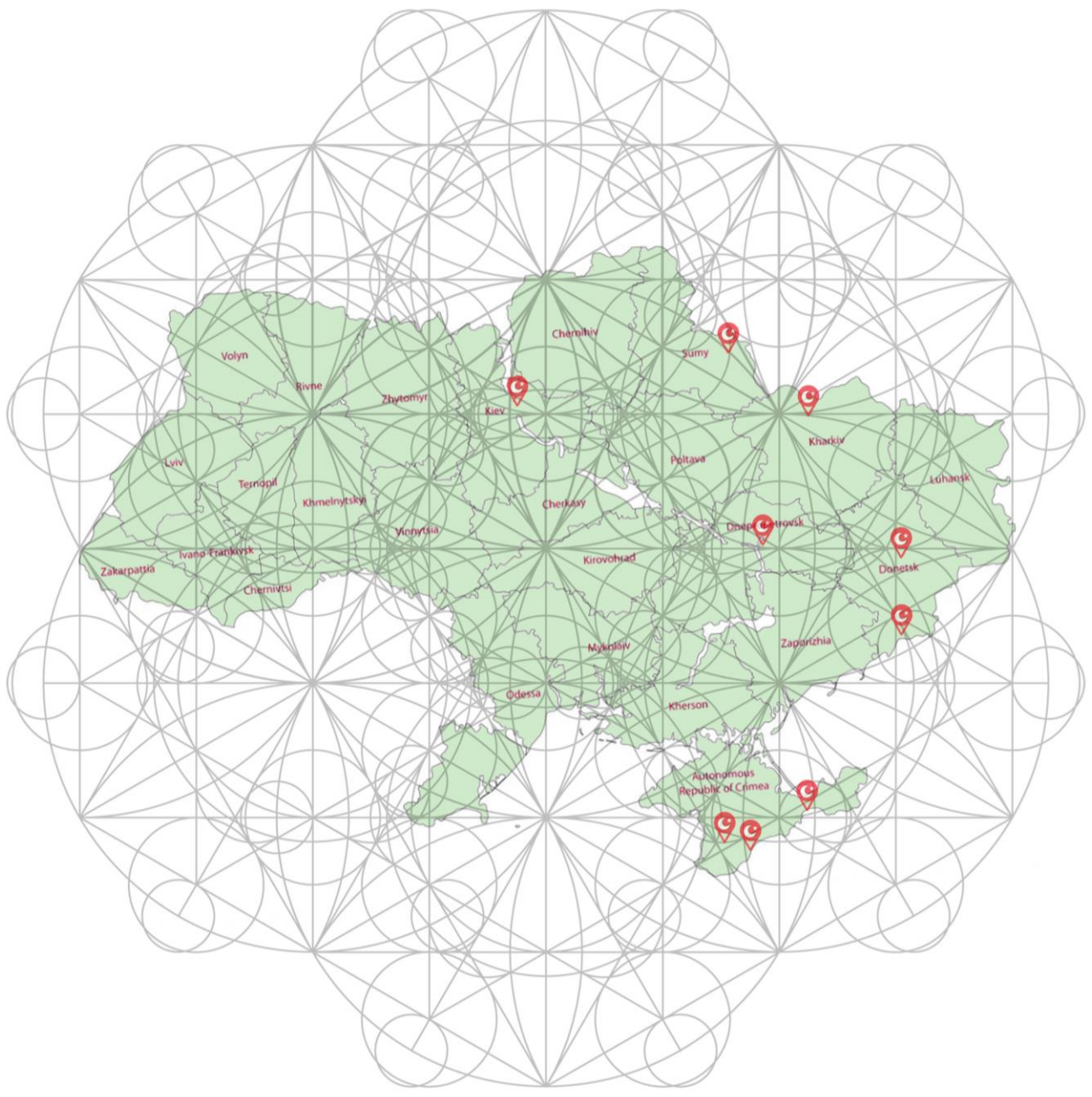


Fig. 32. Islamic mosques

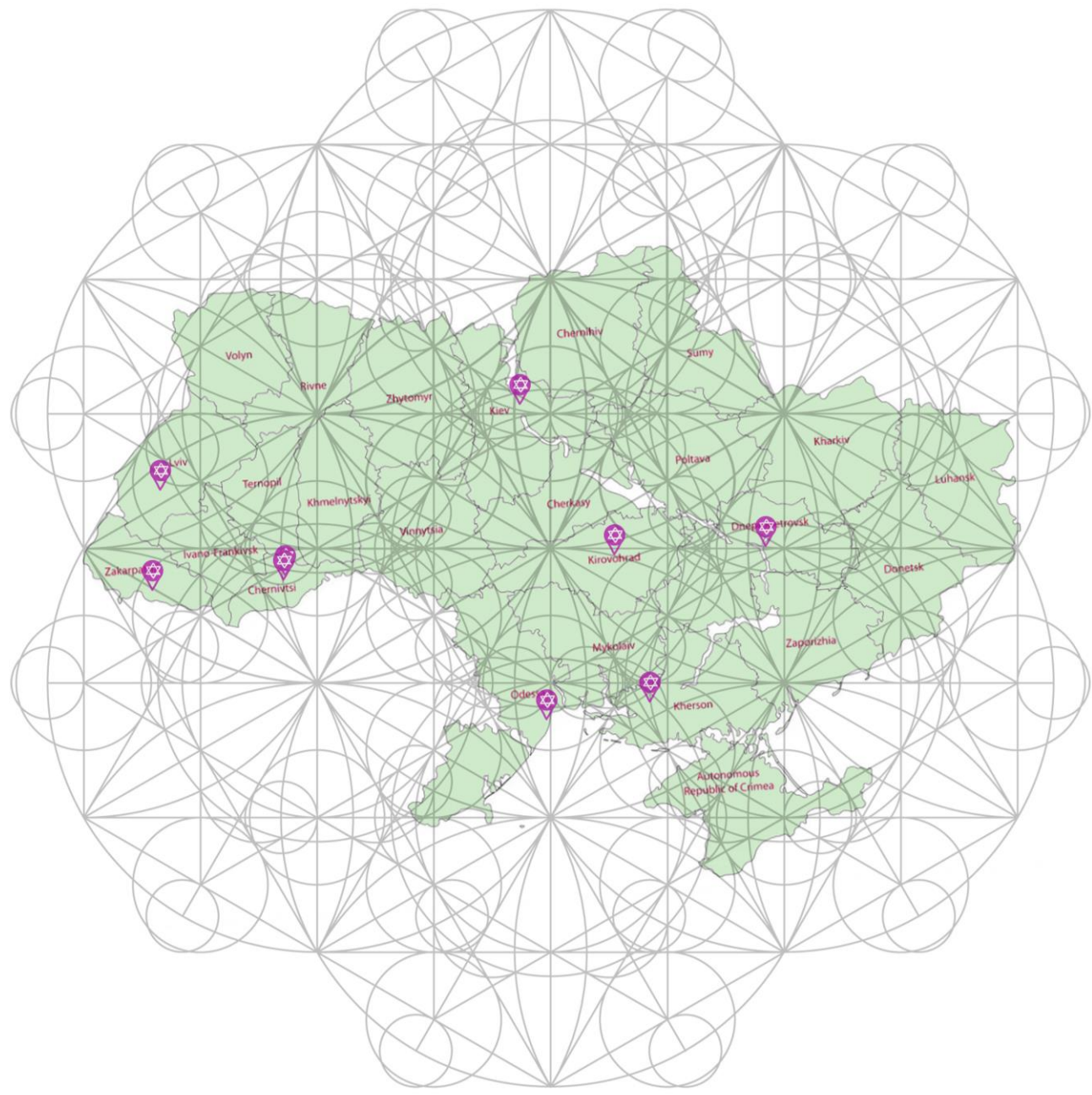


Fig. 33. Jewish synagogues

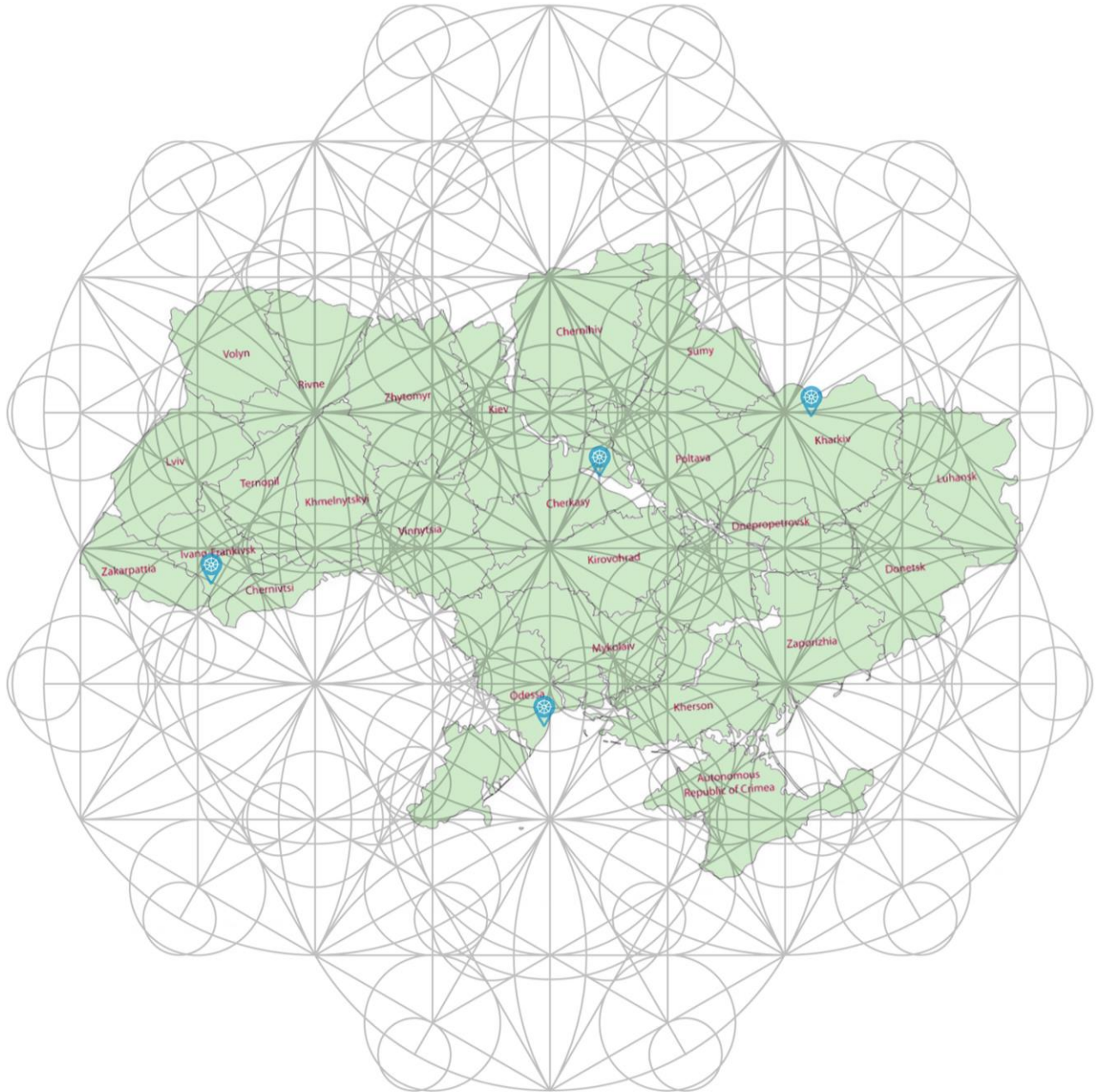


Fig. 34. Temples of Buddhism

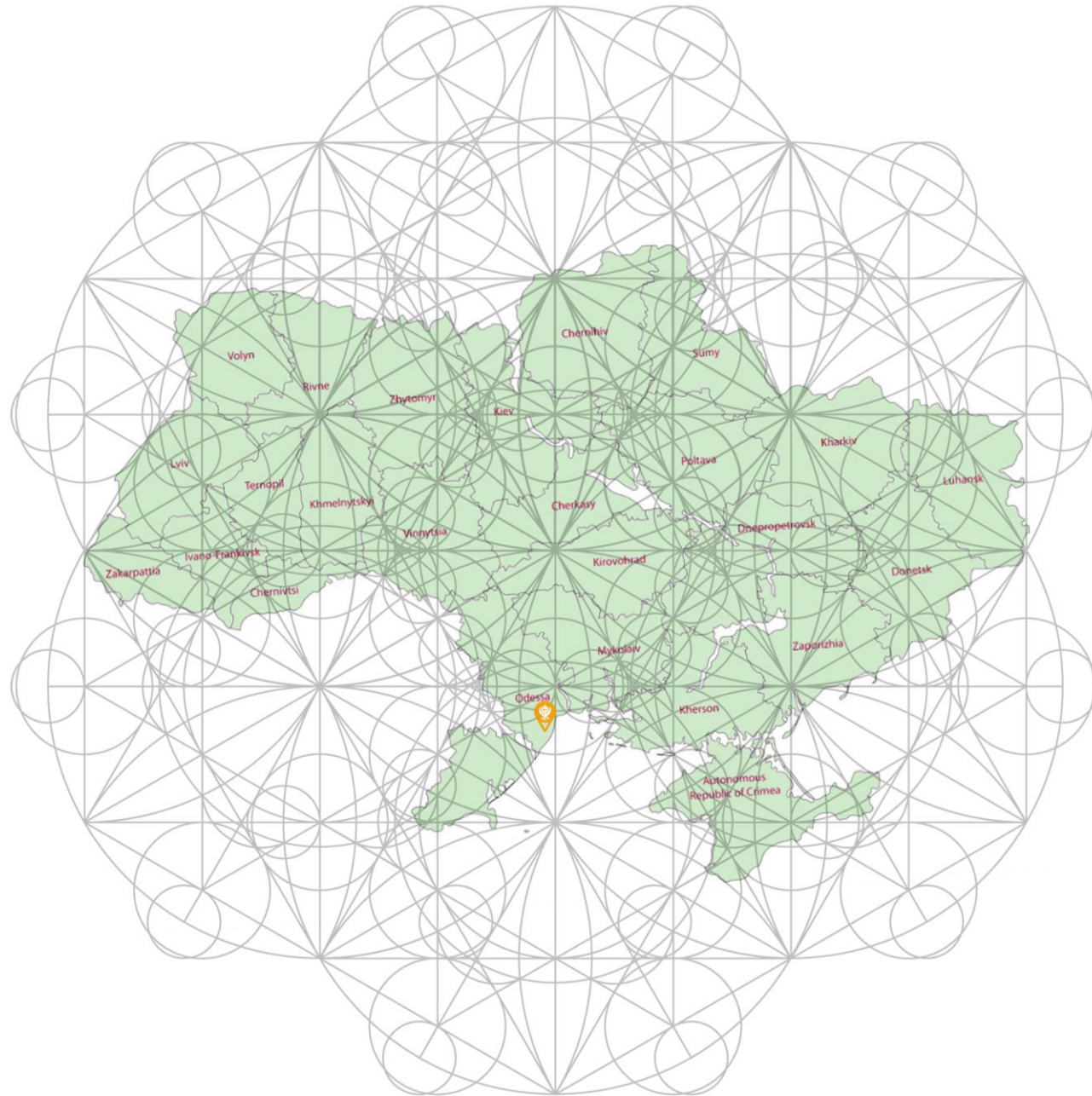


Fig. 35. Temples of Sikhism

Geographical coordinates of the main praying buildings in Ukraine			
Christianity	city	koordinates	notes
Holy Dormition Pochayiv Lavra	Pochaiv	50.37753635169522, 25.52241854106933	Pochaiv, Ternopil Oblast, Ukraine, 47026
Trinity Church	Kam'yanets'-Podil's'kyi	49.01788351797201, 26.571609866348613	Troitska St, 1, Kam'yanets'-Podil's'kyi, Khmelnytskyi Oblast, Ukraine, 32301
St. Cyril's Church	Kyiv	50.49023155737207, 30.4690832581906	Oleny Telihy St, 12, Kyiv, Ukraine, 02000
Holy Intercession Cathedral	Kyiv	50.440727966765905, 30.480409986557024	Patriarkha Mstyslava Skrypnyka St, 20/1, Kyiv, Ukraine, 03035
Tithe Church	Kyiv	50.4591117772457, 30.517365858267908	Volodymyrska St, 2, Kyiv, Ukraine, 02000
St. Sophia's Cathedral	Kyiv	50.45584328627334, 30.515124130978617	Volodymyrska St, 24, Kyiv, Ukraine, 01001
Kiev Pechersk Lavra	Kyiv	50.439409200050314, 30.55549089166278	Lavska St, 15, Kyiv, Ukraine, 01015
St. Michael's Vydubtsky Men's Monastery	Kyiv	50.421785965654536, 30.567967686383387	Vydubts'ka St, 40, Kyiv, Ukraine, 01013
Panteleimon Cathedral	Kyiv	50.350861460780294, 30.488249055760605	Akademika Lebedjeva St, 23, Kyiv, Ukraine, 03026
Blahovishchens'kyi Kafedral'nyy Sobor	Kharkiv	50.220148395767204, 36.27372111373616	Blahovishchenska Square, 1, Kharkiv, Kharkiv Oblast, Ukraine, 61000
Cathedral of the Transfiguration of the Saviour	Dnipro	48.48994206377099, 35.06305287241577	Soborna Square, 1, Dnipro, Dnipropetrovsk Oblast, Ukraine, 49000
Svyato-Preobrazhens'kyi Kafedral'nyy Sobor	Donetsk	48.1810727179681, 37.831709151653406	Artema St, 1, Donetsk, Донецька, Ukraine, 83000
Cathedral of Prophet St.John the Baptist	Kerch	45.40903473004489, 36.474718866453294	Dmytrova Ln, 2, Kerch
Intercession of the Theotokos Orthodox Cathedral	Lviv	50.03361843316738, 23.975451294952045	Mykhaila Hrushevskoho St, 2, Lviv, Lviv Oblast, Ukraine, 79000
St. Basil's Cathedral	Ivano-Frankivsk	49.27339165622006, 24.69271954666395	Mel'nychuka St, 5, Ivano-Frankivsk, Ivano-Frankivsk Oblast, Ukraine, 76016
Spaso-Preobrazhensky Cathedral	Odesa	46.742749935798756, 30.764725246824778	Soborna Square, 3, Odesa, Odes'ka oblast, Ukraine, 65000
Svyato-Mykolajiv's'ka Tserkva Upts	Dykanka	49.842133750765456, 34.54137920225168	Dykanka, Poltava Oblast, Ukraine, 38501
Hinduism	city	koordinates	notes
ISKCON Temple	Chernivtsi	48.51352441156512, 25.990202662479867	40A, Komarova St, 40A, Chernivtsi, Chernivtsi Oblast, Ukraine, 58000
Hindu temple (ISKCON)	Odesa	46.65163889625472, 30.821227155388662	Tsentralna St, 13, Odesa, Odesa Oblast, Ukraine, 67820
Iskcon temple	Kharkiv	50.34327477251632, 36.31576865330618	Kholodnohirska St, 39, Kharkiv, Kharkiv Oblast, Ukraine, 61000
Khram Iskkon	Berdians'k	46.964674144162345, 36.834516501593605	Berdians'k, Zaporizhia Oblast, Ukraine, 71100
Mizhnarodnoho Tovarystva Svidomosti Krishny	Kyiv	50.50043645915034, 30.437463887397833	Zoryanyi Ln, 16, Kyiv, Ukraine, 02000
Iskcon krishna temple	Simferopol	45.227733379639055, 34.27920934155671	Ivanivska St, 3, Oleksandriia
Islam	city	koordinates	notes
Mufti-Jami Mosque	Feodosia	45.180750249160475, 35.40748628158233	Karaimska St, 1, Feodosia
Mechet' 'Yuk''Ary Dzhami	Alushta	44.853455546887595, 34.35173190220546	Verkhnia St, 9, Alushta
Kebir-Cami	Simferopol	45.0994185297743, 34.12731976836378	4, Kurchatova St, 4, Simferopol
Mechet', Islams'kyi Kul'turnyy Tsentr مسجد	Dnipro	49.04150463809096, 35.15392762942419	Stolyarova St, 5, Dnipro, Dnipropetrovsk Oblast, Ukraine, 49000
Akhat'-Dzhami	Donetsk	48.25227408484956, 37.681609841712	Marshala Zhukova Ave, 1, Donetsk, Donetsk Oblast, Ukraine, 83000
Mechet' Suleymana I Roksolany	Mariupol	47.2569192806766, 37.504407105180945	Mariupol, Donetsk Oblast, Ukraine, 87500
Kharkiv Cathedral Mosque مسجد	Kharkiv	50.24739377605863, 36.26300335849446	Yaroslavka St, 31, Kharkiv, Kharkiv Oblast, Ukraine, 61000
Ar-Rahma	Kyiv	50.46882895621453, 30.497772127720477	Lukianivska St, 46, Kyiv, Ukraine, 04071
Judaism	city	koordinates	notes
Synagogue	Khust	48.41656816806881, 23.318607881491985	Maydan Nezalezhnosti, 11, Khust, Zakarpattia Oblast, Ukraine, 90400
Choral Synagogue	Drohobych	49.71727678464652, 23.477963619656382	Pylpa Orlyka St, Drohobych, Lviv Oblast, Ukraine, 82100
Old Synagogue	Chernivtsi	48.43731995065227, 25.945470924098334	Yaroslava Mudroho St, 192, Chernivtsi, Chernivtsi Oblast, Ukraine, 58000
Jewish Synagogue	Kropyvnytskyi	48.897113096995795, 32.315546908081934	Dzerzhyn's'koho St, 88, Kropyvnytskyi, Kirovohrad Oblast, Ukraine, 25000
Golden Rose Synagogue	Dnipro	48.98291742302893, 35.1196976731132	Sholom-Aleikhema St, 4, Dnipro, Dnipropetrovsk Oblast, Ukraine, 49000
Kyiv Great Choral Synagogue	Kyiv	50.47115722705662, 30.51222338671603	Shchekavyska St, 29, Kyiv, Ukraine, 02000
Beit Yakov Synagogue	Kyiv	50.448014178985446, 30.48834163773302	Zhylianska St, 97, Kyiv, Ukraine, 02000
Brodsky Synagogue	Kyiv	50.440278077610564, 30.520753472902022	Shota Rustaveli St, 13, Kyiv, Ukraine, 01001
Buddhism	city	koordinates	notes
White lotus	Cherkasy	49.465445, 32.053337	Franka descent, 4, Cherkasy, Cherkasy Oblast, Ukraine, 18000
Buddiy's'ka Stupa	Zaporizhzhia	47.85499097514184, 35.05053267367046	Budynok Vidpochynku St, 26, Zaporizhzhia, Zaporizhzhia Oblast, Ukraine, 69000
New Gridhrakutta	Kryopillya	48.4101450209286, 24.78314926495745	Lukasha St, 2, Frankivskyi District, Lviv, Lviv Oblast 79000
Pahoda "Chuk Lam Kharkiv"	Kharkiv	50.07511570296201, 36.25642009143209	19, Kyrhyzka St, Kharkiv, Kharkiv Oblast, Ukraine, 61000
Sikhism	city	koordinates	notes
Gurdwara Nanak Darbar	Odesa	46.66723547183462, 30.535367224769846	Avanhardivska St, Sukhyi Lyman, Odesa Oblast, Ukraine, 67821

Tab. 2. Geographical coordinates of the main praying buildings in Ukraine

2.2.2. Kyiv

Kyiv, as the capital of Ukraine, is a unique cultural and historical ring where various religious and cultural traditions are intertwined. Its ancient history and spiritual significance make it a natural place for the establishment of a church of all religions. This symbolic object can become not only a historical testimony but also a meeting place for people of different faiths, emphasizing openness, tolerance and dialogue in the heart of the capital. In addition, in the context of world events and the importance of Kyiv in the international arena, such a project can attract attention and emphasize the role of the city as a symbol of peace and unity.

Step 1. This is followed by an analysis of the division of Kyiv districts [Fig.36] and the presence of existing praying buildings of various denominations on their territory, according to the same principles as with the territory of Ukraine [Fig.37-41]. Table 3 also shows the geographical coordinates of these religious buildings.

Step 2. Analysis of existing geopathogenic zones, plotting them on a map of Kyiv [Fig.42] and subsequent screening out unfavorable zones for building a church.

Step 3. Analysis of the location of existing green areas with vegetation - forests, parks, etc. [Fig.43]

Step 4. Overlaying geopathogenic zones on green areas [Fig.44] with subsequent selection of favourable locations for the project [Fig.45].

Step 5. Analysis of Kyiv's water resources (above and underground waters) [Fig.46]. Analysis of built-up areas of Kyiv [Fig.47].

Step 6. Overlaying a map of water resources and a map of built-up areas of Kyiv on a map of selected favorable zones [Fig.45] with subsequent highlighting of unfavorable areas [Fig.48].

Step 7 Analysis of the appearance of Kyiv in the context of guidelines according to the frequency of 14 Hz [Fig.49].

Step 8 In accordance with the concept of the thesis, where religion acts as a unifying force, I decided to include in the diagram for the map of Kyiv the boundaries of two nearby villages - Bucha and Irpin. Since they were the ones who suffered during the military conflict in February 2022, it would be reasonable to choose a zone located in the middle between these three areas. By drawing straight lines from the central areas of settlements, you can find a point that is also the center of one of the seven circles [Fig.50]. It also fulfills other steps of the previous analyses.



Fig. 36. Map of Kyiv divided into city districts

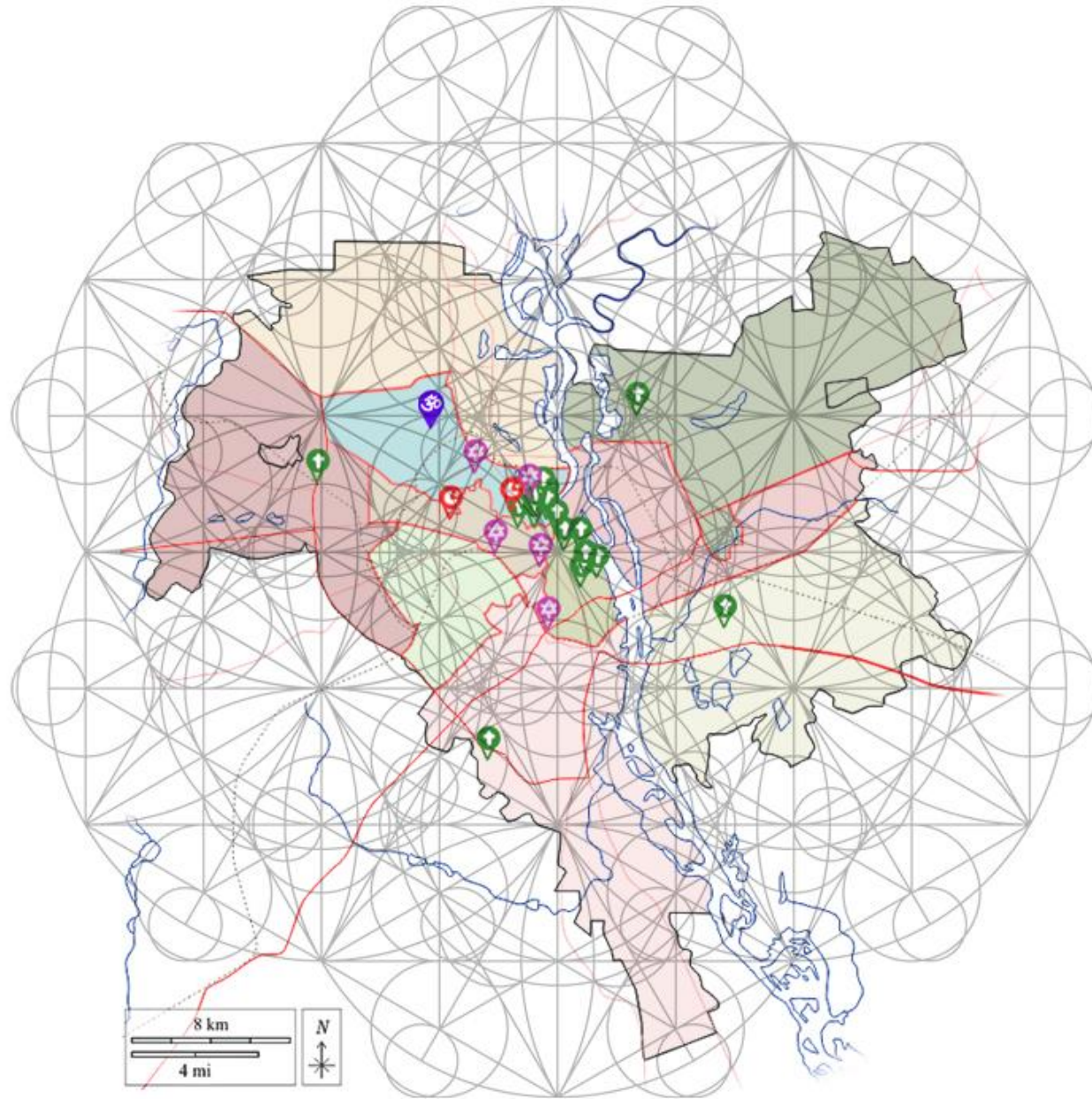


Fig. 37. Map of Kyiv with Christian churches, Islamic mosques, Jewish synagogues and Hindu temples

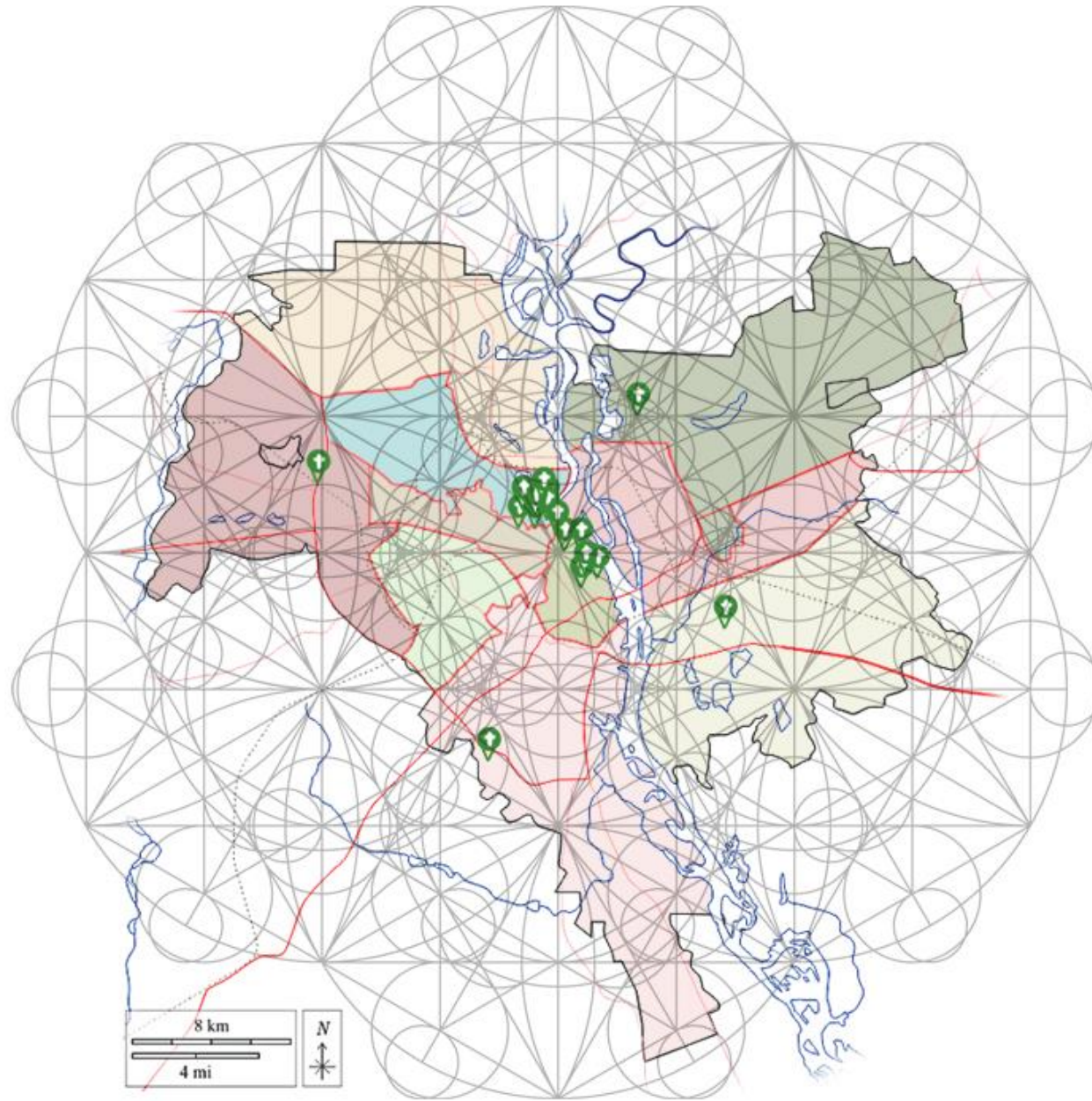


Fig. 38. Map of Kyiv with Christian churches

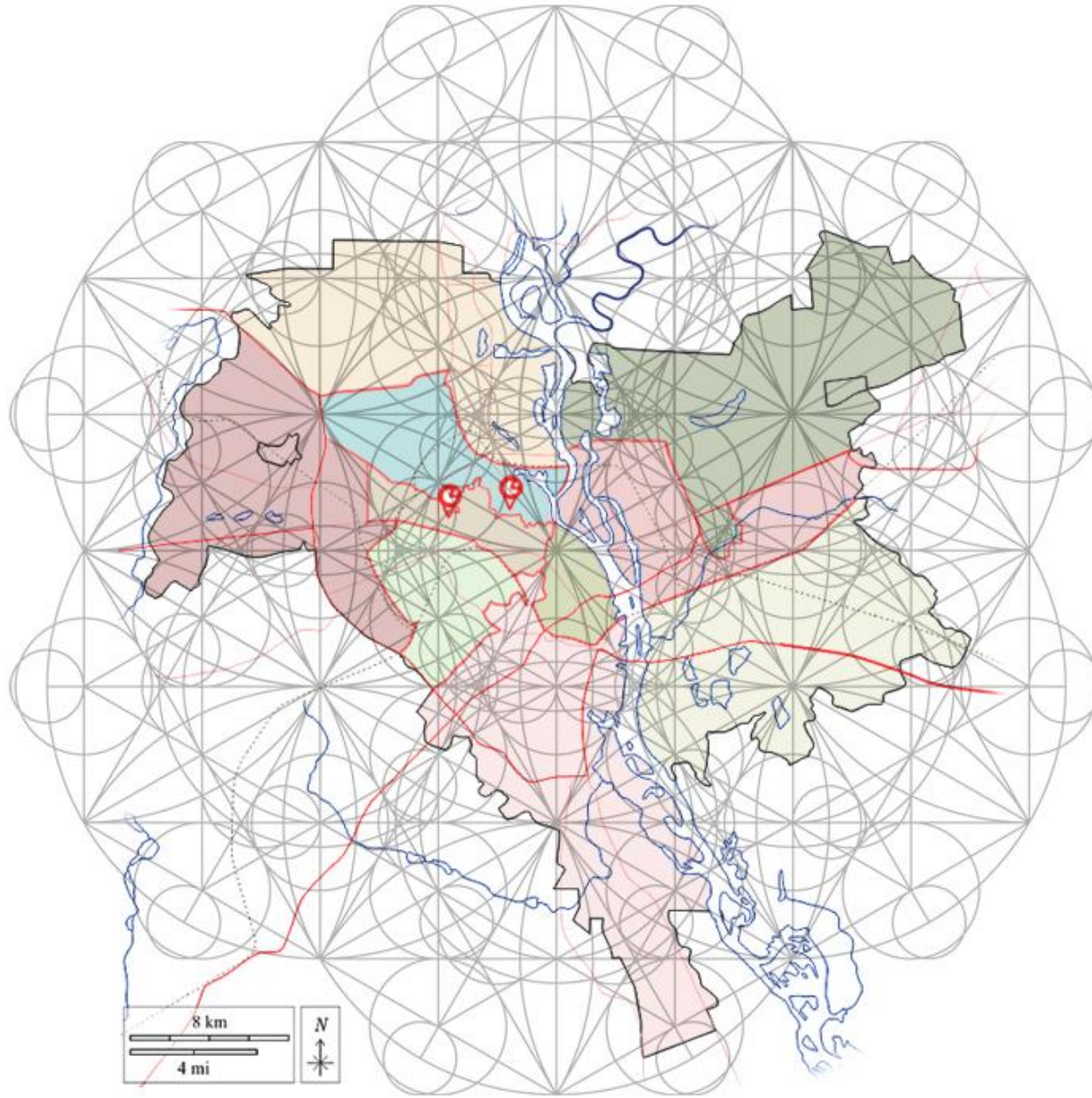


Fig. 39. Map of Kyiv with Islamic mosques

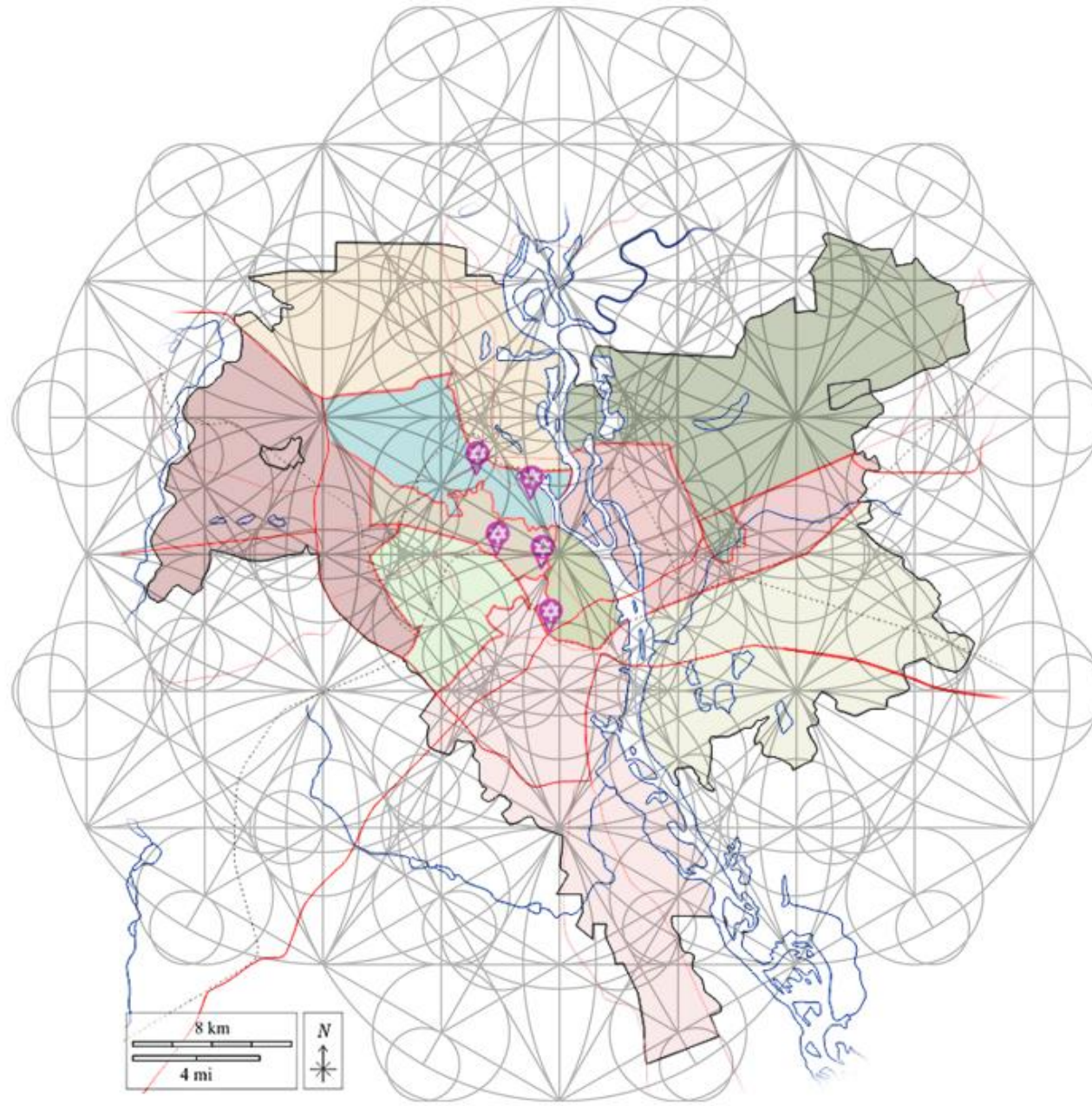


Fig. 40. Map of Kyiv with Jewish synagogues

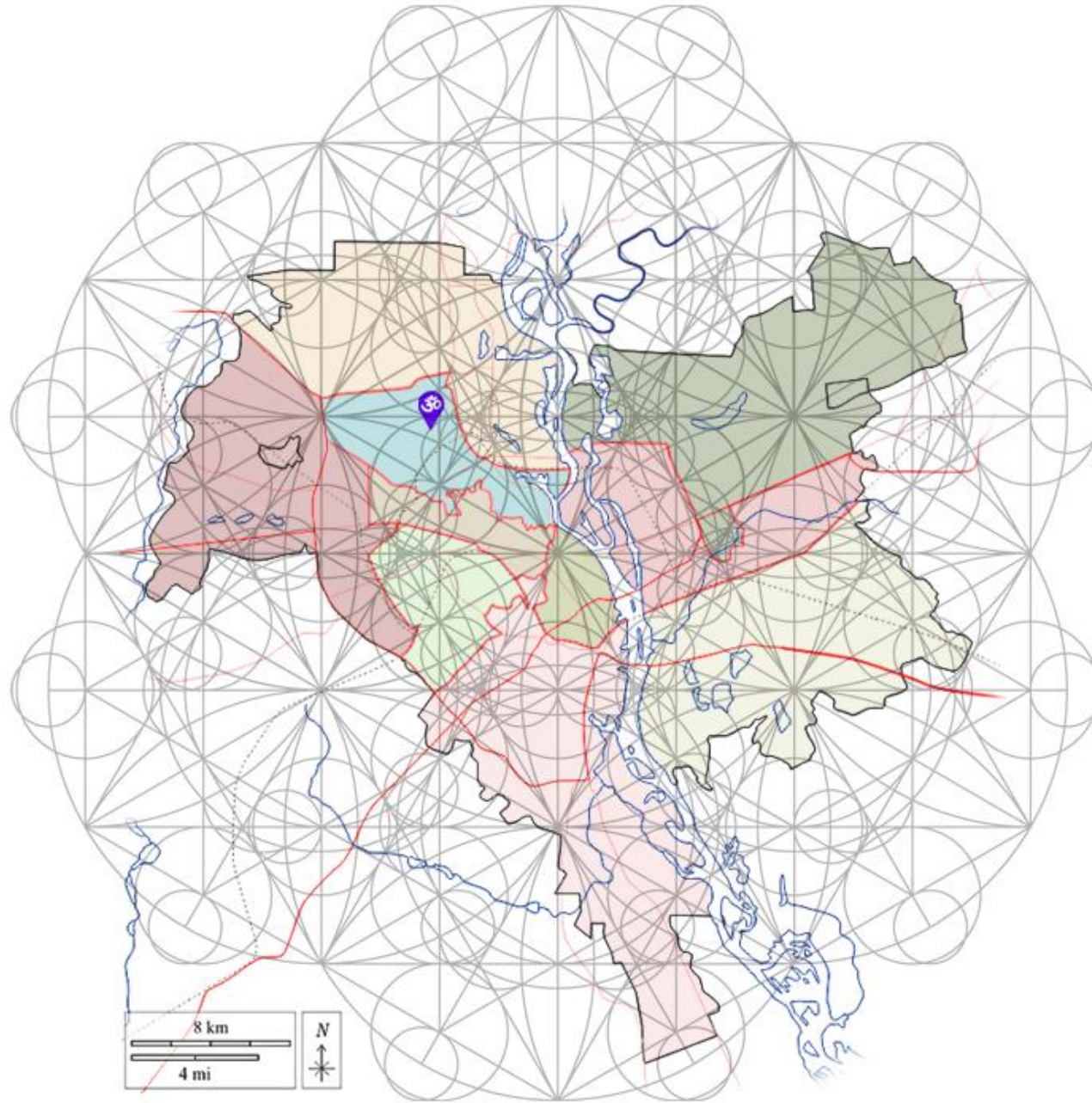


Fig. 41. Map of Kyiv with Hindu temples

Geographical coordinates of the main praying buildings in Kyiv			
Christianity	city	koordinates	notes
Sobor Svyatoyi Ol'hy Upts	Kyiv	50.42599194095172, 30.648940109014745	Arkhitektora Verbyts'koho St, 3Г, Kyiv, Ukraine, 02000
Svyato-Troyits'kyi Khram Upts	Kyiv	50.524978649901534, 30.589165037160193	Mytropolyta Volodymyra Sabodana St, 2Б, Kyiv, Ukraine, 02230
Annunciation Cathedral of Ukrainian Orthodox church	Kyiv	50.47415553527635, 30.366919685268133	Beresteiskyi Ave, 111, Kyiv, Ukraine, 03115
St. Cyril's Church	Kyiv	50.49023155737207, 30.4690832581906	Oleny Teliy St, 12, Kyiv, Ukraine, 02000
Holy Intercession Cathedral	Kyiv	50.440727966765905, 30.480409986557024	Patriarkha Mstyslava Skrypnyka St, 20/1, Kyiv, Ukraine, 03035
Tithe Church	Kyiv	50.4591117772457, 30.517365858267908	Volodymyrska St, 2, Kyiv, Ukraine, 02000
St. Sophia's Cathedral	Kyiv	50.45584328627334, 30.515124130978617	Volodymyrska St, 24, Kyiv, Ukraine, 01001
Kiev Pechersk Lavra	Kyiv	50.439409200050314, 30.55549089166278	Lavrsk St, 15, Kyiv, Ukraine, 01015
St. Michael's Vydubytsky Men's Monastery	Kyiv	50.421785965654536, 30.567967686383387	Vydubys'tka St, 40, Kyiv, Ukraine, 01013
Panteleimon Cathedral	Kyiv	50.350861460780294, 30.488249055760605	Akademika Lebedjeva St, 23, Kyiv, Ukraine, 03026
Church of the Saviour at Berestove of Ukrainian Orthodox church	Kyiv	50.44624124198842, 30.5549914869984	Kyiv, Ukraine, 02000
Khrestovozdvyzhens'ka Church of Ukrainian Orthodox church	Kyiv	50.44316046674429, 30.56321975619129	кoпн. 36, Lavrska St, 15, Kyiv, Kyiv Oblast, Ukraine, 01015
St. Andrew's Church	Kyiv	50.46616185544116, 30.5200811590691	Andriivs'kyi descent, 23, Kyiv, Ukraine, 04070
Church of the Exaltation of the Holy Cross	Kyiv	50.471799769733536, 30.505085570484788	Vozdvyzhens'ka St, 1A, Kyiv, Ukraine, 02000
Birth of Christ Church (UOC)	Kyiv	50.431852670428846, 30.603225426697517	Yuriya Shums'koho St, 36, Kyiv, Ukraine, 02000
Church of Three Saints	Kyiv	50.463967372569215, 30.524377167642676	Triokhsviatytska St, 6A, Kyiv, Ukraine, 02000
Judaism	city	koordinates	notes
Kyiv Great Choral Synagogue	Kyiv	50.47115722705662, 30.51222338671603	Shchekavytska St, 29, Kyiv, Ukraine, 02000
Beit Yakov Synagogue	Kyiv	50.448014178985446, 30.48834163773302	Zhylianska St, 97, Kyiv, Ukraine, 02000
Brodsky Synagogue	Kyiv	50.440278077610564, 30.520753472902022	Shota Rustaveli St, 13, Kyiv, Ukraine, 01001
Synahoha Baryshpol's'koho	Kyiv	50.413244746338584, 30.51921369621389	Lobanovskiy Ave, 198/22, Kyiv, Ukraine, 02000
Symbolic synagogue	Kyiv	50.48720799804655, 30.452757759245795	48B, Yurii Illienka St, 48Б, Kyiv, Ukraine, 02000
Islam	city	koordinates	notes
Ar-Rahma	Kyiv	50.46882895621453, 30.497772127720477	Lukianivska St, 46, Kyiv, Ukraine, 04071
Mechet' Dumu "Umma"	Kyiv	50.47931097306958, 30.45998348639217	м 04119, Dehtiarivska St, 25A, Kyiv, Ukraine
Hinduism	city	koordinates	notes
Mizhnarodnoho Tovarystva Svidomosti Krishny	Kyiv	50.50043645915034, 30.437463887397833	Zoryanyi Ln, 16, Kyiv, Ukraine, 02000

Tab.3. Geographical coordinates of the main praying buildings in Kyiv

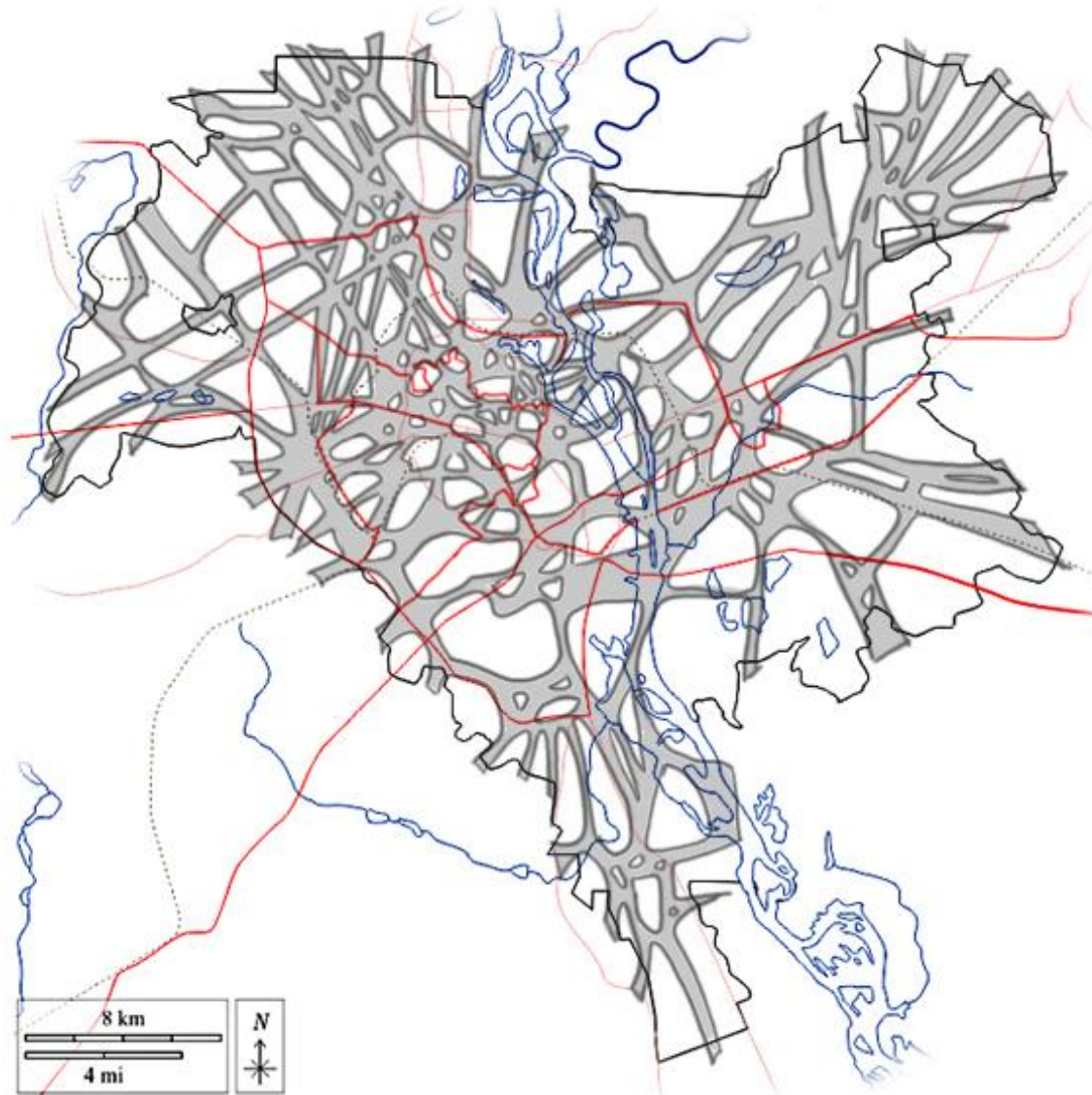


Fig. 42. Geopathogenic zones of Kyiv⁹⁹

⁹⁹ Chudo I.G. (2009). Urban planning taking into account geopathogenic factors. Torsion fields and information interactions. Proceedings of the international scientific conference. Khosta, Sochi.

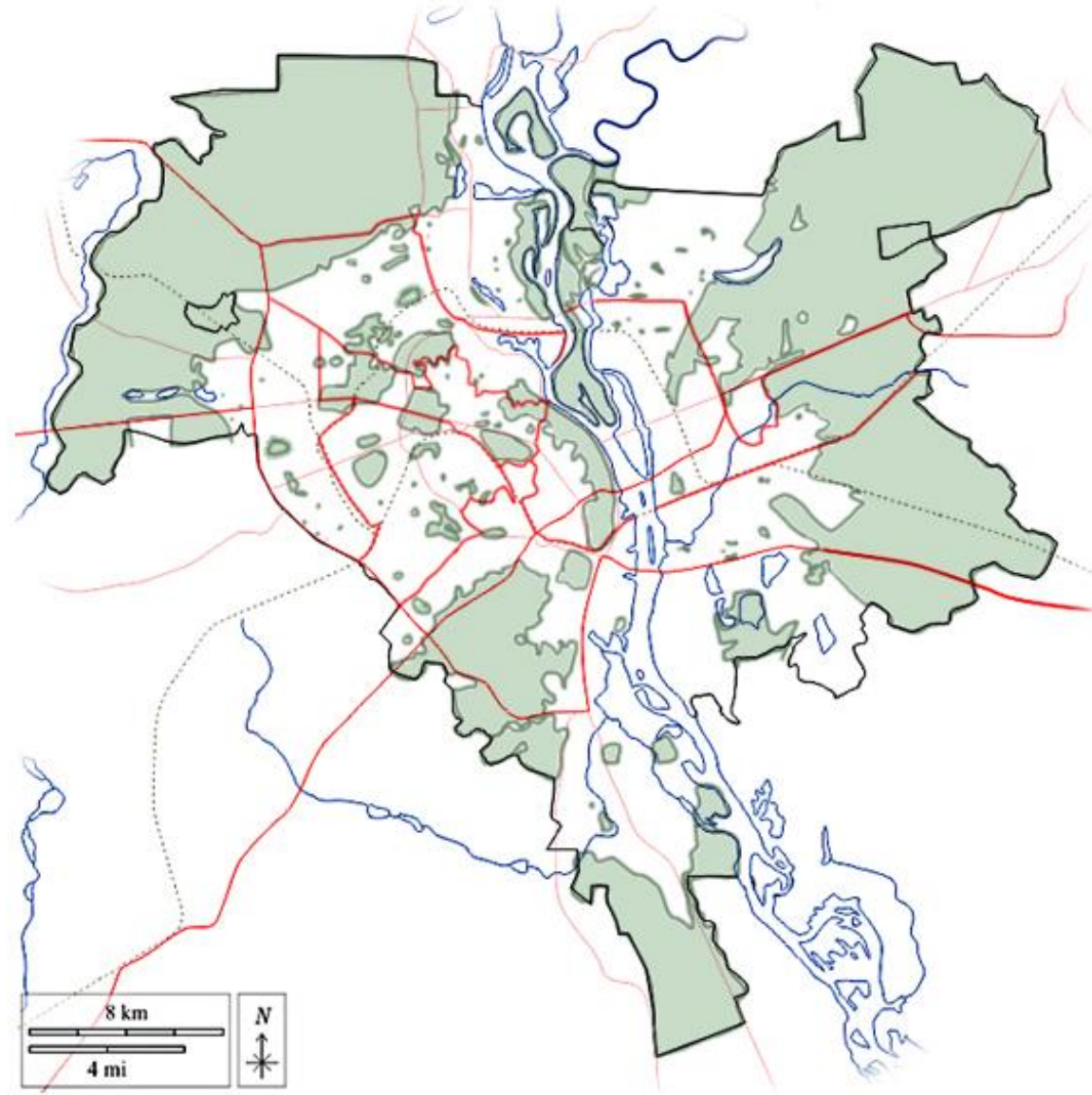


Fig. 43. Green areas of Kyiv

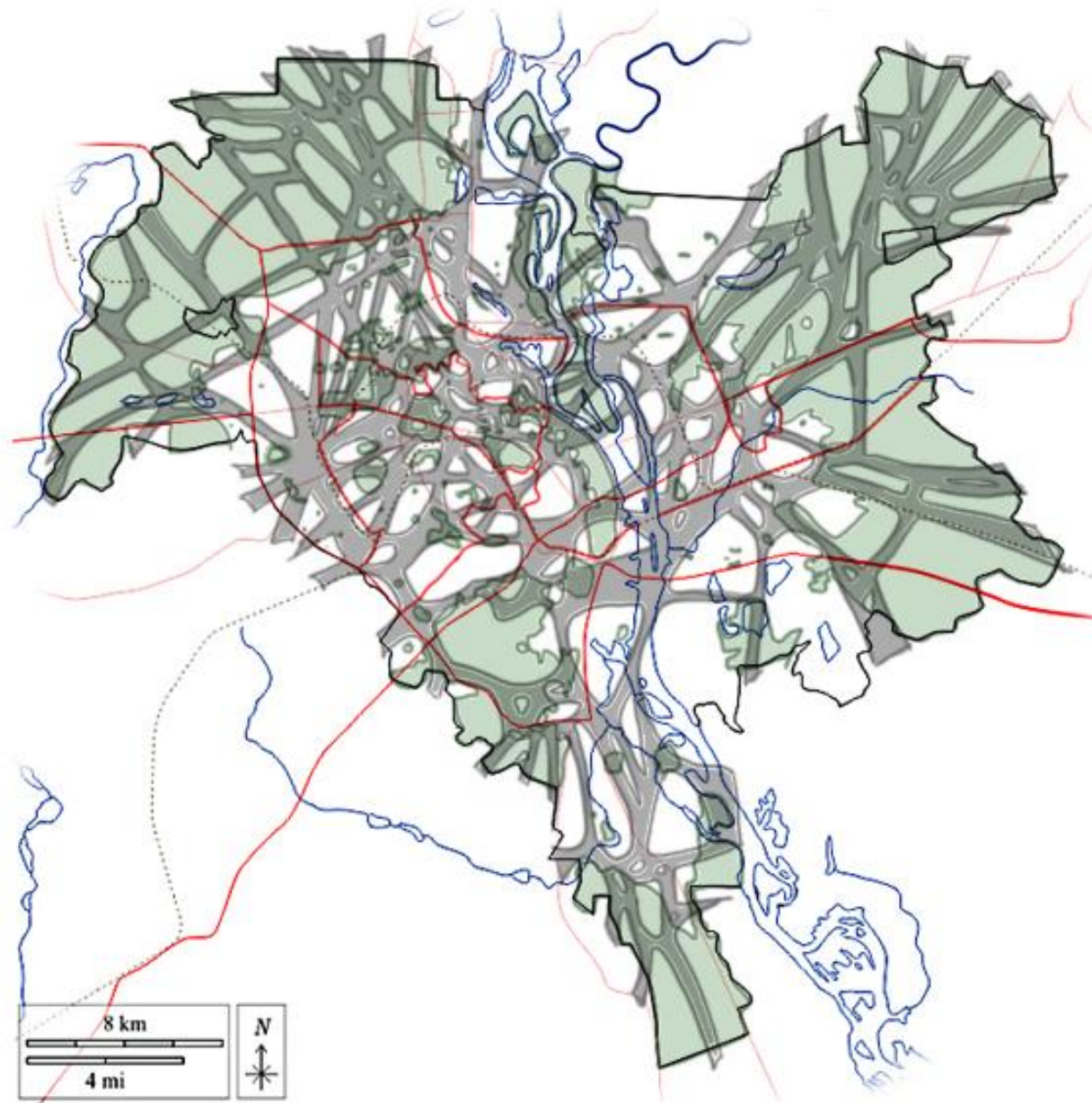


Fig. 44. Overlay of geopathogenic zones on green areas in Kyiv

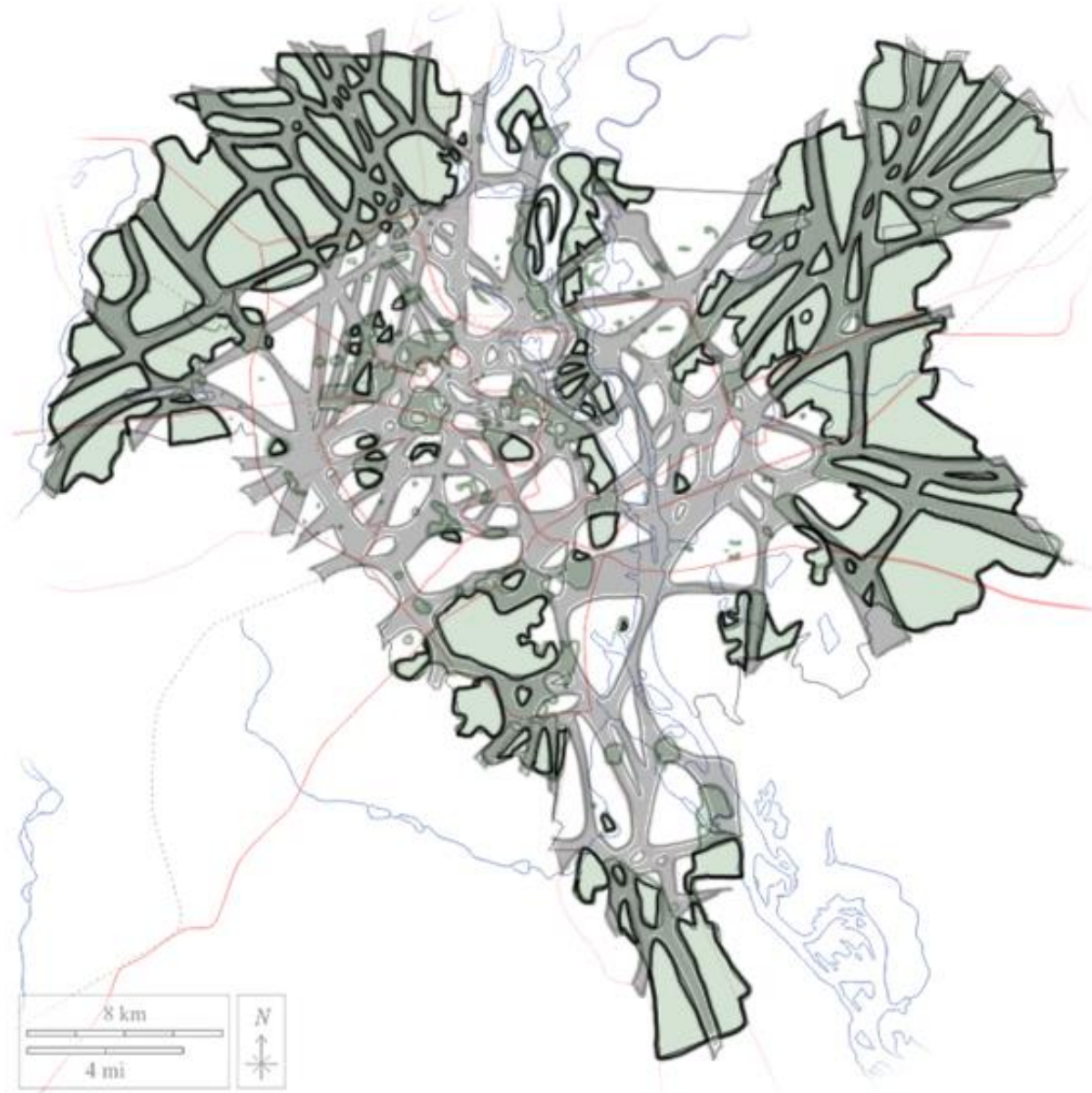


Fig. 45. Identification of favourable locations for the project when overlapping geopathogenic zones and green areas in Kyiv

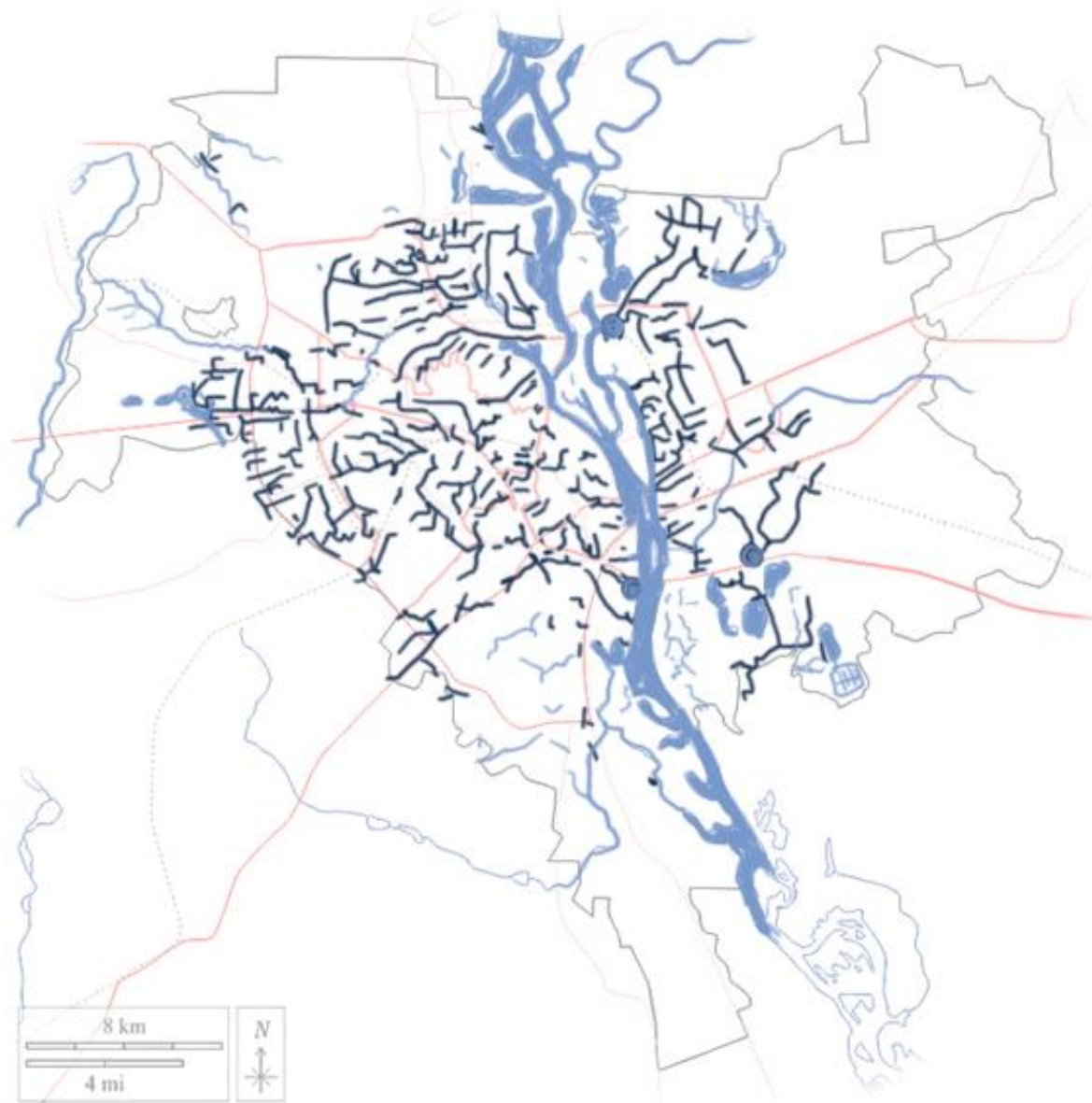


Fig. 46. Analysis of Kyiv water resources (above and underground waters)¹⁰⁰

¹⁰⁰ Created based on a map of water resources, groundwater and sewers in Kyiv.

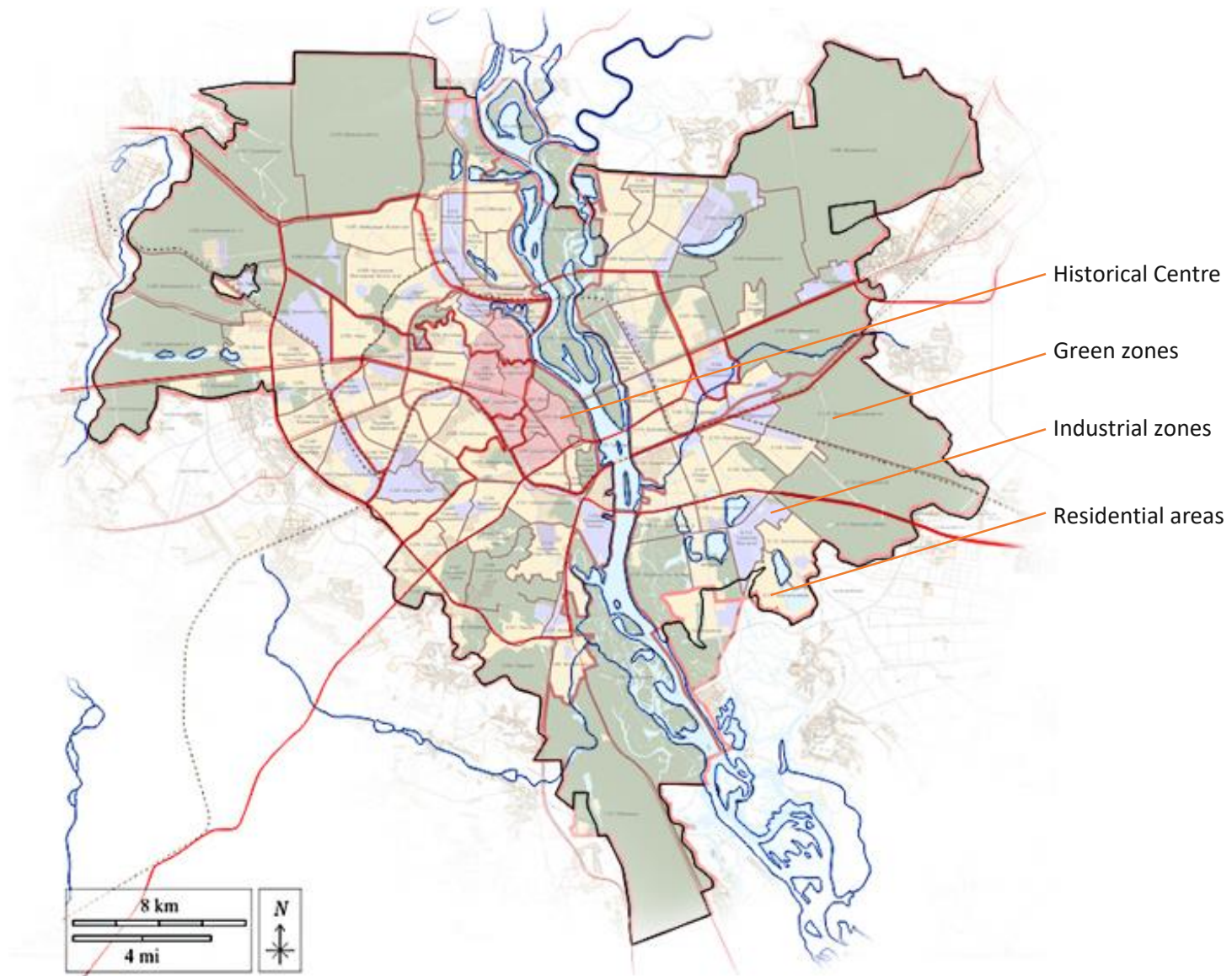


Fig. 47. Analysis of built-up areas of Kyiv

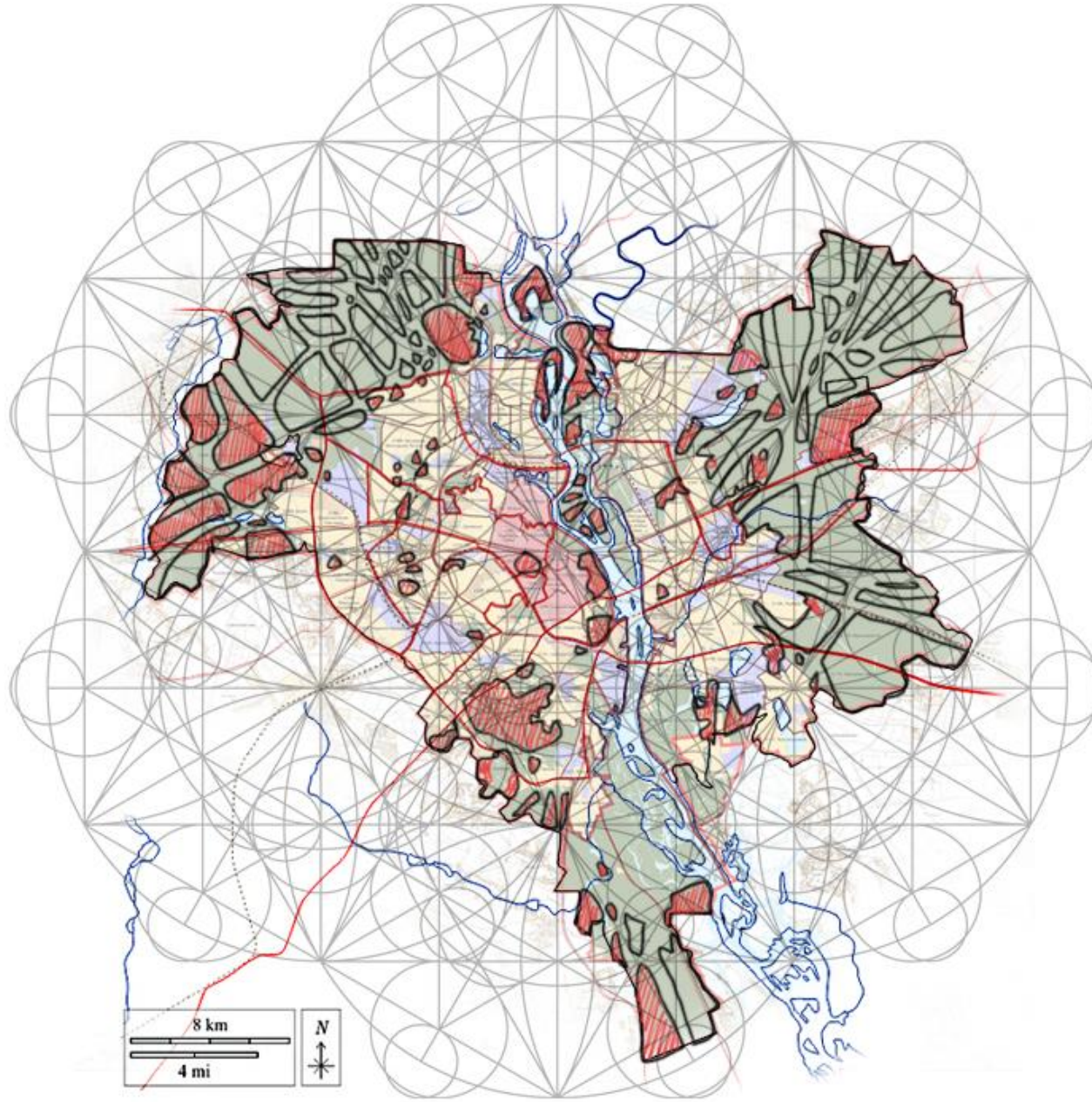


Fig. 48. The second process of screening out unfavourable areas for the project

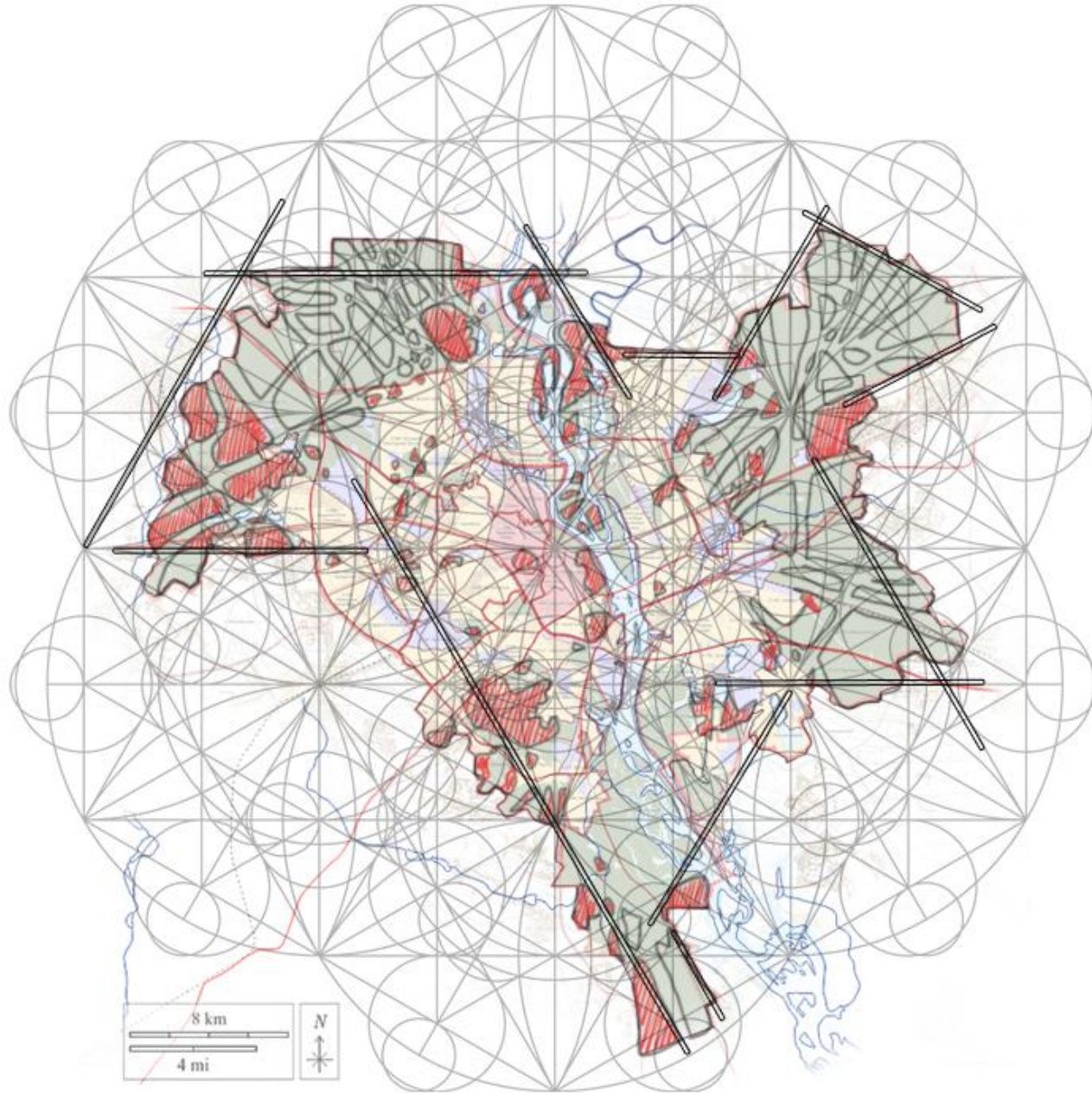


Fig. 49. Analysis of the appearance of Kyiv in the context of guide lines according to the frequency of 14 Hz

- Chosen Point
- Kyiv City Centre
- Connection Points

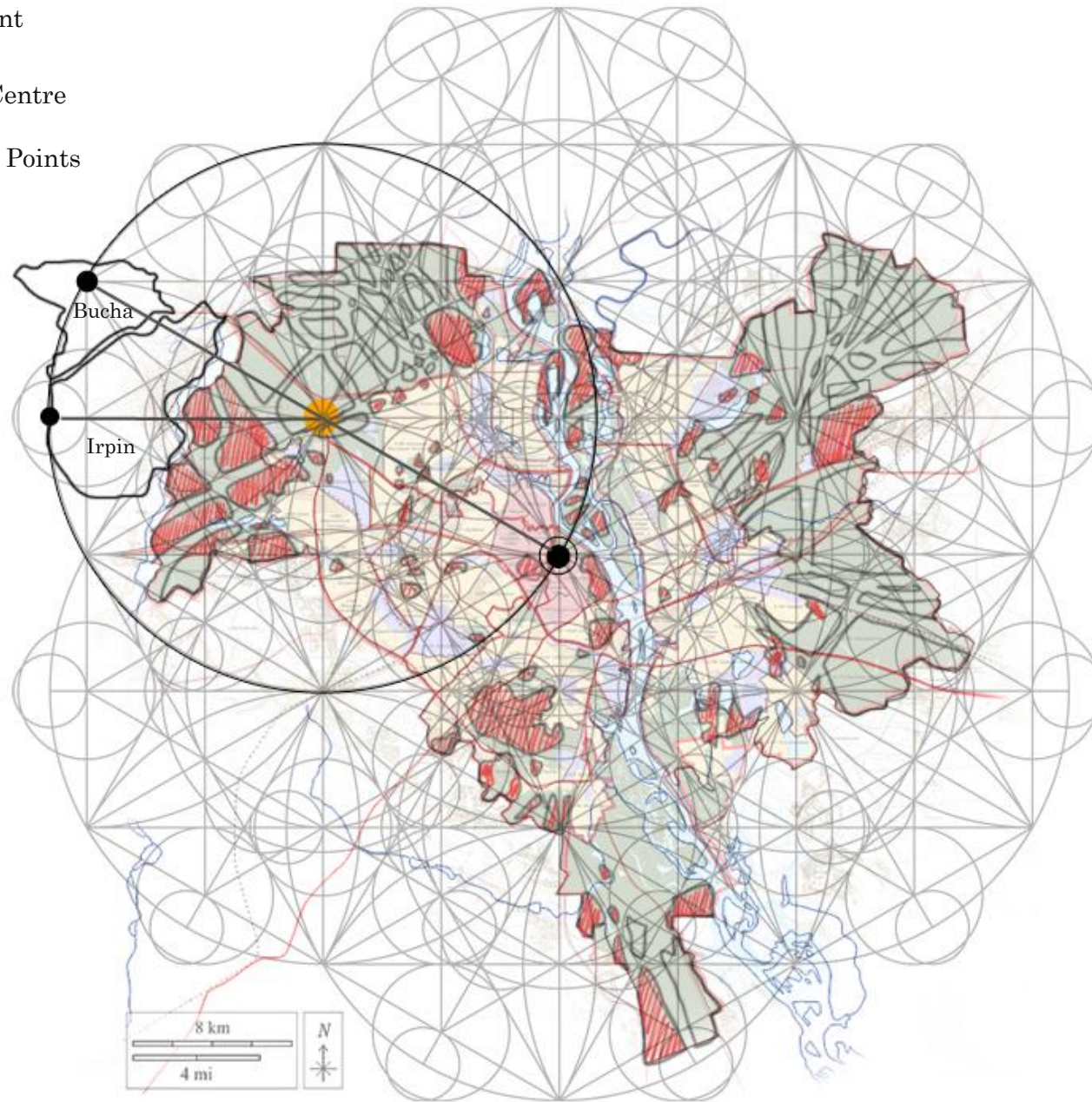
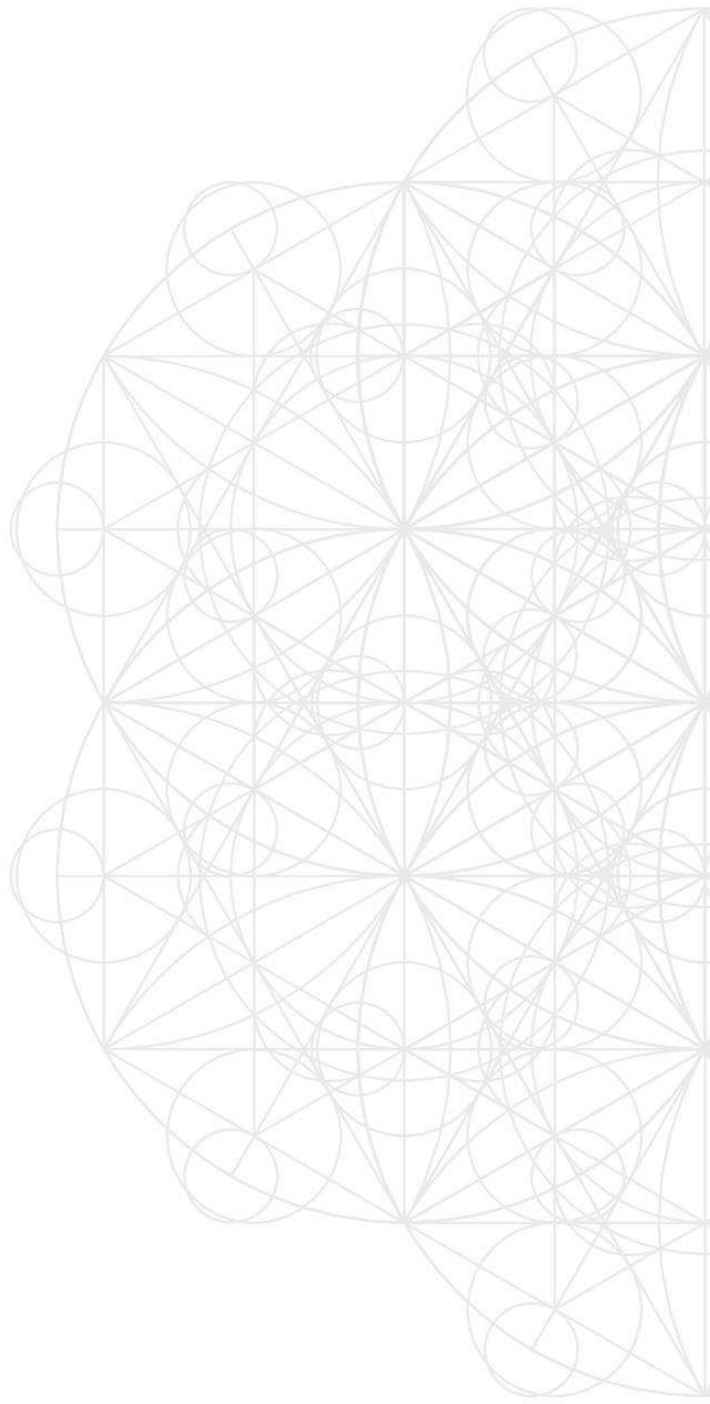


Fig.50. Project point selection. Kyiv



2.2.3. Building site

Continuing the established system of analysis, we increase the selected point from the urban scale to the selected zone.

You can see that the orange dot indicating the future location meets the following criteria:

- *It is not blocked by geopathogenic lines*
- *Correspond to the city expansion plan*
 - *Located in the forest area*
- *There are no underground rivers nearby*
- *There is no industrial zone or industrial development*
 - *No overly busy, heavy traffic*

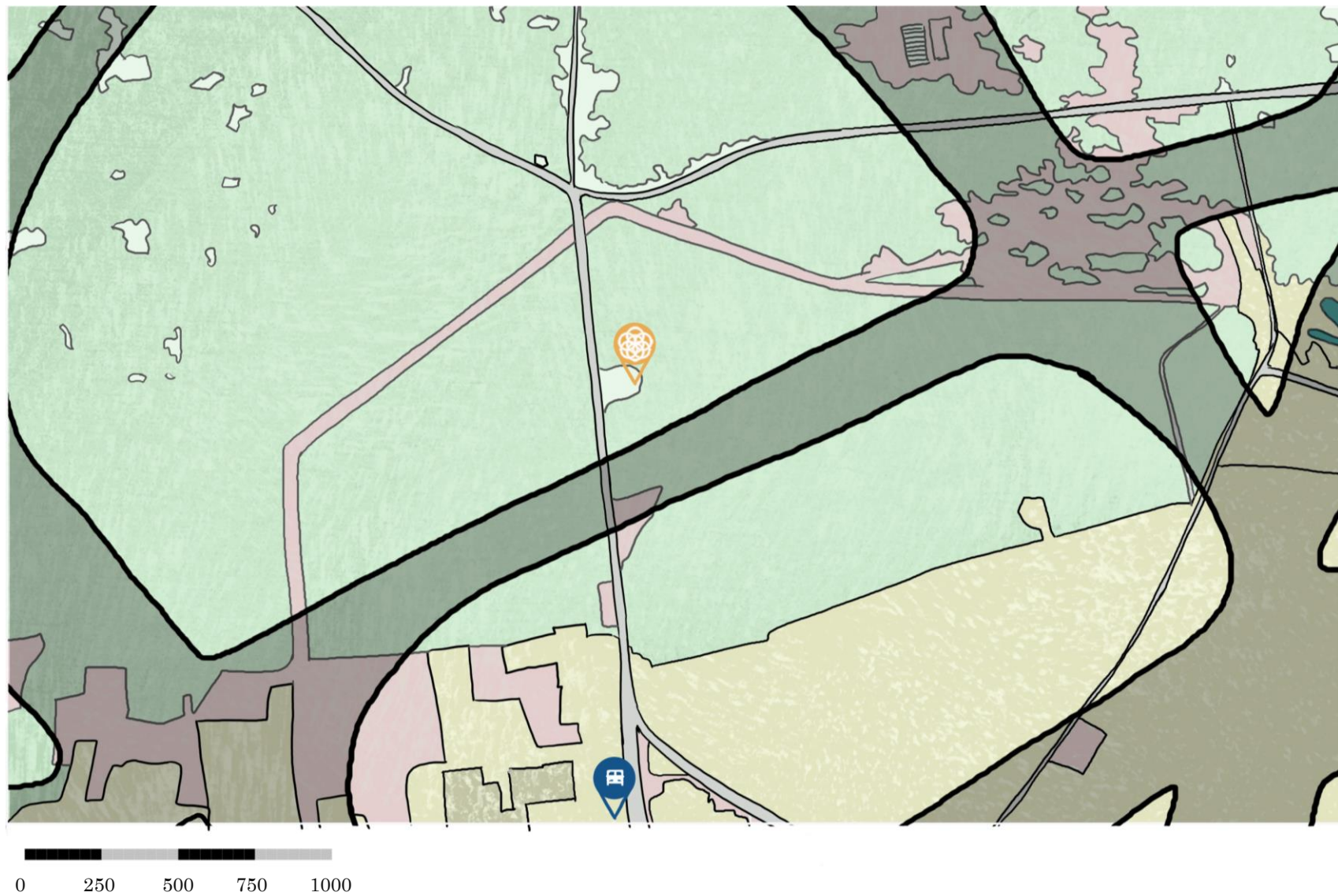


Fig. 51. Selected Point

2.3. Church

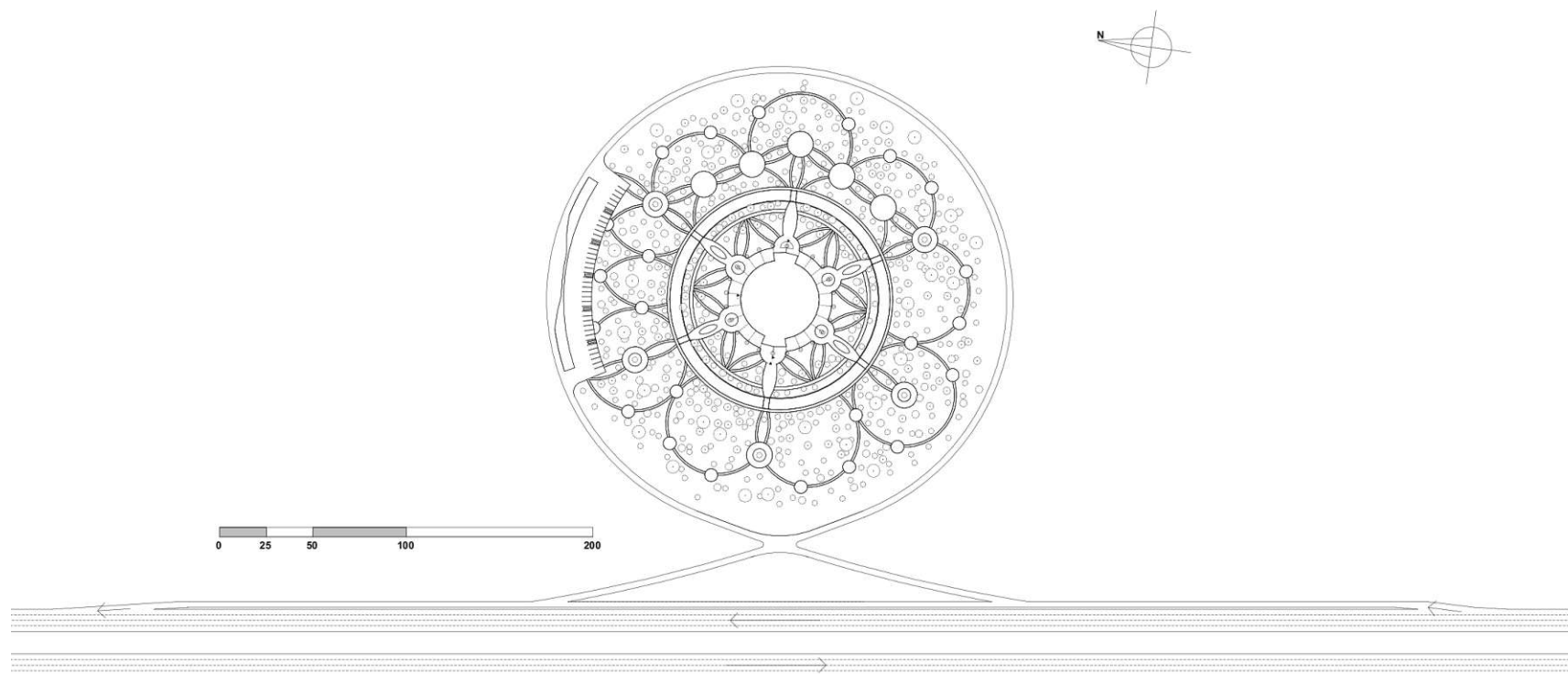


Fig.52. Transport solution for a church project

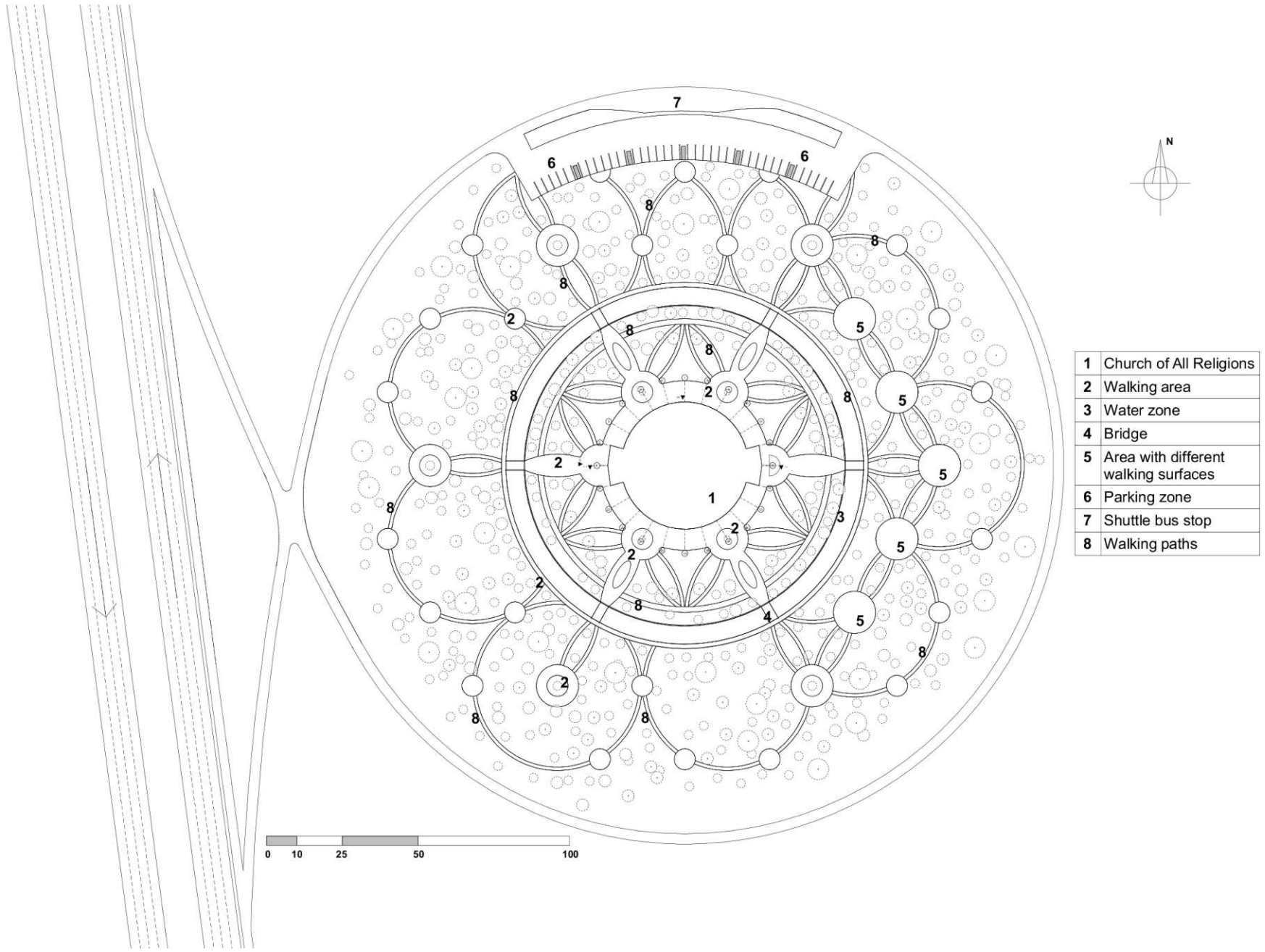


Fig.53. General plan of the Church of All Religions

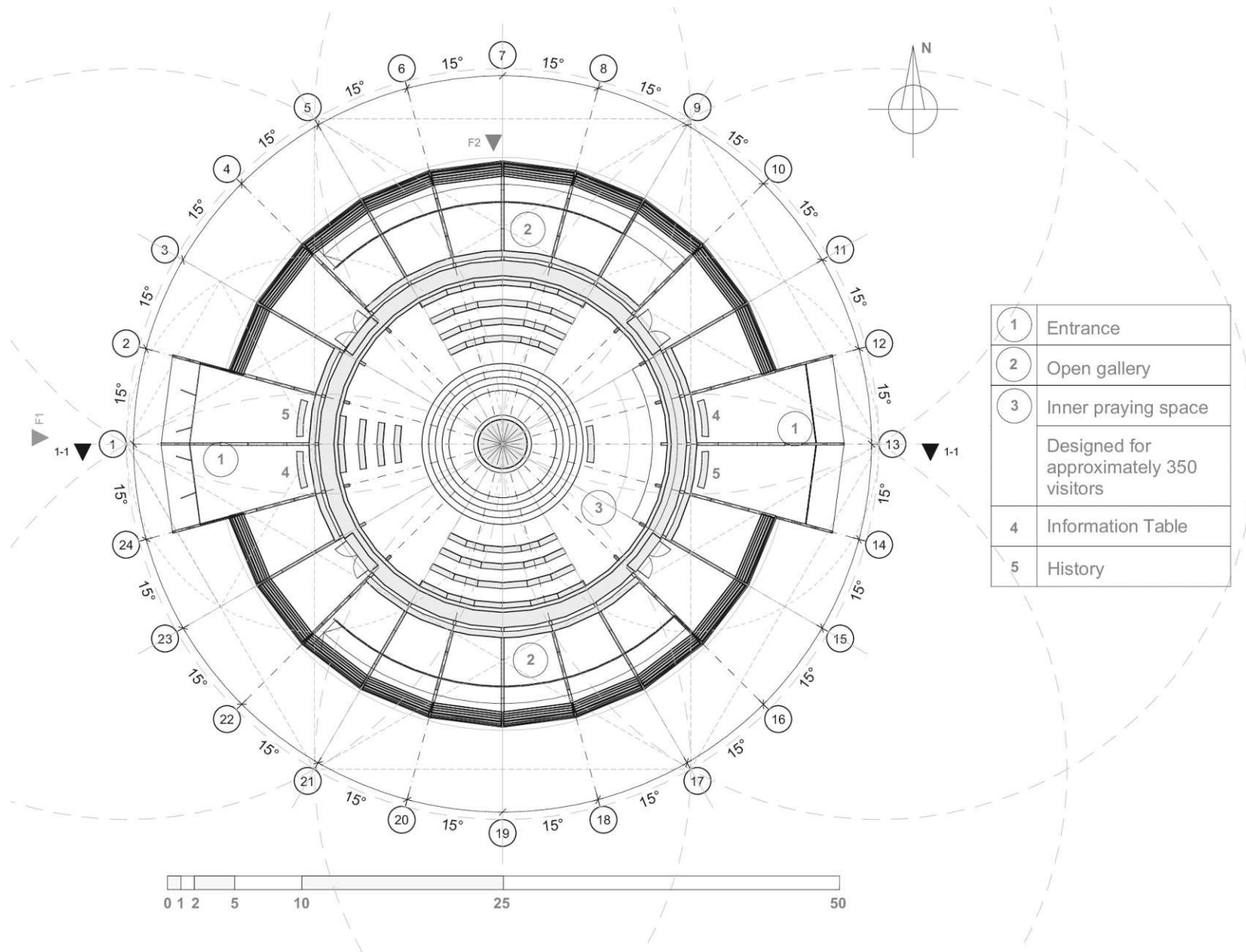


Fig.54. Ground floor of the Church of All Religions (0.000)

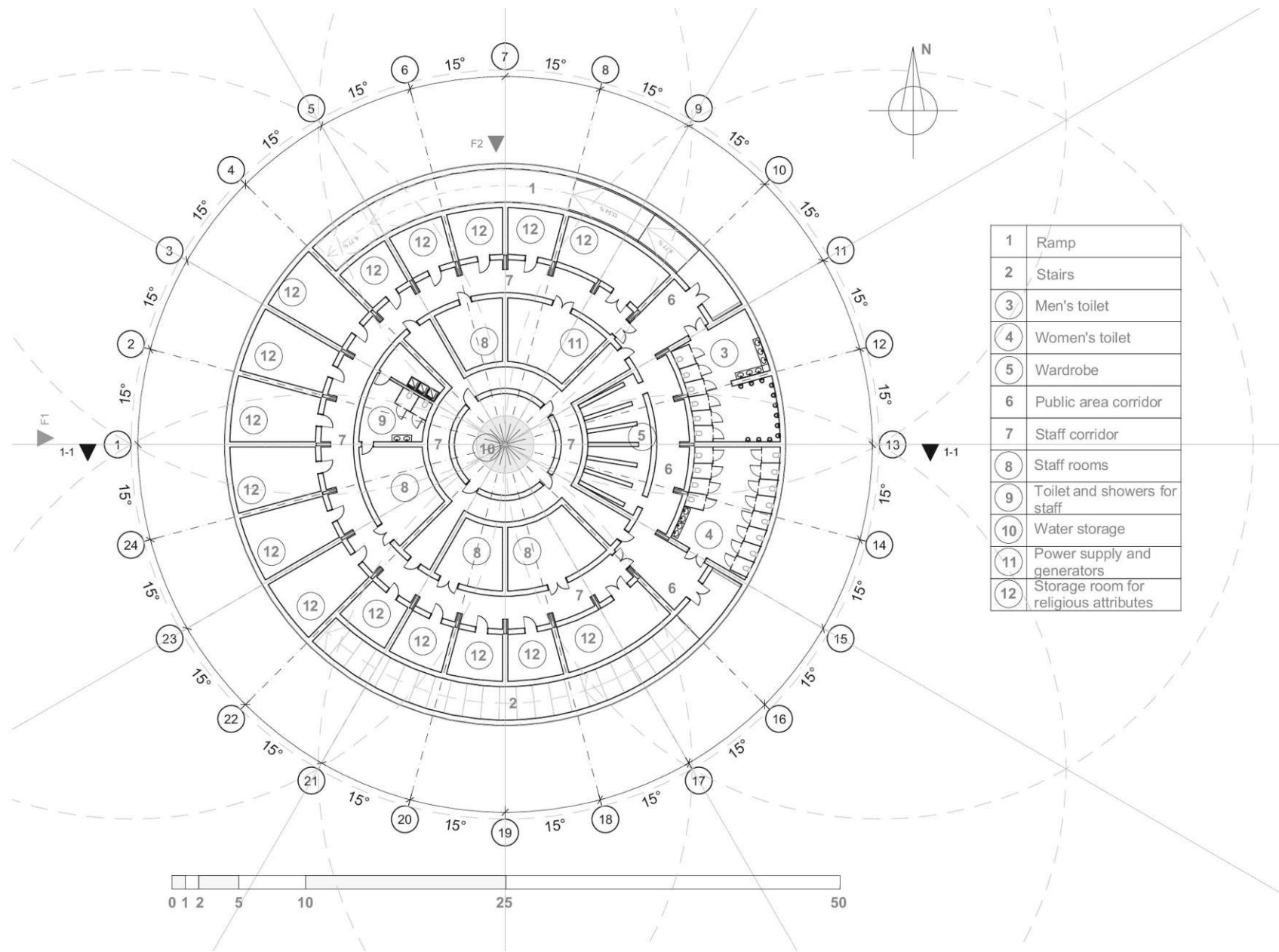


Fig. 55. Underground floor of the Church of All Religions (-3.500)

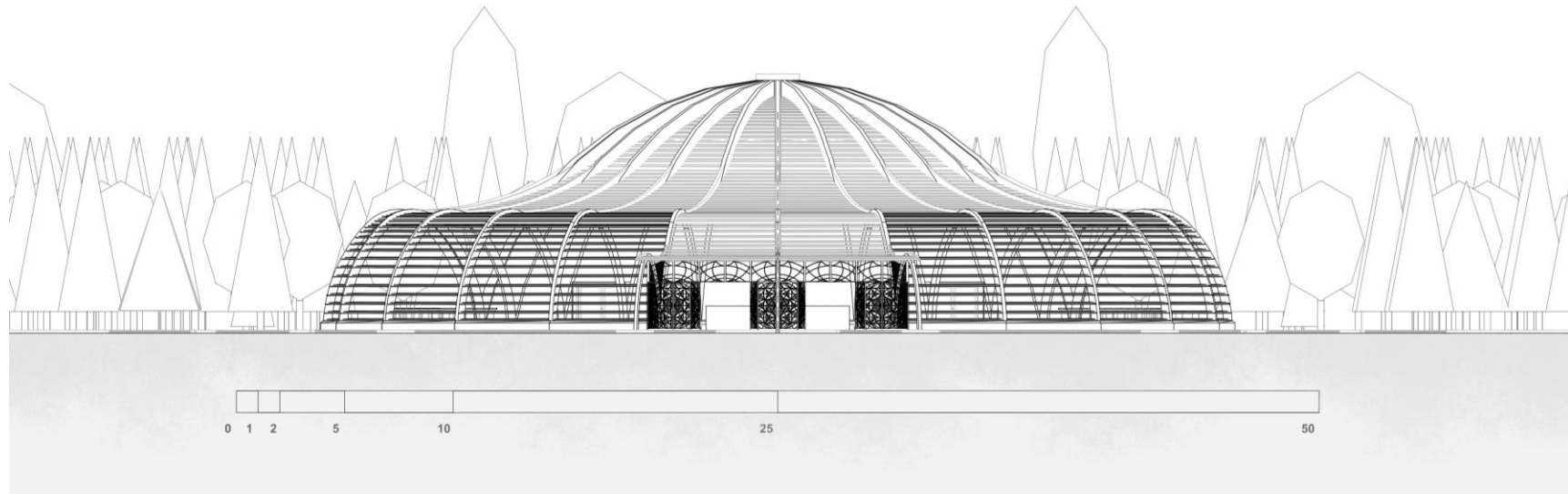


Fig.56. East Facade

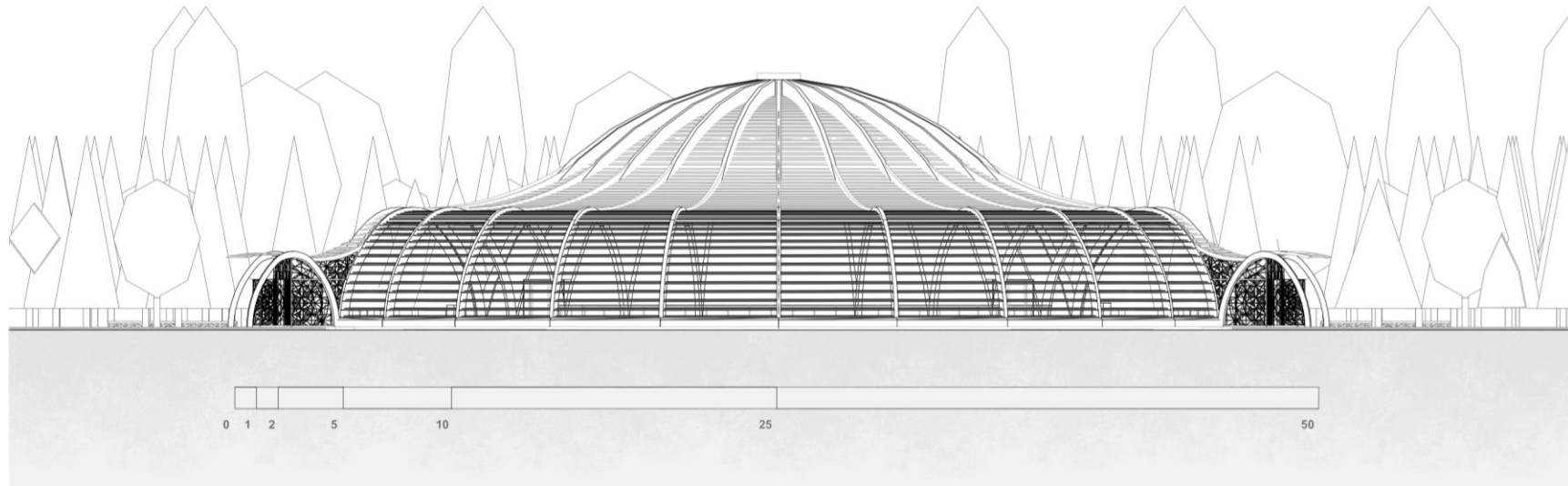


Fig.57. South Facade

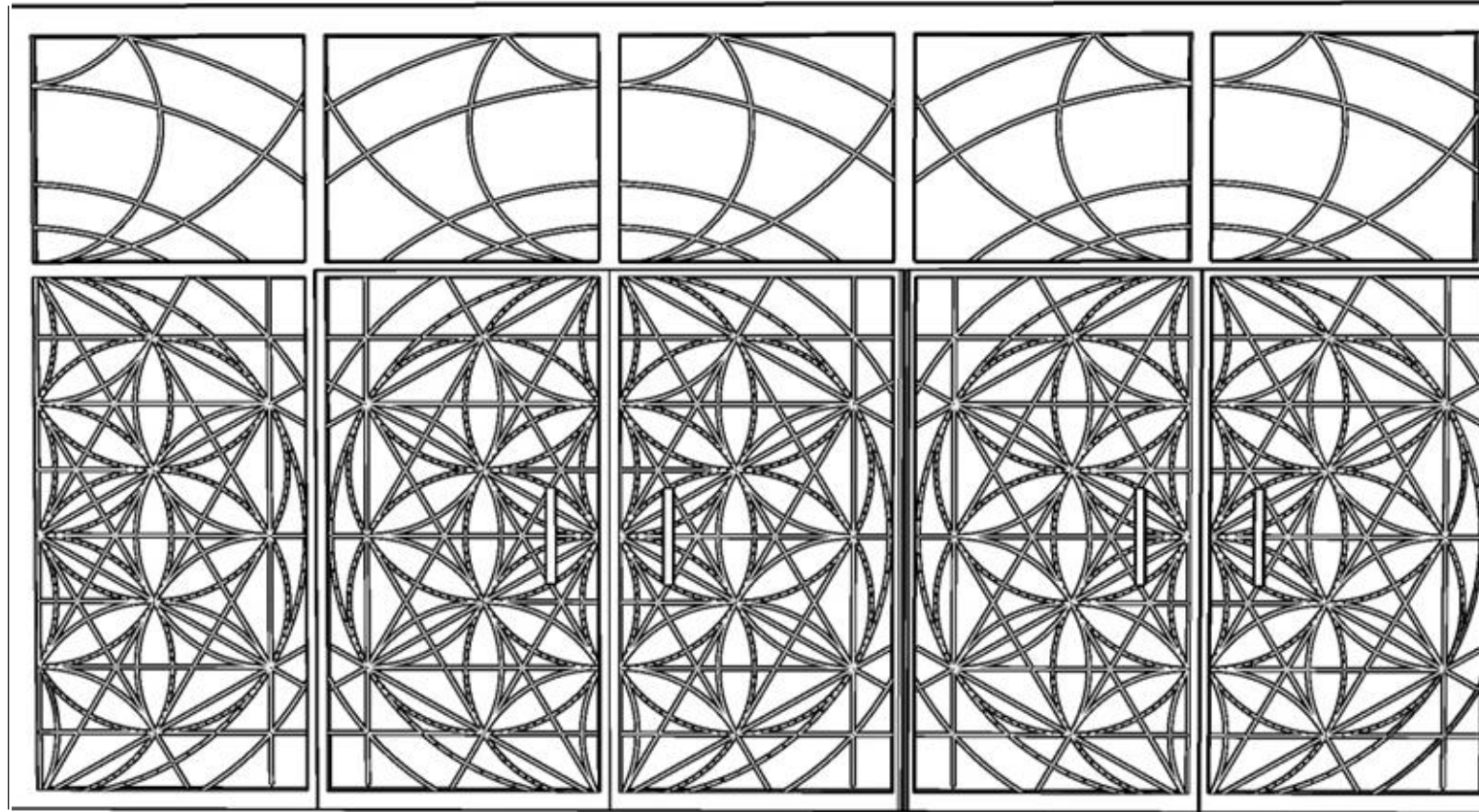


Fig.58. Pattern created by metal rods in the main entrance group

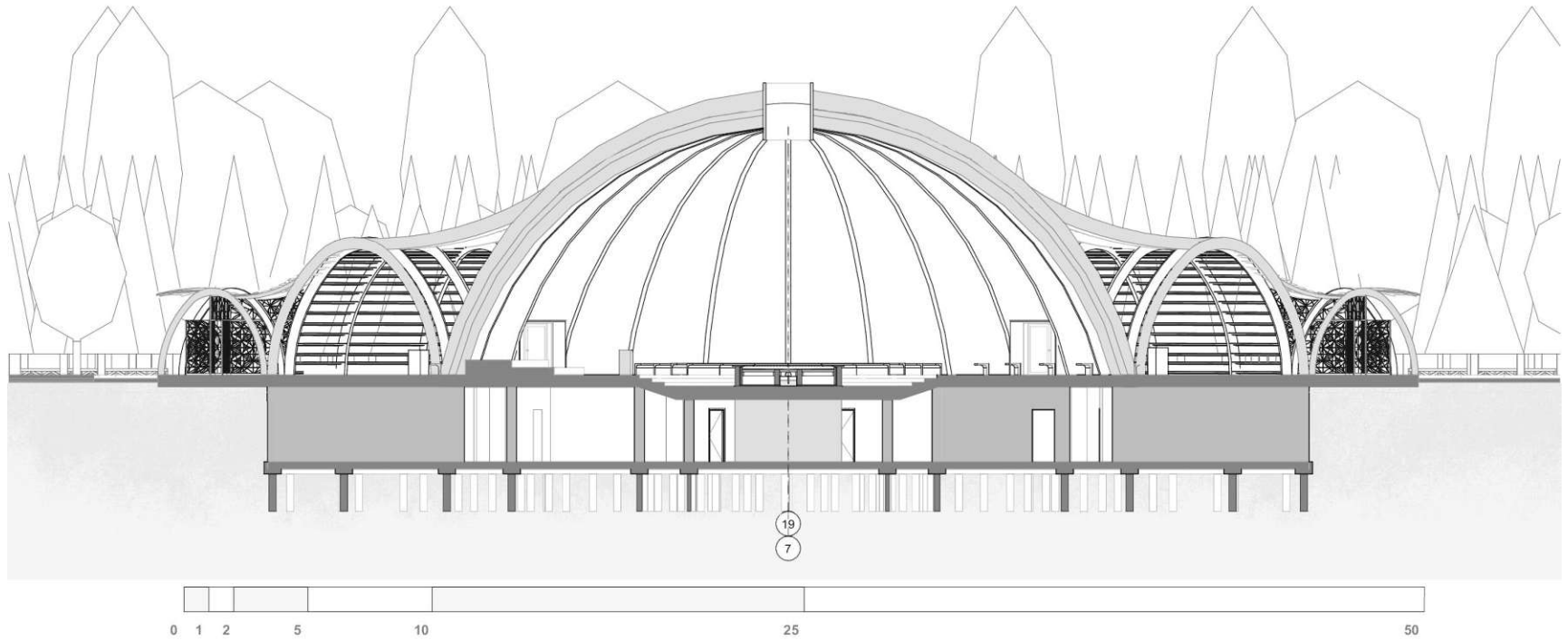


Fig.59. Section

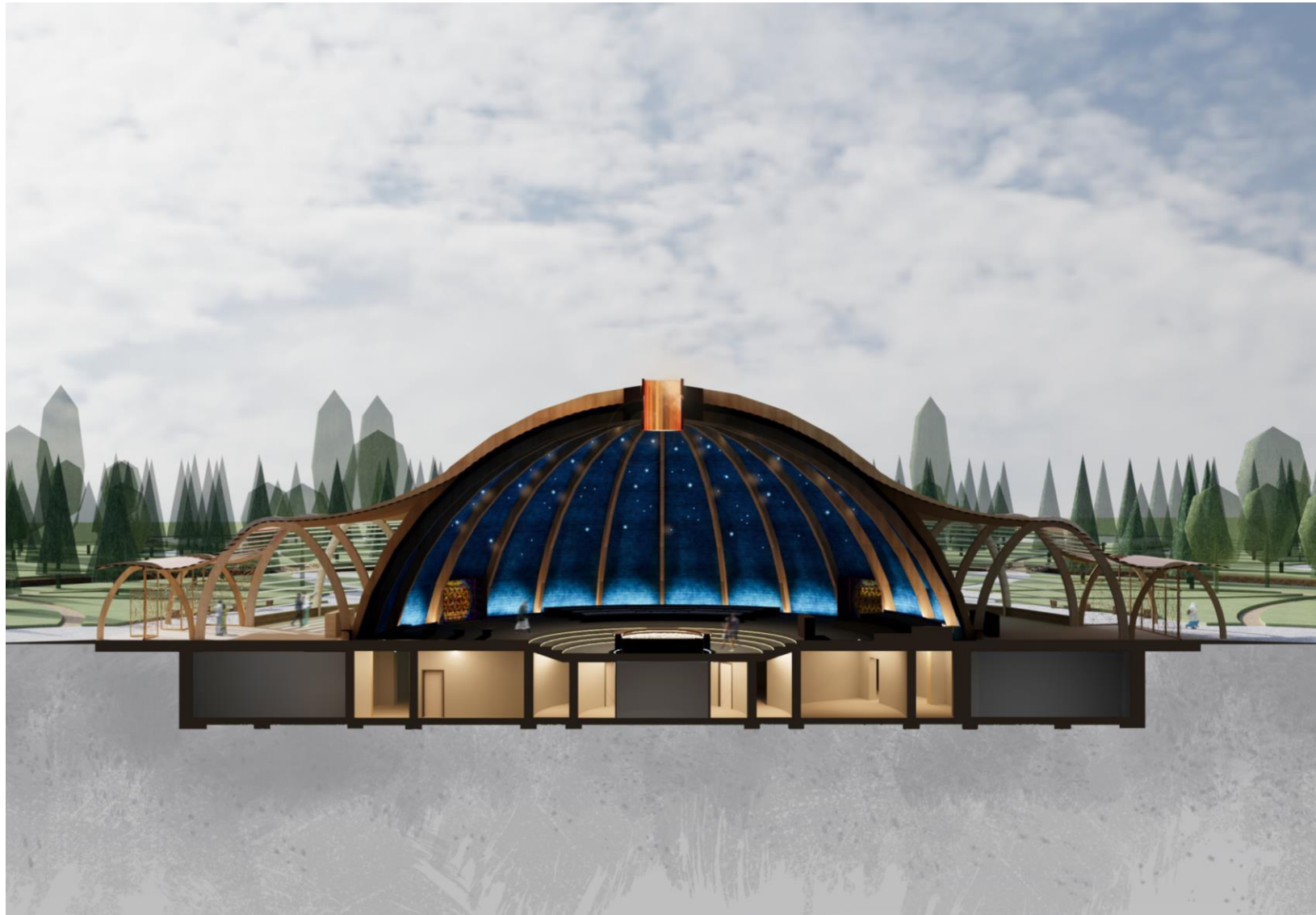


Fig.60. Section in 3D

2.4. Details of Constructions

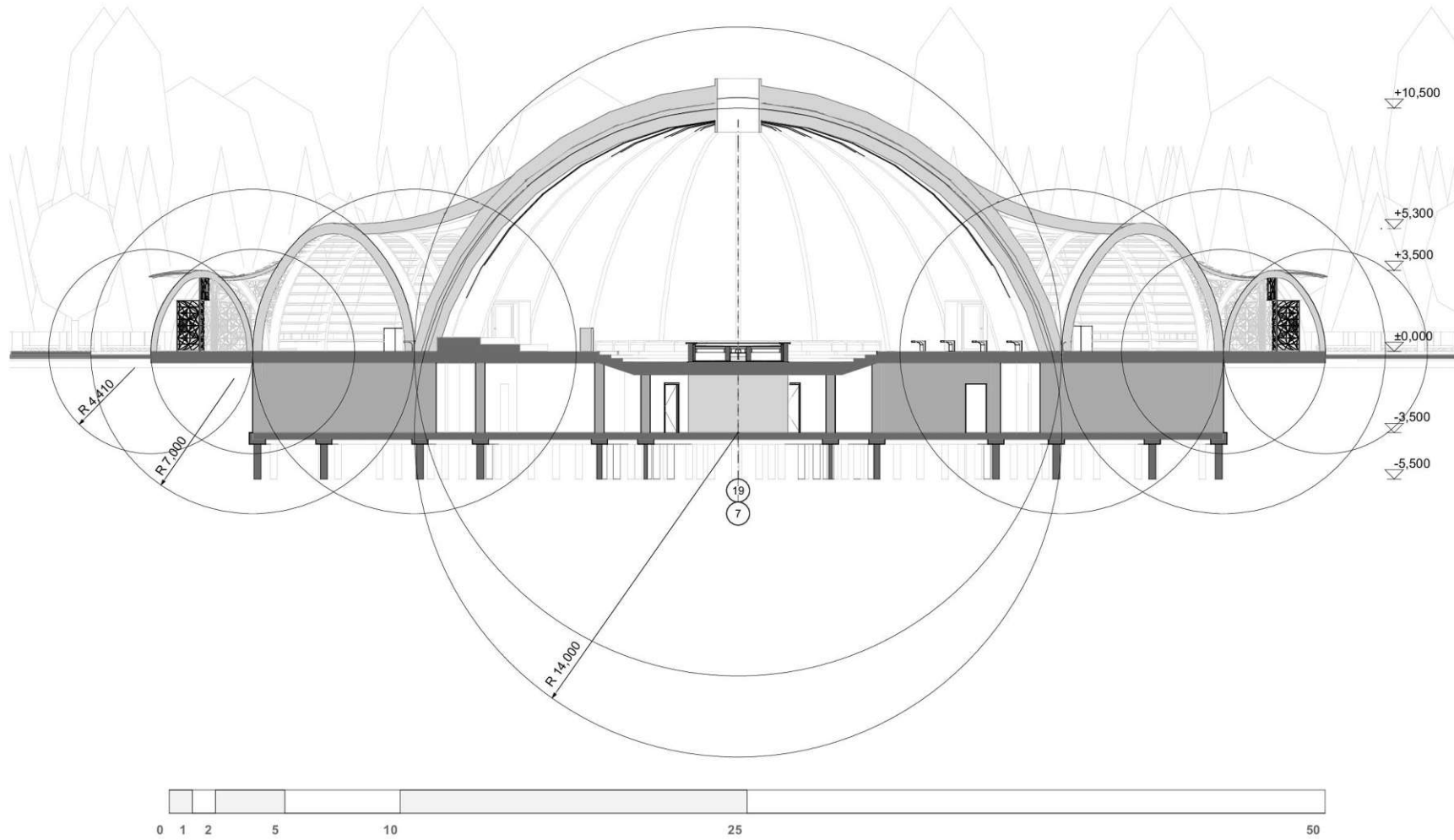


Fig. 61. Section with reference to the main construction lines

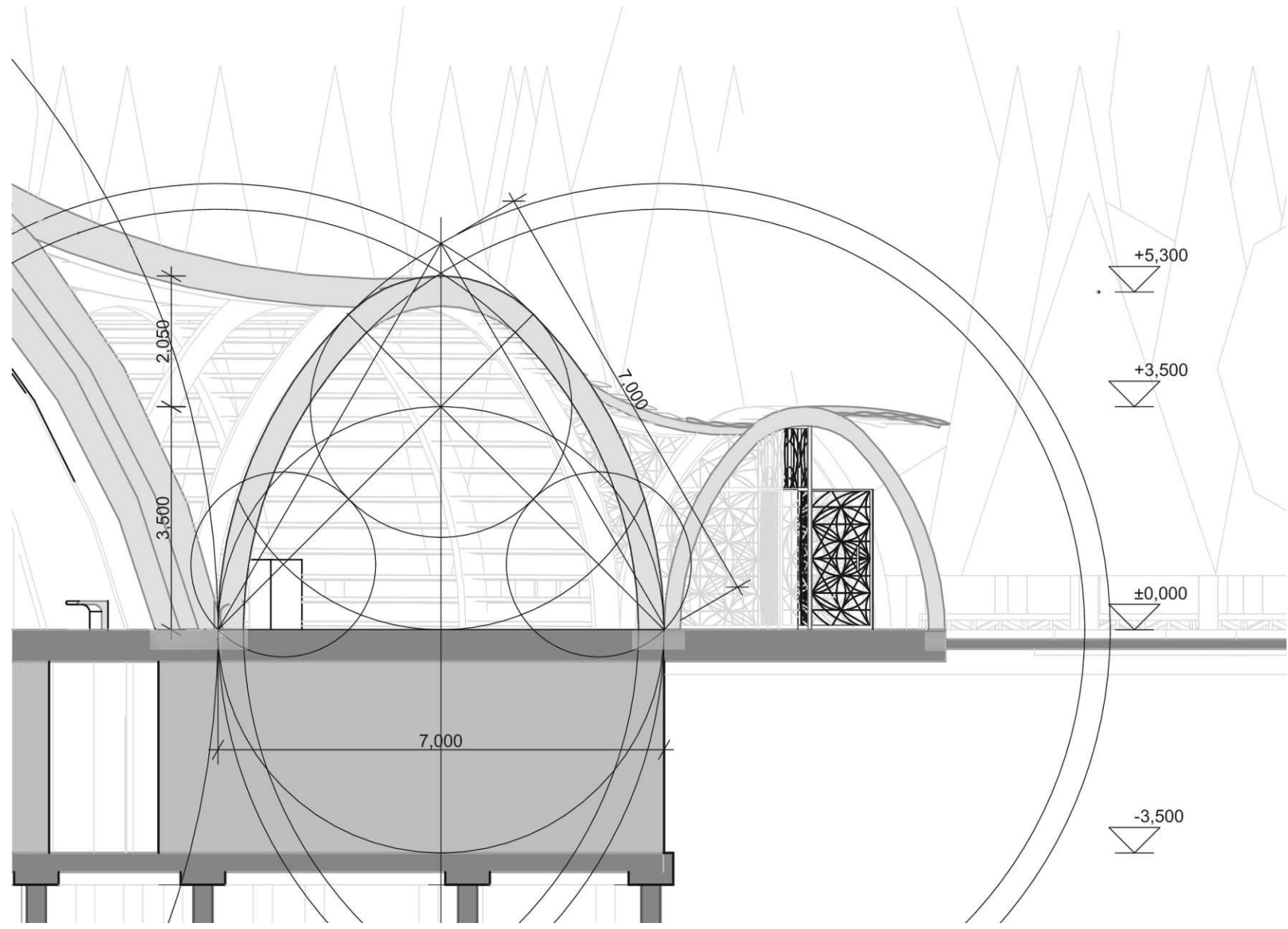


Fig.62. Section detail. A method for constructing an arched system with the main reference to 7 meters

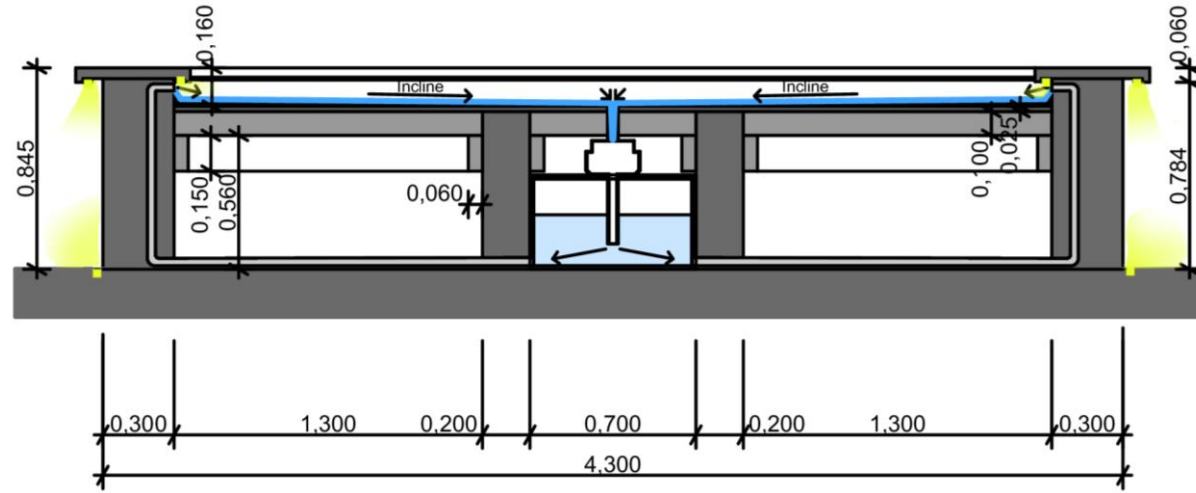


Fig. 63. Water source and water supply system section

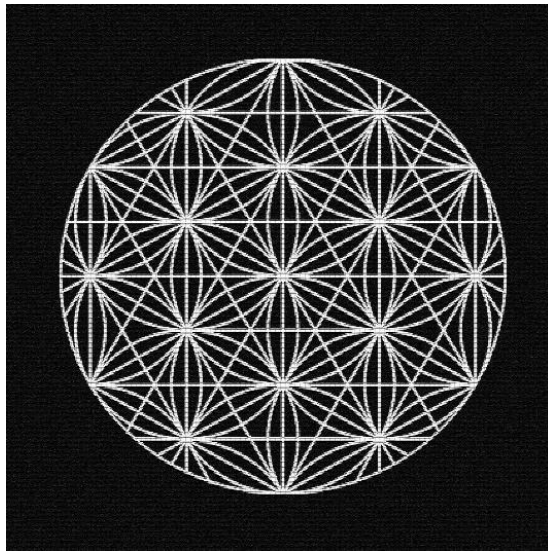


Fig. 64. Mosaic scheme in a water source



Fig. 65. Water source in 3D view

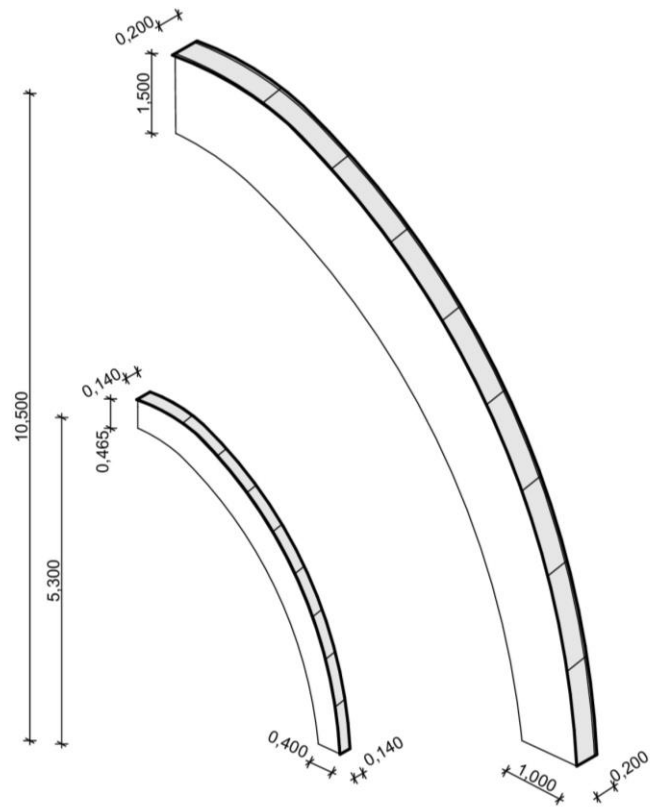
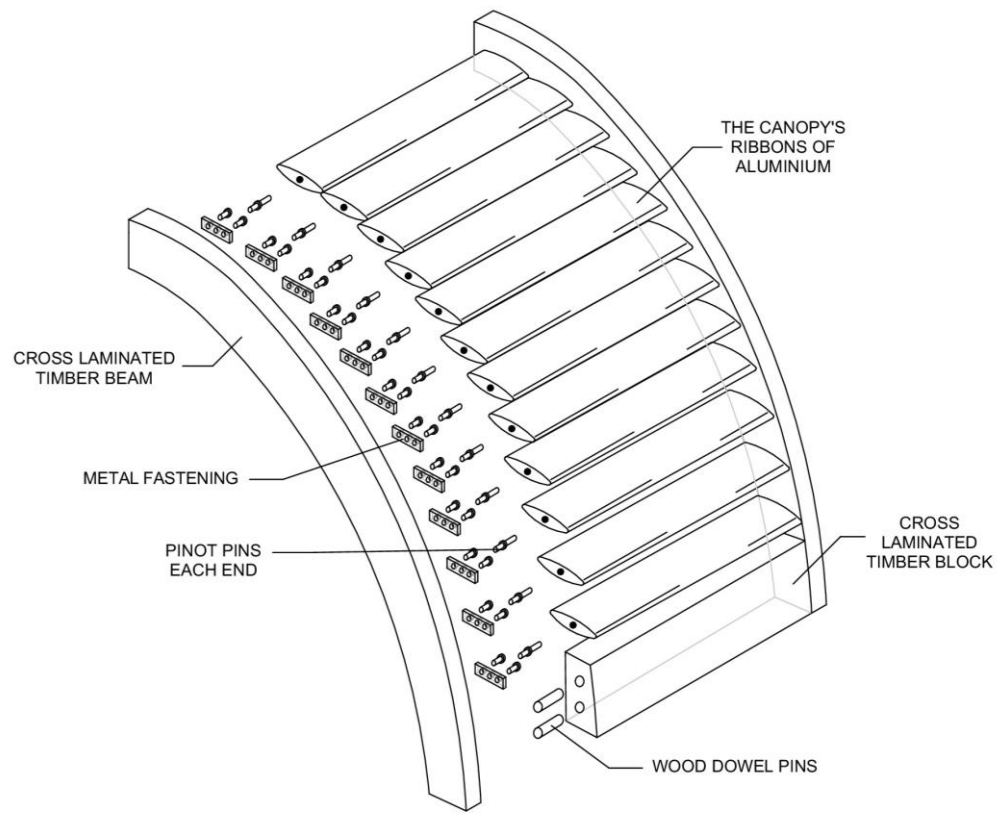


Fig. 66. Method of attaching aluminium canopy ribbons to arches

Fig.67. Changing arched elements depending on their size

2.5. Materials

Because new types of engineered wood, sometimes referred to as **CLT**, are composed of laminated wood components, architects are now able to design a wide range of curved designs that were previously impossible. The exceptional strength and stiffness of laminated timbers allow beams and arches to span large distances without the need for intermediate columns, offering designers greater creative flexibility than is often possible with wood, concrete, or iron construction.

Cross-laminated timber is made of angled wood layers that are bonded together [Fig.68]. As a result, the structure is stronger and less likely to deform due to changes in humidity. This process is widely used to produce pillars, beams, and other structural elements.¹⁰¹

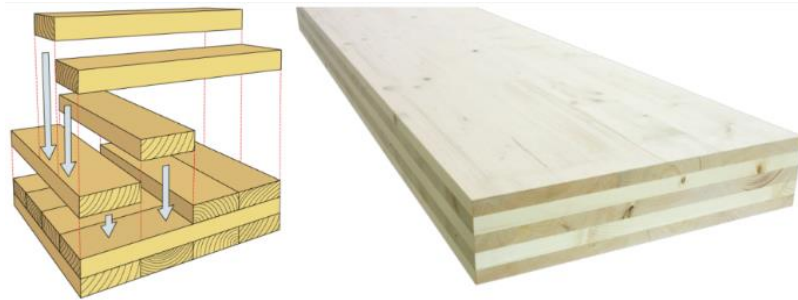


Fig. 68. Composition of CLT panels

The ease of use and eco-friendliness of **Hempire Mix** insulating material are its unique qualities. Three materials are used to make the insulation: water, hemp firebrand (the inside portion of the industrial hemp stem left over after the fibres are removed), and "Fifth Element" binder, which was created by "Hampaer" as a completely natural lime-based glue without the need for cement or sand.

The components are mixed immediately on the building site, taking no more than a minute. The completed mixture is then compressed around the wooden frame into the space between the pre-installed detachable formwork sheets.



Fig. 69. Hemp insulation technology - Hempire Mix

¹⁰¹ Antonio di Bella, Milica Mitrovic (2020). Acoustic Characteristics of Cross-Laminated Timber Systems. Department of Industrial Engineering, University of Padova.

By absorbing carbon dioxide, the material quickly increases its strength and takes on the required form. Hempire Mix becomes a lightweight stone with remarkable thermal qualities as it ages due to its micro- and macro-porous structure.¹⁰²

The Church of All Religions project offers a chance to effectively repurpose materials from destroyed homes in Irpin and Bucha. Reusing building materials and waste from demolished structures will not only promote accountability and sustainability in construction, but it will also significantly advance this technology's sustainable growth in Ukraine.

The final product's quality and safety may be guaranteed by using properly chosen materials. Walkways, pavement, and other structures can be made using recycled wood beams, bricks, concrete blocks, and other building materials. For example, wood beams may be polished and used as the foundation for wood decks in the landscape, giving the project's surroundings a cosy and natural feel.

Paving may be made by breaking bricks and concrete blocks into tiny pieces, which adds stability and

longevity. Recycling materials with the least amount of environmental damage should be a top concern when it comes to the project's environmental component. In order to do this, energy-efficient technology and processing techniques will be applied, along with consideration for carbon emissions during the production process.

Furthermore, the establishment of a Church of All Religions may present a chance for social mobilisation. Including locals in the building and recycling processes may boost employment and improve the neighbourhood.

This will not only demonstrate the significance of building sustainably and restoring damaged structures, but it will also serve as an example of resource conservation done creatively and responsibly to produce a singular and significant building.

¹⁰² Hempire Mix - a revolution in construction. From Hempire – Web Resource.

2.6. Colours



Fig. 70. Moodboard of materials for color and texture combinations for the exterior of the church

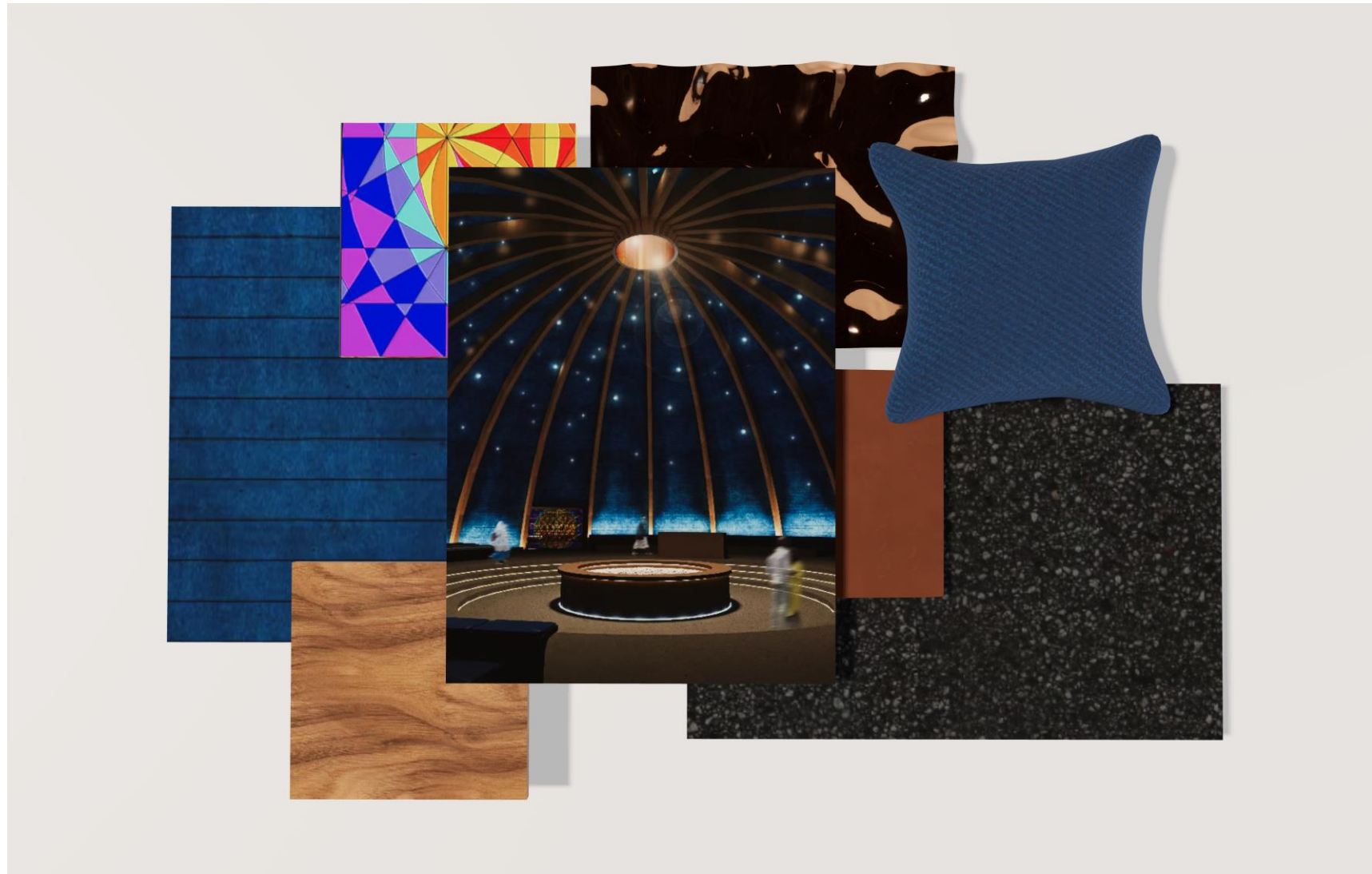


Fig. 71. Moodboard of materials on color and texture combinations for the interior prayer space of a church

2.7. The Design

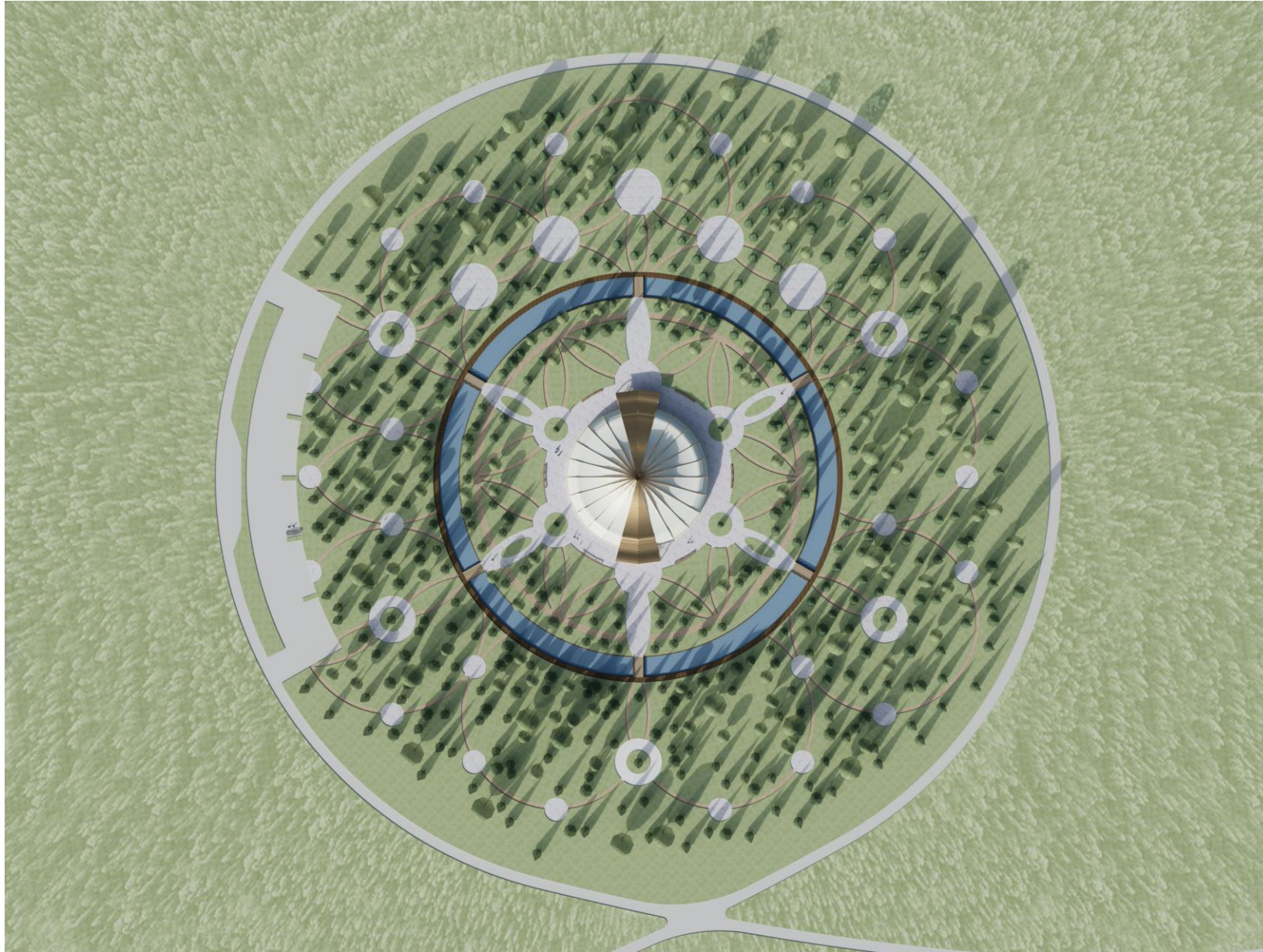


Fig. 72. External view

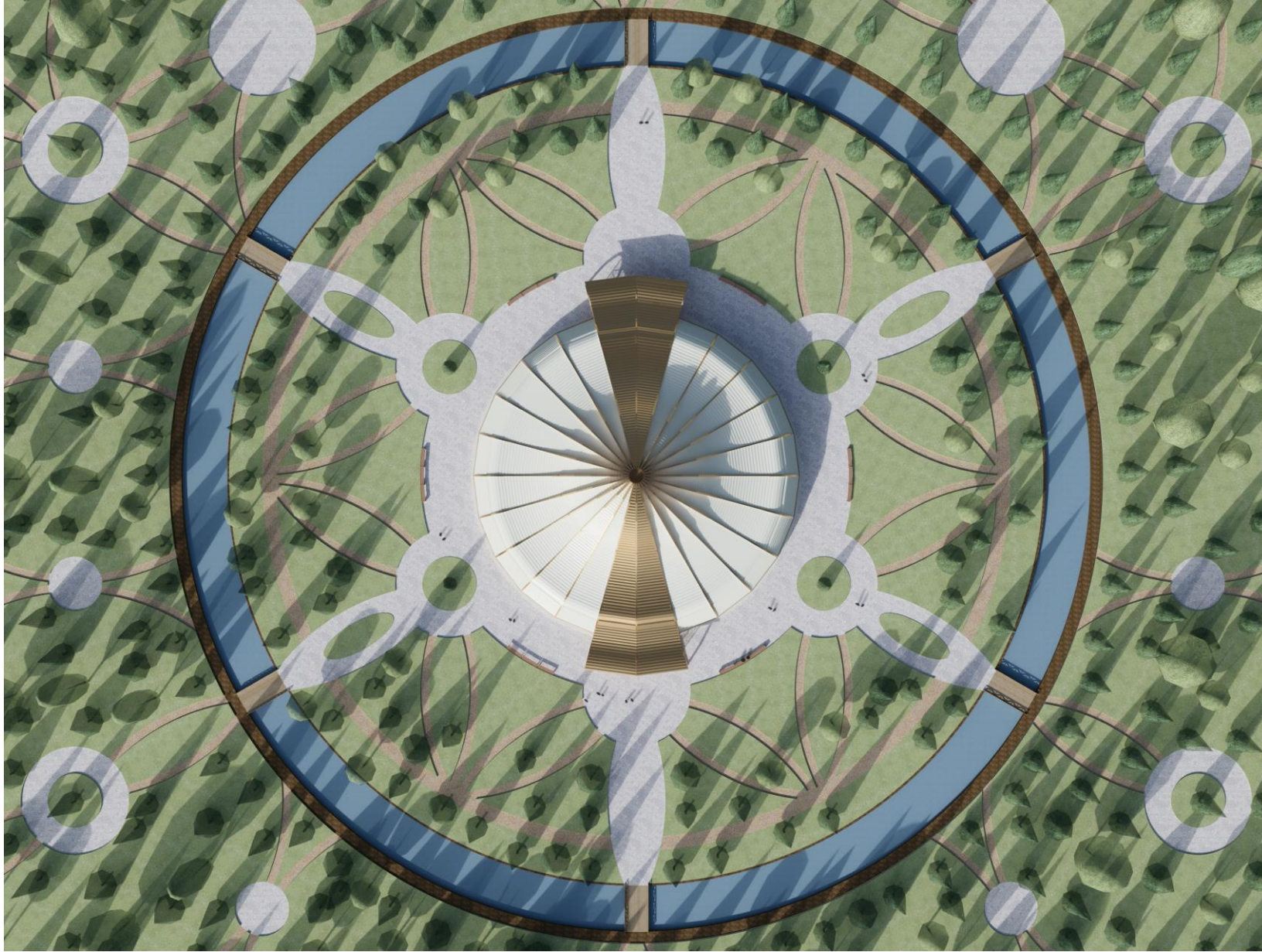


Fig. 73. External view

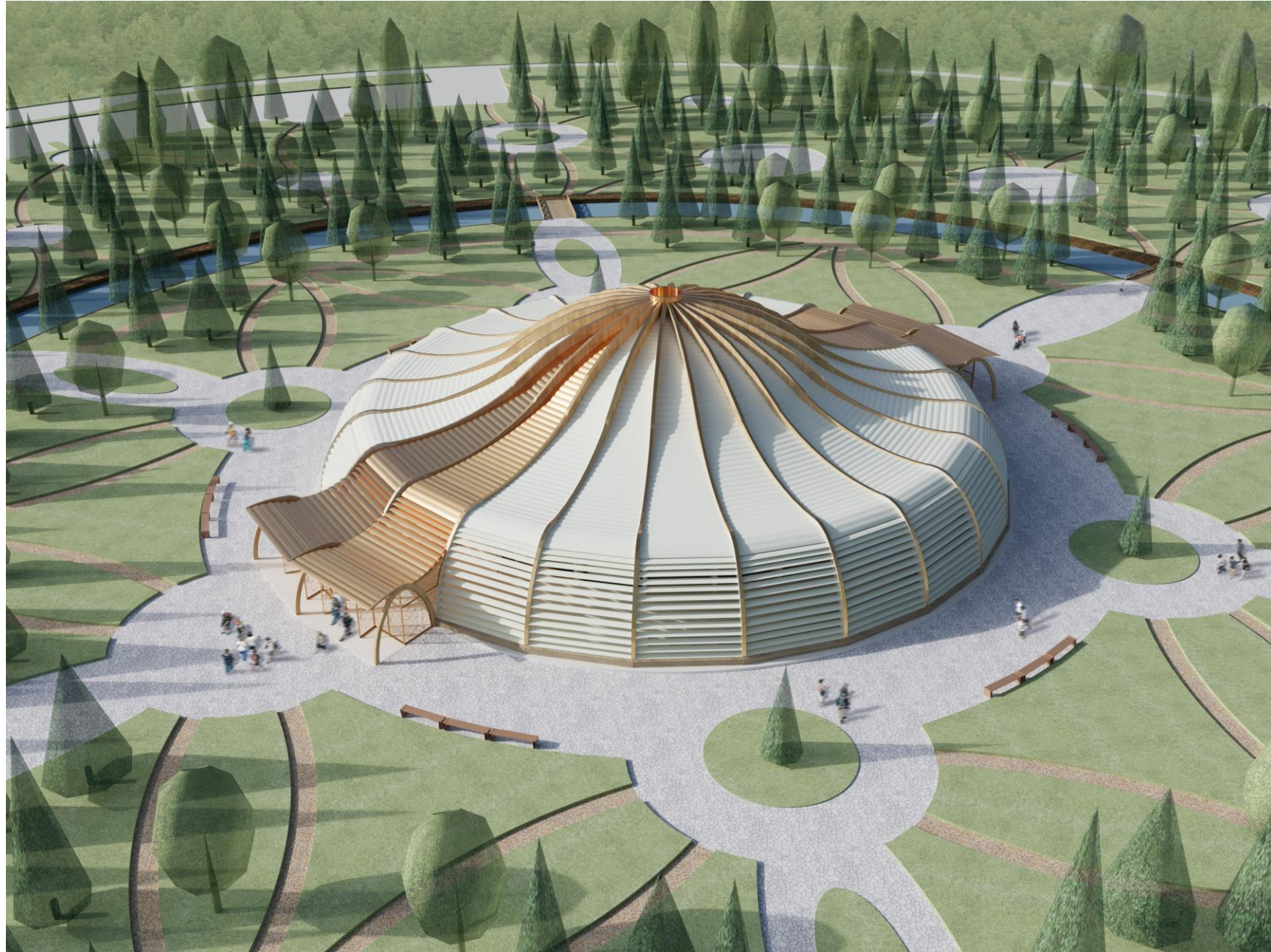


Fig. 74. External view



Fig. 75. External view



Fig. 76. External view



Fig. 77. External view



Fig. 78. External view



Fig. 79. External view



Fig.80. Internal view



Fig.81. Internal view

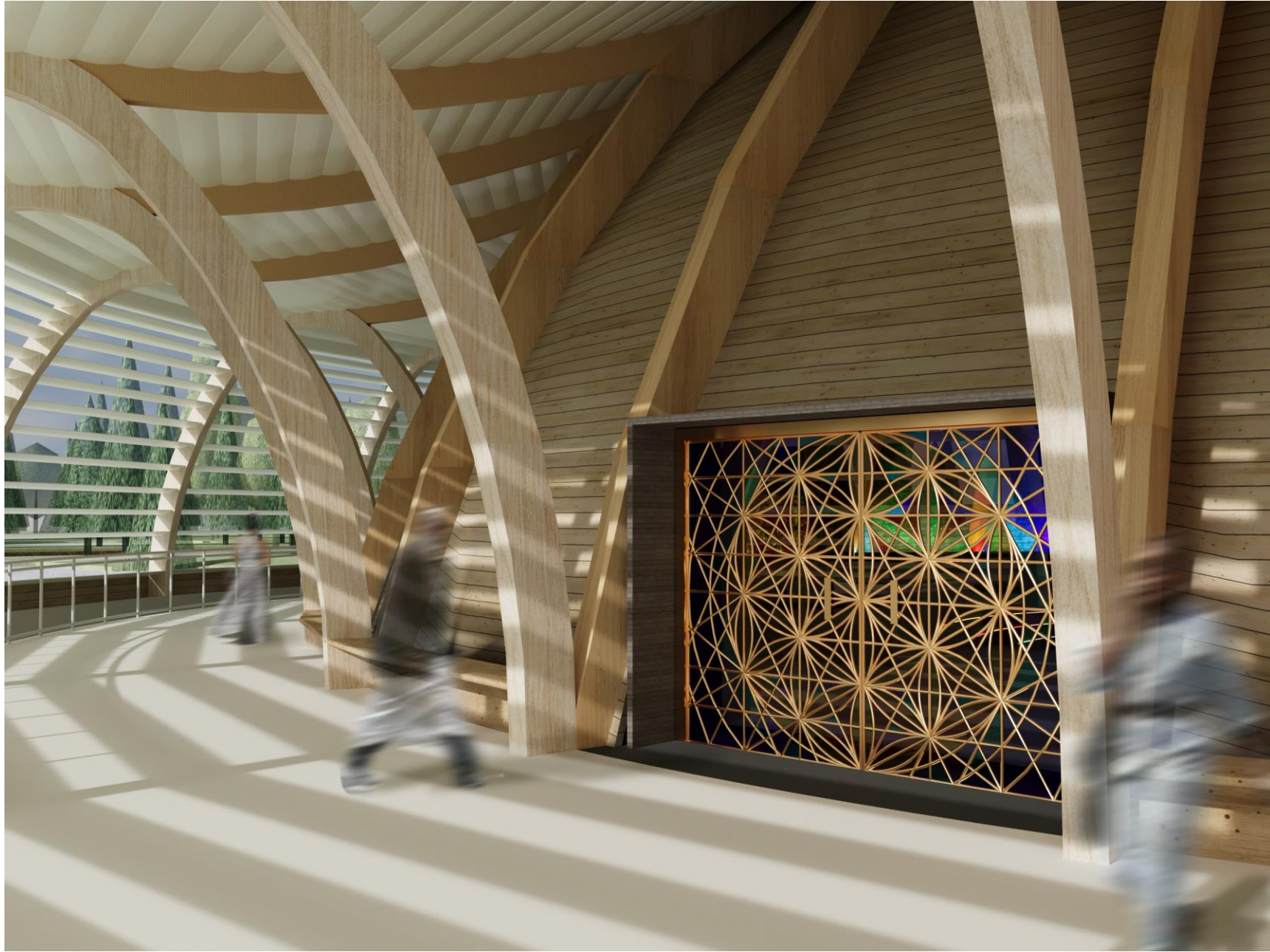


Fig.82. Internal view



Fig.83. Internal view



Fig.84. Internal view

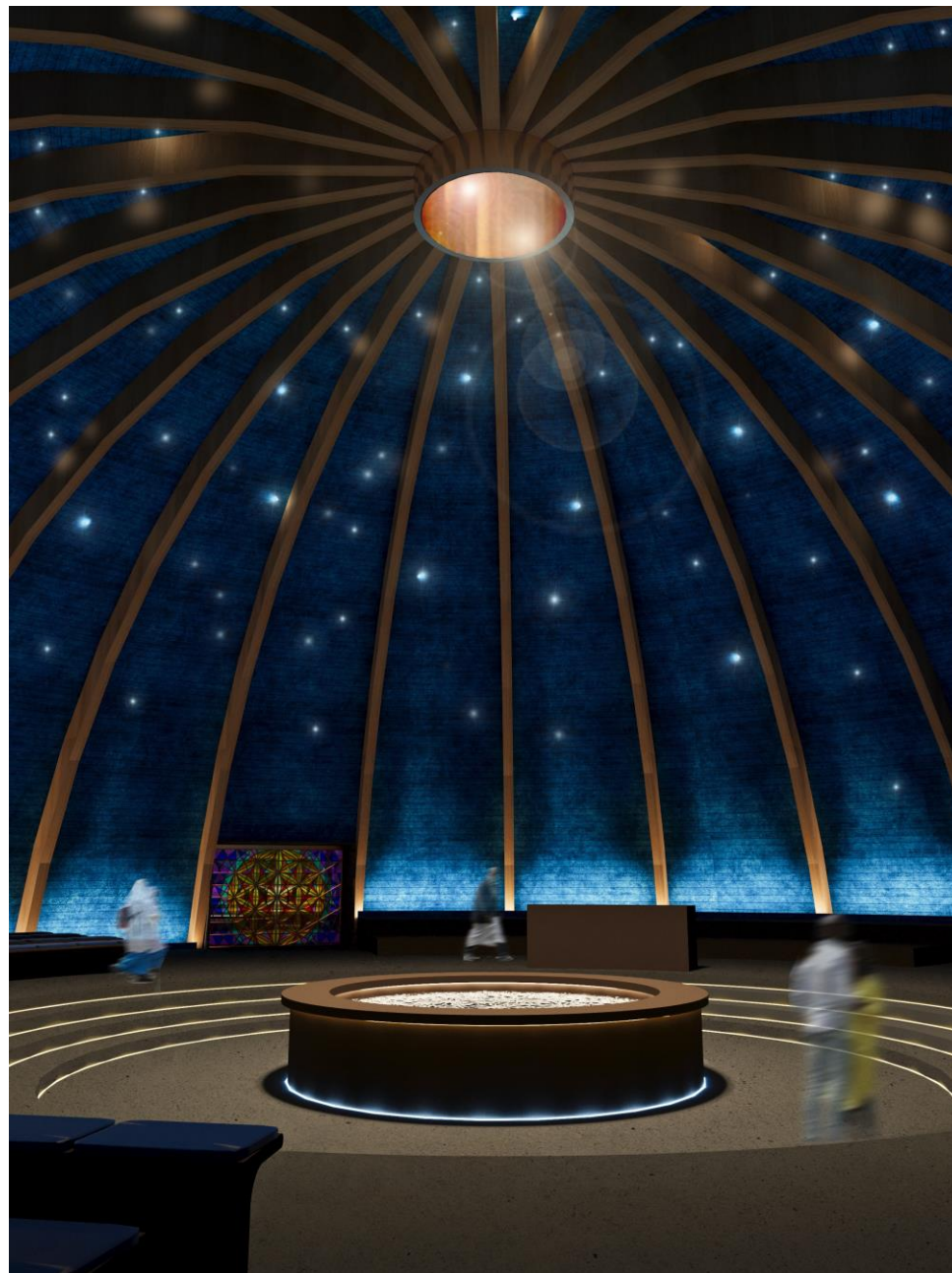


Fig.85. Internal view

◦ Conclusion

The concept of constructing a church for all religions, where individuals may share their worldviews and exchange experiences and viewpoints, can promote tolerance for one another and avert religiously motivated conflicts. The core idea behind this project is that the internal "dark" prayer hall encourages introspection and dialogue with one's inner self, while the exterior is a gallery accessible to all for dialogue and interpersonal communication, where people of all faiths can come together to freely exchange ideas without fear of reprisal.

To foster a greater understanding of other religions and cultures, the church needs to host educational activities, talks, seminars, and debates. The facility was intended to serve this function, and during such gatherings, participants can congregate in the main hall, which is shaped like a circle. Promoting communication among adherents of various intellectual and religious traditions is crucial. Better mutual regard and understanding may result from this. Resolving disagreements and disputes between religious and cultural groups can also be facilitated by the idea of unity and equality for all. Church neutrality, combined with a desire for harmony and peace, can aid in settling disputes and lowering tensions. It can represent harmony and peace, bringing together people of all cultures and beliefs to work towards shared objectives, including combating environmental issues, poverty, and violence. The Church may positively influence society by fostering interfaith and intercultural understanding.

Many features of this specific location and environment were taken into consideration throughout the design process since Ukraine, and Kyiv in particular, became the site for the building. However, this initiative may theoretically be carried out in other nations. These are some instances of places that were thought of from the very beginning of the quest for the "perfect place" but were turned down as a result of further conceptual research.

Geneva, Switzerland, is a neutral area that is frequently connected to peace and neutrality. Geneva's position as a neutral and tranquil city is further reinforced by the fact that it is home to several international agencies.

Jerusalem (Israel) is a location rich in religious temples and spiritual importance. The building of an interfaith church here may represent the goal of religious unification.

The Nordic nations—Norway, Sweden, and Denmark—are well-known for their dedication to environmental sustainability and tolerance, emphasizing balance with the natural world.

This diploma project demonstrates that a person's actions and attitude towards those around him count more than their faith. We have the ability to create as well as destroy. Everything is solely dependent on us and our choice.

◦ Acknowledgements

I would like to express my gratitude to my supervisor, Ingrid Erb Gavrilovici, for valuable advice in designing the thesis and recommendations on its design. Also, thanks to Peter Ferschin for consultations and advice regarding the project. And I am very grateful to my parents and my boss, who supported me for several months while I was working on my master's project.

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