

COD TO SUNYATA

Transform a Christian Chapel into a Buddhist-Aura Gathering Space

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God to Sunyata
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ABSTRACT

Nowadays, religion is out of public view. It is generally regarded as irrational doctrines or superficial stereotypes of spirituality. However, theology is right at the core of soulless modernity (Weber, 1930). So does it to modern architecture. This thesis is not only a callback of our nostalgia for spirituality but also a chance to clarify where we are and who we are.

In a broader perspective, the communication between the Western and the Eastern world is deficient. There are few studies on the comparison between Christianity and Buddhism. Meanwhile, the research between Christian churches and Buddhist temples falls short in Architecture as well. In some sense, the thesis targets to fill some gaps in the field of intercultural communication.

This thesis investigates spatial characteristics of religious architecture in the context of Christianity and Buddhism. This thesis starts with research into selected buildings serving as a framework for design. The analytical language derives from *The Formal Basis of Modern Architecture* (Eisenman, 2006) and *Space and its Formal Language* (Zhang, 2003). The analysis focuses on the layout of plan drawings and examines how the theological beliefs influence the form of space?

The thesis proposes a speculative design aiming to transform a Christian chapel into a Buddhist-aura space, a gathering place for both Buddhists and non-Buddhists. The site is a testbed for the conclusion drawn from the analysis. It also functions as a lens to further explore the relationship between two religions and the shift of the meaning of space during the transformation process.

Keywords:

Christianity / Buddhism / Comparasion / Space / Transformation

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01 INTRODUCTION

BACKGROUND

After the Renaissance, theology and politics divorced. Religion has been a subordinate topic to technology, politics and economy based on humanism. However, the prevailing belief in humanism is under threat due to the burgeoning dataism, which forces us to rethink where the meaning of life lies. In this circumstance, religion can be an alternative before we genuinely find substitution in the new era. Moreover, it would be rewarding to step back to the sacred space and explore a new possibility.

Christianity originates from the life and works of Jesus, which extended throughout his life, death and resurrection. Christianity has the Ten Commandments; in short, you shall love God above all else and your neighbour as yourself. In this sense, the Christian space is powerful. (Kilde, 2008).

Buddhism is not a religion resulting from a divine revelation, nor which proclaims the existence of a God. The teachings are not rigescent dogmas, and believers are even encouraged to question them for enhanced understanding. Sunyata, the core Buddhist philosophy, refers to the tenet that "all things are empty of intrinsic existence and nature" (Williams, 2008). This emptiness is a characteristic of all phenomena, not a transcendent reality, but also "empty" of its essence. In this sense, by contrast to Christianity, Buddhism, in other words, Buddhist space, is not powerful.

Christians and Buddhists hold distinct beliefs, which reflect on religious architecture. Two perceptual differences are the material and the scale: Buddhist temples are primarily built in wood, temporary material, while Christian churches in stone or bricks, last-lasting material. The scale of a temple is close to residential buildings, while a church's scale is tremendous compared to houses. Apart from the scale and material, what characteristics are hidden behind the surface?



Figure 01. Florence Cathedral (White, 2015)



Figure 02. Sanzen-in Temple (Sanzen-in Temple, n.d.)

RESEARCH QUESTION

This thesis starts with cross-cultural curiosity. Religious architecture is the entry point to investigate the similarity and differences between Eastern and Western culture. As Christianity and Buddhism are the dominant theologies in respective culture, the thesis is constructed around the spatial characteristics of Christian churches and Buddhist temples :

I.

What are the spatial characteristics of religious architecture in the context of Christianity and Buddhism?

II.

How does the theological belief influence the form of religious space?

III.

How can the proposal transform the Christian characters of space into Buddhist ones?

DELIMITATION

There is no doubt that religious architecture covers millions of exciting topics. The following delimitation helps the thesis to narrow down:

I.

The thesis only researches a few selected churches and temples, which means that the thesis will not be a comprehensive and thorough review of the history of Christian churches and Buddhist temples.

II.

The analytical phase focuses on the plan of religious architecture. Other aspects, like section, facade, ornament, might be mentioned but will not be the thesis's focus.

III.

The theological comparison is built upon the San-lun School of Buddhism and Protestantism of Christianity.

IV.

The design proposal is neither a universal nor the only solution for transformation. The thesis merely explores one possible way to transform the chosen Christian chapel into a Buddhist-aura gathering space.

LIBRARY OF CHRISTIAN CHURCHES

The library is the database for analysis, an overview of Christian vibe and references for design.

Årsta Kyrka

Figure 03 (Celsing, n.d.-a)

Sweden
John Celsing
2011

Moritzkirche

Figure 04 (McCarragher, n.d.)

Germany
John Pawson
2008-2013

Bruder Klaus Field Chapel

Figure 05 (Ludwig, n.d.)

Germany
Peter Zumthor
2007

Saint Benedict Chapel

Figure 06 (Camus, n.d.)

Swiss
Peter Zumthor
1988

Santa Maria Assunta

Figure 07 (Bascetta, n.d.)

Italy
Alvar Aalto
1978

Chapelle de Ronchamp

Figure 08 (Merin, n.d.)

Fance
Le Corbusier
1954



Hallgrímskirkja

Figure 09
(Hallgrímskirkja, n.d.)

Denmark
John Celsing
1945-1986

Grundtvigs Kirke

Figure 10 (Favre, n.d.)

Denmark
Peder V. J.
1921-1926

St. Peter Basilica

Figure 11 (Panini, 1756)

Vatican
1506-1626

Duomo di Milano

Figure 12
(Duomo Di Milano, n.d.)

Milan
1386-1965

Church of St. George

Figure 13
(Church of St. George, n.d.)

Ethiopia
12th C.

Santa Maria in Trastevere

Figure 14 (Jensens, 2008)

Italy
340s

LIBRARY OF BUDDHIST TEMPLES

The library is the database for analysis, an overview of Buddhist vibe and references for design.

Zuishoji Temple

Figure 15 (Hamada, n.d.)

Japan
Kengo Kuma
2018

Caishen Temple

Figure 16 (Zhang, n.d.)

China
Yingbin Fu
2018

Hill of Buddha

Figure 17
(Hill of Buddha, n.d.)

Japan
Tadao Ando
2015

Kionji Temple

Figure 18 (Ogawa, n.d.)

Japan
K. Associates
2012

Hojo-an

Figure 19 (Hojo-An, n.d.)

Japan
Kengo Kuma
2012

Yeluyuan

Figure 20
(JIAKUN ARCHITECTS, n.d.)

China
Jiakun Liu
2002



Water Temple

Figure 21
(Water Temple, n.d.)

Japan
Tadao Ando
1990

Murin-an

Japan
1894

Xiyuan Temple

China
1264-1294

Sanjusangendo

Figure 22
(Sanjusangendo, n.d.)

Japan
1164

Sanzen-in Temple

Japan
985

Foguang Temple

Figure 23
(Foguang Temple, n.d.)

China
857

02 AMLY 313

THEOLOGICAL COMPARISON

No matter Christianity or Buddhism, religion is trying to address how a human being understands the external world and, in turn, accepts himself.

In the context of Christianity, the central motif is the moment when a human confronts God. Interestingly, why there is God? Humans have the instinct for being valued and tend to create meaning for their lives. This fundamental desire can be fulfilled when a person realizes that someone beyond himself accepts him. God plays that role. Subsequently, a set of doctrines and moral value reflected in God's revelation becomes the rule and guidance for Christians. The more strictly a man follows God's guide, the more he will be accepted by God.

For Buddhists, the central motif is how to deal with the inevitable miseries in daily life. Instead of hiring a superpower, Buddhists think ignorance, a false view of the world, causes suffering. They create an approach named the Middle Way to get rid of ignorance and achieve enlightenment. The Middle Way is a perspective against the dichotomous and conceptualized view of the world.

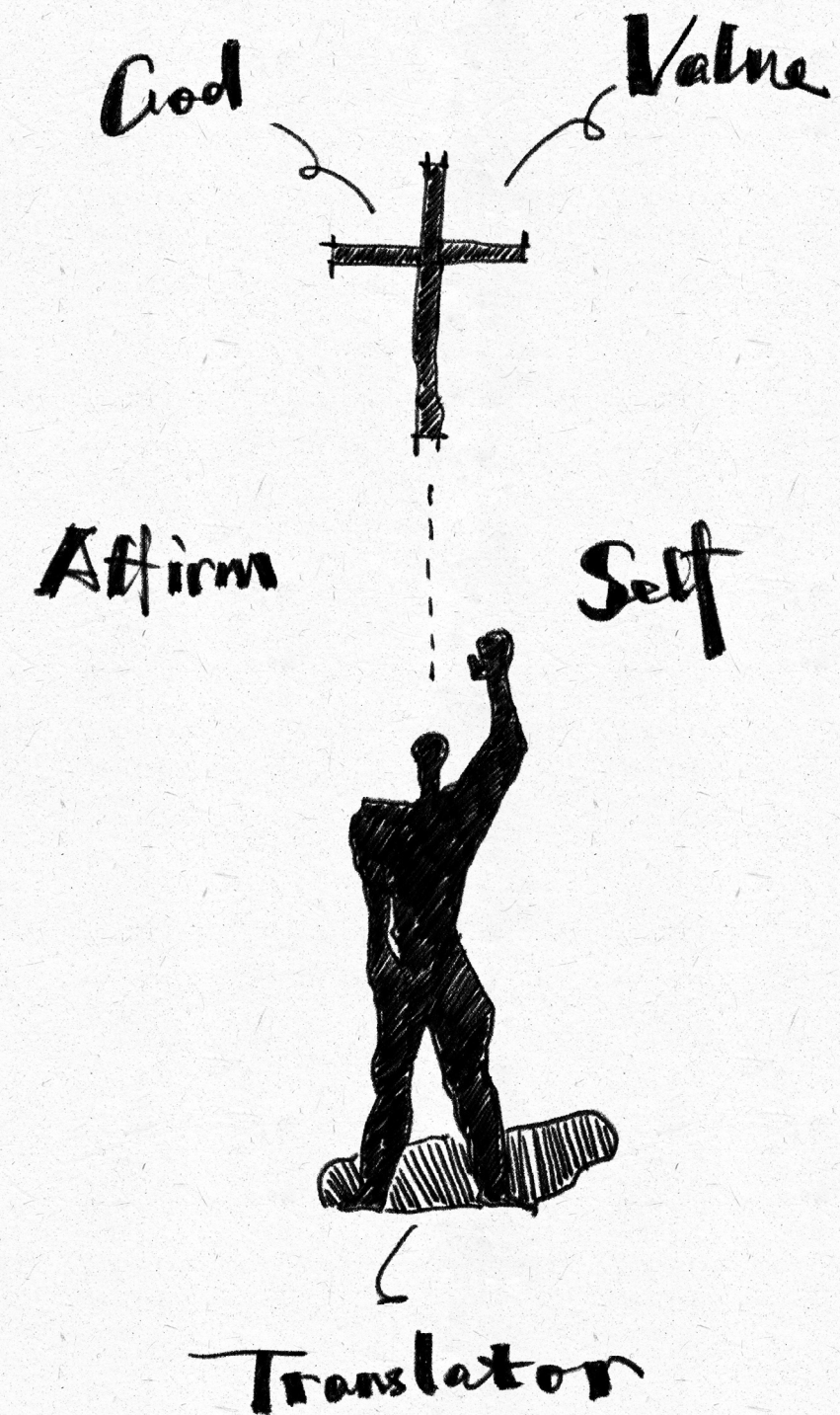
Value vs Validity

Yee-Heum Yoon (1979) stated in his Doctor's thesis that Christianity is value-oriented and Buddhism is validity-oriented. God stands for the ideal world and tells us right from wrong, grace from sin. All in all, God is the absolute value, and Christians ought to fulfil self-responsibility with appropriate action according to God's revelation. On the other hand, Buddhists pursue the truth. They fight against the temporal false view to achieve the Middle Way, the truth.

Affirmation vs Negation

Christian philosophy tends to affirm. God is the transcendental superpower, and God's revelation is the absolute value. Once there is such a set of requirements or ethics, Christians tend to follow. If a Christian fulfils what God wants, he or she will be valued by God. Interestingly, when we are talking about Christianity, look at the verbs: "follow", "fulfil", "accept", "value", "love", and so on. All the words have an affirmative attitude.

By contrast, Buddhism tends to negate. In the Buddhist perspective, a wrong view of the



Theological Comparison, Christianity

world results in the misery of life. The central motif is to get rid of the wrong one and get the right idea of the truth. Even though Buddhists frame the correct view, the Middle way, they do not approach it by defining the proper perspective. The method they hire called a four-step argument, iteratively negating the wrong view:

Is he or she a good man?

(a question framed by the dichotomous perspective)

- 1) This (Affirmation)
- 2) Non-This (Opposite of Affirmation)
- 3) Both this and non-this (Affirmation of Both 1 and 2)
- 4) neither this nor no-this (Negation)

Literally, negation is the opposite of affirmation. However, it refers to the antithesis of both the affirmation and the opposite of affirmation in the Buddhist context.

Self vs Non-self

A Christian is a translator. (Yoon, 1979) Men are responsible for the action based on their interpretation of God's will. So the reaffirmation of self as the accountable entity is vital. Christianity affirms the positive effect of desire as motivation for behaving better. Furthermore, it affirms "I" as a being.

By contrast, a Buddhist is an observer. The truth is the main goal for Buddhists. The desire and sense of a man are treated as the barriers to the goal. Consequently, Buddhism negates the basic senses and desires of human. They further negate the man's being in a temporal sense.

In summary, a Christian affirms self to behave better, while a Buddhist negates self to gain the truth.



SELECTED RELIGIOUS BUILDINGS

CHRISTIAN CHURCHES

Årsta Kyrka
Figure 03
(Celsing, n.d.-a)

Sweden
John Celsing
2011



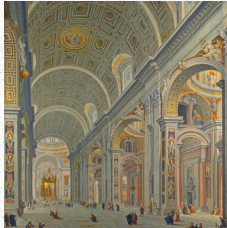
Chapelle de Ronchamp
Figure 08
(Merin, n.d.)

Fance
Le Corbusier
1954



St. Peter Basilica
Figure 11
(Panini, 1756)

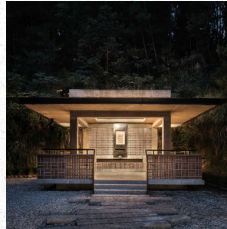
Vatican
1506-1626



BUDDHIST TEMPLES

Caishen Temple
Figure 16
(Zhang, n.d.)

China
Yingbin Fu
2018



Water Temple
Figure 21
(Water Temple, n.d.)

Japan
Tadao Ando
1990



Foguang Temple
Figure 23
(Foguang Temple, n.d.)

China
857



The thesis picks six religious buildings to analyze: Three Christian Churches and three Buddhist Temples. The selection criteria are that the chosen buildings should range from ancient time to recent time, contain different architectural style, and cover different scales of volumes. The purpose is to see the essence of the spatial setting through fleeting thought and similar design method. In this way, make sure the conclusion valid and convincing to the greatest extent.

ANALYTICAL METHODOLOGY

The thesis constructs the analysis in the following way in search of the spatial characteristics of different religious buildings.

SPATIAL STRUCTRE:

1st Spatial Layer



2nd Spatial Layer



3rd Spatial Layer



The method is from Yufeng Zhang in his article "Science of Architecture: Space and Its Formal Language" (2003). It is a static way of analysis. It does not test the design process but tries to answer how we perceive the end result of design.

DESIGN PROCESS:

Genetic Form



Movement



Specific Form



The method is introduced in Peter Eisenman's "The Formal Basis of Modern Architecture" (2006). It is a dynamic way of analysis that starts with the genetic form, tests how different factors influence the form and ends up with the specific form.

OTHER ASPECTS:

View



Boundary



Form / Movement / View



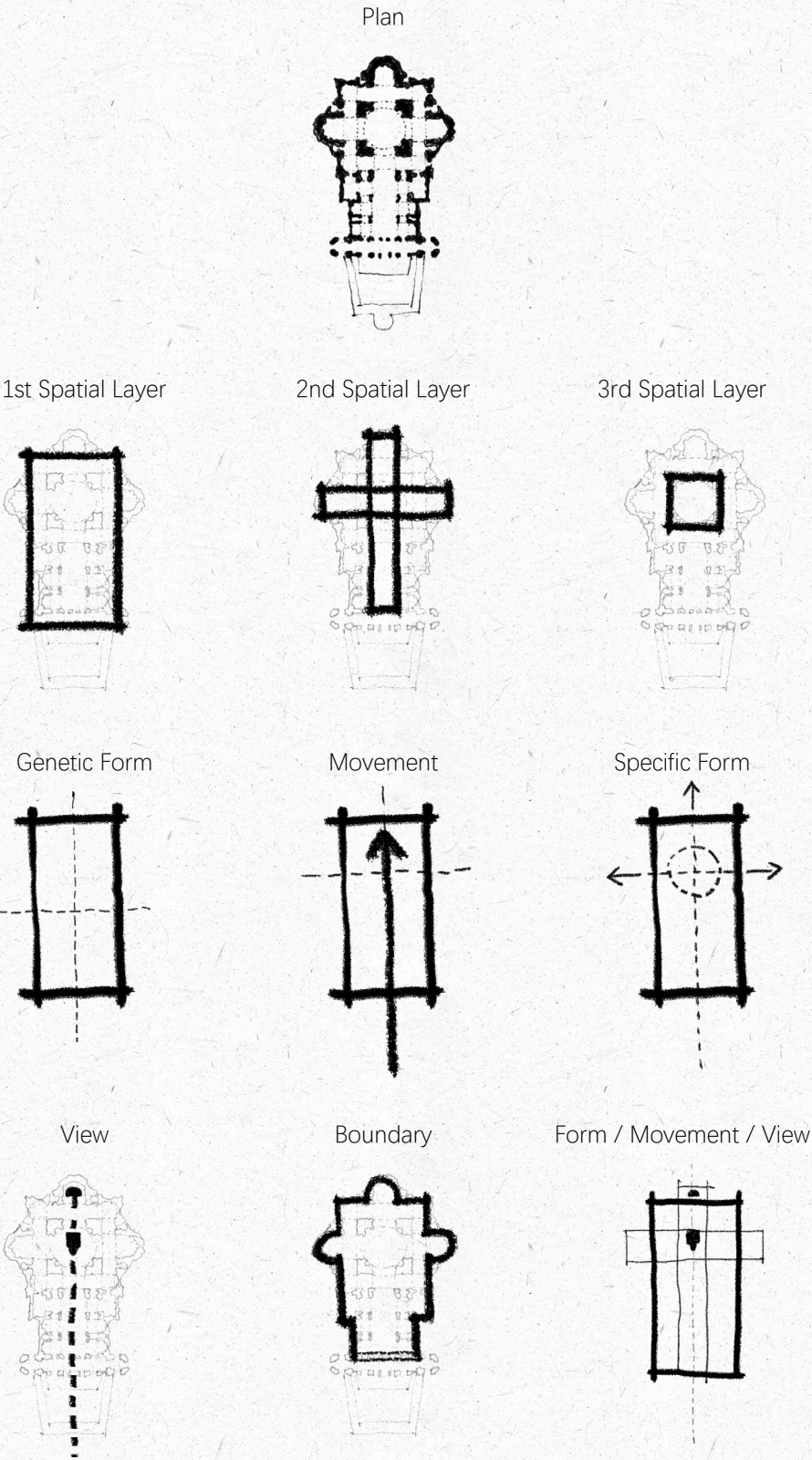
In addition, the interactive relationship among view, movement and form and the property of the boundary influence how we experience in the space.

ST. PETER'S BASILICA

Architects: Donato Bramante / Michelangelo / etc.
 Built Year: 1506-1626
 Area: 21,000 sqm
 Location: Vatican City



Figure 11. Interior of St. Peter's Basilica. (Panini, 1756).



CHAPELLE DE RONCHAMP

Architects: Le Corbusier
Built Year: 1955
Area: 1350 sqm
Location: France

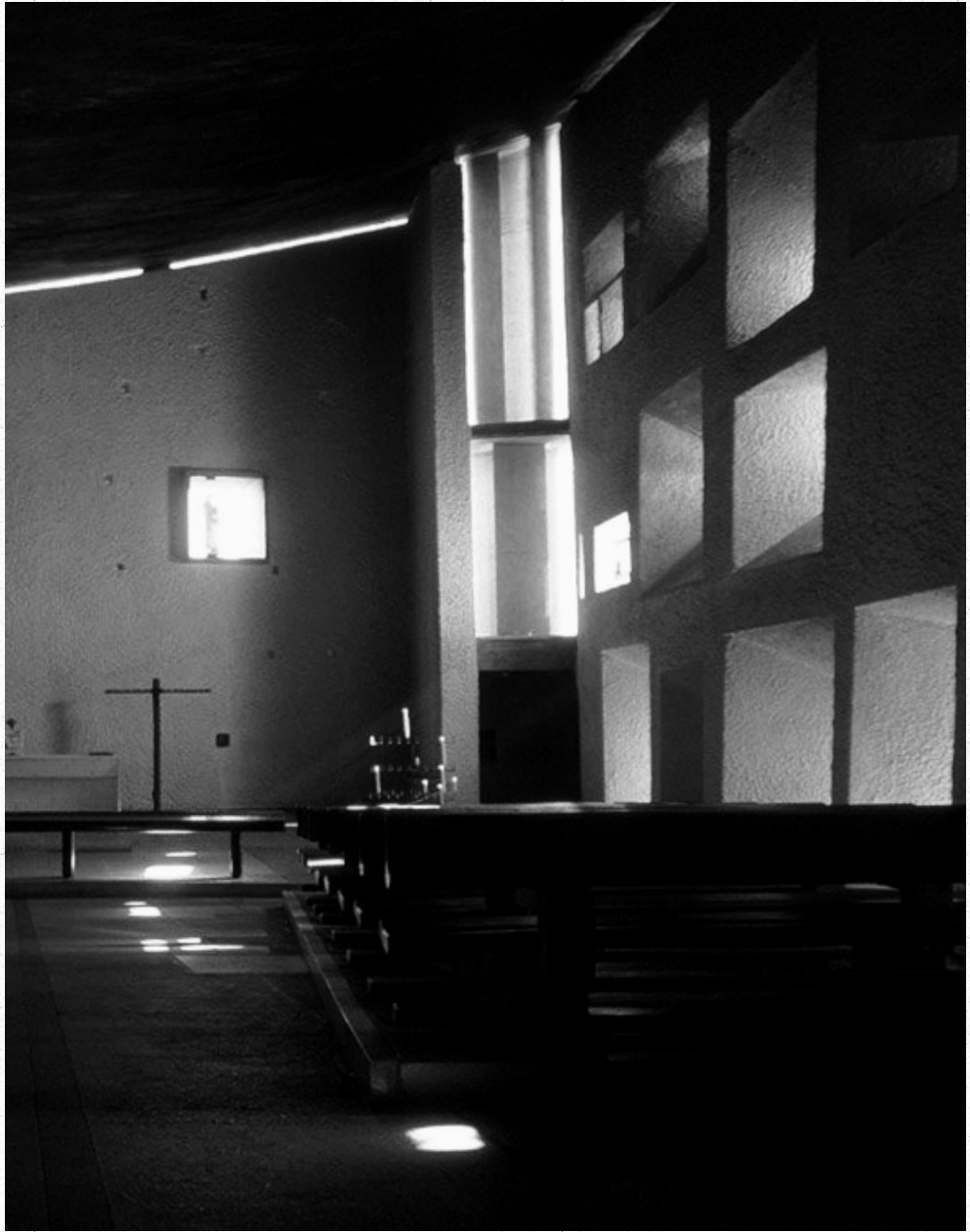
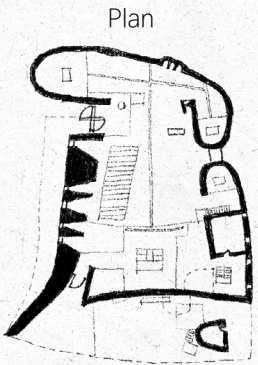
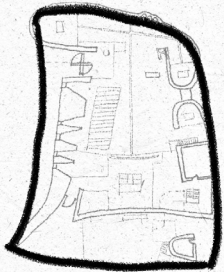


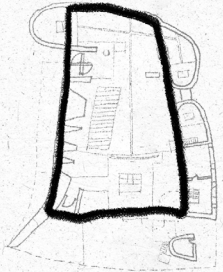
Figure 24. Interior of Chapelle de Ronchamp. (Rokutanda, n.d.).



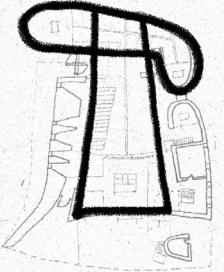
1st Spatial Layer



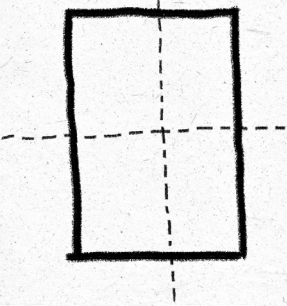
2nd Spatial Layer



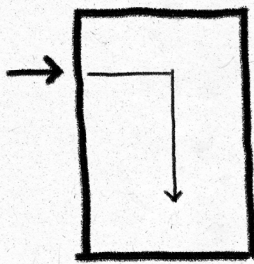
3rd Spatial Layer



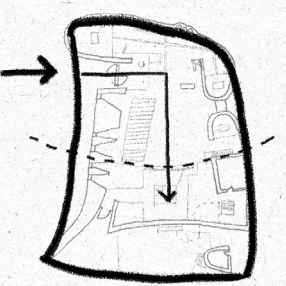
Genetic Form



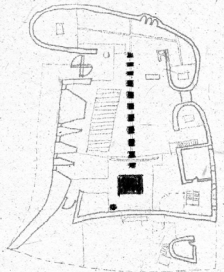
Movement



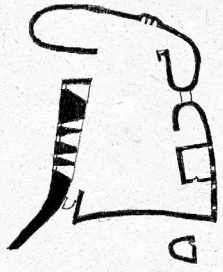
Specific Form



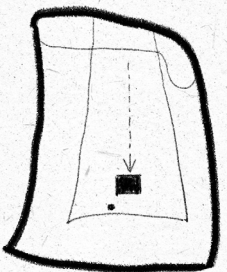
View



Boundary



Form / Movement / View

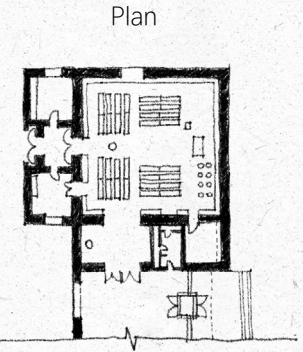


ÅRSTA KYRKA

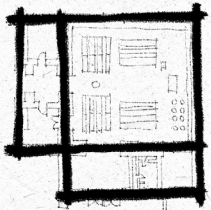
Architect: Johan Celsing
Built Year: 2011
Area: 396 sqm
Location: Stockholm, Sweden



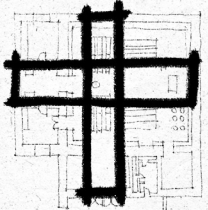
Figure 25. Interior of Årsta Kyrka. (Celsing, n.d.-b).



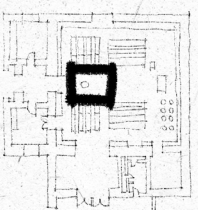
1st Spatial Layer



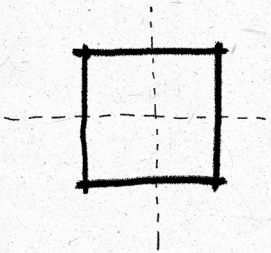
2nd Spatial Layer



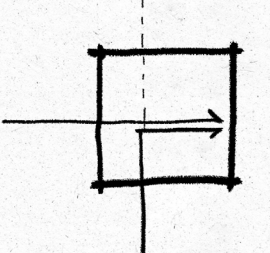
3rd Spatial Layer



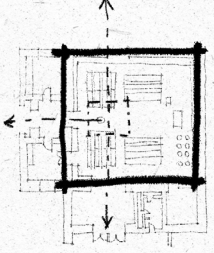
Genetic Form



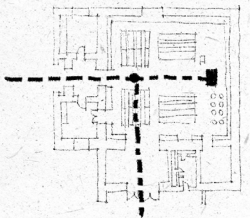
Movement



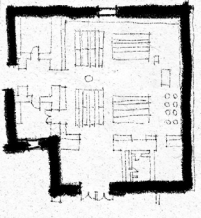
Specific Form



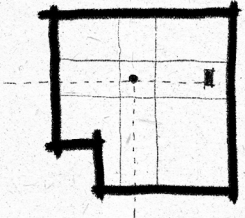
View



Boundary



Form / Movement / View



FOGUANG TEMPLE

Architect: Unknown
 Built Year: 857
 Area: 663 sqm
 Location: Shanxi, China

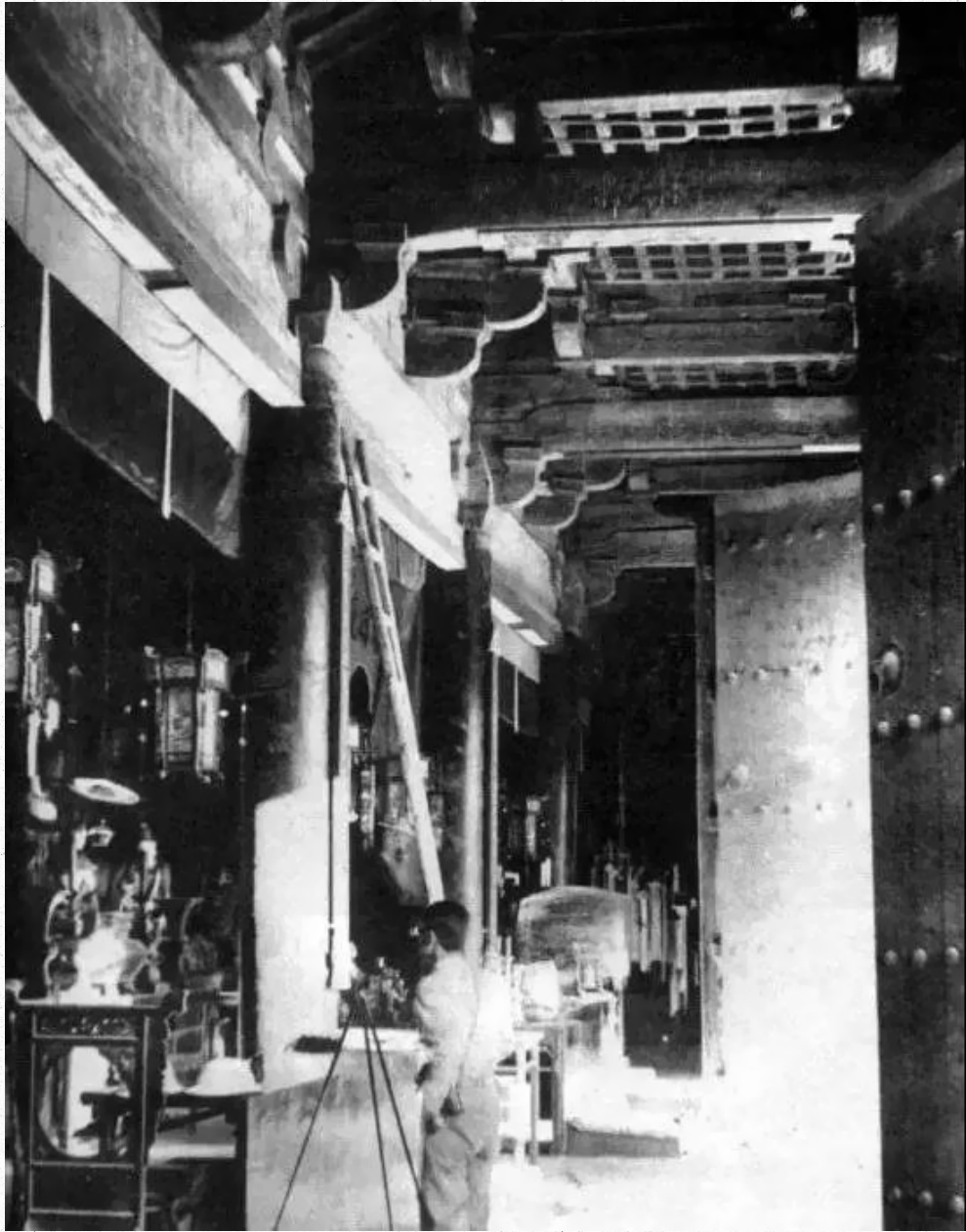
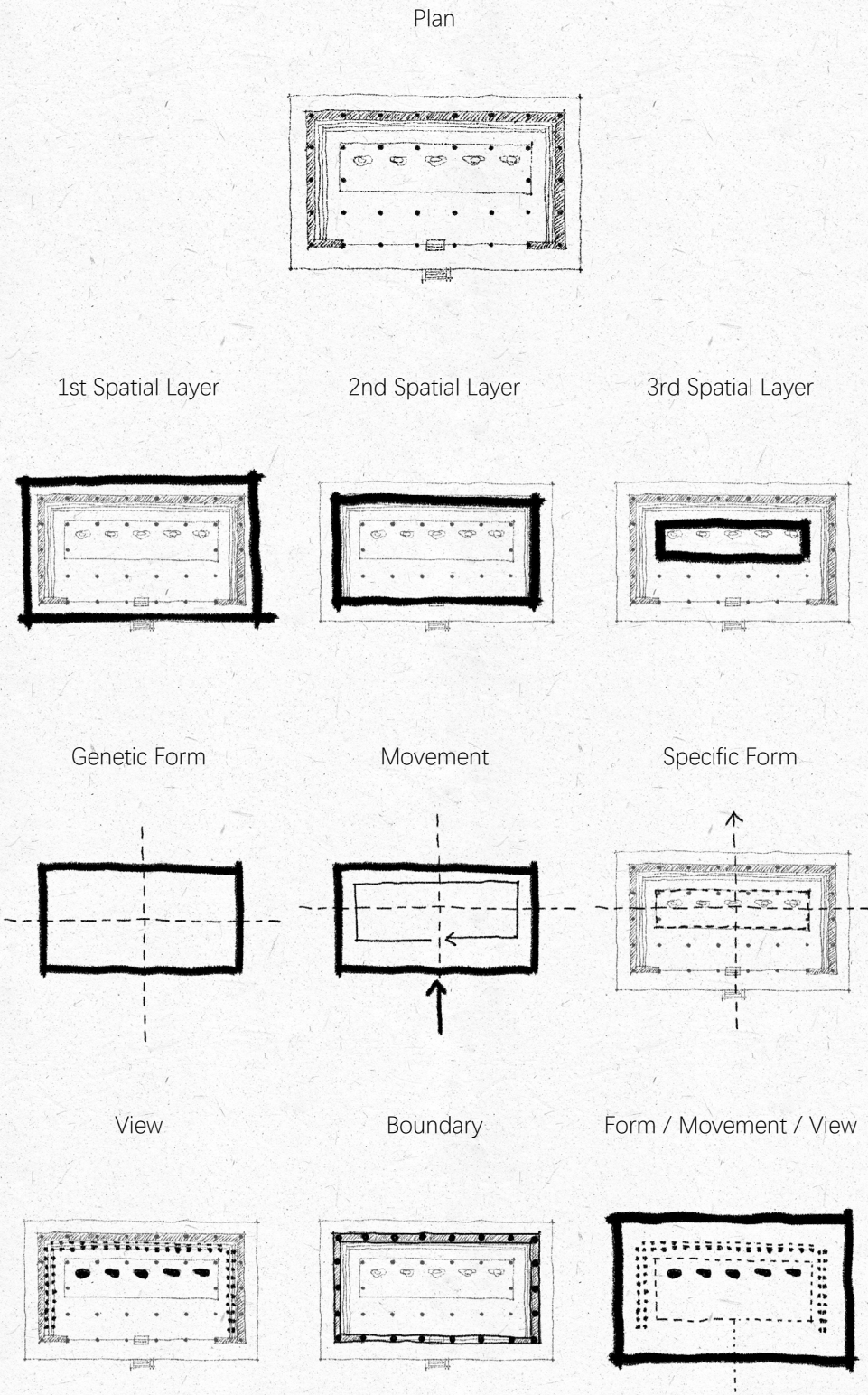


Figure 26. Interior of Foguang Temple. (Interior of Foguang Temple, n.d.).



WATER TEMPLE

Architect: Tadao Ando
 Built Year: 1991
 Area: 438 sqm
 Location: Hyogo, Japan

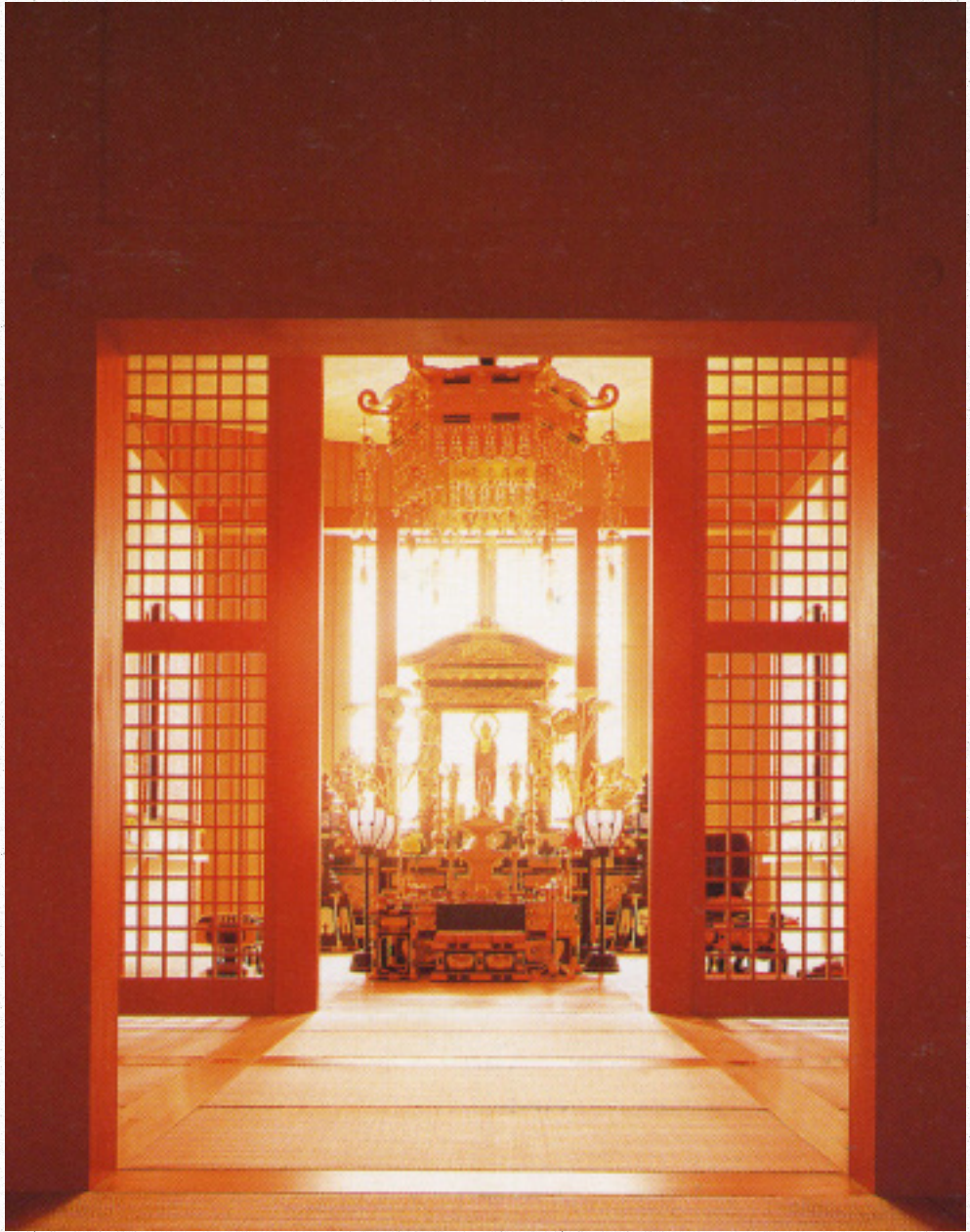
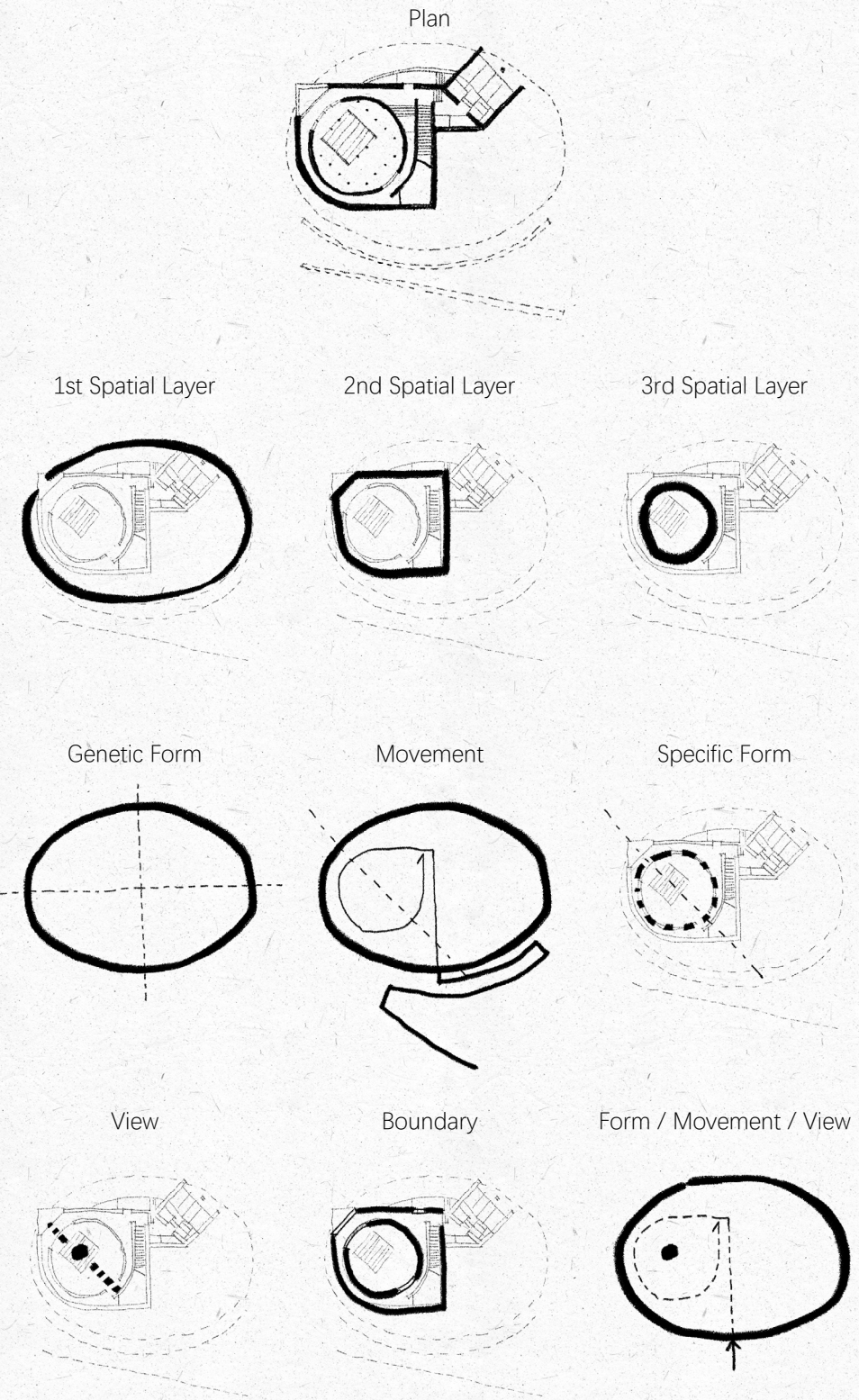


Figure 27. Interior of Water Temple. (Interior of Water Temple, n.d.).

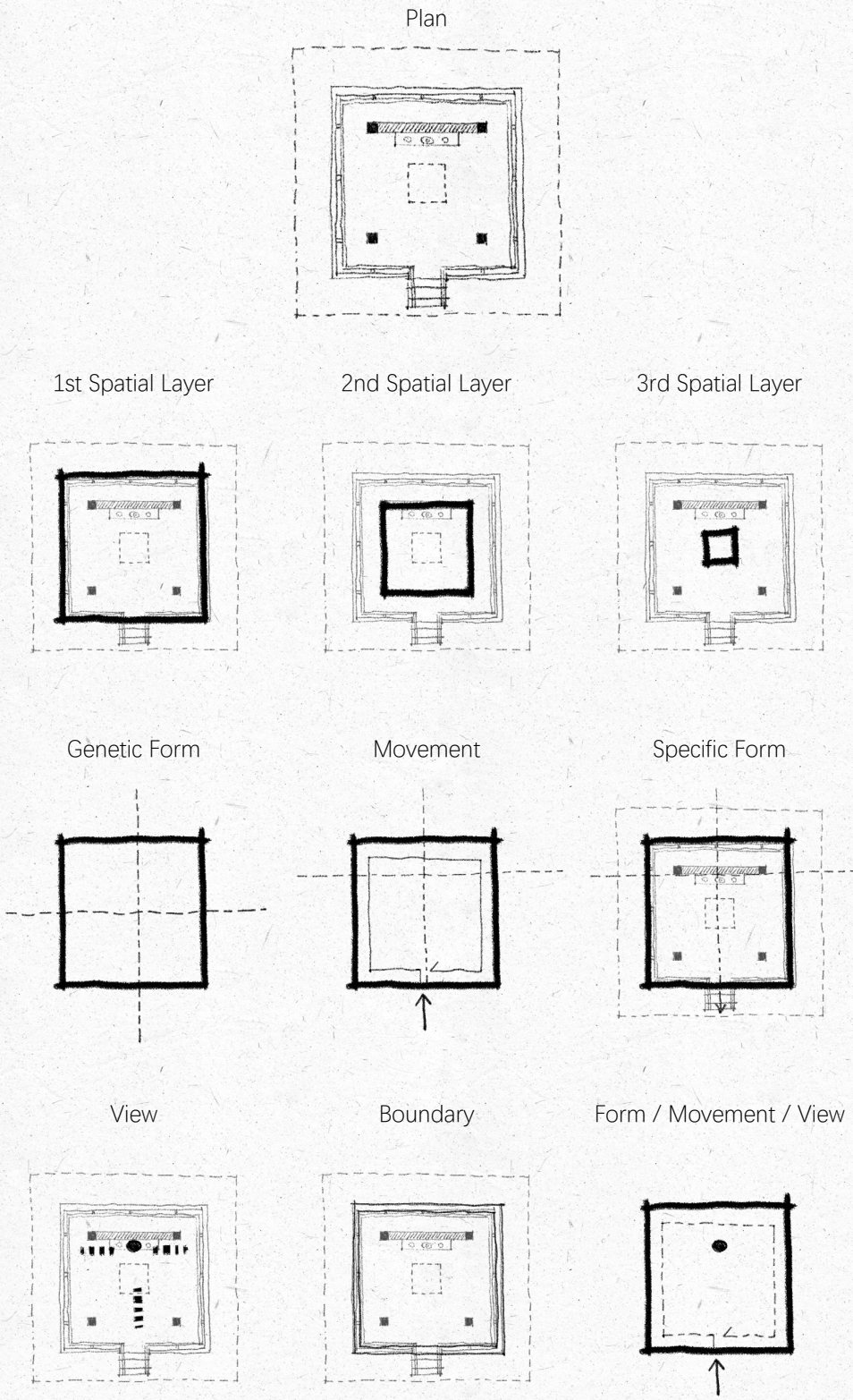


CAISHEN TEMPLE

Architect: Yingbin Fu
Built Year: 2018
Area: 20 sqm
Location: Anhui, China



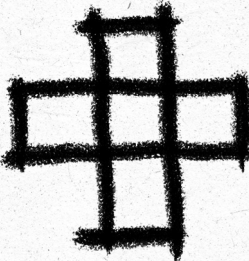
Figure 16. Caishen Temple. (Zhang, n.d.)



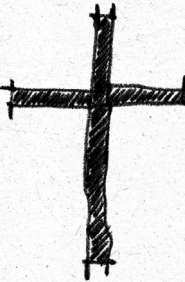
CONCLUSION

CHRISTIAN CHURCH

Intersectional Spatial Structure



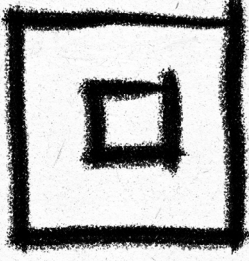
Value-Oriented



GOD
Absolute Value

BUDDHIST TEMPLE

Multi-Nested Spatial Structure



Validity-Oriented

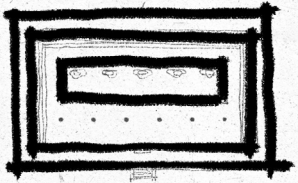


SUNYATA
Dynamic Truth

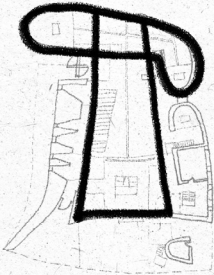
Regarding the spatial structure, Christian Churches have an intersectional structure, which resembles the Jesus Cross. In comparison, Buddhist temples have a multi-nested spatial structure, which means that one layer contains the other. Furthermore, we can find similarity between the illustrations of multi-nested structure and Sunyata.



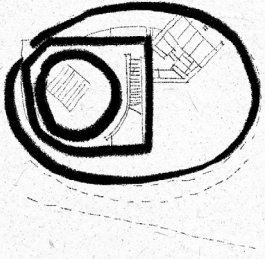
2nd Spatial Layer of
St. Peter's Basilica



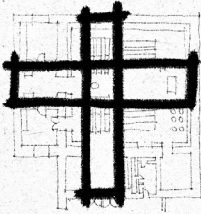
Spatial Structure of
Foguang Temple



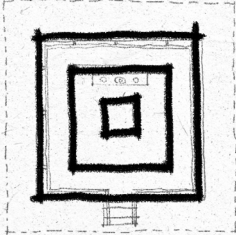
3rd Spatial Layer of
Chapelle de Ronchamp



Spatial Structure of
Water Temple



2nd Spatial Layer of
Årsta Kyrka



Spatial Structure of
Caishen Temple

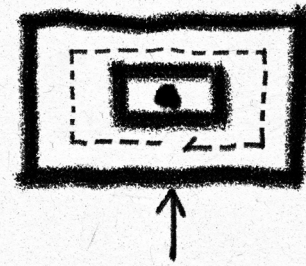
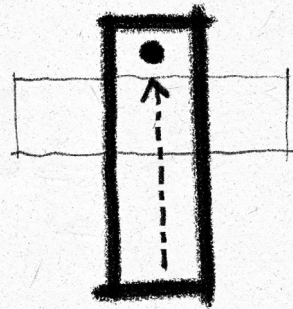
CHRISTIAN CHURCH

BUDDHIST TEMPLE

Affirmation

VS

Negation



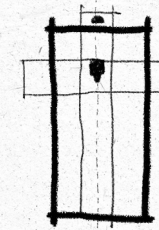
Even though having an intersectional spatial structure, a church has a main spatial direction. The direction of the space is in line with the direction of the movement and view. In other words, the direction of the form, movement and view affirm each other.

For a Buddhist temple, space is usually horizontally placed. And the entrance is placed in the middle of the long end. So the direction of outdoor movement negates the direction of the space. When you move around a temple, you need always turn your head aside to see the buddha beside you. So the direction of the sight negates the direction of the indoor movement. In conclusion, in a Buddhist temple, the direction of the form, movement and view negate each other.

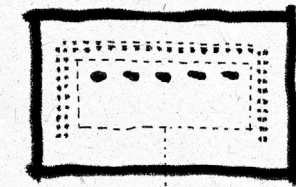
The four-step argument can be applied to a temple, and a temple answers the question in the 4th answer, fighting against the dichotomous perspective:

Does the temple emphasize the depth of the space?

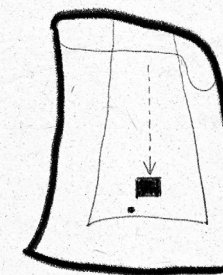
- 1) Yes, it emphasizes the depth.
- 2) No, it emphasizes the width.
- 3) Both depth and width.
- 4) Neither depth nor width.



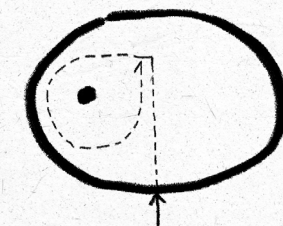
St. Peter's Basilica



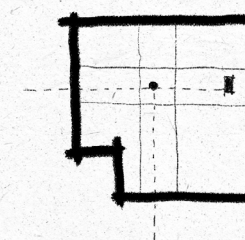
Foguang Temple



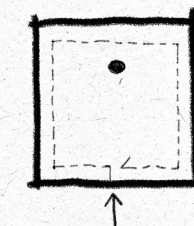
Chapelle de Ronchamp



Water Temple



Årsta Kyrka



Caishen Temple

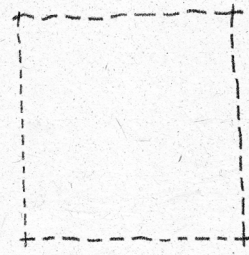
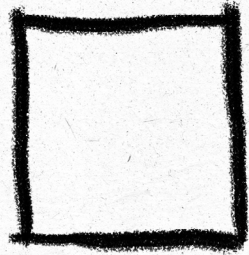
CHRISTIAN CHURCH

BUDDHIST TEMPLE

Sharp Boundary

VS

Vague Boundary



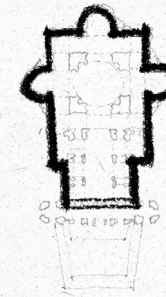
Self

Non-self



A church has sharp boundaries. It means that a church is well enclosed by thick walls. In the Christian perspective, the self is essential. Afterwards, the definition of "I" is crucial. The solid and clear walls for a church have the same function as the boundary of self.

A temple has vague boundaries. It is related to a translucent or unclear definition of the border of space. Subsequently, the penetration or connection between space is one of the crucial characters of the Buddhist building. As mentioned in the theological comparison, Buddhists are observers. Self is insignificance compared to the truth. As a result, there is no clear definition of "I", reflecting in architecture as the vague boundary.



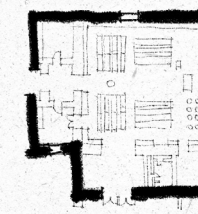
01

St. Peter's Basilica



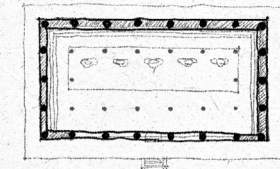
02

Chapelle de Ronchamp



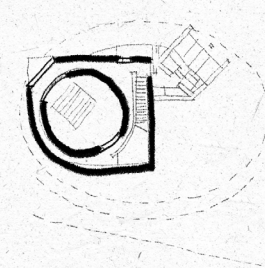
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Årsta Kyrka



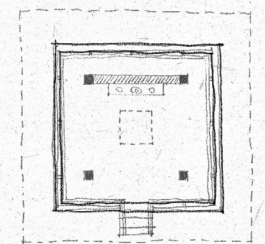
04

Foguang Temple



05

Water Temple



06

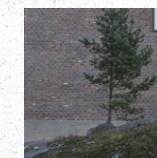
Caishen Temple



01



02



03



04



05



06

CHRISTIAN INFLUENCE
ON MODERN ARCHITECTURE

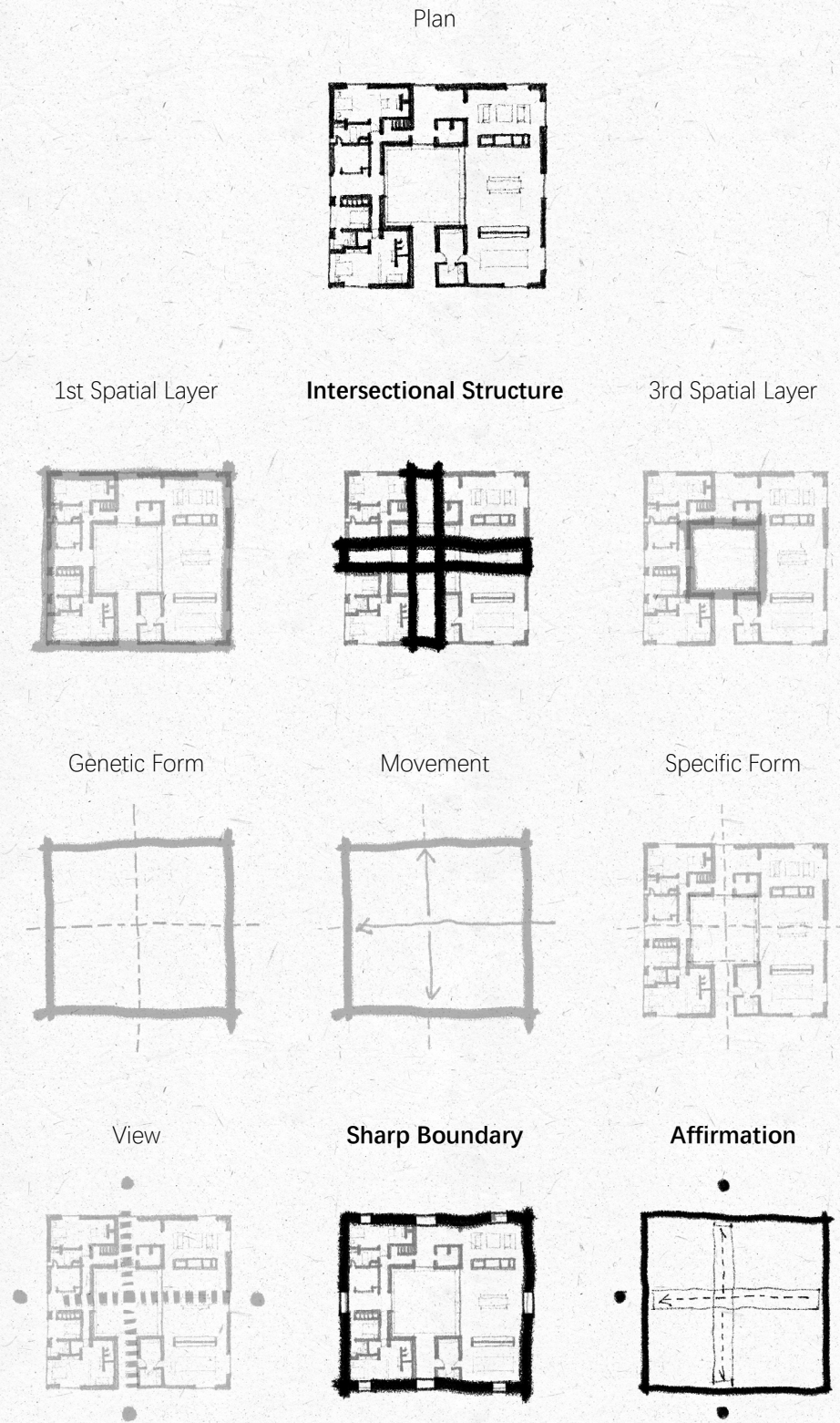
Theology profoundly shaped society in every field in the past few centuries. Undoubtedly, the spatial setting of religious architecture had a significant impact on non-religious architecture. Then those traces remain in modern architecture, no matter it is religious or not. The following diagrams showcase the spatial characters of two selected modern architecture corresponding to the conclusion of the analysis.

BARON HOUSE

Architect: John Pawson
Built Year: 2005
Location: Skåne, Sweden
Type: Housing



Figure 28. Baron House. (Lindman, n.d.)



BUDDHIST INFLUENCE
ON MODERN ARCHITECTURE

NEST WE GROW

Architect: Kengo Kuma & Associates

Built Year: 2014

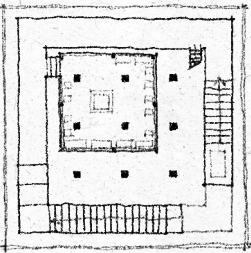
Location: Takinoue, Japan

Type: Community Centre

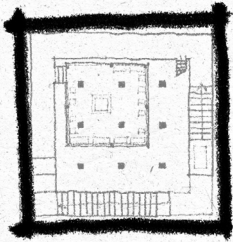


Figure 29. Nest We Grow. (Sha, 2015).

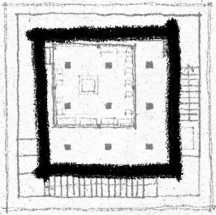
Plan



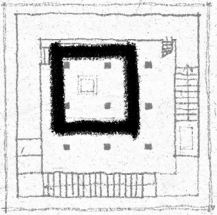
Multi-Nested Structure



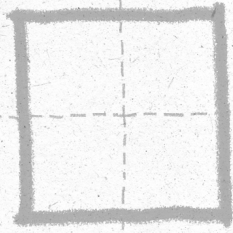
Genetic Form



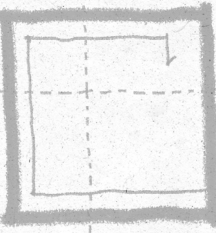
Movement



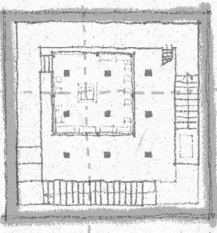
Specific Form



View



Vague Boundary



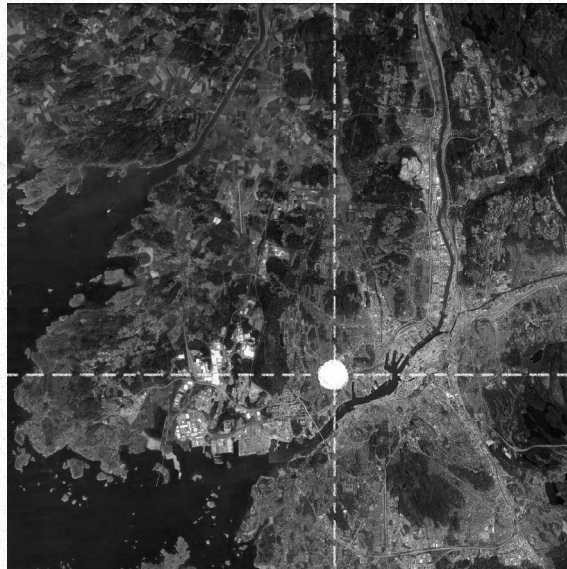
Negation

03 PROPOSAL

SITE

This thesis chooses Lundby Gamla Kyrka as the site for the transformation proposal.

Nowadays, there is a prevailing theme in the forgotten churches all over the world. How to repurpose and revitalize the old empty church is under fierce discussion. Lundby Gamla Kyrka is one of the forgotten churches. It dates back to the 14th century, and it is one of the few existing medieval churches in Göteborg. After Lundby New Church was erected in 1886 nearby, the old chapel becomes an abandoned place. After several times renovation, now it is a place for the wedding ceremony, and still scarcely used. It is a chance to think about the transformation of the chapel.

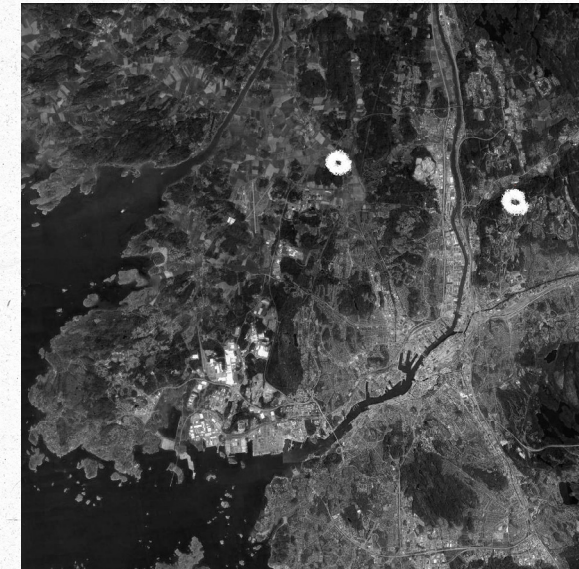


Lundby Gamla Kyrka in Göteborg

SITUATION FOR BUDDHISTS IN GÖTEBORG

Many migrant workers from eastern countries come to Göteborg and choose to purchase properties or rent apartments near the Volvo factory and Lindholmen. Many of them hold Buddhist belief. Nevertheless, there are only two temples in Göteborg, far away from where they live. Those Buddhists have no place to accommodate their religious faith. Some Buddhists put a portrait of buddha in their storage room to conduct the daily spiritual routine.

Time to respond to the embarrassing situation for Buddhists in Göteborg.



Temples in Göteborg

PROGRAMME

Considering the inactive usage of Lundby Gamla Kyrka and the poor situation for the Buddhist immigrant workers who live around, this thesis proposed a transformation project aiming to adapt the chapel for a Buddhist-aura gathering space.

The proposal can speak to a broader audience, not only for Buddhists to accommodate their religious belief in the main ritual hall, as well for non-Buddhists to experience the Eastern culture and aesthetics in the zen garden, meditation room and tea house. It will contribute as a bridge between two culture.

In this sense, the proposal responds to the current situation in three aspects, the forgotten Christian churches, segregation of society and inadequate intercultural understanding.



GOAL & DELIMITATION

The primary goal for this proposal grounds on the third thesis question: How can the proposal transform the Christian characters of space into Buddhist ones?

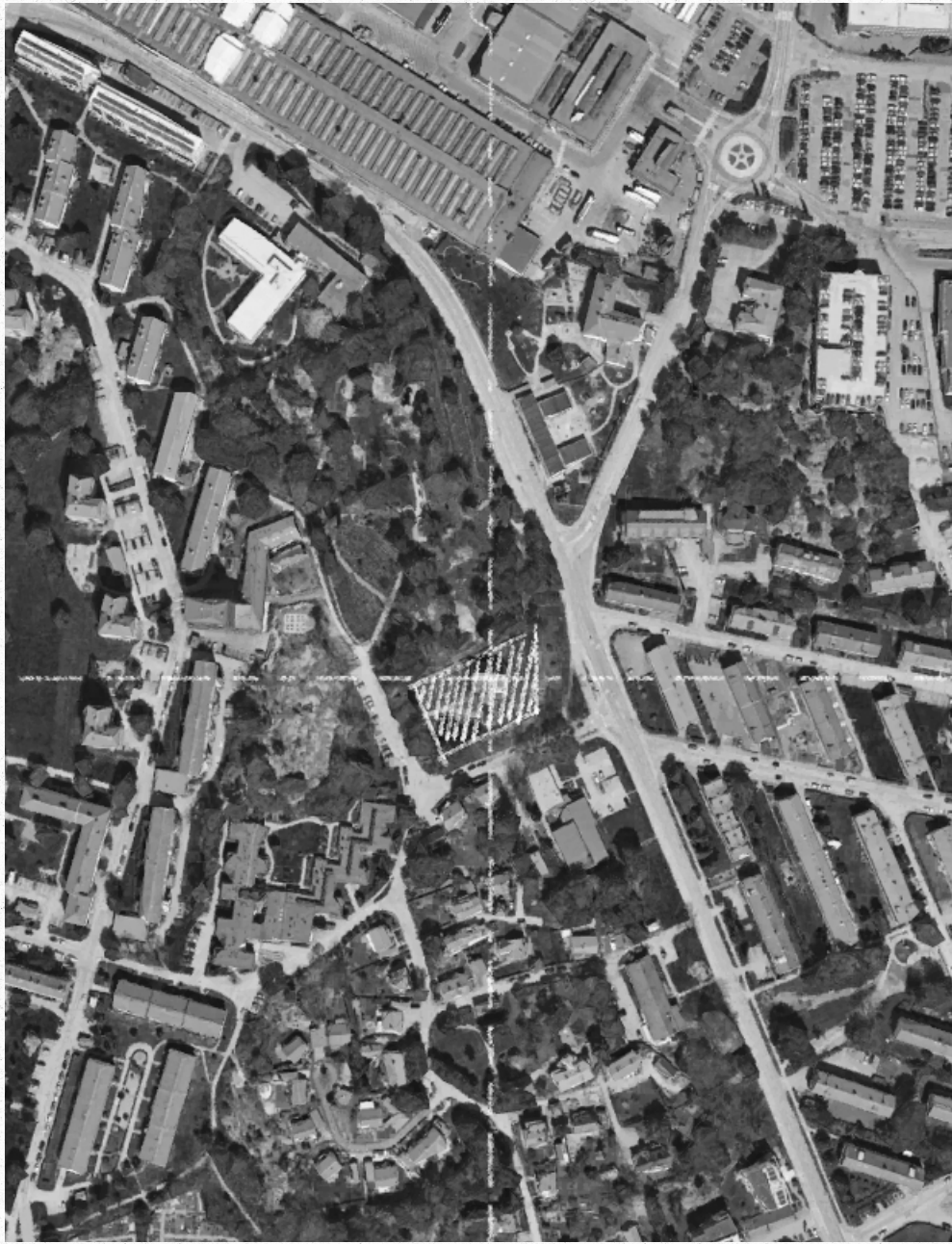
For a transformation project, the thesis will consider the current situation, try best to respect and preserve the existing structures, and use them. But how much the existing structures value, whether one specific part should be conserved or not, is not this thesis's focus. The technical problems, like the solution for the meeting between old and new, will be discussed, but not in detail.



Figure 30. Lundby Gamla Kyrka. (Grolander, 2014)

SITE ENVIRONMENT

The site is surrounded by residential buildings in the centre of the community. Volvo Truck locates on the northern side of the site.



Surrounding Situation of Lundby Gamla Kyrka



Illustration, Lundby Gamla Kyrka

EXTERIOR OF LUNDBY GAMLA KYRKA



Figure 31. Lundby Gamla Kyrka. (Westergren, n.d.).

INTERIOR OF LUNDBY GAMLA KYRKA

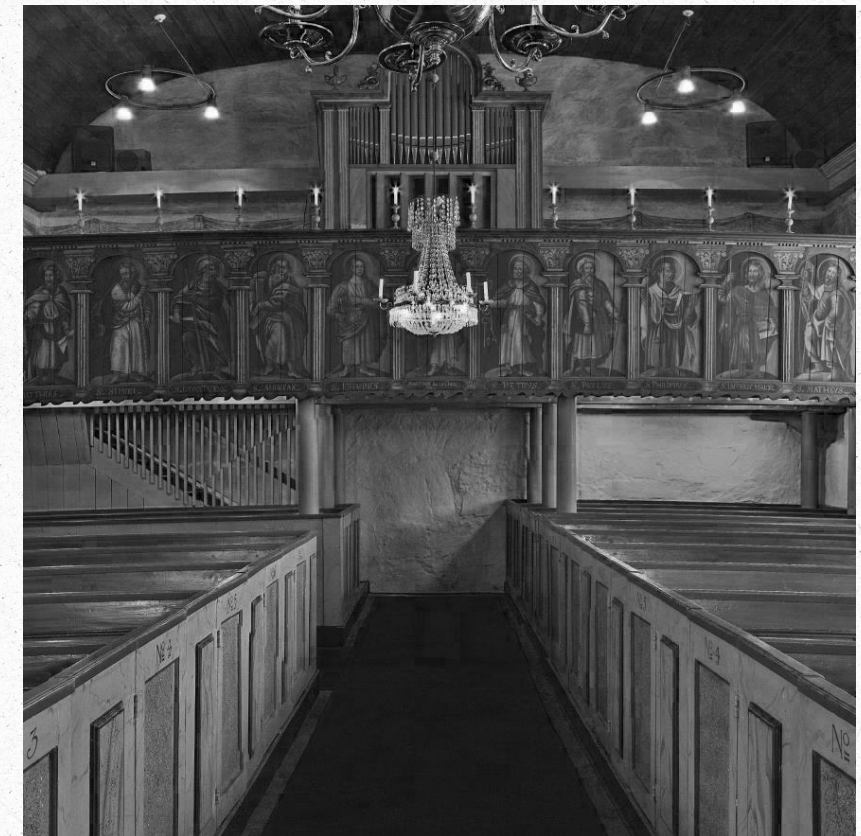
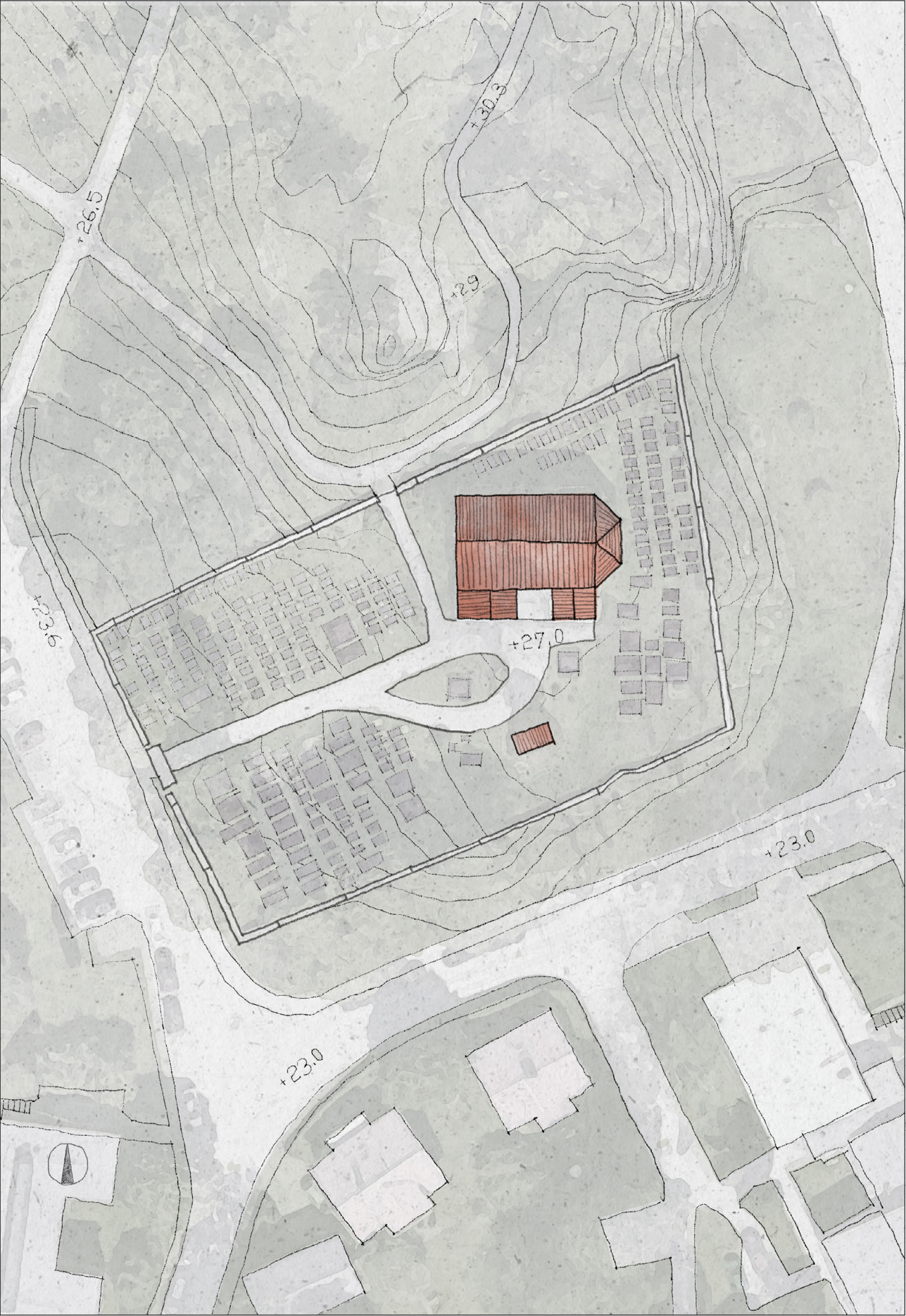
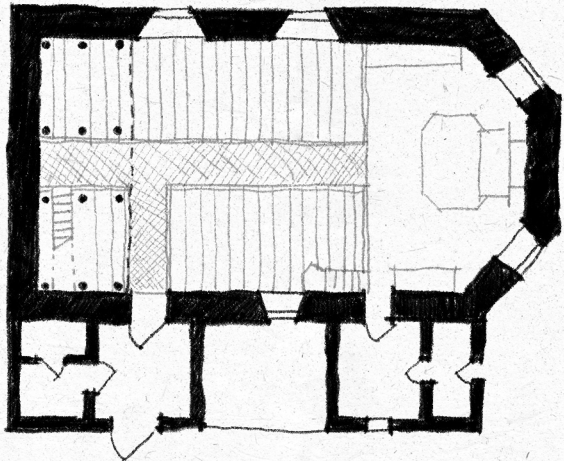


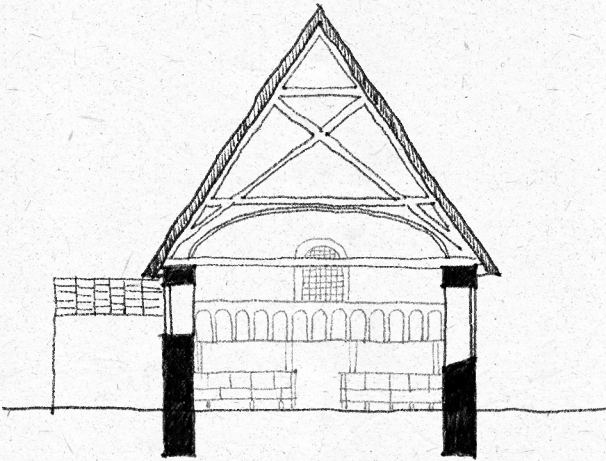
Figure 32. Interior of Lundby Gamla Kyrka. (Interior of Lundby Gamla Kyrka, n.d.)



EXISTING BUILDING



Floor Plan, Lundby Gamla Kyrka, 1:250



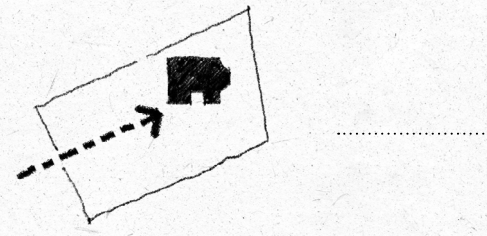
Section, Lundby Gamla Kyrka, 1:250

The wall of the chapel is one meter thick covered with smooth plaster, and it is load-bearing. The roof structure consists of wooden trusses.

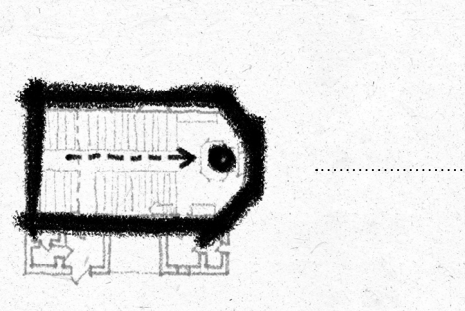
SPATIAL ANALYSIS OF LUNDBY GAMLA KYRKA

Analyse Lundby Gamla Kyrka and connect the spatial characteristics to the conclusion of the research phase.

AFFIRMATION

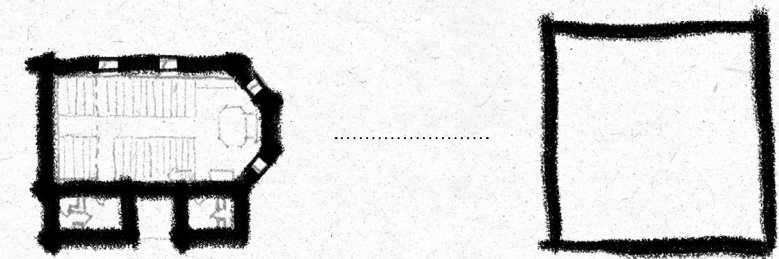


The chapel locates at the end of the route. In other words, while we are approaching the chapel, we are looking forward. So the direction of the movement and view affirm each other.



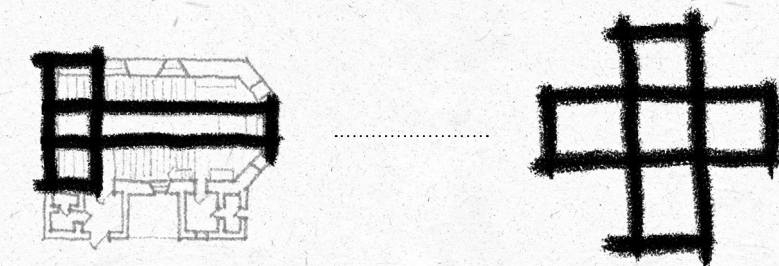
The chapel is east-west placed. The movement in the chapel has the same direction, and the altarpiece locates at the end of the route. Lundby Gamla Kyrka fits the theory of affirmation.

SHARP BOUNDARY



Thick solid walls well enclose the chapel, and the opening is small in proportion to the building.

INTERSECTIONAL SPATIAL STRUCTURE



The intersectional spatial structure consists of the north-south balcony with font panels depicting Jesus and twelve apostles and the east-west path leading to the altar.

BASIC
PRINCIPLES

CHARACTERS OF
CHRISTIAN CHURCHES

ANALYSIS OF
LUNDBY GAMLA KRYKA

CHARACTERS OF
BUDDHIST TEMPLES

TRANSFORMATION
STRATEGY

STRATEGY
EXPLANATION

AFFIRMATION

TO

NEGATION

INTERSECTIONAL
STRUCTURE

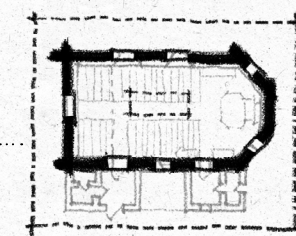
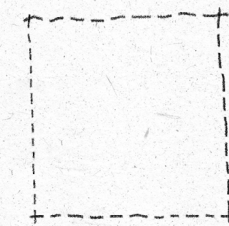
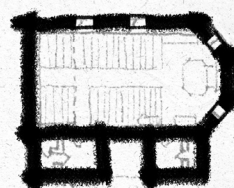
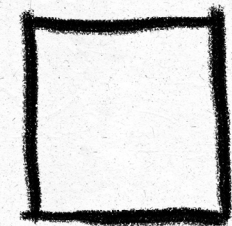
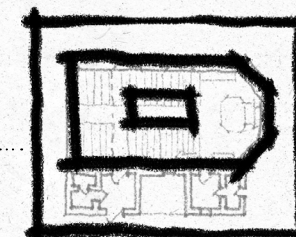
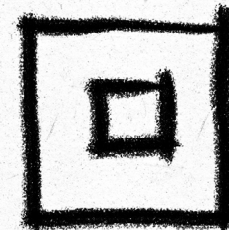
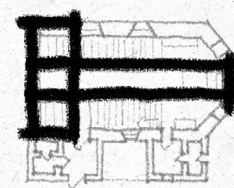
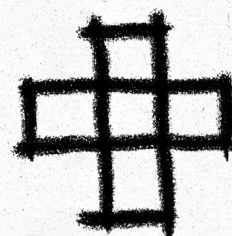
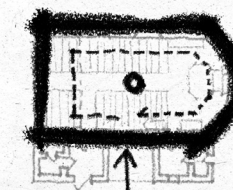
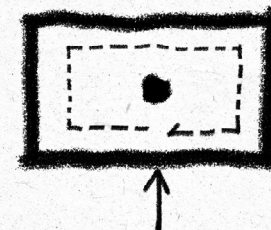
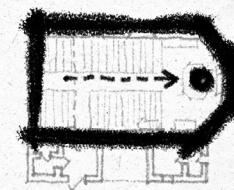
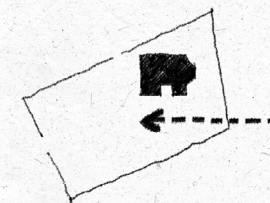
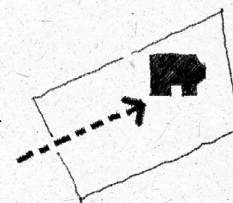
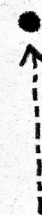
TO

MULTI-NESTED
STRUCTURE

SHARP BOUNDARY

TO

VAGUE BOUNDARY



The proposal locates the entrance at the south-eastern corner of the yard. Then the building will show up at the side instead of the end of the route. In this way, the direction of the view negates the direction of the movement.

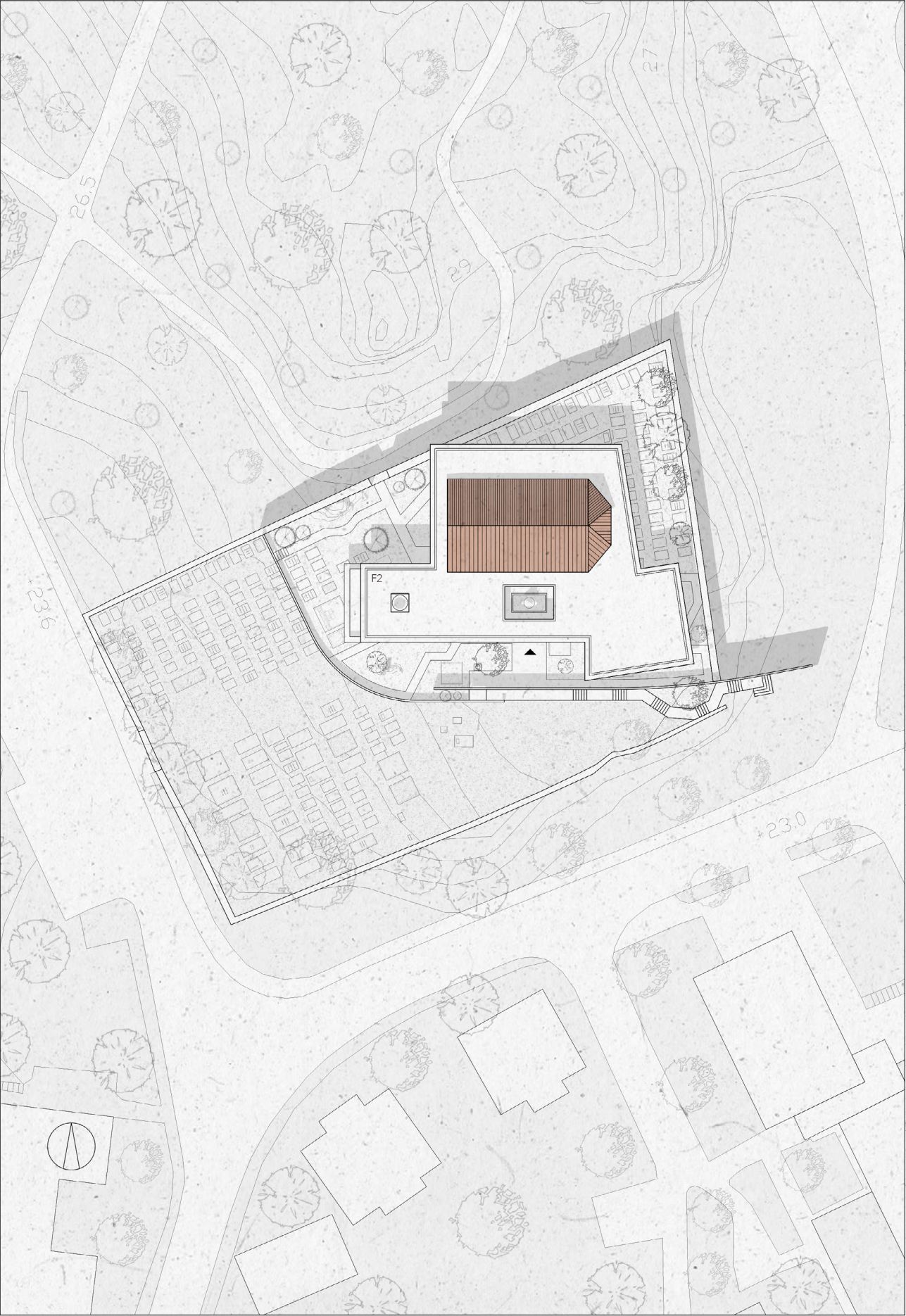
The new proposal changes the display of religious statues and re-organises a circular movement in the existing building to adapt the main hall into the Buddhist character of space.

Add new structures around the existing building and a spatial layer inside the chapel.

This thesis proposes to remove two small room to open up the front facade. In addition, the newly-added structures possess vague boundaries.

MASTER PLAN

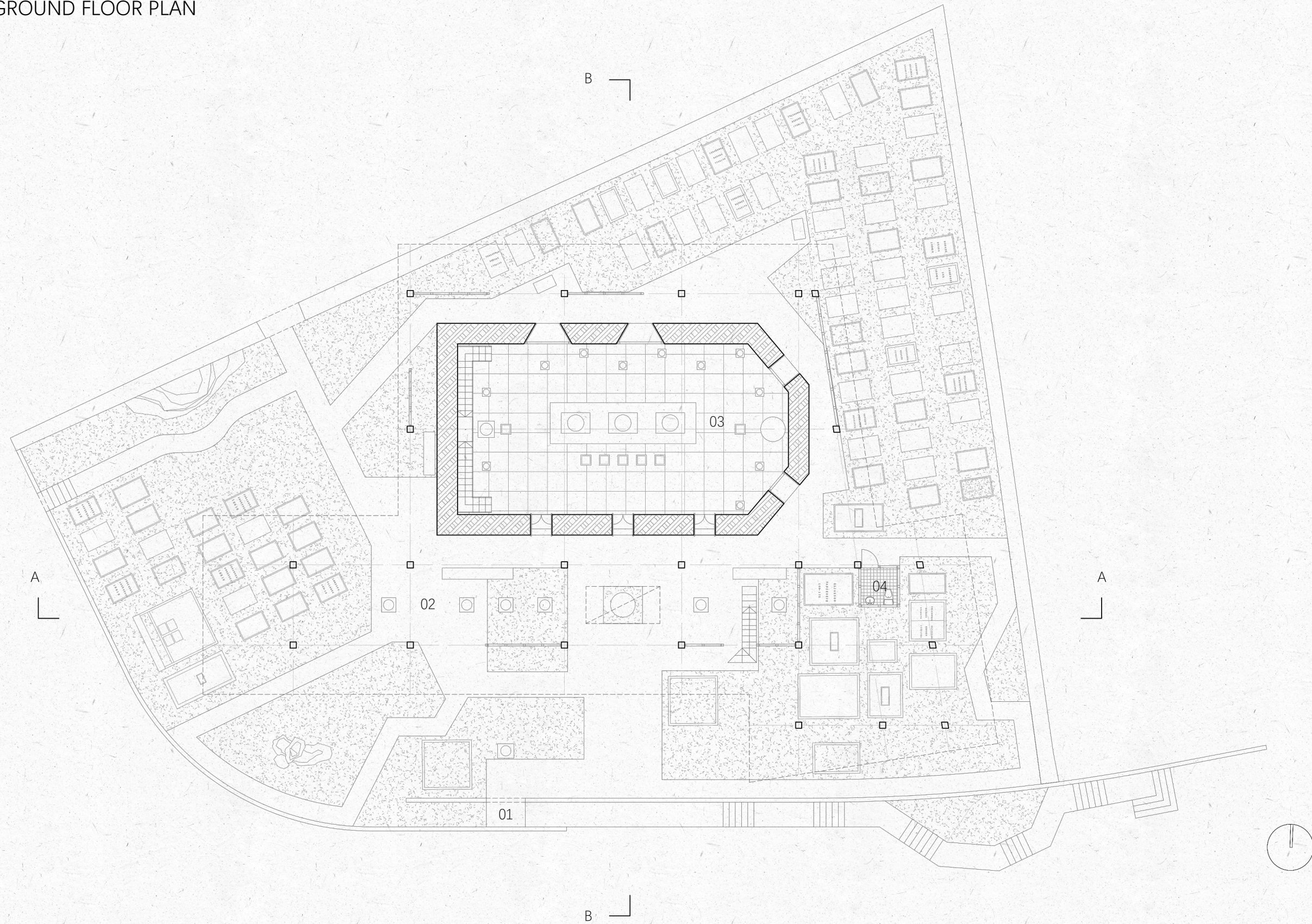
1:500



BIRD VIEW



GROUND FLOOR PLAN



Function:
01. Entrance / 02. Zen Garden / 03. Buddhist Ritual Hall / 04. Toilet

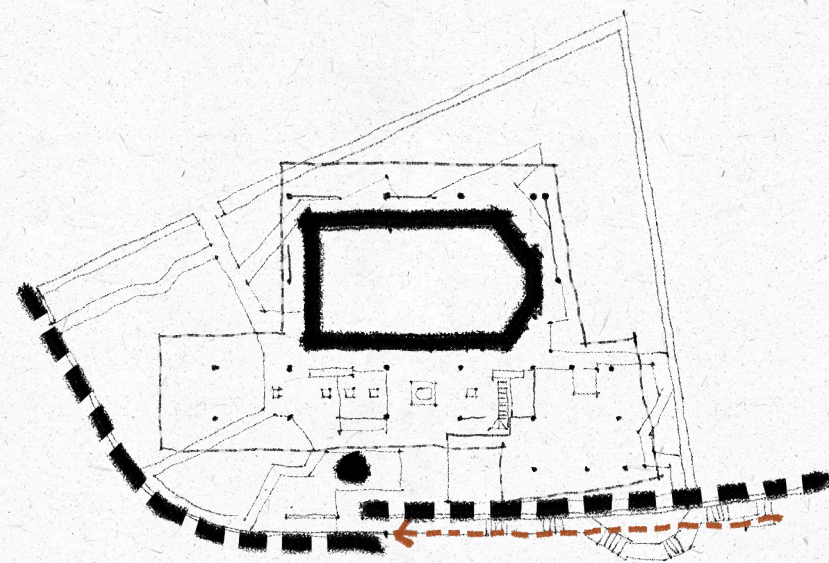
SCALE: 1:200

ENTRANCE

The entrance locates between two glass brick fences.

NEGATION / MULTI-NESTED SPATIAL STRUCTURE / VAGUE BOUNDARY

The fences perform as two spatial layers, with translucent material, gound glass brick, possessing vague boundaries. The movement takes place between two layers. The view and the building is on the right side of the route.



Analysis of the Entrance



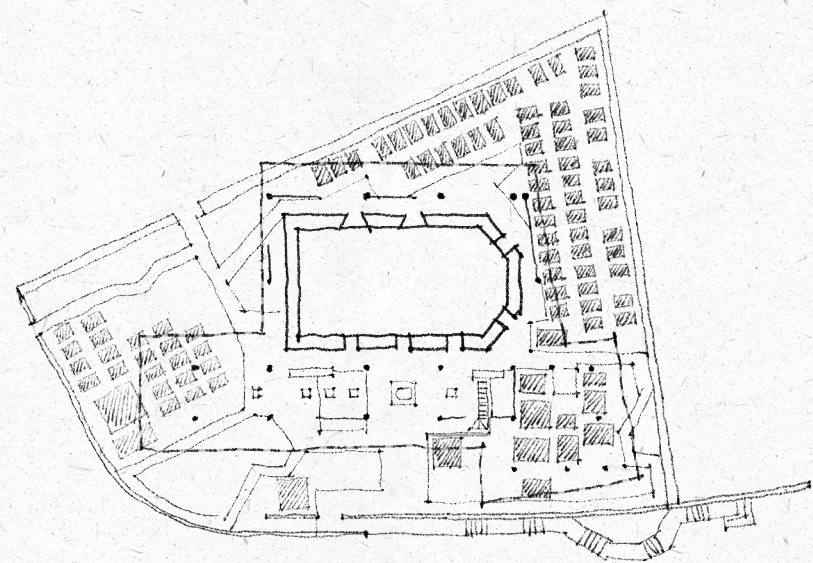
ENTRANCE PERSPECTIVE

ZEN GARDEN

The proposal shows respect to the existing graves.

The added volume is floating above. The grid of the structure is well calculated according to the location of the graves. The pillar in the perspective grounds between two graves.

The plan of the zen garden takes all the lines in different angles of graves into consideration.



Analysis of Zen Garden



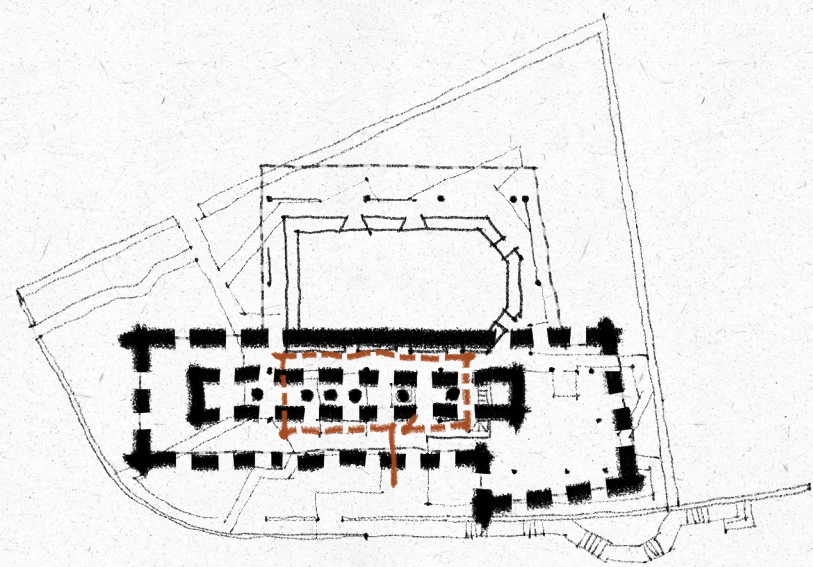
ZEN GARDEN

ZEN GARDEN

Zen garden is a covered semi-outdoor space.

The pattern of the direction of the form, view, and movement follows the negation principle. The spatial structure is multi-nested. The greenery crosses the wooden gratings. And the buddha statues are partially hidden partially visible behind the gratings in the bush plants.

NEGATION / MULTI-NESTED SPATIAL STRUCTURE / VAGUE BOUNDARY



Analysis of Zen Garden



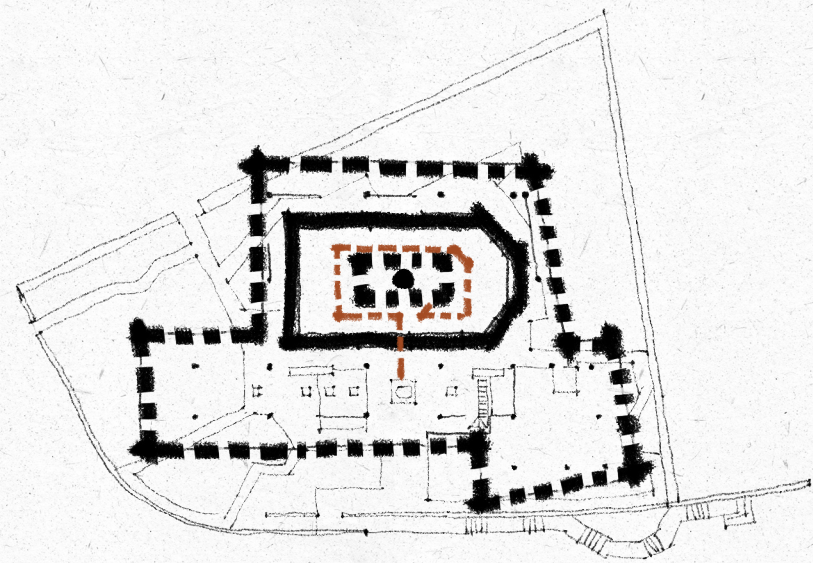
ZEN GARDEN

BUDDHIST RITUAL HALL

The proposal preserves the painting of the balcony, Jesus and twelve apostles and the altarpiece. Then the ritual hall presents an interesting scene, the co-existence of God and Buddha.

The design adds high windows between the wall and the roof. In a way, the new structure makes the building possible to accommodate two storeys. In another way, it works as a vague boundary to connect the ritual hall and extension volume.

NEGATION / MULTI-NESTED SPATIAL STRUCTURE / VAGUE BOUNDARY

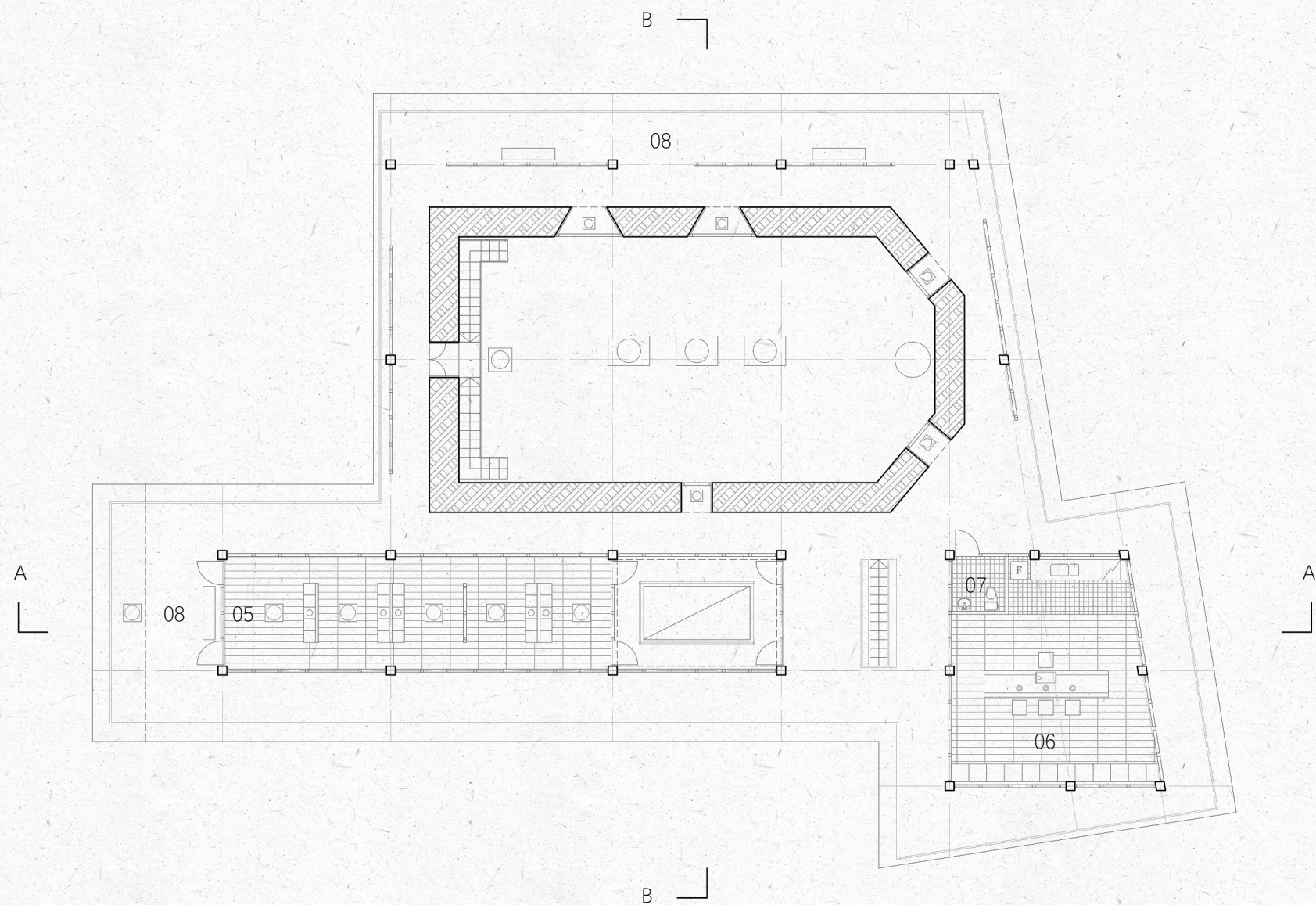


Analysis of Buddhist Ritual Hall



BUDDHIST RITUAL HALL

SECOND FLOOR PLAN



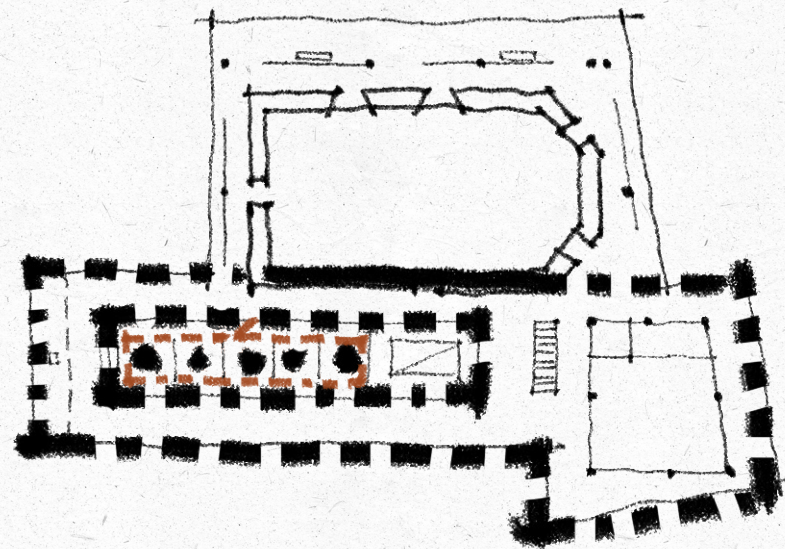
Function:
05. Meditation Room / 06. Zen Tea House / 07. Toilet / 08. Semi-outdoor Corridor

SCALE: 1:200

MEDITATION ROOM

The meditation room is open for both Buddhist and non-Buddhists to sit down and contemplate.

NEGATION / MULTI-NESTED SPATIAL STRUCTURE / VAGUE BOUNDARY



Analysis of Meditation Room

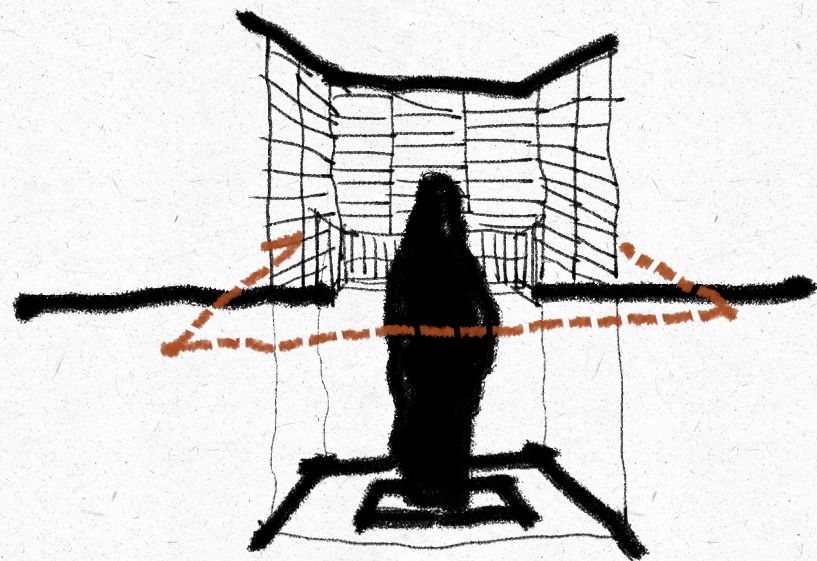


MEDITATION ROOM

CROSS-FLOOR BUDDHA

A giant Buddha statue is placed in front of the main entrance of the ritual hall. It crosses the floor and is exposed to the outdoor climate, where visitors can experience rain and snow. As time goes by, the statue might be covered with moss, a trace left by nature.

NEGATION / MULTI-NESTED SPATIAL STRUCTURE / VAGUE BOUNDARY



Analysis of Cross-floor Buddha

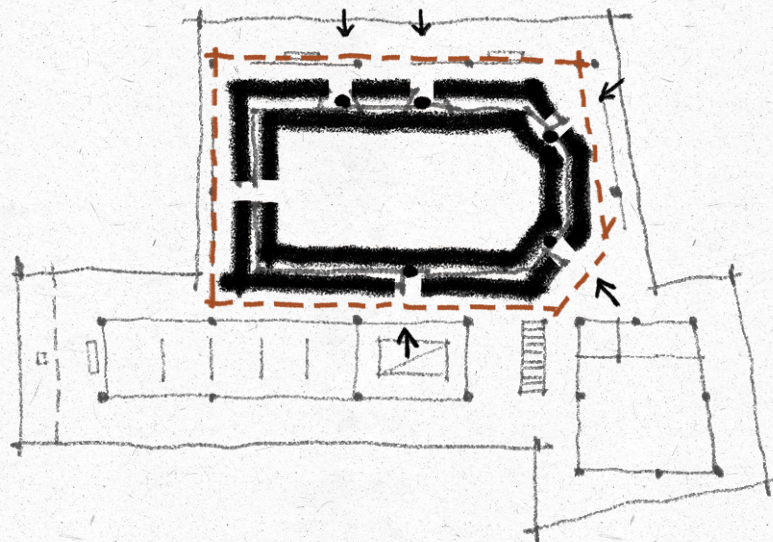


CROSS-FLOOR BUDDHA

NICHE FOR BUDDHA

The proposal pushes the window inwards and makes room for the Buddha statue. In this way, the thick wall performs as a layer between the interior of the Buddhist ritual hall and the new structure.

NEGATION / MULTI-NESTED SPATIAL STRUCTURE



Analysis of Niche for Buddha



NICHE FOR BUDDHA

AXONOMETRIC DRAWING

High Windows:

A layer added between the existing roof and wall.

2nd Floor:

New structures added around the existing old chapel.
Meditation Room / Tea House / Semi-outdoor Corridor

Ground Floor:

Zen Garden / Buddhist Ritual Hall
/ Toilet

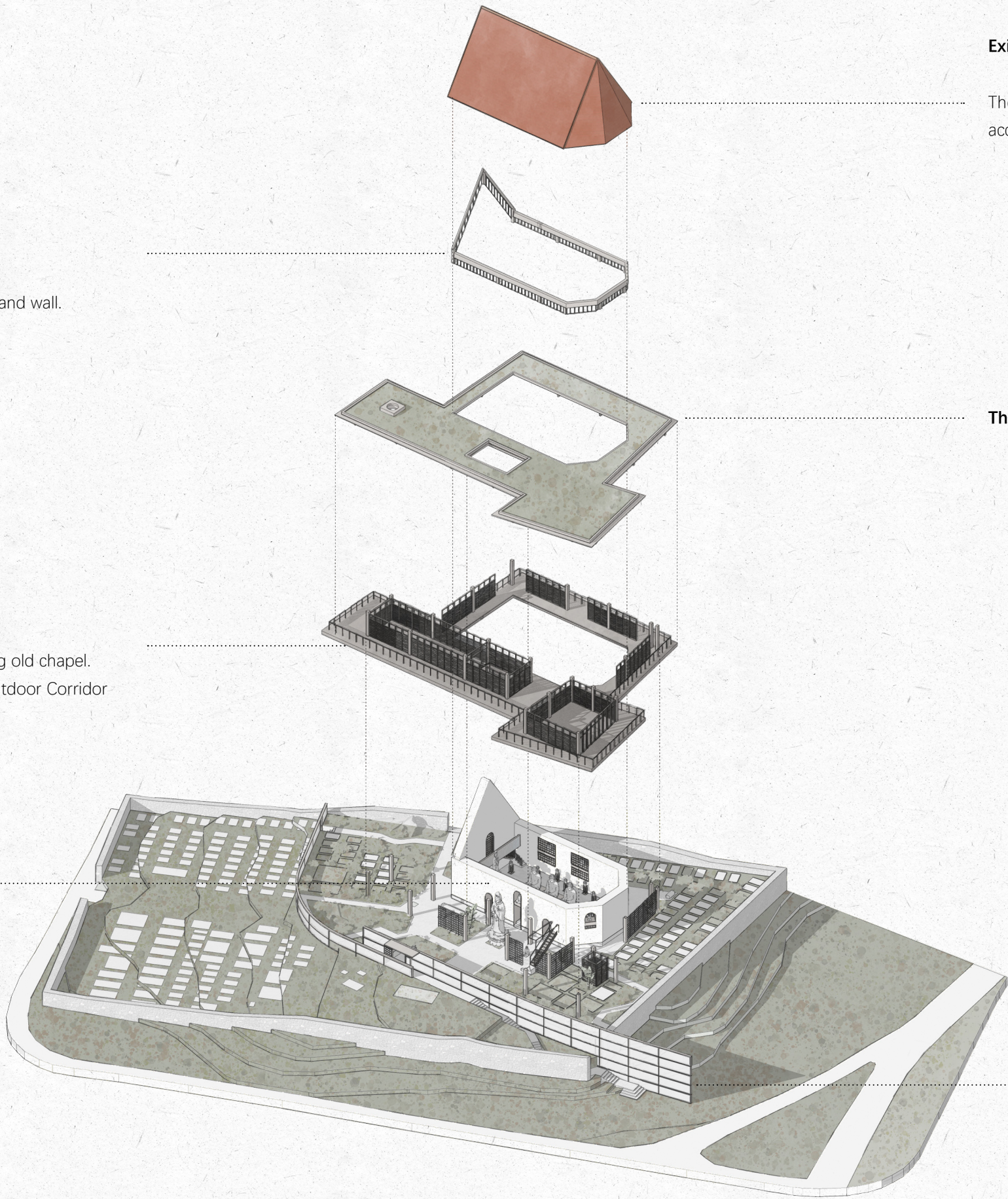
Existing Roof Structure:

The proposal raises the roof structure 1.5 meters to accommodate 2 storeys.

The Roof of the Extension

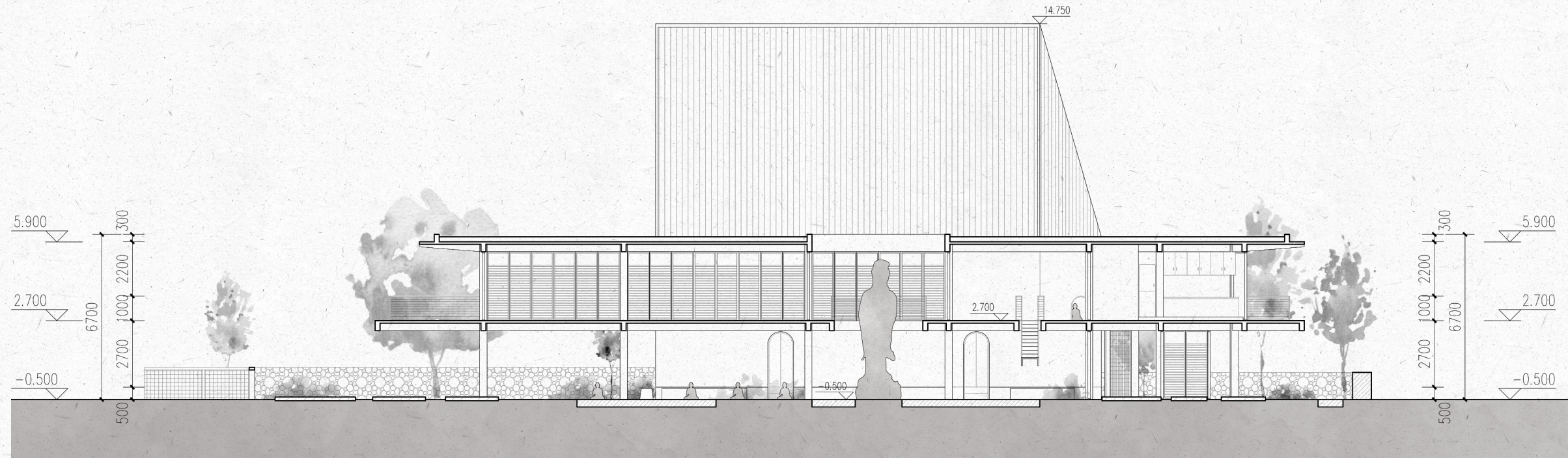
New Entrance:

Two Curved Glass Brick Walls



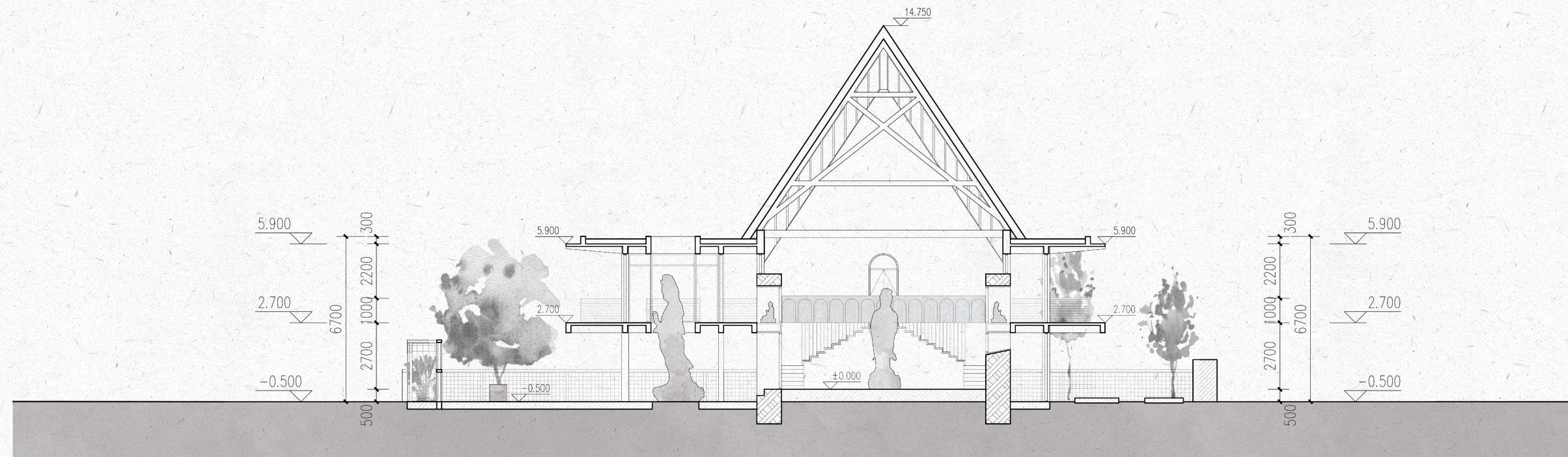
AA-SECTION

SCALE: 1:200



BB-SECTION

SCALE: 1:200



of summary

CONCLUSION

This thesis derives from my personal intercultural curiosity between the Eastern and Western worlds. The religious building is a pointcut to investigate the topic. In order to narrow the broad theme down, the thesis focuses on the plan layout of Christian churches and Buddhist temples and gives up many worth-discussing aspects, which could be developed later. Considering the limited time for the thesis, it ends with an analysis of a few selected buildings. If not, I would like to comprehensively review the history of religious architecture and come to a much more solid and more convincing conclusion.

The conclusion part of the analysis is not only a summary of comparison of religious buildings in the context of Christianity and Buddhism, but also can be applied to certain modern architectures, whether religious or not. Then we might find that, as Max Weber (1930) argued, theology is right at the core of soulless modernity. In some sense, the thesis is a lens to look at ourselves to answer the fundamental questions: who are we, and where do we come from?

The proposal transforms a Christian chapel into a Buddhist-aura gathering space for both Buddhists and non-Buddhists. In a broader sense, the thesis responds to the current situation in three aspects, the desolate scene of empty churches, social segregation, and inadequate intercultural communication. These problems have been mentioned in the text and can be further developed in design.

The final design is a reflection on the analysis. In a way, it is good as the analysis and design is consistent. But in another way, I sometimes feel too

straightforward and lacking a sense of poetry. And some aspects regarding transforamtion can be further elaborated in detail.

Overall, the thesis finds some characteristics of Christian churches and Buddhist temples, links the spatial setting to the theological belief to some extent, and proposes a transformation project to improve Buddhists' embarrassing situation and intercultural communication in Göteborg.

BIBLIOGRAPHY

LITERATURE

Eisenman, P. (2006). The Formal Basis of Modern Architecture. Lars Muller.

Kilde, J. (2008). Sacred Power, Sacred Space: An Introduction to Christian Architecture. Oxford University Press.

Weber, M. (1930). The Protestant Ethic and the Spirit of Capitalism. Allen and Unwin.

Williams, P. (2008), Mahayana Buddhism: The Doctrinal Foundations. Routledge.

Yoon, Y. (1979). A Comparative Study of the Religious Thought of Chi-tsang and H.Richard Niebuhr: A Comparasion And Contrast of the Buddhist and Christian Undersatnding of Man. Northwestern University.

Zhang, Y. (2003). Science of Architecture: Space and Its Formal Language. Architect, 105, 71-73

IMAGE

Bascetta, F. (n.d.). Santa Maria Assunta [Photography]. <https://www.archilovers.com/projects/240359/chiesa-di-santa-maria-assunta.html>

Camus, F. (n.d.). Saint Benedict Chapel [Photography]. <https://www.archdaily.com/418996/ad-classics-saint-benedict-chapel-peter-zumthor>

Celsing. (n.d.-a). Årsta Kyrka [Photography]. https://www.celsing.se/project_display.php?id=88&pid=686

Celsing. (n.d.-b). Interior of Årsta Kyrka [Photography]. https://www.celsing.se/project_display.php?id=88&pid=684

Church of St. George. (n.d.). [Photography]. <https://unusualplaces.org/the-church-of-saint-george-a-holy-rock-hewn-ethiopian-landmark/>

Duomo di Milano. (n.d.). [Photography]. <https://gelmigourgg.wixsite.com/gelmigour/single-post/2018/03/18/gothic-architecture-duomo-di-milano>

Favre, L. (n.d.). Grundtvigs Kirke [Photography]. <https://www.ignant.com/2019/10/01/grundtvigs-church-copenhagen-denmark/>

Foguang Temple. (n.d.). [Photography]. http://arts.fgs.org.tw/fgs_arts/tw/keyword_search_detail.php?arg=RRFMXuIWlQVsKb1rN1nS%2FkFbqB7qK10Y0Daa3Eci4wijEGCBRki9NBjH

Grolander, R. (2014). Lundby Gamla kyrka [Photography]. <https://digitaltmuseum.se/021015653654/lundby-gamla-kyrka>

Hallgrímskirkja. (n.d.). [Photography]. <https://www.giganticforehead.com/single-post/2018/08/01/hallgr%C3%ADmskirkja-church-the-most-famous-church-in-iceland>

Hamada, M. (n.d.). Zuishoji Temple [Photography]. <https://archeyes.com/shiunzan-zuisho-ji-temple-in-tokyo-kengo-kuma-and-assosiates/>

Hill of Buddha. (n.d.). [Photography]. <https://www.dezeen.com/2017/08/08/tadao-ando-hill-of-the-buddha-lavender-mound-makomanao-takino-cemetery-sapporo-japan/>

Hoyo-an. (n.d.). [Photography]. <https://architizer.com/projects/hoyo-an/>

Interior of Foguang Temple. (n.d.). [Photography]. https://www.sohu.com/a/313463634_526303

Interior of Lundby Gamla Kyrka. (n.d.). [Photography]. <https://www.queenmedia.se/kyrkor/lundby/3/>

Interior of Water Temple. (n.d.). [Photography]. <https://visuallexicon.wordpress.com/2017/10/04/water-temple-tadao-ando/>

Jensens. (2008). Santa Maria in Trastevere [Photography]. https://sv.wikipedia.org/wiki/Santa_Maria_in_Trastevere

JIAKUN ARCHITECTS. (n.d.). Yeluyuan [Photography]. <http://www.jiakun.com/project/detail?id=13>

Lindman, Å. (n.d.). Baron House [Photography]. <http://www.johnpawson.com/works/baron-house>

Ludwig, S. (n.d.). Bruder Klaus Field Chapel [Photography]. <https://www.archdaily.com/106352/bruder-klaus-field-chapel-peter-zumthor>

McCarragher, G. (n.d.). Moritzkirche [Photography]. <http://www.johnpawson.com/works/moritzkirche>

Merin, G. (n.d.). Chapelle de Ronchamp [Photography]. <https://www.archdaily.com/84988/ad-classics-ronchamp-le-corbusier>

Ogawa, S. (n.d.). Kionji Temple [Photography]. https://k-associates.com/en/works/kionji_temple/

Panini, G. (1756). Interior of St Peter's Basilica [Painting]. <https://fineartamerica.com/featured/the-interior-of-saint-peters-rome-follower-of-giovanni-paolo-panini.html>

Rokutanda, C. (n.d.). Interior of Chapelle de Ronchamp [Photography]. http://www.greatbuildings.com/buildings/Notre_Dame_du_Haut.html

Sanjusangendo. (n.d.). [Photography]. <http://www.taleofgenji.org/sanjusangendo.html>

Sanzen-in Temple. (n.d.). [Photography]. <http://www.sanzenin.or.jp/en/>

Sha, S. (2015). Nest We Grow [Photography]. https://www.archdaily.com/592660/nest-we-grow-college-of-environmental-design-uc-berkeley-kengo-kuma-and-associates?ad_medium=gallery

Water Temple. (n.d.). [Photography]. <https://visuallexicon.wordpress.com/2017/10/04/water-temple-tadao-ando/>

Westergren, S. (n.d.). Lundby Gamla Kyrka [Photography]. <https://kringla.nu/kringla/objekt?referens=raa/bbr/21400000223363>

White, A. (2015). Florence Cathedral [Photography]. https://500px.com/photo/98053463/Florence-Cathedral-by-Alexander-White?ctx_page=1&from=search&ctx_type=photos&ctx_q=florence+cathedral

Zhang, Q. (n.d.). Caishen Temple [Photography]. <https://www.gooood.cn/the-design-of-a-temple-for-the-god-of-wealth-at-sun-township-anhui-china-by-fuyingbin.htm?lang=en>

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