

ARCHITECTURE FINAL PROJECT
The 57th Period, Second Semester of 2009/2010 Academic Year
SOEGIJAPRANATA CATHOLIC UNIVERSITY

ARCHITECTURAL THEORY AND PROGRAMMING
MEMORIAL GARDEN OF SIX RELIGIONS
IN INDONESIA

Design Accentuation

Modern Religious Architecture

Core Issue

Combining six religions area by manages the circulation and zoning

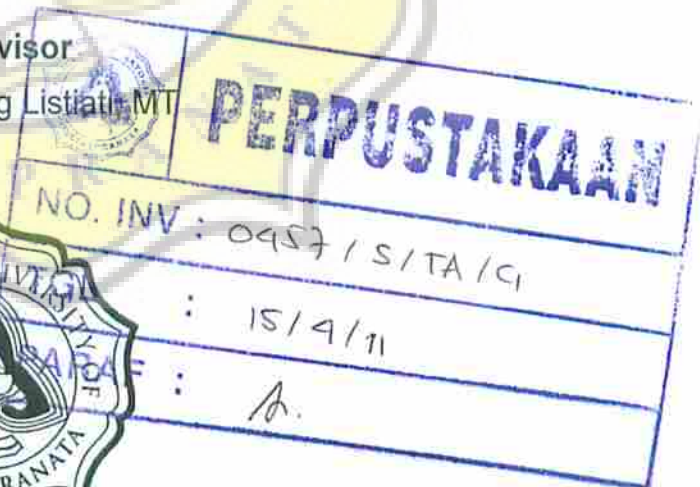
Thesis in Partial Fulfillment of the Requirement for the
Degree of Bachelor of Architecture

Student

Yustian Tanuhardja 06.11.0022

Supervisor

Ir. ETTY ENDANG LISTIATI, MT



DEPARTMENT OF ARCHITECTURE, FACULTY OF ARCHITECTURE AND
DESIGN
SOEGIJAPRANATA CATHOLIC UNIVERSITY

April 2010

Approval Sheet

ARCHITECTURE FINAL PROJECT
The 57th Period, Second Semester of 2009/2010 Academic Year
SOEGIJAPRANATA CATHOLIC UNIVERSITY

Project Title : Memorial Garden of Six Religions in Indonesia
Design Accentuation : Modern Religious Architecture
Core Issue : Combining six religions area by manages the circulation and zoning
Submitted by : Yustian Tanuhardja, 06.11.0022
Supervisor : Ir. Ety Endang Listiati, MT
Examiners : Ir. AMS Darmawan, M.Bldg
Ir. Yulita Titik S, MT
Ir. Albertus Sidharta Muljadinata, MSA

Semarang, April 2010

Approved,

Dean


Head

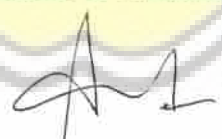
Coordinator


Faculty of Architecture and Design

Department of Architecture

Architecture Final Project


Ir. Alb. Sidharta M, MSA
NPP. 058.1.1987.022


Moediartianto, ST, M.Sc
NPP. 058.1.2000.235


Ir. BPR. Gandhi, MSA
NPP. 058.1.1986.015

Approval Sheet

ARCHITECTURE FINAL PROJECT
The 57th Period, Second Semester of 2009/2010 Academic Year
SOEGIJAPRANATA CATHOLIC UNIVERSITY

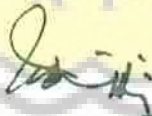
Project Title : Memorial Garden of Six Religions in Indonesia
Design Accentuation : Modern Religious Architecture
Core Issue : Combining six religions area by manages the circulation
and zoning
Submitted by : Yustian Tanuhardja, 06.11.0022
Supervisor : Ir. Ety Endang Listiati, MT
Examiners : Ir. AMS Darmawan, M.Bldg

Ir. Yulita Titik S, MT
Ir. Albertus Sidharta Muljadinata, MSA

Semarang, April 2010

Approved

Supervisor



Ir. Ety Endang Listiati, MT
NPP. 058.1.1984.007

Examiner



Ir. AMS Darmawan, M.Bldg
NIP. 1950.08.06-1980.03.1.001

Examiner



Ir. Yulita Titik S, MT
NPP. 058.1.1988.034

Examiner



Ir. Alb. Sidharta M, MSA
NPP. 058.1.1987.022

Preface

Although Indonesian people acknowledge 6 religions, they can live peacefully day by day, and can respect the difference among those religions. Each religion has their own way to worship the Creator of the World, and also, has their own way to bury their dead relatives or friends.

This unique phenomenon is a reason why I submitted "Memorial Garden of Six Religions in Indonesia" as an Architecture Final Project title. Through a design, a memorial garden will not be frightening place, but can be an interesting place to relax and visit the graveyard of their lovely relatives which has passed away.

This architectural theory and program is an analysis phase before do the building design. In this phase, the designer analyzes the problems related to the building design and suggests some solution to solve those problems. The result of this architectural theory and program will be used as a base for the building design.

I hope, this architectural theory and program will give benefits for those who read.

Suggestions and critics are welcome to write a better substance.

Semarang, March 22nd 2010

Writer

Table of Contents

Cover Page.....	i
Approval Sheet.....	ii
Preface.....	iv
Table of Contents.....	v
List of Tables.....	viii
List of Images.....	ix
Chapter 1 - INTRODUCTION OF THE PROJECT PROGRAMMING.....	1
1.1 Background of The Project.....	1
1.1.1 Initial Idea.....	1
1.1.2 Reason and Motivation.....	2
1.2 Goals and Objectives of The Project.....	3
1.2.1 Project Objectives.....	3
1.2.2 To-Achieve-Benefits.....	3
1.3 Scope of The Programming.....	3
1.4 Method of The Programming.....	3
1.4.1 Data Collection Methods.....	3
1.4.2 Analysis Methods.....	4
1.4.3 Programming Methods.....	4
1.4.4 Architectural Design Methods.....	5
1.5 Presentation of The Programming.....	5
Chapter 2 - PROJECT APPROACH.....	7
2.1 General Approach of The Project.....	7
2.1.1 Overview.....	7
2.1.2 Background - Development - Trend.....	26
2.1.3 To-Achieve-Target.....	28
2.2 Specific Approach of The Project.....	28
2.2.1 Terminology.....	28
2.2.2 Activities.....	29
2.2.3 Specifications and Design Requirements.....	31
2.2.4 Urban Issue.....	32
2.2.5 Similar Project Review.....	34
2.2.6 Design Problem.....	39

2.3 Conclusions, Restrictions, and Assumptions.....	39
2.3.1 Conclusions.....	39
2.3.2 Restrictions.....	40
2.3.3 Assumptions.....	42
Chapter 3 - ANALYSIS OF THE ARCHITECTURE PROGRAMMING APPROACH.....	44
3.1 Analysis of District.....	44
3.1.1 Environmental Systems.....	44
3.1.2 Scenario.....	55
3.1.3 Infrastructure Systems.....	57
3.2 Detailed Functions.....	59
3.2.1 Architectural Systems.....	59
3.2.2 Building Systems.....	92
Chapter 4 - ARCHITECTURAL PROGRAM.....	120
4.1 District Program.....	120
4.1.1 Programming Concepts and Themes	120
4.1.2 Design Goals.....	120
4.1.3 Design Determinant Factor	121
4.1.4 Design Requirements Factor	121
4.1.5 Scenario Program.....	122
4.1.6 Calculation.....	124
4.1.7 Infrastructure Programs.....	124
4.2 Detailed Functions Architectural Program.....	125
4.2.1 Activities Program.....	125
4.2.2 Structure System Program.....	127
4.2.3 Utility System Program.....	128
4.2.4 Location and Site Program.....	128
Chapter 5 - ARCHITECTURAL THEORY.....	130
5.1 Design Accentuation	130
5.1.1 Interpretation and Elaboration	130
5.1.2 Precedent Study.....	131
5.1.3 Possible Application.....	135
5.2 Core Issues.....	136
5.2.1 Interpretation and Elaboration	136

5.2.2 Precedent Study.....138
5.2.3 Possible Application.....141
BibliographyX
Appendix



List of Tables

Table 1 - Mountains and Rivers of Semarang District.....	33
Table 2 - Location Scoring.....	48
Table 3 - Site Scoring	55
Table 4 - Project Users, Activities, and Facilities.....	59
Table 5 - Space Inquiry Study.....	69
Table 6 - Comparison of four lightning rod system.....	108
Table 7 - Comparison between Thomas and Gent Lightning Rod.....	109
Table 8 - Space area inquiry calculation of the complex	124
Table 9 - Recapitulation of Space Inquiry	125



List of Images

Image 1 - Tombs and Sculpture of Ancient Cemeteries	7
Image 2 - Mausoleum & Columbarium	27
Image 3 - Urn Garden at Ambarawa	27
Image 4 - Different Types of Cemetery Design	27
Image 5 - Semarang District Location and Administrative Area	32
Image 6 - Site condition of KedungMundu Cemetery	35
Image 7 - Site condition of TPU Banyumanik	35
Image 8 - Site condition of Mount Carmel Memorial Park	36
Image 9 - Site condition of Gotong Royong Cemetery and Crematorium	37
Image 10 - Site condition of San Diego Hills	38
Image 11 - Location of Bawen in Semarang District	44
Image 12 - Location of Bergas in Semarang District	46
Image 13 - Satellite Map of Site Alternative I	49
Image 14 - Conditions of Site Alternative I	50
Image 15 - Satellite Map of Site Alternative II	52
Image 16 - Conditions of Site Alternative II	53
Image 17 - Diagram of Site Scenario	56
Image 18 - Bappeda Map of The Selected Site	57
Image 19 - Bappeda Water Network Plan Infrastructure	57
Image 20 - Bappeda Electricity, Telephone, and Garbage Dumping Network Plan	58
Image 21 - standard double graves dimension	66
Image 22 - arrangement of single public graves	66
Image 23 - Crematorium Area	68
Image 24 - Mausoleum Cabinet	68
Image 25 - Torsion of unsymmetrical plans	97
Image 26 - Plants that are applicable in the projects I	101
Image 27 - Plants that are applicable in the projects II	102
Image 28 - SCHOTT Photovoltaic Modules	119
Image 29 - Girisonta	122
Image 30 - Lemah Abang Gas Station	122
Image 31 - Karang Jati Market	122
Image 32 - Citrun Textile Factory	122
Image 33 - The site	122
Image 34 - Entrance to PT Sinar Sosro	122
Image 35 - To built hospital	122
Image 36 - Coca Cola Factory	122
Image 37 - San Diego Hills overview	138
Image 38 - Muslim Area of San Diego Hills	138
Image 39 - Ten Commandments Statue at Christian Area of San Diego Hills	139
Image 40 - Buddhist Area of San Diego Hills	140