

A THESIS STATEMENT

I am the student with the following identity:

Name : Noor Oktova Fajriyah
Student ID Number : 21020111130111
Department : Architecture

certifies that this thesis under the title:

"REAJUSTMENT *TSUBOYA-YACHIMUN DORI* AS POTTERY CENTER IN NAHA CITY, OKINAWA, JAPAN" is definitely my own work. I am completely responsible for the content of this thesis. Other writer's opinions or findings included in the final assignment are quoted or cited in accordance with ethical standards.

Semarang, June 24th, 2016
The Writer,



Name : Noor Oktova Fajriyah
Student ID: 21020111130111

RATIFICATION

Thesis with the following identification:

Name of Student : Noor Oktova Fajriyah
Student ID Number : 21020111130111
Department : Architecture Engineering
Title :

**"READJUSTMENT *TSUBOYA-YACHIMUN DORI* AS POTTERY CENTER IN NAHA CITY, OKINAWA,
JAPAN"**

Had been ratified by the board of examiner team and can be received as one of any requirement
for gaining the Bachelor Degree in Architecture Engineering.


THE BOARD OF EXAMINER

Supervisor :

1. Ir. Indriastjario, M. Eng /19621016198803 1 003 

2. Ir. Wijayanti, M. Eng /19630711199001 2 001 

Examiner :

Mirza Ramandhika, ST, MT /19890203201504 1 001 

Semarang, June 24th, 2016

Principal of Architecture Department
Faculty of Engineering, Diponegoro University,

Head of Bachelor Program in Architecture Department
Faculty of Engineering, Diponegoro University,


Edward Endrianto Pandelaki, ST, MT, Ph. D
NIP. 19740223 199702 1 001


Prof. Ir. Totok Roesmanto, M.Eng
NIP. 19520505198011 1 001

**A PUBLICATION APPROVAL STATEMENT
FINAL ASSIGNMENT FOR ACADEMIC CONCERN**

I am the student of Diponegoro University with the following identity:

Name : Noor Oktova Fajriyah
Student ID Number : 21020111130111
Department : Architecture
Faculty : Engineering
Kind of Work : Final Assignment

For the developing of knowledge in Diponegoro University, I approve to give this thesis as None-exclusive Royalty Free Right, under the title:

**"READJUSTMENT *Tsuboya-Yachimun Dori* AS POTTERY CENTER IN NAHA CITY, OKINAWA,
JAPAN"**

With the content of this thesis (if necessary), The Diponegoro University has the right to save, format, maintain this thesis in database form, to resume and publication with cited my name as the writer and the proprietary right thought of this thesis.

Semarang, June 24th, 2016
The Writer,



(Noor Oktova Fajriyah)

ABSTRACT

Over the centuries, Okinawa has become quite well-known for its cultural heritage and art. One of Okinawa's most distinct and well-known art forms is pottery, and the center for the pottery movement is Tsuboya, Naha City. For more than 300 years, Naha's Tsuboya district has been the symbol for Okinawa pottery. It has produced many famous craftsmen who have gained fame and reputation far outside of Okinawa. The pottery made in Tsuboya is known as tsuboya-yaki. Yachimun Dori (Pottery Street) is lined with a number of tsuboya-yaki shops where the finest craftsmen still work and live to this day.

Through the years, in spite of the importation of cheaper goods, the total destruction caused by World War II, and modernization, Tsuboya has overcome many obstacles and still remains famous on Okinawa as the center of pottery and tsuboya-yaki is viewed as a quality art form throughout the world. Children are a symbol of the future and Naha aims to become a city of brilliant smiles of children, where they are affectionate, have zest for life, peace-loving minds, and dreams for the future. Naha also aims to become a city of culture where people celebrate diversity, pass on traditions to the next generation, and create its new forms through close interaction with communities and with all age groups.

As a city of rich cultural diversity, it is essential for The Naha municipal government to improve their social system so that they may secure a safe and sound environment for their children, encouraging them to play, study and learn from a variety of activities and experiences in order to prepare them for the real world. The city is improving the quality of cultural heritage facilities and art by readjustment the Tsuboya-Yachimun street as pottery center in Naha City, Okinawa, Japan with vernacular architecture design concept.

Initially, an overview of readjustment in Tsuboya and analysis of the site will be applied to identify the problem of existing site in terms of tourism and recreation issues. Site analysis, interview, short discussion of related neighborhoods of Tsuboya is used as tools to formulate the problems.

To address the design issues, first, literature review on urban design principles of high density areas will be applied to establish an urban design framework. Second, the case study of relevant examples will be analyze to test the application of the urban design frameworks and images the possible achievement. Third, the established urban design framework will be introduced to the chosen site through the vision of the study. Finally, the urban design principles and approach will be summarized and propose a design recommendation for the study site.

Keywords: *pottery, cultural heritage, readjustment, tsuboya-yachimun, street*

ACKNOWLEDGEMENTS

First, the writer praise to Allah SWT who has given health, spirit, inspiration and protection. So, the writer can finish this final assignment successfully entitled “Readjustment *Tsuboya-Yachimun Dori* as Pottery Center in Naha City, Okinawa, Japan.”

The researcher realized that cannot complete this final assignment without the others help. Many people have helped me during doing this and it would be impossible to mention of all them. Grateful acknowledgment is here made to those who helped this researcher gather data for this final assignment thesis. This work would not have reached its present form without their invaluable help. They are:

1. Mr. Edward Endrianto Pandelaki, S.T, M.T, Ph.D, as Principal of Architecture Department, Faculty of Engineering, Diponegoro University;
2. Prof. Ir. Totok Roesmanto, M.Eng as Sub Manager of Undergraduate in Architecture Department;
3. Prof. Junichiro Giorgos Tsutsumi, as my join Advisor in University of the Ryukyus, Doctor of Engineering, Civil Engineering and Architecture Department;
4. Mr. Ir. Indriastjario, M.Eng, as the first Supervisor who always patient in providing careful guidance, curious and helpful correction, very good advice as well as suggestion and encouragement during the consultation;
5. Mrs. Ir. Wijayanti, M.Eng, as the second Supervisor who have given me considerable guidance and support throughout my research studies and have taught me many subjects;
6. Mr. Ir. B. Adji Murtomo, MSA, as the coordinator of final assignment subject in Architecture Department;
7. Lectures in Architecture Department of Engineering Faculty in Diponegoro University, for valuable knowledge, guidance and advices during the year of my study;
8. All staff of University of the Ryukyus, Faculty of Engineering, who cooperate for good relation with Diponegoro University.
9. All of my classmates in Architecture Department for their coordination, help and support during my study period.
10. Most of all, I would like to take this opportunity to thank my dear parents and my family for supporting my decision to continue studying and for their continuous dedication and encouragement during my entire study in Diponegoro University.

TABLE OF CONTENT

THE THESIS TITLE.....	i
THESIS STATEMENT	ii
RATIFICATION	iii
PUBLICATION APPROVAL STATEMENT	iv
ABSTRACT	v
ACKNOWLEDGEMENT	vi
TABLE OF CONTENT	vii
LIST OF IMAGES	ix
LIST OF TABLES.....	xii

CHAPTER I INTRODUCTION

1.1 Background of Study	1
1.2 Objectives and Goals of the Study	2
1.3 Hypothesis.....	2
1.4 Study Approach and Methodology	2
1.5 Procedure of Study	3
1.6 Flow Chart of Major Task	4

CHAPTER II REVIEW OF RELATED LITERATURE

2.1 General Concept of Urban Design	
2.1.1 Definition of Townscape, Serial Vision, and Figure Ground	5
2.1.2 Urban Design Criteria.....	8
2.1.2 General Concept of Okinawan Pottery.....	8
2.1.3 Townscape and Urban Conservation in Japan.....	9
2.2 General Concept of Land Readjustment (<i>Kukaku-seiri</i>)	
2.2.1 Land Readjustment (<i>Kukaku-seiri</i>).....	11
2.2.2 Purpose / Effectiveness of Land Readjustment.....	12
2.2.3 Key Concept of Land Readjustment.....	12
2.3 General Concept of Okinawan Pottery	
2.3.1 The History of Ryukyuan Pottery	14
2.3.2 Characteristic of Okinawan Pottery.....	14
2.3.3 Ways of Making Pottery	16
2.3.4 The <i>Noborigama</i> (Climbing Kilns)	18
2.4 General Concept of Vernacular Architecture	
2.4.1 Definition of Vernacular Architecture	19
2.4.2 Criteria of Vernacular Architecture	19
2.4.3 Characteristic of Japanese Architecture	20
2.4.4 Characteristic of Okinawan Architecture	21
2.5 A Design Manual for a Barrier Free Environment	
2.5.1 Definition of Barrier Free and Universal Design	24
2.5.2 Urban Design Consideration.....	25
2.5.3 Japan Barrier Free Policies.....	27

2.6	Comparative Case Studies	
2.6.1	Tokoname Ware, Nagoya, Japan.....	27
2.6.2	Arita Ware, Saga Prefecture, Japan.....	31
CHAPTER III DATA		
3.1	Site Location	
3.1.1	Location of Okinawa, Japan.....	34
3.1.2	Location of Tsuboya-Yachimun Dori.....	38
3.2	Related Regulation	
3.2.1	Outline of City Planning System.....	41
3.2.2	Land Use Zone and Building Regulation.....	42
3.3	Observation Data	
3.3.1	Tsuboya-yachimun Stores Map.....	43
3.3.2	Tsuboya-Pottery Street Festival.....	45
3.3.3	Okinawa Tourism Industry.....	47
3.3.4	Current Situation Survey of Foreign Tourists in Okinawa.....	48
CHAPTER IV ANALYSIS		
4.1	Site Analysis.....	50
4.1.1	The City Elements by Kevin Lynch (non-physic).....	51
4.1.2	8 Elements of Urban Design Process by Hamid Shirvani (physically).....	53
4.2	Townscape Analysis.....	57
4.3	Analysis Result Conclusion.....	58
CHAPTER V DESIGN GUIDELINE		
5.1	Basic and Attribute of Urban Design.....	59
5.2	General Urban Design Consideration.....	59
5.3	Guideline for Specific Major Land Use.....	61
5.4	Proposal Consideration	
5.4.1	Functional Aspect.....	63
5.4.2	Contextual Aspect.....	64
5.4.3	Performance Aspect.....	65
5.4.4	Technical Aspect.....	66
5.4.5	Architectural Aspect.....	67
5.4.6	Universal Design Aspect.....	69
REFERENCES		72
ATTACHMENT		73

LIST OF IMAGES

Figure 1.1	Flow Chart of Major Task	4
Figure 2.1	Gordon Cullen’s Concise Landscape: a city of serial visions	5
Figure 2.2	Giambattista Nolli’s Map of Rome, 1748	6
Figure 2.3	Six Typological Patterns of Solids and Voids	6
Figure 2.4	Diagram of the Types of Urban Solids and Voids.....	7
Figure 2.5	Fumihiko Maki. Three Types of Spatial Linkage	7
Figure 2.6	Historical of Japanese Townscape	10
Figure 2.7	Illustration of Land Readjustment Project in Japan	12
Figure 2.8	Concept of Replotting	12
Figure 2.9	Example of Contribution	13
Figure 2.10	Mechanism of Land Readjustment	13
Figure 2.11	Karakara awamori pot and Jiishigaami buurial urn	15
Figure 2.12	Glazed plate and mug of Okinawan pottery	15
Figure 2.13	The soil that contains a lot of clay	16
Figure 2.14	The ways to milling using machine	16
Figure 2.15	The process of clay formation.....	16
Figure 2.16	Drying and storage process.....	17
Figure 2.17	Combustion process with ‘ <i>Noborigama</i> ’	17
Figure 2.18	Process Finishing	17
Figure 2.19	The firing process of Noborigama.....	18
Figure 2.20	Climbing kilns in the Tsuboya, Naha	18
Figure 2.21	The House of the Native Okinawan Village.....	22
Figure 2.22	A village headman's home (mûtuyaa) at Ocean Expo Park.	22
Figure 2.23	Old Traditional Commercial Building in Okinawa (1945-1972).....	23
Figure 2.24	Concrete Building (1945-1972)	24
Figure 2.25	Contemporary Building in Okinawa (1945-1972)	24
Figure 2.26	Urban Design Consideration: Street Furniture	25
Figure 2.27	Urban Design Consideration: Pathways.....	25
Figure 2.28	Urban Design Consideration: Curb Ramps.....	25
Figure 2.29	Urban Design Consideration: Pedestrian Crossing	26
Figure 2.30	Urban Design Consideration: Parking	26
Figure 2.31	Urban Design Consideration: Ramps	26
Figure 2.32	Sidewalk on a road with few pedestrians	27
Figure 2.33	Location of Tokoname City, Japan	28
Figure 2.34	The red clay teapot	30
Figure 2.35	Map Location of Arita Ware.....	31
Figure 2.36	A streetscape view of Arita with the chimneys of kilns standing tall	31
Figure 2.37	Blue and white ceramics (left) and the Kakiemon style.....	32
Figure 2.38	Arita Ceramic Art Museum	32
Figure 2.39	Arita Ware Promenade	32
Figure 2.40	Arita ware for export (left) and the Nabeshima style.....	33

Figure 2.41	A variety of Arita ware on display at a store.....	33
Figure 3.1	Japan Administration Map.....	35
Figure 3.2	Okinawa Prefecture Administration Map.....	35
Figure 3.3	Okinawa Topographic Map.....	35
Figure 3.4	Naha, Okinawa Climate and Temperature Graph.....	36
Figure 3.5	Okinawa Density Map.....	36
Figure 3.6	Population of Okinawa Prefecture Graph.....	37
Figure 3.7	Naha City Monorail Map.....	38
Figure 3.8	City Planning of Naha, Okinawa.....	39
Figure 3.9	Topography Map of Naha City.....	39
Figure 3.10	Naha Demography Data.....	40
Figure 3.11	The Population Development of Naha.....	40
Figure 3.12	(事業対象地位置図: jigyou taishouchii chizu) The Site Location Map.....	41
Figure 3.13	事例対象位置図 (Jirei taishou ichizu: Site Location).....	41
Figure 3.14	Naha City Planning Map.....	42
Figure 3.15	Category II exclusively low-rise residential zone.....	42
Figure 3.16	Tourist Attraction (Townscape).....	43
Figure 3.17	Condition of the Tsuboya-Yachimun Promenade.....	43
Figure 3.18	Tsuboya-Yachimun Dori Map.....	43
Figure 3.19	Children performance in front of “Tsuboya Ufu Shisa”.....	45
Figure 3.20	Shisa making experience.....	45
Figure 3.21	a Hands-on shisa making class is available, but limited to 50 people.....	45
Figure 3.22	Free guided tours to Tsuboya area.....	45
Figure 3.23	Eisa dancers perform on Yachimun Street.....	46
Figure 3.24	Sanshin Performance.....	46
Figure 3.25	Local youth group shows their skill at handling a ‘hatagashira’ pole.....	46
Figure 3.26	Karate demonstration.....	46
Figure 3.27	Visitors to the festival can try their own hand at the craft.....	46
Figure 3.28	The Number of Incoming Tourists and Tourism Revenue (Okinawa).....	47
Figure 3.29	Projected Visitor Arrivals to Okinawa Over the Next Decade.....	47
Figure 3.30	The Number of Tourist to Okinawa in 2012.....	47
Figure 3.31	Variety of Age.....	48
Figure 3.32	Basis of Gender.....	48
Figure 3.33	Numbers of Visitor by Nationality.....	48
Figure 3.34	Frequency of Oversea Travel.....	48
Figure 3.35	The Purpose of the Trip.....	49
Figure 3.36	Popular Places Respondents Visited in Okinawa.....	49
Figure 4.1	The interaction between observer, and environment leads to Cognitive map.....	50
Figure 4.2	Lynch's theory of good city form.....	50
Figure 4.3	Lynch's theory of good city form.....	51
Figure 4.4	Naha City Planning Map.....	53
Figure 4.5	Land Use Analysis.....	53
Figure 4.6	Building Form and Mass Analysis.....	54
Figure 4.7	Circulation and Parking Analysis.....	54
Figure 4.8	Open Space Analysis.....	55

Figure 4.9	Pedestrian Ways Analysis	55
Figure 4.10	Activity Support Analysis.....	56
Figure 4.11	Preservations Analysis	56
Figure 4.12	Signage Analysis	57
Figure 4.13	Positive space formed by several surrounding entities	58
Figure 4.14	Problems and Potential Map	58

LIST OF TABLE

Table 2.1	Table of Takoname Facilities.....	29
Table 3.1	Site Territorial Boundaries	41
Table 3.2	Table of Tsuboya Project Overview	41
Table 3.3	Table of Building Use by Land Use Zones Regulation	42
Table 3.4	Floor-area Ratio and Building Coverage Ratio in Land Use Zones	42
Table 3.5	Type of Shops.....	44
Table 4.1	Table of Problem and Potential Map	58
Table 5.1	Table of Objectives Urban Design.....	60
Table 5.2	Table of Aspects of Development Form.....	61
Table 5.3	Guideline Design of Tsuboya Yachimun Dori	63
Table 5.4	Functional Aspect of Tsuboya Yachimun Dori	64
Table 5.5	Contextual Aspect of Tsuboya Yachimun Dori.....	65
Table 5.6	Checklist for General Urban Design Considerations	66
Table 5.6	Table of Aspects of Development Form.....	66
Table 5.7	Table of Technical Aspect	67
Table 5.8	Table of Architectural Aspect.....	69