VIENTIANE CENTRAL MARKET

Vilasone Phonevilay

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Bachelor of Architecture

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Date
Assoc. Prof. Pralong Phirananda, DEAN

A. Suparath Valaisathien, Chairperson

A. Tanet Chantaket, Thesis Advisor
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Chapter 1: Thesis Introduction

1.1 Background of interest

"While place meanings are rooted in the physical setting and its activities, they are not a property of them but a property of human interaction and experiences of those places."
Relph 1976

In the urban environment in the small city as Vientiane, the capital of Laos PDR, has the interesting structure and character, which has people involved in each place as public space interaction. Vientiane is the city that has the less built-up area; about 60% coverage of the whole city, it does not seem to be a lot of public space. Most of the empty lands are not accessible as they belong to privates or government sectors. This issue leads to the force of change in people’s way of life in Vientiane. Sometimes, they do not want to do it that way, a city’s new year celebration in a parking lot for instance, but people do not have any other choice because that is the only location for the event and so on. The development aims to push the country to be developed up to the principle of ASEAN but it is way too much, meaning, the development does not clearly or even a little of any preservation, culture and way of life for instance. In facts, Lao PDR is the country that is rich in culture and traditional value in the physical aspect as well as the mental aspect. It is the way people interact to each other, to the place and setting, which show the rich culture of Lao’s people.

Nowadays, the issues arose on the development, whether it is involved by the private or government sectors. The development is focusing more on the want to be like a modern city, which has mega-malls, condominiums, and other settings relevant. However, this is not the way people need, at least in this period of time. They fight against this development through the process. In other words, the development is going too fast. The mega malls are built too fast, people do not really need that kind of facilitation according to the life style and other factors, such as the low quality of the products, the architecture that does not get along with the current situation of the existing and the consideration of the users.


To make this simply clear, the new development destroyed the behavior of people, the culture, and the way of life, which is rich in culture and it has been there for decades.

The case would be the Morning market. The iconic market in Vientiane that has all rank of people as users. Now it is replaced by a shopping mall which is the failure development. The culture and the way of life were lost because of its replacement. There is no more public space for that rich cultural activity anymore.

Fig1.1: The diagram of the old morning market and the new one.

The original Morning market now disappeared and the culture of trading was gone. Most of the sellers have moved to the new location which is on the opposite side of the street creating the wet
market that is not meet the standard hygiene and market arrangement. Even though it is the new location but the behavior remains. The way of life and the trading activity in the early morning, which variety of users in the city, still happen.

The problems that can be seen in the situation is that people, or the sellers use the space for setting up their temporary stalls in the very inorganize way. They leave the trash and the waste from the goods and the vegetable on ground where there are some of them clean those up. However, the market time during the very early morning is very popular because many rare herbs and items can be found and the average price is lower than the normal market time.

This is the market place which is the public space where people can interact and trade goods, especially in the city area of Vientiane capital, this is the public market that is rich in culture and show the traditional way of life from the old time up until now. Currently the location is interested by many entrepreneurs and developers. So, I am aware of the fall of the culture and the traditional way of life, responding to this situation seeing the potential of the situation, I am experimenting to rebuild the market as the central market in Vientiane and promoting the market
as the public space which has the supported facilities that makes the community and the users to have a better experience and to be a reminder for those developers and the government that the culture is falling down if the development is wrong executed.

1.2 Issue of interest

1. how does the market fit the need of the users, community’s needs?
2. Spatial organization of a market.
3. How would the market give people more than a place for trading?
4. The form and the harmony of the context and surrounding toward the market – architecture.
5. Social interaction as behavior in public space
6. The lack of a third place to hang out and having new experience in doing such activities.
7. How can the market be the image of the city and the identity of the community?

1.3 Objective of the Proposal

1. To study the context and the identity of the city-context and surrounded settings.
2. To study the organization of the space, and the system of the market.
3. To study and create the market as is in between the contemporary and conservative context-way of life of the site.
4. To study the community and the users’ behavior and give the proper solution of what their needs are accordingly.
5. To design a public market with the city plaza that create the identity of Vientiane in terms of structural design and space.

1.4 Hypothesis of the proposal

In the creation of the Vientiane central market that includes more facilities to support and server the users and the community with public elements. Considering the way of life and the life style of the community to get them the space and architecture that preserve the culture and to suit the current trend and life style. Being the image of the city by promoting the cultural aspect, identity of settings and the people’ behaviors to the world and not to be destroyed by the developers, or colonized by the outsiders, such as Chinese and Vietnamese.
1.5 Definition of terms

1. **Market**: The public space where people come to trade and using space to enjoy their daily lives. The place that will encourage people to come and have public activities and create interrelationship with others rather than just come for trading.

2. **Identity**: It is the original mental or physical image that contains a sense of belonging. It is how people identify themselves in the society and how people identify the place and settings that they are in or getting involve.

3. **Wet market**: Wet markets were traditionally places that sold dead and live animals out in the open. This includes poultry, fish, reptiles, and pigs. However, since SARS, large animals and poultry are not as commonly found in the markets in Hong Kong, though live fish, shellfish, and frogs are widely available. Some markets also sell exotic animals. Fresh fruits and vegetables are also available. Wet markets also generally include butcher shops with fresh meat. The fresh meat and fish sections are separate from the fruit and vegetable stalls. Many markets also have stalls that sell dried goods, flowers, and processed tofu as well as cooked meat.

4. **Context**: It is the external elements that influence an object. There elements are physical and non-physical. Roads, buildings, and land contour are examples for physical elements while non-physical elements are weather condition, local culture, as well as political and economic constraints.

5. **Phenomenology**: Phenomenology is the study of structures of consciousness as experienced from the first-person point of view. The central structure of an experience is its intentionality, its being directed toward something, as it is an experience of or about some object. An experience is directed toward an object by virtue of its content or meaning (which represents the object) together with appropriate enabling conditions.

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3 Mohd Firidhaus Mohd Sahabuddin, "How important is the context in contemporary architectural design," accessed September 8, 2016, https://www.academia.edu/2040500/How_IMPORTANT_is_Context_In_Contemporary_Architectural_Design

6. **Public space:** it is an integral part of the culture of cities, often shaping a city's image and identity. The production, distribution and use of public space is often described by planners and policy makers in terms of health, safety and welfare. Yet the concept is also inextricably linked to loftier ideas of community, memory, citizenship, identity, and freedom of expression.

1.6 Thesis statement

the goal of this project is to rearrange and create "central market" with public spaces that will bring back the loss of the way of life, the identity of the original morning market, and the social interaction, and developing the design of the market that fit today's lifestyle of , and promote the market to be the image of the city.

"You cannot simply put something new into a place. You have to absorb what you see around you, what exists on the land, and then use that knowledge along with contemporary thinking to interpret what you see."

Tadao Ando

The solution of creating or designing an original and iconic building for people in the 21st century is to adapt the new technology and the technique or the new built form to fit today's lifestyle, however, all need to be concern critically about the history or the background of the context in order the make it more valuable and having the sense of belonging to the site or the place where it is built.

![Conceptual idea diagram](image-url)

Fig2: Conceptual idea diagram -The diagram showing the relationship which should be consider as old, present and new or future.

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Chapter 2: Literature Review

In the creation of the identity in one location is how the identity would represent the whole area, specific region, or the city. In this case, the identity of Lao architecture especially in Vientiane has been lost through the fail interpretation of the modern architecture.

In this thesis study will be based on the research and development of Veera Inpanthang’s work, The Creation of Modern Thai Architectural Identity and the consideration of the issue of Lao's critical regionalism.

By the study and research of Vimolsiddhi Horayangkura, the creation of Cultural heritage: Towards Creating a Modern Thai Architectural Identity, the study has the very interesting objectives and methodology of research in which I can study deeply and use in the creation of Vientiane architectural identity which will be performed in the design of Khuadin Market.

1. Objectives and methodology toward the creation of Modern Thai Architectural identity
1.1 To investigate the congruence of current Thai architecture identity in modern society, especially the identity generated from traditional architecture, applied Thai architecture and the aesthetic abstraction approach.
1.2 To examine the various determining factors and propose design guidelines for creating a Thai architectural identity for modern Thai society through ‘reinvention’ with the intention to create future cultural heritage.
1.3 To study the approaches for enhancing the sustainable development of the creation of a modern Thai architectural identity.
1.4 To study the opportunities and benefit potential that can be postulated through employing modern Thai identity in architecture as a contributing vehicle in the creative economy.
1.5 To reach a conclusion and propose recommendations and a series of research issues to be comprehensively addressed in the future.

2. Transparency in architecture

Vimolsiddhi Horayangkura, The creation of cultural heritage: Towards creating a modern Thai architectural identity (Bangkok: Manusya, 2010), 60-80
"architecture creates a connection between lives(humans) and nature by making them have a relationship physically and visually. inserting the architecture into the context where people used to see and experience should not be so obvious. it should be more or less transparent, or having the quality of opacity so that humans, nature and architecture or the built-environment have a smooth relationship. in this, according to Colin Rowe and Robert Slutzky, transparency has two main points. one is literal transparency which is physical translucence inherent in material or structure, and another is phenomenal transparency which represents in abstract space through the reorganization of the space, elements or objects."8

According to the market place or what I am doing in my thesis, this could be the answer of creating a mixture, combination, or put them together as one, the cultural image, the modern outlook, and the way of life of people around the site. through architecture, it should be seen as a whole, so it is all about the view, block, seeing through, and the intentional point of view that the architecture would suggest the users what to see, what not to and how.

3. Tectonic in architecture

According to the author, about the foundation of tectonic by Kenneth Frampton, tectonic is not only the construction technique or the uses of materials themselves, but it is also the beauty, the art of construction technique and materials. furthermore, the site and the context are getting involved, for instance: light, wind, weather, materials, and local construction technique. tectonic also has the point toward the reality of the tactile, the sense and the visual connection at the same time.9

as I am doing the market in the new experience of space but old system, it is more likely about the open space, and mostly must deal with the structure. tectonic is the term that is more interesting in how to put them with the cultural aspect of the site context.

4. A public space that servers more than the needs of the users

"expectations need to change."10

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9 ผลของผลิตภัณฑ์ การสร้างความสัมพันธ์ระหว่างสื่อสารมวลชนและสิ่งแวดล้อมในโลกสมัยใหม่ (2011). 130-153

10 Koning eizenberg architecture, architecture isn’t just for special occasions, 2016. 10-20
"places for daily activities should be highly valued."\textsuperscript{11}

"people can have more than they think."\textsuperscript{12}

"we expect great qualities in buildings like museums; shouldn't we also expect them in places for everyday living?"\textsuperscript{13}

"an individual's self-image is based on the quality of his or her daily life."\textsuperscript{14}

In this book, the author has lots of phrases that refer to what it is like to think, to understand and to experience in the real world, whether they are buildings, cultures or human lives. Do not focus too much on the context itself, but to get a closer look at how life is actually lived in the context. There will be a mismatch between architectural preference and the street experience. This is the way to really perceive the context and understand. It is important to know the character of each region, yet the way of life and culture of the context.

Buildings do not stand alone; I consider this as if the buildings are built by humans and be used by humans, so why don't we understand users, people as the primary consideration of all aspects, rather than architectural itself. The surprised things and the positively unexpected can happen through architecture to give users the best experiences accordingly.

5. Harmony in architecture - people

Form and space create both visual and physical experience of users, as people, can perceive and see through the void (visual void), or perceptual void (transparency). These all have to do with the surrounding and context, what is to be seen behind and what is to be covered.\textsuperscript{15}

Perceptual void is the void created by transparency surface in which people can see through as a void. Visual void is the physical void that is a hole-like being seen through. Visual void also relates to permeability which has nothing being as partition. The point is that both type of void and transparency have the intention of being rendered together more with the surrounding context.\textsuperscript{16}

\textsuperscript{11} Ibid, 11
\textsuperscript{12} Ibid, 12
\textsuperscript{13} Ibid, 13
\textsuperscript{14} Ibid, 14
\textsuperscript{15} Nilgun Kuloglu and Tulay Samlioglu, perceptual and visual on the architectural form: transparency and permeability. 17-07-2012
\textsuperscript{16} Ibid,
in this case, according to the context and the historical concern of the site project of my thesis, I consider this as the tool to create the harmonized space within the context, the historical architecture, the nature and the existing modern building which is not that successful in terms of economic and architectural approach. so, blending all together through the idea of transparency would be interesting and smoothly solve the problem and get along well with the context and people.
Chapter 3 Contextual Proposition

Lao PDR, the small country in South East Asia, is the under-develop country\(^{17}\), which has no connect to the sea. This makes the country have limited inter-trades or sea transportations. However, Vientiane, the capital city of Laos is located along the edge of Mekong river which has the connection with Thailand. The capital city is rich in cultures and has the interesting urban structure which form up the social life style and shapes up how people live and make a slow move during the day.

![Map of Lao PDR/ Vientiane](image)

Fig3: Map of Lao PDR/ Vientiane.

Vientiane city has a very low density according to the total area, however, it is very dense comparing to the other city on Laos

3.1 District selection

Creating the central market according to the concept should focus and start on the existing market which has the ongoing and existing contextual, activities, culture and life style. The criteria would arise from the existing condition of the market and the social needs of the community and

\(^{17}\) "Lao economy profile, last modified 2016, accessed september 9, 2016 http://www.indexmundi.com/laos/economy_profile.html"
users of the market. The KHUA DIN market is located in the middle of the city. It has a very interesting and important character in the social, community, city structure, and historical aspect. It is in the center of the commercial district which has the potential of adding the programs to make it more than a market to promote the place and the city.

Fig4: District selection.

The chosen district has potential to develop, and it contain the interesting factor, issues to be precise, and the criteria of the proposed Central Market should be located.

3.1.1 Future development consideration

The context of this district combines with the old, original housing and life style with some of the new development projects, such as shopping malls, office buildings, and condominiums.
However, the new building seems to be a distraction and being the contradiction with the uses or people who live and spend their times each day. It could be said that those new projects were way too fast to be there. It could be in the next 20-30 years according to the GDP and the number of population growth according to UN data.\textsuperscript{18}

3.1.2 Culture – behavior

The district has the strong relationship in terms of interaction with each other on trading, co-working or as circulating though out the city, this is because it is a small district, and people are familiar to each other. This district also has the relationship between people and places and that become their way of life. Most of people in this district are middle to low income class, not to mention about market users.

3.1.3 Life style

There is different life style slightly. However, the common lifestyle according to daily activity would be as follow:

Vientiane people have their rigid routine. Each type of people has their own routine but there is the similar point where people say it is the life style. The question arose if that is the life style that they really want. For instance, after work, people come back home and have dinner with family. It is not that they do not want to go, but they do not have other choices or another place to go. There are some, but according to the minimal number of third places, the price of each visit is so high that people cannot afford going very often.

MORNING
GOING TO MARKET
PEOPLE IN THE CITY GO TO THE MARKET IN THE MORNING FOR GOODS AND OTHER THINGS TO COOK OR FOR ANY OF DAILY LIFE IN NEED.

ARMSGIVING
MOST PEOPLE DOING ARMSGIVING IN THE MORNINGS ARE MIDDLE AGE AND OLDER PEOPLE, THE MINORITY AMOUNT WOULD BE TEENAGERS.

BREAKFAST AT HOME
PEOPLE IN VIENTIANE DO NOT LIKE TO HAVE BREAKFAST SOMEWHERE ELSE RATHER THAN HOME BECAUSE OF THE TRAFFIC AND CULTURE OF LIVING, THEY MORE LIKELY SPEND TIME WITH FAMILY AND TALK DURING BREAKFAST TIME.

RUN BUSINESS (SHOPHOUSE)
70 PLUS HOUSEHOLD IN VIENTIANE, RUN THE MARKET BUSINESS AT HOME (SHOPHOUSE, HOME SHOP, ETC.), FROM SMALL TO BIG BUSINESS AND DIFFERENT TYPE OF BUSINESS BETWEEN AREA, CITY, URBAN AND SUBURBAN TO BE PRECISE.

Fig5: Morning life style.

AFTERNOON
LUNCH AT RESTAURANT (HIGHER INCOME)
FOR PEOPLE WHO HAS HIGHER INCOME, THAT CAN AFFORD PAYING FOR FOOD AT THE VARIOUS RESTAURANTS WILL CHOOSE THE NEAREST ONE TO THEIR WORKPLACE OR SCHOOL.

LUNCH AT THE MARKET (LOWER INCOME)
MOST LOWER INCOME CAN ONLY AFFORD BUYING FOOD AT THE MARKET (LOCAL WET MARKET OR FOOD AT A LA CART AT SHOPHOUSE).

Fig6: Afternoon life style.

Lao people have the very slow and simple life style because of the city does not have many public space for activity or else according to the neighbor country Bangkok, Thailand which as more place and public space that people can go. That shape up another life style of the people living in the city.
Evening of Lao people is very stable and not much variety in doing activities because of the lag third place or public place.

3.1.4 Public space

Public place, as the market, in this district is the central point where all people in the district come to make trade as it is the only one place available and has no other distributors in the area. Also, this district is lack of the public place or hang out area which could give people in the community and district better lives.

The unique urban pattern of Vientiane city is that shop-houses in the inner part of the city are mostly the print shops, electronic, gadget, services, and many more but none of them sell food or vegetable. Despite the outer part of the city, the shop-houses mostly sells food, ingredients, vegetable, and other kitchen items. This made the life style a little bit different between life style in the inner part of the city and the outer part.

People in the city need to go to the wet market only to buy food, raw materials, and vegetable.
Apart from the selection Khuadin market. The other markets are the minor and small size serving the community and have no whole sale. All the small market around the city come to buy the whole sale products from Khuadin market at the very early morning called the Morning Market.

3.2 Site selection and site analysis

The selected site is based on the only and famous market (KHUA DIN MARKET). It is the new location of the Original morning market which has the historical and the cultural value. The activities and the social interaction during the market opening time is something beautiful and unique. However, the original morning market was replaced by the new shopping mall which was happen to fail in terms of economic, architectural and popularity. That caused the sells to move to the new location which is on the opposite side. That is the site that is chosen.

The site is located at the corner of its block creating the opportunity for the good view, sightseeing and approach. Furthermore, it is in the middle of the city and in between of the so-called modern building and the shopping mall, in which both are the failure of the new development. This is the opportunity to develop and create the place and architecture to notify developers and the government what should be done and what should not by creating the space for the community and people’ need, not only for money or self-benefit.
CULTURAL IMPACT:
The Old Morning Market is replace by a new shopping mall which has nothing to do with the local users and the existing context.

THE MODERN SHOPPING MALL WHICH SEEMS TO BE FAILED.
LESS PEOPLE USE THE PLACE.
LACK OF LOCAL, CULTURAL SOCIAL INTERACTION.

THE ONLY LOCAL MARKET THAT IS LEFT IN THE AREA. MANY KINDS OF SOCIAL ACTIVITIES AND TRADINGS ARE FOUND HERE

Fig9: Diagram showing the impact zone.

The chosen site can be the activation to get the both shopping mall more active and consider the renovation in terms of architectural identity and the need of the users.
### Table 10: Market site comparison

<table>
<thead>
<tr>
<th>Site Area</th>
<th>Advantage</th>
<th>Disadvantage</th>
</tr>
</thead>
</table>
| 1 - Redesign Market and Bus Station (40,000 sqm) | - Better bus station, circulation and space arrangement  
- Having high number of users on the market part  
- New waiting area - enjoy the new environment while waiting for the bus  
- More social interaction based on more users from bus station and market itself | - Narrow road not support the bus station traffic and circulation  
- Diversity and congestion between the market and the bus station  
- Possibility of having too crowded space which create a low comfort space and quality of living or doing public activities  
- Lack of parking area |
| 2 - Redesign Market, Leave the Bus Station as it is (30,000 sqm) | - Redesign the market for a better spatial organization and quality  
- Having a better place of market to serve both local people, usual users and user that come from the bus station  
- Keep the way of life as what people used to do each day but having a better environment (market place) | - Less options in possibility of redesigning a market - considering the connection and existing bus station's system  
- Lack of relationship of 2 places - bus station and the market  
- Lack of parking area |
| 3 - Redesign Market, Move the Bus Station to the Other Place (40,000 sqm) | - Full opportunity to redesign a market where users remain, more to come and having the new experience on trading (sell-buy) with new environment  
- Big space - less enclose create more pleasant for users' experience  
- No more congestion, less traffic and cleaner street (physical-visual)  
- Potential of creating the centre market more space for parking and circulation | - Relocating bus station might cause short time problem up on bus station' users' behaviour |

Considering using the most of the available site because of the market need a large area for parking lot, and serving as the parking for another place such as shopping mall. Even though there are two big shopping malls but there are little area for parking.
The distinctive character of Vientiane city is very interesting. There are the mix, combination of the office, governmental building, commercials, all in one area. The residential mostly are shop houses.

People are running their own business like home office and even retail shops can be found in town houses along main street.

Fig11: Vientiane land use.
The road network in Vientiane city is not complicated. There is the main avenue which is the significant axis called Avenue Lanexang. The collectors are quite narrow, most of the collectors are two lanes and supported by the inner distributors to go along the blocks.
The road traffic is very simple. They are only two tracks of the one-way road in the city map showing in (Figure13). The rest are two ways road which have the average width of 16 meters.
Fig14: Figures and ground.

As showing in (Fig14), the city area are covered about 70% of building, but there are only two public park or open space that people go for public activities such as jogging, running, promenading.

Fig15: Node and Landmark.
The access to the site is very informal and complicated as there is no good design on circulation. The users can go in any direction as they want even though the market organization has provided some direction for them. This issue occurs because of the bad organization of space and circulation.

**CONTEXTUAL ANALYSIS - ISSUES ON THE FAILURE OF THE NEW SETTINGS**

**THE NEW MORNING MARKET**

**FIRST SHOPPING MALL**

**SITE: KHUA DIN MARKET**

Fig17: Surrounding character.
The site lies in between the central business district zone and the cultural preservation zone considering as being in between the old and the new. It is in between the two landmark of the city. This has the potential the create and iconic building to be another landmark to make this area the central of the city where people from oversea must visit.

3.3 Law and regulations

1. Zone: UAa – Administration and trade central zone – Central business district.

2. Programs that are allowed to be proposed and built:
- Residential, townhouse, hotels, restaurants
- Public buildings: school, hospital, cultural and social programs, museum, market, etc....

3. Entrance and Exit:
- The public road around the building should not have less than 4 m width and the entrance area should not be less than 4m at least 1 way.

4. Land form and Proportion of the Land:
- The new project must not interrupt these following values: culture and historical senses.
- Setback at least 4m. - Minimum built area for town house: 48 sqm.
- Minimum built area for single building: 140 sqm.

5. Location of the building in relation with the main road:
- Concern of the alignment of the building at the surroundings.
- Building can cantilever on top of the setback 1.2m.

6. Distance between buildings in case of having more than one building in one project:
- Distance is equal to the half of the height of the tallest building but not less than 4 meters.

7. Proportion of the buildable area and open space:
- Coverage of the building not more than 60%
- FAR is 1:4
- Open space 40%

8. Building height and set back:
- Building height not more than 26 meters
- Setback at least 6 meters clear, around the site

9. Regulations on food hygiene:
- The public road around the building should not have less than 4 m width and the entrance area should not be less than 4m at least 1 way.
- The doors must have a width of no less than 2m and can protect animals.
- Walk way for customers should not be less than 2m
- Shop stalls should be made with durable materials.
- Using appropriate light to maintain the color of the products.
- Provide water supply for washing the products.
- Plumbing for washing in fresh product stall must have at least one faucet per 2 stalls

![Image](image.png)

Fig19: Building regulation and calculations.

The law and regulation are set and strict, however if it is the new development and the proposal is approving that it can be a good prototype for the future, every regulation can be negotiated and putting into the special cases.
Chapter 4 Potential Design Response

4.1 Design scope

By considering the main activity and the history of the Morning Market, the early morning trading activity must be preserved. It should not be built as the modern shopping mall-like, as there are two examples of new shopping malls failed in many aspects. Adding additional programs to support the market and the needs of the users according to their life style to fit today's trend.

**IN THE PAST: THE ORIGINAL MORNING MARKET**

**THE ICONIC MARKET ACT AS ONE OF THE LANDMARK OF THE CITY**

**TODAY: THE NEW MORNING MARKET "TALAD SAO MALL"**

**THE FAILURE OF THE NEW BUILDINGS OF TALAD SAO**

**ISSUES**
- Low income people cannot afford
- Low density area, not enough users to go there everyday
- High income people tend to go to Thailand instead because of the trend (buy brand name, must be from Thailand)
- Going to Thailand is much easier than before

Fig20: The original Morning market and the new one.
The summarized of main programs according to the analysis of the context, the community and people’s life style is proposed as the KHUA DIN market will be better if it meets the standard hygiene and all in need programs.

The market place has the main function as the trading place, however, this market will have more to serve people and make it more than just a market by adding the restaurant, the city plaza and specially adding the souvenir retails for local and tourists.

4.1.1 Theory and architecture relationship

Creating the identity of a place or space that will represent the value, physical and mental of the brought-up item that belong to the context or the city must have something in relation with the users, programs, space, and time. The element must consist of the local identity or have something relate to it. The users or the community should experience that they belong to the place, and the place belong to them so that the sense of space can be develop into a feeling and that leads to the sense of belonging.
Fig 22: Theory and architecture relationship diagram.

The dimensions of creating places in this diagram showing the relationship of the identity, emotion and component or element of architecture in order to have a building that represent the identity of Vientiane and also fit the program and users or the community.

4.2 Program analysis

Fig 23: Conceptual programing diagram.
The conceptual diagram in (Fig23), show the idea of adding and fulfil the needs of the users and the lag of third place and activity during the night time in Vientiane inner city.

**CURRENT CONDITION OF KHUADIN MARKET**

**ACCESS**

**ZONE A**: 24 ROWS
- Bungalow house as shop house
- Selling household product and daily used items

**ZONE B**: 400 STALLS
- Under the temporary cover
- Selling clothes, kitchenware, and household products
- Note: Poor ventilation. The space is too tiny; less comfortable for walking.

**ZONE C**: 94 SHOPS IN THE BUILDING
- This building intends to get some sellers from the high density of stalls in Zone B, but it failed due to the sense of place and how the users use the spaces.

**ZONE D**: FLEXIBLE
- Parking 8 AM - 6 PM, Fresh Market 4 AM - 8 AM
- In the early morning, the space acts as the open yard for non-registration sellers from outside the district to sell vegetables and fruits. (Very cheap price)
- After 8 AM, it turns to be a temporary parking area. 20 minutes max.

Fig24: Program analysis.1.
ZONE E1 : 10 ROWS
ROW HOUSE AS SHOPHOUSE SELLING HOUSEHOLD PRODUCT AND DAILY USED ITEMS

ZONE E2 : 200 STALLS
UNDER THE TEMPORARY COVER SELLING CLOTHES, KITCHENWARE AND HOUSEHOLD PRODUCT
NOTE: POOR VENTILATION, THE SPACE IS TOO TINY, LESS COMFORTABLE FOR WALKING

ZONE F : 116 MEAT STALLS, 37 DRY PRODUCTS, 9 RESTAURANTS
FRESH MEAT SOLD HERE UNDER THE COVER AS PERMANENT STRUCTURE AS REGISTERED SELLERS
NOTE: DIRTY ENVIRONMENT, TRASH ALL AROUND, VERY SMELLY, NOT FROM THE MEAT, BUT THE WASTES.

ZONE G : 110 STALLS
ALL VEGETABLES AND FRUITS ARE FOUND HERE INCLUDING SOME COOKED FOOD (FRIED INSECT...)
LOCATED UNDER THE TEMPORARY COVER, WOODEN STRUCTURE
NOTE: THIS IS THE CHARMING AREA THAT CONTEND THE SENSE OF PLACE OF THE OLD MORNING MARKET FROM THE OLD TIME, BACK TO BACK TRADING, WILD ENVIRONMENT...

ZONE H : 30 STALLS
VARIOUS TYPES OF FISH ARE FOUND HERE LOCATED AT THE BACK OF THE MARKET, NEXT TO THE PARKING AREA
NOTE: BAD HYGIENE, VERY SMELLY, BAD WASTEMENT AND DISPOSAL SYSTEM, ALL THE WASTE WERE POUR INTO THE PARKING AREA WHICH HAS NO FLOW OF WATER OR ANY DISPOSAL SYSTEM

Fig25: Program analysis.2.
4.3 Organization structure

**ORGANIZATION STRUCTURE**

- **PRIVATE**
  - **ADMINISTRATION**
    - Manager (2)
    - Secretary (2)
    - Administration (2)
    - Nursing (2)
  - **FINANCIAL**
    - Manager (2)
    - Accounting (2)
    - Finance (2)
  - **MARKETING**
    - Manager (2)
  - **PUBLIC RELATION**
    - Manager (2)
  - **HEAD OF PREMISES**
    - Market (2)
    - Plaza (4)
    - Maintenance (4)

Fig26: Organization structure.

### 4.4 Activities / Spaces

**PROGRAM ANALYSIS**

**USER ACTIVITY**

- **Hangout** 15%
- **Other** 10%
- **Training** 50%
- **Trading** 25%

**OTHER**: Public activity, leisuring, walk, plaza

**HANGOUT**: Eating, chilling out, always go with the market, and even when the market is closed

**TRADING**: Main activity during the day

**SOUVERNIR**: A place for tourists to buy souvernir items and local art-craft product.

Fig27: User activities and Relationship diagram.
Fig28: Activities table according to each zone.
4.5 Space summary

4.5.1 Case study

Sam Yan Market

**SAM YAN MARKET**

- **LOCATION**: BANGKOK, THAILAND
- **TOTAL FLOOR AREA**: 6,200 SQM
- **TYPE**: MARKET PLACE
- **OPENING TIME**: FOOD COURT FROM 5:00AM - 12:00AM
  - MARKET FROM 5:00AM - 5:00PM

**MARKET LAYOUT**

- 1st FLOOR
- Service
- Wet
- Semi-Wet
- Dry
- Kids

2nd FLOOR

FOOD COURT

AND RESTAURANT

**MARKET STALL DESIGN**: CASE STUDY BY UNKNOWN

Conceputal Stall Layout

**Fig29**: Sam Yan market.
4.5.2 Space analysis

The three main zones are the stalls for clothes, fashions, and other miscellaneous items. By analyzing the existing condition and the number of the stalls comparing to the existing users, it is concluded that the space must be bigger for more convenient of the users and the standard of the marketplace circulation and zoning.

Some zones will be combine with another according to the market zoning and considering the concept and the relationship with the city plaza and the supported facilities of the market.
The three zone, wet, semi-wet, are rearranged according to the analysis of the current situation and the space requirement of the market stalls and circulation. Some space must be expanded to meet the standard hygiene of the market and to be arranged into the zone according to the market zoning and the concept which connect to each part of the supported facilities.

### 4.5.3 Space summary

**Market**

- Wet area (174 stalls)  
  3,820 sqm
- Dry area (396 stalls)  
  8,710 sqm
- Ready food (24 stalls)  
  324 sqm
- Semi-wet area (177 stalls)  
  972 sqm
- Souvenir  
  1000 sqm
- Restroom (x4) 256 sqm
- Total: 15,082 sqm

Restaurant
- Restaurant (market) 2000 sqm
- Life style restaurant 3000 sqm
- Restroom (x2) 128 sqm
- Total: 5,128 sqm

Service
- Loading area 216 sqm
- Preparing area 168 sqm
- Generator room 120 sqm
- MDB room 60 sqm
- Garbage area 30 sqm
- Pump room 120 sqm
- 30% Circulation 214 sqm
- Total: 928 sqm

Office
- Manager area 70 sqm
- Office area 120 sqm
- Meeting room 60 sqm
- Pantry 20 sqm
- Restroom 32 sqm
- 30% Circulation 90 sqm
- Total: 392 sqm

Car Park
- Car park (200 cars) 2500 sqm
- 60% Circulation 1500 sqm
- Total: 4000 sqm

City plaza
- Plaza 1500 sqm

Project Total area: 27,030 sqm
Chapter 5 Building technology

5.1 Building structure

The building structure in this project will sure be the long span structure. They will be specially designed based on the truss, space truss, 3D truss structure and develop in order to get the best fit with the concept that will show the character and the identity of Vientiane.

Fig32: The conceptual structural design.

5.1.1 Case study: Barceloneta Market / Mias Arquitectes

The project that has the outstanding structure design. It is the combination between the original truss structure of the building with the new design of the extended element that become another unique long span structure holding the building along side with the truss structure.
Fig 33: The combination of new design element with the truss structure.

Fig 34: The combination of new design element with the truss structure.
5.2 Building system

5.2.1 Structure and Ventilation

The market is the huge building in which need natural ventilation mostly because of the humidity, the odor and the air ventilation need to keep the users in the comfort zone.

As the long span structure and the huge volume of the mass of the building, the natural ventilation or the wind might not ventilate properly. It needs some mechanical system to help the wind flow better. In this case the big fan is apocopated and the use for ventilating the air in the volume of the building to have the normal flow.

Fig35: The big fan helps to make the wind flow better in a big volume of space.

Fig36: Natural ventilation design showing the wind flow.
5.2.2 Waste Management

It is very important that the waste management of the market, especially the fresh market zone would be well treatment because some zones create huge amount of different types of waste, for instance, fat which need grease trap to prevent the dirty output from longer time used of space and drainage system.

Fig37: Waste management/ grease trap diagram layout.

The diagram showing the waste management line from the first waste output to the public disposal field which came through the grease trap and the septic tank to ensure the health and safety care is met the standard.
Chapter 6 Design Schematics

6.1 Concept

6.1.1 Conceptual ideas

The conceptual ideas on planning the project derive from the urban context, the district and the axis of the important avenue and historical buildings.

Fig38: Conceptual diagram of site planning.

The diagram showing the critical analysis if the axis in the inner city considering the important place both old and new.

6.2 Design schematics

Schematic 1

The design is focusing on the use of the corner of the block of the site being as the city plaza. It has the potential of attracting people for stopping by. It can be the image of the city as the city plaza will have the activities and the event going on all the time. This will make the market active and being the heart of the city.
Fig 39: Conceptual diagram of schematic 1.

The diagram showing the application of the axis analysis on the site location according to the program zoning and the surrounding context.

Fig 40: Schematic plan 1.
Schematic 2

The design is focusing on having the city plaza in the middle of the project creating the opportunity for all programs and users to have the relationship and the interaction.

The plaza is the highlight of this scheme so it is not the intention to be shown from the long distance but users need to get closer to explore and experience the space and activities.

Fig41: Conceptual diagram of schematic 2.

The diagram showing the application of the axis analysis on the site location according to the program zoning and the surrounding context.

Fig42: Schematic plan 2.
**Schematic 3**

Continuing to develop the master plan from the first and the second schematic, the design is based on the user's behaviors and putting more activities to make the place lively and interesting.

Fig43: Schematic plan 3.

This schematic is focus on the visual perception of the users having the interaction with the architecture and between the users themselves by having the small pocket green area as the joining space and also buffer.
From the vision of the elevations showing the dynamic and harmony at the same time. Representing the simplicity of the linear line and contrast with the signature gable roof design.

**Schematic 4**

The schematic 4 was develop from the third one which having more details on the green area and the additional of walking, seating area to provide users the comfort during the walk and the pleasure shopping experience.
Fig45: Schematic plan 4.

The schematic 4 has more integration of the green spot and pocket garden inserting in between the buildings to make the architecture softer in terms of visual connection to the users.
The elevations have more detail comparing to the third schematic. Putting more details and design into the face and the form of the building in which representing the colonial look and the simplicity of the new modern design to make it fit to today's lifestyle.

**Schematic 5**

The schematic 5 was basically develop from the fourth one but having more details on the building layout, plaza, and façade to make the design more unique. Moreover, the plan layout has been developed to be more organized in terms of space, zoning and the group of users interacted between space and buildings.
The schematic has been added the more details in every part to make the design unique. The symbol and pattern are used to create the design languages to represent the uniqueness of the city.

Fig 47: Schematic plan 5.
Fig 48: Schematic plan 5 – Elevations.

The elevations showing the simpler look of the horizontal and the vertical architectural language. Making the form simple but adding more details on the façade and the space between buildings.
Chapter 7 Design Summary

7.1 Design concept

The main concept of this project is to bring the sense of the colonial’s distinctive character in Laos, which is unique in terms of mix and combination of the western style and Lao style architecture. The planning focus on creating the sense of the city which is the organic pattern that is irregular form but in somehow organized. The irregular pattern and circulation allow users to experience and interact with the space and architecture closely so that they do not feel lost. They will feel that the project belongs to the place and belong to them.

Fig49: Conceptual diagram showing the urban pattern of both city Vientiane and Paris
Fig50: Conceptual diagram showing the character of the colonial element.

The concept is from the study and redevelop of the colonial order of the opening and solid mass. It is adapted to fit the retail environment and to fit to the users needs which is the big opening and having the natural ventilation.

Fig51: Concept development.
The concept development up to this stage is to apply the modern design to the colonial character and adapt to fit best and get the right solution to answer the function, the form and the users' need.

ADAPT THE COLONIAL LINE TO FIT THE SIGNATURE GABLE SHAPE

ADJUST THE PROPORTION TO FIT BOTH LANGUAGES AND SHAPE

Fig52: Concept development - facade.

The final façade design development come through the process of the attempt to put the colonial element and character in to the modern design. In here the continuous line is used to connect the unique void together creating the effect of the two elements. One is the void which represent the vertical element and the other one is the pattern representing the horizontal language as all in one façade to create the new perception of colonial architecture.
Fig53: Concept development – architecture language.

The linear continuous line softens the zigzag of the roof so that they blend together well. On the other side of the elevation as it is seen the roof as the linear line, the zigzag gable character if shift down to create the same effect of the two languages.
7.2 Conceptual diagrams

Fig 54: Diagrams of planning concept.

The zoning and planning is based on the design standard and the need of the users following the concept.
Fig55: Zoning diagram.

The diagram showing the function and the relationship of space.
7.3 Final design drawing

Fig56: First floor plan.
Fig57: Layout plan.
Fig69: Elevations
Fig 60: Walking path on the West side.

Fig 61: The retails on the West side.
Fig62: The middle court yard (Plaza).

Fig63: The city plaza.
Fig64: Walk way of the retail building.
Fig65: Inside the fresh market.
Fig66: The front entrance.

Fig67: The pickup area.
Fig 68: The middle courtyard.

Fig 69: The main walk way.
Fig 70: The plaza 2.

Fig 71: The front of the fresh market.
Fig 72: The overall look of the project.

Fig 73: Aerial view from the South.
Fig74: Façade 1.

Fig75: Façade 2.
Chapter 8: Thesis Conclusion

The project, Vientiane Central Market, give to solution and answer the thesis statement that the aim is to create the central market for local people and tourist in which the architecture will represent the identity of Laos using the colonial element and Lao architecture blending together so that the users can experience what is not totally new but the new perception of what they belong to.

The main design of the market based on the irregular of the city pattern and form, and the Paris urban pattern to represent the colonial city in the past because France once colonized Laos. As the programs, retails, and the fresh market if two separate zoning, integrating the court yard in between is the solution to the combining space to have a buffer and the sharing space so people can have interaction to each other from space to space.

Providing the courtyard not only for people to have activities and hold the event, but also to create relationship between users in different zones, this will create the variety of activities and will make the space lively which can draw people in all the time operation.

In conclusion, the solution from this project and what it gives toward the design and architecture is from the colonial inspiration combining with the modern design development to fit today’s lifestyle so that people in the city can now have the place to hang out and meet, what it is call the third place.
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