BANGKOK, THAILAND
ORIENTATION

LECTURE
By Professors
SITE VISIT

LECTURE
By National Housing Authority
1. ชุมชนต้นเล่งก่า (รัฐบาลการประชุมศาสตร์ฯ ปี 2516) จำนวน 64 อาคาร 4,144 หน่วย
2. ชุมชนต้นเล่งใหญ่ (คณะ สร้างอาคารหลัง ปี 2516) จำนวน 23 อาคาร 3,500 หน่วย
3. กลุ่มเขาข้าวและแช่กระยะยาว จำนวน 7 อาคาร 1,598 หน่วย
SITE ANALYSIS

LOCATION

THAILAND

Bangkok is located in the central region of Thailand.

BANGKOK

Din Dang Community is located in the east site of Chao Praya River.

DINDANG COMMUNITY

4641 Mit Maitri Rd, Khwaeng Din Daeng, Khet Din Daeng, Krung Thep Maha Nakhon 10400
Around the site, there are many government office opposite the road. Also there are the living place, market and shop house at the same side of the site. Most of them is 3 or 4 storey building not single-houses.
USER ANALYSIS

USER TYPES

During daytime, children go to school, and need social interaction after that. Moreover, the creative activities is also required to develop their growth.

Kids need cares during daytime and also want the playing space within their parents care.

Some of the adult need to go to work in the city center, but some run their business at home as retail shop, or general employee.

The elder need a special care with the convenience space using to prevent the accident and injury.

LOW-INCOME USERS

Disaster

Financial Crisis

General Employee

Taxi or motorbike taxi driver

Retail shop

Hawker
DESIGN A
As the project was located nearby the intersection which will cause both air and noise pollution that will cause a unhealthy way of living.

Providing a shifted angle will avoid those pollution and in additional it will gain a new kind of space in each sides. Each unit are designed to obtain the natural lighting and air ventilation that flows pass through to reduce the use of electricity.

Moreover as it was a housing for low income residence, programs are practical for them such as home-grown vegetable area, green spaces, ground area for the residence who are willing to sell thing for more incomes and playground for kids.
DESIGN A

FLOOR PLAN
DESIGN A

ORIENTATION

- Solar panel to offset electricity usage in common spaces for elevators, lighting, and HVAC systems.
- Natural ventilation gained from the openings and vents within the building.

SUMMER WIND
PERIOD: MAY - OCT

WINTER WIND
PERIOD: NOV - JAN
DESIGN A

STACK VENTILATION
CONCEPT

The concept of keeping the characteristic of the traditional living of the community to the building by using the primary and secondary corridor to represent the road in the community also the balcony which placing in front of each living unit to make the building more friendly and giving sense of home.

Building design come up with the idea of keeping the building as community not just an accommodation. The empty space between building use for visual connection of people in opposite of the building.

we cut the building in the cross direction due to the natural ventilation to reduce heat gain and energy in the day time.

The shifting of unit is the privacy factor we concern for user, also the space between each unit also allow natural wind in to open space each unit.
DESIGN B

ELEVATION
DESIGN B

FLOOR PLAN

MICRO-ARCHITECTURE
**Design B**

**Programs**

**Balcony**
To make this place like the characteristic of their old house, the balcony is the space they use to interact with their neighbor. So, we decide to make this space connect to the living room. In the daytime, this balcony can combine with the living room, but in the nighttime, to give the privacy so they can close the door.

**Extension**
For the extension family, they can use this space to expand their room in the future.

**Void**
Void is the space where give people interact in the vertical way like they live in their old place that everyone know each other.

**Green Facade**
Because this building surround by road so this building a lot of the pollution. This green area can protect user from air and sound pollution.
According to the old buildings, the atmosphere is bad for the resident. There is bad ventilation and the room is too narrow. Also, the natural light can not come into the room. The ground floor is dirty by garbage.

So, we left the first floor to design the garden and parking for cars and motorcycle. Increasing the green area at the ground floor.

About the natural light, we decided to separate the room in two sides to reduce the width of the room and make center corridor also void to receive the natural light to come into the building and making it lighter.

Making the void to receive the ventilation into the building.

Originally, the area of Jin Doeng area was mostly rice fields. Later, in the period of Field Memorial P. Phunhongklaen, there was a way of creating a dirt path from the Victory Monument to the Jin Doeng Triangle area. And continue to build up to the current school since 50 when the car can through.
DESIGN C

ELEVATION

MICRO-ARCHITECTURE
Design C

Section

- Collecting the rainwater from green roof for use in the building.
- Providing utility rooms for each floor connected to each which go down to the basement.
- Mechanical rooms are provided in each floor which make it easier to maintain.
- Creating community space for connect each resident together.
DESIGN C

UNIT

PLANING

Two different types of units are provided for single family and extended family.

- The first units type is 24 sq.m room with a height of 3 meters units is an offered to the single family of 3-4 persons. Room divided by living room, kitchen, bedroom, bathroom and 1.5 sq.m for balcony.
- The second units type is provided for an extended family live more than 4 persons. The overall height of the room is 4 meters, 2.2 meters for a normal use floor and the last 1.8 meters for an extension. All the units type will be punctuated to each other create a dynamic elevation for the overall look of the building.

- The 5 meters gap between each building, 1.2 meters for each corridor and another 3.5 meters open space, garden area and activity area where we allow natural sunlight and ventilation inside the building.

- The buildings are elevated up for the vendor to use during the daytime. During the night time, this area will be changed into a parking lot for the residents.