



The exhibition of IFLA - APR 2009

Student design competition
@Incheon, Korea

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BANGKRUAY PUBLIC PARK

Edkarat Kongrattananan

SITE LOCATION : Bangkruay Nontaburi, Thailand
AREA : 177.66 Are



Surrounding :

- Residence
- Hotel
- Commercial Area

Design purpose:

- Create open space for surrounding community
- Reduce number of carbondioxide

Design concept:

- Contrast of space

Site Problem:

- Accessibility
- Site visual

DESIGN

Because, the highway separate this site into 2 space and 2 side of the highway has the different surrounding. In blue zone, there are surround by residence and commercial but In orange zone there are surround by farm and nursery. So I decide to use the concept contrast of 2 side space.

In blue area, there are surround by residence and commercial so, I decide to make it be activity park for people who live nearby.

In orange area, There are surround by farm and hard for people in the other side to access so, I decide to make it be green area that help absorb the CO2 from the air.

The problem of site is accessibility and visualize. So, I decide to create a new path from parking lot of shopping mall to solve accessibility problem and create the landmark from burm to solve the visualize Problem. This burm also reduce noise from the road too.



Site Zoning



Perspective



Detail burm



Detail lighting

CARBON REDUCING

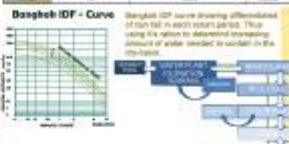
We decide to use 2 species of tree to absorb the carbondioxide from air, they are "Shorea siamensis" and "Tectona grandis"

The reason that we decide to use these 2 species because they has high rated of absorbing the carbondioxide from the air and want low maintenance

Tree	Area(m ²)	Mean annual carbon dioxide fixation			
		Winter (kg /d)	Summer (kg /d)	Rainy (kg /d)	
Shorea siamensis	4,120	494.40	603.76	539.34	
Tectona grandis	4,120	391.40	2,399.60	833.34	
Total	8,240	885.80	2,999.36	1,372.68	

RICE UP PARK

THE ECOTHERAPY PLACE



PROJECT CONTEXT

Close of flood in Bangkok and the factor of global warming increased the rain fall intensity thus increasing amount of flood. The Location was designed to be a case study to address the flood damage from Chao Phraya river and use as detention pond by Ratchaburi district.

Besides the water pollution in many canals in Bangkok is an important problem that must be resolved before discharging to Chao Phraya river. According to The Royal Thought, The good quality water benefits the waste water.

Burning fossil fuels such as natural gas, coal, oil and gasoline increase the level of carbon dioxide in the atmosphere moreover carbon dioxide is a major contributor to the greenhouse effect and global warming. We plan to create urban forest to absorb carbon dioxide from the nearby area.



TREATMENT CENTER
With the oxidation ditch system.

SPORT CLUB
compose of Futsal court, gymnasium and swimming pool.



LAWN
A large area of grass field provide multi-purpose area.

WATER FILTRATION TERRACE
The constructed wetland which design likely to a rice terrace design.

MARSHLAND
Educational trail for study about water treatment.

THE URBAN FOREST TO ABSORB A CARBON DIOXIDE

Burning fossil fuels such as natural gas, coal, oil and gasoline raises the level of carbon dioxide in the atmosphere and carbon dioxide is a major contributor to the greenhouse effect and global warming. We can help to reduce the demand for fossil fuels, using energy more wisely or planting a tree to absorb a carbon dioxide.

The effect of tree for carbon offsetting is very low. The natural forest can absorb for more 25,000 kg CO2 per year.

In Thailand, plant trees is not popular but here a research of Prof. Pongthep Kiatmanee has been done for carbon offsetting in 2010.

THE BASIN
a cleaned water pond to enjoy and control a water before discharge.

RICE FIELD
provide area for education, agriculture and education.

EMBANKMENT
The structure that prevent the flood from river.

PROWNADE
A linkage of deck on the shoreline.

MOUND
a lots of mound that represent to a rice field.

URBAN FOREST

AMPHITHEATER

JOHNSAMUTH JERN 49

FLOODED AREA RETURN PERIOD

1 YEAR	5 YEAR	10 YEAR	25 YEAR	50 YEAR	100 YEAR
CANAL	CANAL	CANAL	CANAL	CANAL	CANAL
WETLAND	WETLAND	WETLAND	WETLAND	WETLAND	WETLAND
RICE FIELD	RICE FIELD	RICE FIELD	RICE FIELD	RICE FIELD	RICE FIELD

WATER TREATMENT AREA

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Rice up park

By Katavet, Charlie, Peerapol, Supasit, and Pattanasart



PIECE SCAPE

"small space but big spread"

BACKGROUND and OBJECTIVES

At present, Sun Square area suffers from excessive development with the density and the surrounding urban area. The objective of this design is to provide a green space in the area and to provide a green space in the area and to provide a green space in the area.



- Green space
- Commercial building
- Public space
- Highway
- Water body
- Other

DESIGN CONCEPT



PIECESCAPE : a series of small green spaces providing natural green for a crowded, busy commercial area like Sun Square—the heart of downtown Bangkok. The empty spaces in Downtown Bangkok are limited because most are occupied by landscape and buildings. It is difficult to find large open green spaces, thus it is more reasonable and effective to design green space in small pieces and spread them all over the available sites. Despite the small size of the designed green spaces, the expected positive effects are comparable to those of a large one when the small spaces are integrated collectively.

TETRIS : the immortal game ever for the popular eventing game, representing a diversity of fashions, items, creativity and imagination that are changeable with trends and time but eternally existing there no matter what.

DE-STUJ : The art design shows the perfect composition of grid which compares to the grid line system in urban planning. To design uses DE-STUJ pattern to keep spaces in order. To emphasize each spaces depend on functions by using primary colors.



Piece scape

By Sunanta Nuanlaaor and team

