APPENDIX A
THIRD-YEAR ARCHITECTURE STUDENTS' DESIGN PROCESS IN THE ECO-ADAPTIVE COMMUNITY PROJECTS

Table A-1: TAS-1 analytical design process collaborating with research in the co-development between problems-solutions model.

Problems	Research/ Inquiry	Solutions
Initial problem		*Initial solution*
Design task: an eco-adaptable community supportive for both a youth camp and a shelter from flooding.	Understanding the program; searching for ecological diagramming in which takes control of activity loops.	A generative concept of water treatment and recycling systems defines functional relationships and circulation systems. The paddy field pattern is manipulated in spatial management.
Developed problem 1		*Developed solution 1*
Possibility of how water recycling systems function and systematize activities in place.	Cooperation between water treatment, the site level, and sequence is explored, including site analysis: approach and orientation. The program and a specific grid pattern are overlaid upon the site regarding water treatment systems.	Natural water treatment process flows and circulates by gravity between different levels, and 35x35 m^2 water tanks determine four nodes.
		Developed solution 1-1
	The schematic relationship of activities is investigated through sectional drawings.	Different levels cooperate with activity sequences and linear functional arrangement: housing and community, self-agriculture and exhibition, dinning, and farming concerning level changes of water treatment.

Problems	Research/ Inquiry	Solutions
Developed problem 2		*Developed solution 2*
How do visitors learn ecological systems and treatment operating in the site?	Exploring another trial to encourage learning experience by model-making.	Different types of farming and water treatment are dispersed along a created sub-diagonal learning axis.

Table A-2: TAS-2 analytical design process collaborating with research in the co-development between problems-solutions model.

Problems	Research/ Inquiry	Solutions
Initial problem		*Initial solution*
Design tasks: an eco-adaptable community supportive for both a youth camp and a shelter from flooding.	Understanding functional conditions in relation to waste management is explored by diagramming and sectional study on levels.	Re-functioning relationships through waste management.
		Developed solution 1
	Schematic planning is generated in parallel lines between activities making waste and recycling and waste-treatment functions.	Regrouping functions regenerates functional loops related to waste treatment, integrating with leaning process and demonstration farming.
Developed problem 1		*Developed solution 2*
Forming hubs of distinctive nodes: learning and housing and agriculture, including links.	Formal inquiry is developed by means of sketches and physical modeling.	A couple of cooperative functions such as housing units and farming gardens are created along the axis to make a rhythmic green link. Two complete loops clarify characteristic nodes between learning and agriculture.

Table A-3: TAS-3 analytical design process collaborating with research in the co-development between problems-solutions model.

Problems	Research/ Inquiry	Solutions
Initial problem Design tasks: an eco-adaptable community supportive for both a youth camp and a shelter from flooding	Searching conceptual diagrams	*Initial solution* A "living with water" community
Developed problem 1 Water treatment in relation to functional arrangement.	Ecological diagramming of recycling water treatment.	*Developed solution 1* Water treatment systems are placed as a main axis and node; all functions are attached to water axis for recycle.
Developed problem 2 Housing layout in relation to the whole.	Exploring spatial sequence and hierarchy.	*Developed solution* 2 Sequential connections from public space to neighboring farming for communal sharing.
Developed problem 3 Expandable structure for flooding shelters.	Searching for possible spatial units for shelters through diagramming.	*Developed solution 3* The modular structural system provides for shelter extension in vertical and horizontal dimensions.
Developed problem 4 Building scale contrast.	Exploring masses and structure by modeling experiment.	*Developed solution 4* Subtraction of form by structure.

Table A-4: TAS-4 analytical design process collaborating with research in the co-development between problems-solutions model.

Problems	Research/ Inquiry	Solutions
Initial problem		*Initial solution*
Design tasks: an eco-adaptable community supportive for both a youth camp and a shelter from flooding.	Understanding design tasks: site analysis including orientation, views, and accessibility.	Design concept: "Thai living and relationships with water."
Developed problem 1		*Developed solution 1*
Functional relationships and sequence of project activity including flood level.	Diagramming sequence and approaches and mass-study model.	Two distinct zonings of public functionality adaptable and suitable for flooding evacuation and mass supports with both ground and waterway approaches and housing camp cooperating with agricultural learning areas that lend itself for sense of sharing and Thai living.
		Developed solution 1-1
	Sketches and drawings of sectional relations between the site, buildings, and circulation systems.	Positioning water treatment and disposal system on the north to avoid smelling. Ground spaces of main buildings are elevated in case of flooding.
Developed problem 2		*Developed solution 2*
Transitions between two distinct zonings and scale contrast.	Exploring transitional space and massing by modeling experiment.	The rhythmic shifting space for choices of interactions and sharing with environments.
		Formal subtraction of public buildings.

Problems	Research/ Inquiry	Solutions
Developed problem 3 Interactive housing spaces.	Investigating potential spaces and typology by drawings and modeling experiment.	*Developed solution 3* Clustering planning lending housing to connect with the nature and ventilation. Sharing a common space and spatial continuity between a couple housing.
Developed problem 4 Eco-housing: water storage.	Exploring water-filter systems and implementing into design by sketching and drawing details.	*Developed solution 5* Layered roof elements for water filter to keep in individual housing water tanks.
Developed problem 5 Flexible structure for temporary refugee camps.	Searching for tectonics by sketching details.	*Developed solution 5* Folding units with light structure.

Table A-5: TAS-5 analytical design process collaborating with research in the co-development between problems-solutions model.

Problems	Research/ Inquiry	Solutions
Initial problem Design tasks: an eco-adaptable community supportive for both a youth camp and a shelter from flooding.	Diagramming the nature of functional relationships.	*Initial solution* Regrouping programmatic activities into pay, play, live, and renewal.
Developed problem 1 New relations between activity nodes.	Exploring the possibility of connections between activity nodes.	*Developed solution 1* An analogical concept of the ant colony is implemented for re-arranging cooperation between housing and food resources) in site planning: a demonstration farm and an agricultural zoning creates two distinctive zonings between the communal learning and the rural, respectively.
Developed problem 2 Housing-units spatial problems.	Investigating relation agendas between housing units through several design tools: massing, sketching, diagramming, planning, and section drawing.	*Developed solution 2* Sharing living spaces between units as communal realms for social interactions and taking care of inhabitation.
Developed problem 3 How can architectural elements treat and store water?	Exploring architectural planes of folding allowing for water treatment (modeling)	*Developed solution 3* Roof-folding planes performing as layers of water filter and treatment and keeping in tanks for utility.

Table C-6: TAS-6 analytical design process collaborating with research in the co-development between problems-solutions model.

Problems	Research/ Inquiry	Solutions
Initial problem		*Initial solution*
Design tasks: an eco-adaptable community supportive for both a youth camp and a shelter from flooding.	Creating functional relationships and grouping activity zonings and loops includes site analysis and ecological diagramming.	Three court systems; communal, sharing, and agricultural, characterize functional loops and connectivity of a diverse of activity zonings, instead of a linear axis.
	Determination of zonings follows energy and waste recycling systems.	
Developed problem 1		*Developed solution 1*
Court characters serving for different functions.	Searches for collaborative features of spaces are able to facilitate relevant conditions of activities overlaid upon courts' surfaces.	1) A grid-tree court defines gathering spaces within space for shading and flooding refuge camping units. 2) A transitional court indicates different level-shifting between activities and outside spaces for outdoor activities. 3) A harvesting court responds to collective farming activities
		Developed solution 1-1
	Examining courts' platforms responsive to flooding through figural drawings, diagramming, and modeling.	Negative and interlocking spaces of specific functions connect with the defined courts.

Problems	Research/ Inquiry	Solutions
Developed problem 2		*Developed solution 2*
Spatial problems in each building.	Exploring spaces responsive to functions.	Functional arrangement in each building.

Table A-7: TAS-7 analytical design process collaborating with research in the co-development between problems-solutions model.

Problems	Research/ Inquiry	Solutions
Initial problem		*Initial solution*
Design tasks: an eco-adaptable community supportive for both a youth camp and a shelter from flooding.	Site analysis of evacuation systems from a few accesses through spatial diagramming.	A sustainable logistic system builds an activity organization and solves chaotic situations when evacuation occurs.
Developed problem 1		*Developed solution 1*
Zoning of depots (as activity and food transits).	Searching for suitable schemes for economizing time and distributions.	Generating cooperative depots is to organize loops of activities between communal and housing areas able to adapt for a flooding refuge and an agricultural area.
		Developed solution 1-1
	Developing the scheme by drawings.	The zoning reducing long distance between activity nodes by generating transitions within building groups.

Table C-8: TAS-8 analytical design process collaborating with research in the co-development between problems-solutions model.

Problems	Research/ Inquiry	Solutions
Initial problem		*Initial solution*
Design tasks: an eco-adaptable community supportive for both a youth camp and a shelter from flooding.	Analysis of site characteristics and making conceptual analogy to regional identity through diagramming and parti-making.	Regrouping activities according to the concept of local "identity of place"—the river as cultural ways of life and place.
Developed problem 1		*Developed solution 1*
Spatial systems and pattern reflecting the main concept	Exploring zoning arrangement through drawings.	Creating a central water canal as a linear core allows for clustering activity nodes: a community center, housing, and agriculture along it and for circulate water.
		Developed solution 1-1
	Implementing a rural farming pattern image as an analogical concept of formal exploration.	A scheme of mixing paddy fields with main functions, like a rural morphological pattern of land use, offers opportunities to learn agricultural process and provide food in each zone when flooding occurs.
Developed problem 2		*Developed solution 2*
Spatial and structural problems based on the concept of "living with water."	Investigating tectonic possibilities for adaptability regarding water-level changes by means of figural drawings, diagramming, and modeling	A floating-raft concept is adopted for a vertically movable structural system, including spatial forms of living.

APPENDIX B
THE FIFTH-YEAR ARCHITECTURE STUDENTS' DESIGN PROCESSES IN DESIGN THESES

Table B-1: FAS-1 analytical design process collaborating with research in the co-development between problems-solutions model.

Problems	Research Space	Solutions
Initial problem Programmatic search for a specific plastic surgery hospital.	Archival search on current medical tourism.	*Initial solution* (Project goal) A combined program between a plastic surgery hospital and a resort for rehabilitation is a programmatic concept.
Developed problem 1 An integrative program between different building types: a hospital and a resort.	Exploring programmatic alternatives by creating a parti and making analogy between functional similarities as well as comparing with case studies.	*Developed solution 1* Programmatic conjecture is initiated: a plastic surgery hospital and retreat and rehabilitation facilities as private wards. Project concepts and criteria emerge as follows: sense of transformation, privacy, and a getaway place.
Developed problem 2 Site selection based on primary concepts.	Search for retreat locations nearby major medical facilities, in case of emergencies.	*Developed solution 2* A seaside location in Rayong Province on the hill with contours and groves is selected.
Developed problem 3 Site physical constraints and a program conjecture set up design problems: how activities will integrate with the site: levels, views, and services?	Exploring spatial sequences and visualization as well as services related to levels through analytical sketches and section drawings.	*Developed solution 3* A design conjecture with concealing buildings from the outside presents fragmentation of building masses and functional zonings reacting to views.

Problems	Research Space	Solutions
Developed problem 4		*Developed solution 4*
Concealment of service, privacy-making, and creating views out.	Exploring spatial division of juxtapositions for privacy, service, and views related to levels through analytical sketches, section drawing, and model-building.	Retaining walls are generated as part of topography to reorganize activities, user's circulation, and sequence and to be critical structure for landslide protection.

Table B-2: FAS-2 analytical design process collaborating with research in the co-development between problems-solutions model.

Problems	Research space	Solutions
Initial problem Programmatic search for a building type for dog rehabilitation from cruelty in Thailand.	Archival search for case-study analysis of SPCA*; critique of closed system: recue rehabilitation, and shelter.	*Initial solution* A programmatic concept of an open system allowing for public participations.
Developed problem 1 Reorganization of the open-system program for public realization of animal-human contacts	Searching for programmatic sequence of activities by integrating public facilities.	*Developed solution 1* Program conjecture: mandatory activities plus additional activities: a dog park, an educational track, and a space for international pet adoptions.
Developed problem 2 Site selection based on domestic and international accessibility to support local dog shelters and adoptions.	Searching for alternative locations and sites nearby an international airport.	*Developed solution 2* An outskirt of Bangkok able to access from major highways and Suwannaphum Airport.
Developed problem 3 Programmatic and zoning sequences including service and maintenance situating into the site.	Searching for spatial loops and circulation for different users—visitors and dogs and staffs.	*Developed solution 3* A design conjecture presents axial zonings: rescue, rehabilitation, and shelter partially cooperating with public circulation, thus overlapping spaces for animal-human contacts. Service units are dispersed in each zoning.

Problems	Research space	Solutions
Developed problem 4		*Developed solution 4*
Current issues of pet rescue from flooding: shelter flexibilities and expansion.	Gathering information on dog behaviors for living through interviews and observation. Searching for living dog space by means of sketches and physical modeling.	Modular shelter (1-4 m^2) and a dog-track playground.

*The Society for the Prevention of Cruelty to Animals

Table B-3: FAS-3 analytical design process collaborating with research in the co-development between problems-solutions model.

Problems	Research space	Solutions
Initial problem		*Initial solution*
A proposal for land development on Sam-Yan area, Chulalongkorn University's property.	Exploring Chulalongkorn development plan and zonings as well as a new mode of monorail system on the site; critique on development issues,	A project goal is to develop the junction domain in low-rise that combines liveliness of the campus and district lifestyles with commercial areas, including a terminal for exchanging transportation systems.
	Searching for critical agendas of the context and users.	The program concept is based on generative *connecting layers* of movement.
Developed problem 1		*Developed solution 1*
Spatial management of connecting layers	Analysis of pedestrian axes and morphological grids of surrounding buildings blocks.	Spatial flows integrating with court systems facilitate connecting transit system, gather, and pause users with inserted activities in-between.
Developed problem 2		*Developed solution 2*
Boundary and mass orientation.	Exploring contextual conditions: an urban existing grid system and people movement through modeling and case studies.	Building massing is distinctively oriented along the project edges responsive to conditions and activities taking place.

Table B-4: FAS-4 analytical design process collaborating with research in the co-development between problems-solutions model.

Problems	Research Space	Solutions
Initial problem		*Initial solution*
Programmatic search for the fashion design training center along with the project goal of fashion development.	Investigating the functional relationship of the producing system by de-composing the conventional process.	A place mainly consisting of a factory, studios, and services provides sources for improving fashion skills and capacity from ODM* toward OBM.**
	Site selection based on main users of young designers aspiring to develop their own brands.	A location of Jatujuk district is chosen to serve focused groups of ODM.
Developed problem 1		*Developed solution 1*
Spatial requirement	Exploring volumetric spaces to serve working areas.	Modular studio units are able to be flexible and connective.
Developed problem 2		*Developed solution 2*
Spatial management between studios, factory, and services.	Exploring the possibility of operational-spatial systems integrating with machinery through physical modeling and drawings.	The main building is elevated to enable the ground level for public transition to the Jatujuk Marketplace.
		Developed solution 2-1
		The grid system of parking and services influences formal and spatial mechanism of modular studio units.

Problems	Research Space	Solutions
Developed problem 3		*Developed solution 3*
How can modular studio units be movable, exchangeable, and flexible?	Investigating the possibility of movable vertical planes of between studio units, facilities, and circulation space through mock-up.	Open and close systems of modular studio units' panels is collaborated with grid systems in order to flexibly connect with the whole and be as showcases displaying mechanism to the context.

ODM* = Original development manufacture

OBM**= Original brand manufacture

Table B-5: FAS-5 analytical design process collaborating with research in the co-development between problems-solutions model.

Problems	Research space	Solutions
Initial problem Programmatic search for a new building type consisting of church and juxtaposed housing and commercials functioning as a new monastery in the central of Bangkok.	Studies on case studies of monasteries and on site analysis	Initial solution A reflective complex of catholic lifestyles in Silom business District, including serving for the public.
Developed problem 1 Church's spatial conditions and site constraints.	Three-dimensional diagramming of surroundings and analytical drawings of church elements and regulations interpreting spatial volumes and orientation to explore design strategies and problems.	*Developed solution 1* Program conjecture: the sacred and transitional and pause place to support urban activities in the location.
Developed problem 2 Complex relationships of the program.	Diagramming the possible relationship from the profane (public spaces) towards the sacred (the church).	*Developed solution 2* The public area is on the ground while the church is elevated above to allow public circulation flows.
	Physical sectional modeling of functional systems being employed to simplify complex circulation systems, according to users.	*Developed solution 2-1* A main aisle is generated to link main functions as well as three characteristic courts are applied to provide public accesses.

Problems	Research space	Solutions
Developed problem 3 Spatial and formal inquiry for usability of the positive and the negative.	Exploring figural shapes and characters of negative spaces and collaborating with enclosing positive functions.	*Developed solution 3* Main functional spaces of the church, a library, a music hall, and a residential complex are spit and inserted with three courts among them to define public domains and pauses. The unique gateways are created for create sense of sacred transitions.

Table B-6: FAS-6 analytical design process collaborating with research in the co-development between problems-solutions model.

Problems	Research space	Solutions
Initial problem The development of the brown field of agricultural product factory and abandoned agricultural farming in the wet land of Sri-Songkram, Nakorn-Panom.	Analysis of site issues of flooding and diagramming seasonal land-uses and constraints.	*Initial solution* The agro-industrial community and research center for demonstration farming.
Developed problem 1 How does water affect critical topography of the location?	Understanding constraints disrupting the agricultural process.	*Developed solution 1* Six critical locations are selected to support new activities of agricultural production and research in sites.
Developed problem 2 Site management and functional search in terms of ecological enhancement.	Exploring site constraints and searching for systematic opportunities to introduce new activities and to fulfill ecological-agricultural systems through diagramming, drawing and modeling.	*Developed solution 2* Six activities are proposed to complete ecology of agricultural systems as follows: irrigation, supportive facilities for agricultural producing, logistics, manufacturing, experiment and tourism, and pollution treatment.
Developed problem 3 How does the vernacular and the site affect tectonic?	Exploring the construction process through analytical sketching and physical modeling.	*Developed solution 3* Six designed places housing correlating functions supportive for agricultural-producing systems are proposed with distinctive construction techniques responding to the particular site.

APPENDIX C
PROFESSIONAL ARCHITECTURAL PRACTITIONERS' DESIGN PROCESSES

Table C-1: PAP-1 analytical design process collaborating with research in the co-development between problems-solutions model.

Problems	Research space	Solutions
Initial problem Design task: A family house in a land-development property is located among neighboring properties whose houses are posited in the front. It is required for future extension. Its family members are allergic to dust.	Site insight—understanding the site constraints unable to control the outside environment with particular viewpoint of privacy and security.	*Initial solution* A generative concept of enlarging inside view. A distinct site planning out of the ordinary pattern by setting the house back of the site is proposed to create privacy from neighbors, placing parking lot at the front providing for extension, and locating building width on East-West orientation.
Developed problem 1 How to create views in, security, and sequence between the inside and the outside?	Exploring spatial sequence, getting light, and enlarging views toward the court through carving forms allowing for enclosing view through physical modeling and drawings.	*Developed solution 1* Inner views and sequence are generated by a pond court and a garden between a house and parking lots. The continuity of the small and narrow void's pattern is repeated from a promenade to the inside in the south.
Developed problem 2 More area requirement of informal family and study spaces, including service connection.	Investigating spatial rearrangement.	*Developed solution 2* Additional family spaces are facing to the court and service staircases is included to connect maid rooms to the house.

Problems	Research space	Solutions
Developed problem 3		*Developed solution 3*
Prevention for dust and making sun shading.	Searching for suitable elements and materials of sun blinds with no necessary cleansing.	A retractable, perforated curtain blind is placed outside on the West to avoid a green-house effect.

Table C-2: PAP-2 analytical design process collaborating with research in the co-development between problems-solutions model.

Problems	Research space	Solutions
Initial problem Design task: *Sala Phuket*, a luxury getaway resort, is located in a narrow site from a main entry to the beach. Its functional requirements include several types of accommodations and supporting facilities.	Research focuses on Phuket history archival and contexts of locality site visit of the Phuket historic town and a Chinese historical house as first-hand experience. Analysis of the Phuket Chinese house articulates mixed-cultural characteristics; a neoclassic façade contains Chinese spaces of inner courtyards and elements. Case studies of the same type of resorts are employed to realize accommodation characters and how users use spaces.	*Initial solution* "Mixed-culture" as a key concept leads to designing elements and contemporary space against traditional Thai architectural forms.
Developed problem 1 Sequences of spatial characters in master planning.	Exploring rhythmic courts implemented from a Chinese court house along the site to create users' experience is integrated with required spaces by sketches and physical modeling.	*Developed solution 1* Spaces in sequence carry on through a series of distinctive courts collaborating with required spaces rather than preconceived forms. A variety of courts are introduced as follows: 1) A drop-off forecourt 2) A water-reflecting-pond court 3) A grid tree court gradually relieved in a random pattern.

Problems	Research space	Solutions
		All aims to make sense of spatial adaptation.
Developed problem 2 Creating contemporary spaces and mix-cultural elements of accommodations and facilities.	Exploring simple planes defining spaces cooperative with detailed surfaces to contain spaces through drawing and physical modeling.	*Developed solution 2* Detailed-carved planes conveying contemporary "mixed-culture" elements contain spaces.
Developed problem 3 Maximizing restaurant views toward the sea.	Overlaying seating occupation is to explore possibilities of the most visual perception to the sea, rather than data referencing.	*Developed solution 3* A dining space is located in a linear fashion parallel to the beach.
Developed problem 4 Pool seating able to relax.	Building mock-up to test the quality of material and configuration.	*Developed solution 4* Curving seating submerged in the pool allow users to lay down into the water in a relaxing position.

Table C-3: PAP-3 analytical design process collaborating with research in the co-development between problems-solutions model.

Problems	Research space	Solutions
Initial problem Design task: "Children Orphanage" consisting of an administration building and accommodation housing nine children per a caretaker in one house	Identifying tasks and making understanding the project's critical issues and criteria (design team discussion)	*Initial solution* Reconstructing design problems: the environment helps to coach relationships and responsibility."
Developed problem 1 The concept: "an architecture trains discipline and relationships"	Conceptualizing and generating a parti (design conjecture/ scheme) from abstract to concrete physical inquiry (figural investigation).	*Developed solution 1* The revised concept of mechanism of "self-controlling"; "self-training."
	Developing a concrete possibility of spatial organization through sketches, drawing, and physical modeling.	*Developed solution 1-1* Master planning of a multi-purposed central court is enclosed by administration and housing buildings and arcades that allow for spatial sequences and visual continuity on the ground level. The continuity enables everyone to observe what happens in each house and in the public area.
Developed problem 2 "Taking care of their own space"	Searching for spatial order, organization, and management: sequence and hierarchy of space. Exploring sequences to form the relationship from the court, arcades, a dining area	*Developed solution 2* The common ground for connectivity and responsibility reinforces everyone to take care of it; therefore, there is no left-over space out of a visual control.

Problems	Research space	Solutions
	and a kitchen, to backyard gardens.	
Developed problem 3 An administration building including a multi-purpose hall: economizing circulation and positioning and styles of the circulation core.	Exploring alternative solutions of circulation and vertical core through sketching and physical modeling inquiry.	*Developed solution 3* Positioning and style of the stairwells lets a few staffs controlling more spaces and organizes spaces, effectively.

Table C-4: PAP-4 analytical design process collaborating with research in the co-development between problems-solutions model.

Problems	Research space	Solutions
Initial problem Design task: *Munchu*'s Fashion Chamber is to be filled in a fashion space in Siam Paragon Department Store. It requires outfit display space within limited 4.8 x 6 m^2. The client gives an abstract idea of "entering to my world" to the design criteria.	Understanding design problems and constraints: the project's limited size, timing, and the client's concept.	*Initial solution* Enclosed chambers in contrast to spatial patterns of division within open department store space. The construction process and modular material become design visions.
Developed problem 1 How to use internal space as much as possible as well as to express lightness contradicted to an outside look?	Searching for a reference, a case study of Eduardo Chillida's sculpture as an inspiration leads to explore ideas of the solid-void relationship. Exploring maximizing degree of subtraction in both volume and structural supports by means of sketches, drawing, and modeling experiment to economize time of construction.	*Developed solution 1* Six carved-solid cubes in dark brown would be built by standard wood panels of 4x8 ft^2.
Developed problem 2 How to install six chambers within 3 limited hours store-closed from 1 to 4 am?	Testing construction process with mock-ups by installing composite panels.	*Developed solution 2* Installed composite panels form subtracted chambers accommodating clothe fashion display contained

Problems	Research space	Solutions
		into seemingly enclosed space.

Table C-5: PAP-5 analytical design process collaborating with research in the co-development between problems-solutions model.

Problems	Research space	Solutions
Initial problem		*Initial solution*
Design task: King's Plaza on Ratchadamnoen Rd. would be replaced on the Lottery Office's existing property. It functions consist of a King's museum to exhibit His Majesty's projects to visitors, supporting facilities, and open space for public multi-purpose uses.	Research is based on design hypothesis of architecture as a medium to articulate King's visions granting to Thais through the building's participations with Thai lifestyles. Studies on spatial typology of Thai everyday-life uses present urban alley networks, namely, informal, complex spaces—blurring boundaries between the individual and the public by observations.	The project aims to lend itself to blend with Thai ever-changing environments in the way of socio-cultural sustainability. King's Plaza could be served as a "people garden" that allocates mingling places for a variety of users, activities, and spontaneous uses.
Developed problem 1		*Developed solution 1*
Spatial configuration of the program according to design visions.	Experimenting possibilities of schematic configuration of spatial form is integrated with area and programmatic requirements, based on design goals to maximize open space, lower building height, and divide volumes by means of diagramming and mass study. Studies of complex circulation and building systems: alleys on ground, loops of the roof garden, and lighting are explored through analytical, layering diagrams.	Continuing wave-like form manifests lower fronts of the building for roof-garden accessibility and raised back parts enabling for alley systems to penetrate into the building.

Problems	Research space	Solutions
Developed problem 2		*Developed solution 2*
How to use open space/ roof garden as "backyard" as to King's vision?	Based on the cultural landscaping idea of everyday urban and agricultural integration, two main layers of agricultural and Thai informal, public spaces are experimented to collaborate with one another to create contemporary culture. Interweaving models and layers between agricultural patterns, trails, and prospective activities are initiated. Plantation is searched for appropriate micro climate and experience.	Weaving plateau of the mix-used, roof form could generate human-cultural landscape, interactions, and continuity to buildings and alley systems.