

Developing New City Interfaces and Services: Interior Architectural Design Proposals for the Innovation District, Bangkok

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ABSTRACT

Bangkok is an expanding and diverse capital. The rapid pace of metropolitan development makes it almost impossible to develop the city in a single or uniform direction. As a result, two drastically different areas of the city are emerging – one over gentrified and another under developed. Recently, Bangkok has produced several strategies to cope with such situations. One example is the *Bangkok Creative District* which attempts to revive the old neighbourhood by making it relevant to the younger generation. Another example is the *Klongsan and Wongwien Yai Innovation District* that is focused on areas surrounding the Knowledge Exchange Building (KX) which King Mongkut's University of Technology Thonburi (KMUTT) has an aim to use the place as innovation incubator.

As interior architects how can we contribute our knowledge to the proposed Innovation District? Development of the Innovative District may not be a sudden transformation, but perhaps an evolution-like process which allows the co-existing of old and new. This paper follows the experience 2016's fourth year interior architecture students of the Interior Architecture programme at KMUTT as they examine the issues involved in the superimposition of the Innovation District on the existing community.

Three different design studios investigated Bangkok's Klongsan and Wongwien Yai urban elements and characteristics looking for possibilities with regard to new city interfaces and services. The three studios were called 'Leather/Cinema', 'Urban en Route', and 'disPLAY/DISplay'. Students were asked to investigate the selected area and to make interior architectural design proposals that either harmoniously blended or distinctly stood out within the *Innovation District*.

KEYWORDS: *innovation district, city interfaces, city services, context, and gentrification*

1. BANGKOK AS CONTEXT FOR INNOVATION DISTRICT

"A city is a multi-purpose, shifting organization, a tent for man functions, raised by many hands and with relative speed. Complete specialization, final meshing, is improbable and undesirable. The form must be somewhat noncommittal, plastic to the purposes and perceptions of its citizens."
Lynch, 1960, p. 91.

Bangkok is an expanding and diverse capital. The rapid pace of metropolitan development makes it almost impossible to develop the city in a single or uniform direction. Kevin Lynch (1960) states that a city of urban living is composed of adaptable enclosure, responsive program, and diversity of people. Looking at Bangkok with Lynch's perspective, it shows that the development of Bangkok is going towards the opposite direction of Lynch's urban form. Two drastically different areas of the city are emerging – one over gentrified and another under developed.

Gentrification of a district has been extensively mentioned in regarding to a capital and growing city. The origin of the word 'gentrification' derives from 'gentry' which means superiority of birth or rank – people of good social position, specifically the class of people next below the nobility in position and birth (Oxford Dictionaries, 2018). The British sociologist Ruth Glass coined the term 'gentrification' in 1964 to describe a specific manner of urban change that happened in London, as working-class area has been invaded by the middle-class. In dictionary 'gentrification' means the process of renovating and improving a house or district so that it conforms to middle-class taste (Oxford Dictionaries, 2018). When the gentrification process starts, the original working-class who reside in the area are displaced and the social character of the area is changed (Lees, Slater, and Wyly, 2008, p. 4).

However, the term 'gentrification' has broadened its meaning through various city contexts and situations – for example: rural gentrification, new-build gentrification, and super-gentrification (Lees, et al., 2008, p. 159). The causes of area gentrification (Fig 1) by Rowland Atkinson and Gary Bridge (2005) shows that the transformation of global, national, and city is shaping the change of a neighbourhood.

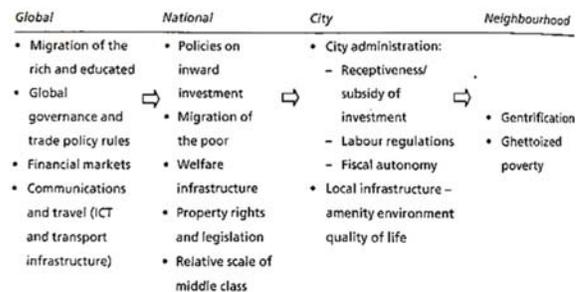


Fig 1. Spatial scales of global transformation and forces shaping neighbourhood change from *Gentrification in a Global Context* (Atkinson and Bridge, 2005)

In Bangkok, as the local infrastructure is extended, the influx of urban middle-class have increased significantly. Bangkok undeniably embraces ‘gentrification’ as one of process to improve quality of neighbourhood. Areas like Aree, Old Rattanakosin town, Talad Noi, and Klongsan have become one of the gentrified areas, due to concentration of work and new investment. Developers see business opportunities and start bringing the lavish middle-class lifestyle into existing local communities; as a result, it irresponsibly pushes poverty and underdeveloped areas aside.

Following the probe into the issue of over gentrified and under developed areas, recently, Bangkok has produced several strategies to cope with such situations in form of organisaiton and community scheme. For example, the *Urban Design and Development Center* (UddC) is an organisation which targeted on planning, designing, and, implementing concept for urban and communities’ recovery and development with five ongoing projects in diverse locations in Bangkok. One example of a successful community scheme is the *Bangkok Creative District* which attempts to revive the old neighbourhood of Bang Rak, Klong San, and the Chao Phraya River by making the areas become more relevant to the younger generation. Another example is the *Klongsan and Wongwien Yai Innovation District* that is focused on areas surrounding the Knowledge Exchange Building (KX) which King Mongkut’s University of Technology Thonburi (KMUTT) has an aim to use the place as innovation incubator (Fig 2).

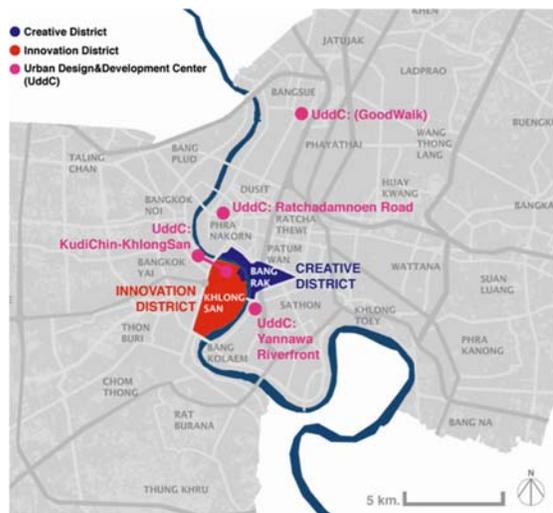


Fig 2. Location map of *Urban Design and Development Center’s* projects, *Bangkok Creative District*, and *Klongsan and Wongwien Yai Innovation District* (Lumthaweepaisal and Dejprasert, 2018)

This research paper is elaborated on the process of developing and reinventing *Interior Architectural Design Proposals* for Innovation District which has Bangkok’s Klongsan and Wongwien Yai area as testing ground.

2. KLONGSAN AND WONGWIEN YAI CHARACTERISTICS

Klongsan and Wongwien Yai is possessed with disposition of local trader and community-like neighbourhood, it locates next to the Chao Phraya River across from *Sathon CBD* and *Bangkok Creative District* (Fig.2). The location suggests up-and-coming state of the area, as central area of Bangkok is expanding through the expansion of mass transportation (BTS and MRT) services – magnet to developers who target the middle-class. The areas of Klongsan and Wongwien Yai that close to proximity of the BTS line are briskly grew and land price is raised. The development of the mentioned areas happens progressively in the past decade from numerous investment of brand name real estate company’s high-rise residential (Fig 3).



Fig 3. Existing local community and high-rise residential as background (Lumthaweepaisal, 2016)

The high-rise residential brought the middle-class into the existing neighbourhood. Yet the development is not involving one and all, it only stirred up some local food shop and convenience store business. On the other hand, the old community that attached to back of those high-rise residential is being cut off from the main road and being affected by the higher land price.

In this area, one might find several active and hectic local business spots adjacent to unknown derelict buildings. The surviving of local domestic services – fresh market, sewing kiosk, laundry place, dental clinic, beauty salon, pharmacy, and tailor shop, that has no connection to the growth of the area (Fig 4). And under renovation shophouses that attempt to response to the new cityscape of the over gentrified area (Fig 5).



Fig 4. A collage of domestic services in Klongsan and Wongwien Yai area (Karnchanaporn, 2016)



Fig 5. Alley in Klongsan and Wongwien Yai area shows vacant and under renovation shophouses situation (Lumthaweepaisal, 2016)

Klongsan and Wongwien Yai area has similar characteristic compared with other over gentrified areas in Bangkok – stylish urban lifestyle that veils former community spirit. This dilemma of gentrification process has repeatedly happened in developing state of other cities worldwide since 1960s as shown in Table 1.

Positive	Negative
	Displacement through rent price increases
	Secondary psychological costs of displacement
Stabilisation of declining areas	Community resentment and conflict
Increased property values	Loss of affordable housing
Reduce vacancy rates	Unsustainable speculative property price increases
	Homelessness
Increased local fiscal revenues	Grater take of local spending through lobbying/articulary
Encouragement and increased viability of further development	Commercial/industrial displacement
Reduction of suburban sprawl	Increased cost and changes to local services
	Displacement and housing demand pressures on surrounding poor areas
Increased social mix	Loss of social diversity (from socially disparate to rich ghettos)
Rehabilitation of property both with and without state sponsorship	Under-occupy and population loss to gentrified areas

Table 1 Summary of neighbourhood impacts of gentrification (Atkinson and Bridge, 2005)

3. UNDERSTANDING OF INNOVATION DISTRICT FROM INSIDE OUT

3.1 The Broad Meaning of Innovation District

What is Innovation District? Trend of being innovative has been overlaid and implemented onto several districts in the world. In the United States, Innovation District has been defined as geographic areas where leading-edge anchor institutions and companies cluster are connect with start-ups, business incubators and accelerators. They are also physically compact, transit-accessible, and technically-wired and offer mixed-use housing, office, and retail (Katz and Wagner, 2014). In Spain, there is a project called ‘22@Barcelona’ that targeted to reoccupy old industrial park as innovative quarter. This initiative is a project of urban refurbishment and a new model of city providing a response to the challenges posed by the knowledge-based society in Barcelona (22barcelona.com, 2018). The two examples have suggested that Innovation District should be a mixture of certain components – technology, education, business, factory, and mass transportation. The research finds the combination of Innovation District is lacking of characteristic of people in responds to those innovative schemes.

This research looks closely to one of the renowned innovation project that explore potentials of district and city through vacant buildings – Vacant NL, Vacancy Studies in the Netherlands. Vacant NL questioning potential of vacant building in the Netherlands, by collects vacancy data of all building typology. Ronald Rietveld and Erik Rietveld (2014) explain that different typologies of buildings offer variety of non-uniform enclosures that rich in spatial qualities. Vacant NL tries to insert experimental programmes follow the suggestion of building forms and their surrounding. The main component for innovative community is people, Vacant NL emphasises on the cross fertilisation between different group of people in a district, including creative people – the collaboration among them can be translated to innovative programmes that being injected to the chosen site (Rietveld and Rietveld, 2014, p. 37, 53).

Why Innovation District is suitable for Wongwien Yai and Klongsan? From area observation, the research finds potential from current vacancy and local programming in the Klongsan and Wongwien Yai area. The vacant situations come from old businesses that have closed down due to their obsolete nature, changed in management, and rundown buildings. The more vacancy the more it creates area isolation, disconnection, and blind spot in the neighbourhood.

As interior architects how can we contribute our knowledge to the proposed Innovation District into the existing context of Klongsan and Wongwien Yai area? And how can we utilise the idea of Vacant NL (2014) to suggest the new interior intervention to Klongsan and Wongwien Yai area? Perhaps, to centralised Innovation District to the Knowledge

Exchange Building (KX) as innovation incubator is not a final solution.

3.2 Point of View towards the Innovation District

The practise of the fourth year level of Interior Architecture Program at KMUTT underlies with agenda of *In/Exterior: Interiorizing Urban Situations*. The fourth year Interior Architectural Design studio employs the rich components of Bangkok's socio-cultural context and spatial phenomenology to inform the new public intervention of the designated areas. It explores the fluctuating and changing boundaries of interior enclosure in order to produce innovative design possibilities (Karnchanaporn, 2016, p. 10-11).

There are several theories regarding the study of architectural context of contemporary city. One of the relevant study to this *Klongsan and Wongwien Yai Innovation District* is an article "Context and Complexity" from Denise Scott Brown in *Complexity: Context Architecture* (Gleiniger, 2008). Brown (2008) describes context in her studies as an active engagement between object and its surrounding. The changes of context in an area might happen not merely through urban management policy but also from micro architectural aspects of a district – particular building and its functions.

"The designer of a building or complex had the opportunity of entering into the changing context, using and adapting its meanings in the individual project and, in doing so, changing the context once again. And both would go on changing forever."
Brown, 2008, p. 31.

The studies of context from Brown (2008) supports Lynch (1960)'s perspective of city of urban life that buildings and its functions are always shifting in order to respond and guide its inhabitants' behaviours simultaneously. This idea of district development is completely rejecting gentrification – the homogeneous middle-class transformation process.

"City ... must be plastic to the perceptual habits of thousands of citizens, open-ended to change of function and meaning, receptive to the formation of new imaginary. It must invite its viewers to explore the world."
Lynch, 1960, p. 119.

Since the Innovation District will be explored with the concept of *In/Exterior: Interiorizing Urban Situations*, the question is: how to establish and/or create healthy relationship between the existing local neighbourhood and the new comer? The development of the *Klongsan and Wongwien Yai Innovation District* may not be a sudden transformation, but perhaps an evolution-like process which allows the co-existing of old and new.

4. STUDIO INNOVATION DISTRICT: NEW CITY INTERFACES AND SERVICES

4.1 The Evolving of Innovative Ideas

Klongsan and Wongwien Yai Innovation District has been setup as parameter for research-based design studio. This section follows the experience 2016's fourth year interior architecture students of the Interior Architectural Design program at KMUTT as they examine the issues involved in the superimposition of the Innovation District on the existing community. The three studios were called 'Leather/Cinema', 'Urban en Route', and 'disPLAY/DISplay'. Each studio has set up different methodologies as frameworks for students to examine the selected area.

Studio 'Leather/Cinema' challenges students to reintroduce sense of place of three stand-alone cinemas in the area – Hawaii Theatre, Suriya Theatre, and Thai Rama. Students were asked to make a short film as process of site investigation (Fig 6). The film should suggest direction of the project in responses to a unique spatial characteristic and existing programmes of the three selected cinemas and the surrounded area.



Fig 6. Shots from a short film as method to investigate characteristic of the site (Owada, 2016)

Studio 'Urban en Route' asks students to investigate Klongsan and Wongwien Yai area by method of Dérive (Drift) – a mode of experimental behaviour linked to the conditions of urban society: a technique of rapid passage through varied ambiances (Guy Debord, 1958). Students experience the district by drifting through short cuts and dead ends, and investigate spaces that situated along city infrastructure by drawings and collages (Fig 7). During the drifting process, students were asked to formulate their own interests in response to specific social issues and should lead to an invention of transitional programme.

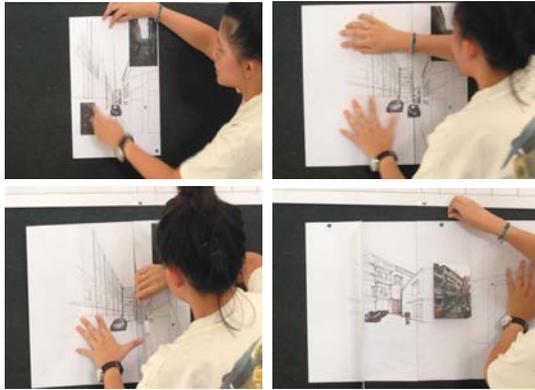


Fig 7. Dérive drawing as method to investigate the site (Tandhaponse and Lumthaweepaisal, 2016)

Studio ‘disPLAY/DISplay’ asks students to study situations of (conceal) DISplay from the past to (reveal) disPLAY within the area (Fig 8). The study should suggest new programme for existing community. This new innovative community shall facilitate the creation and commercialisation of new ideas and support creative collaboration networks.



Fig 8. Collage of situations Unseen / Seen / Being Seen (Greunert, 2016)

4.2 Interior Architectural Design Proposals for Innovation District

The three design studios investigated Bangkok’s Klongsan and Wongwien Yai urban elements and characteristics looking for possibilities with regards to new city interfaces and services. After site investigation, students were asked to make interior architectural design proposals that either harmoniously blended or distinctly stood out within the *Klongsan and Wongwien Yai Innovation District*.

Studio ‘Leather/Cinema’ is questioning ‘stand-alone’ program versus combination of conveniences. The characteristic of stand-alone cinema is unique as it has four sides of solid façade and interior has double to triple height in volume. Students were asked to propose new or enhance civic programmes to be situated within the selected cinema.

Sarawaree Owada selected Thai Rama as her site location. Thai Rama now has been converted to a parking lot for a fresh market – the market attracts lots of locals and outsiders. The spatial quality of Thai Rama is unusual, its interior structure has been taken down and only skin of the building is left (Fig 9). Sarawaree used patching technique for her short film, thus it led to design proposal for the project called ‘T-Place’ as patching civic programmes of Relax, Play, Exercise, and Theatre (Fig 10). This combination of old and new programmes is aimed to serve people in different age range who come to and pass by the area.



Fig 9. Interior of Thai Rama now serves as parking lot (Karnchanaporn, 2016)

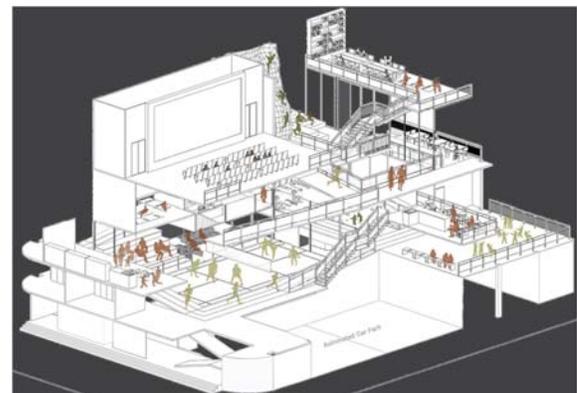
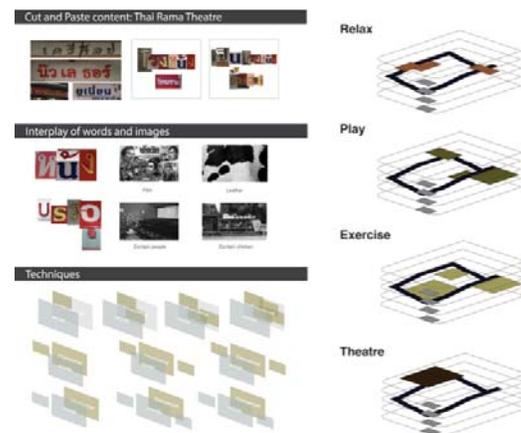


Fig 10. Interior architectural design strategy and design proposal of ‘T-Place’ (Owada, 2016)

Hawaii Theatre is located in Charoenrat road, area for leather and fabric wholesale (Fig 11). Pattitar Na Chart chose Hawaii Theatre as her site location. The theatre is situated among material resources and local domestic services. Pattitar's short film was about looping process of dyeing genuine leather, and how to identify fake and authentic leather. To take benefit from existing programmes onsite and add new attractive programmes to bring in new generation of users, Pattitar proposed a project called 'Leathers Space Charoenrat' (Fig 12). This project offered four main programmes of Leather Laboratory, Workshop, Small Manufacturer, and Café. It aims to draw new users to the area and boot up economy of neighboring local suppliers – leather businesses and local food vendors (Fig 13).

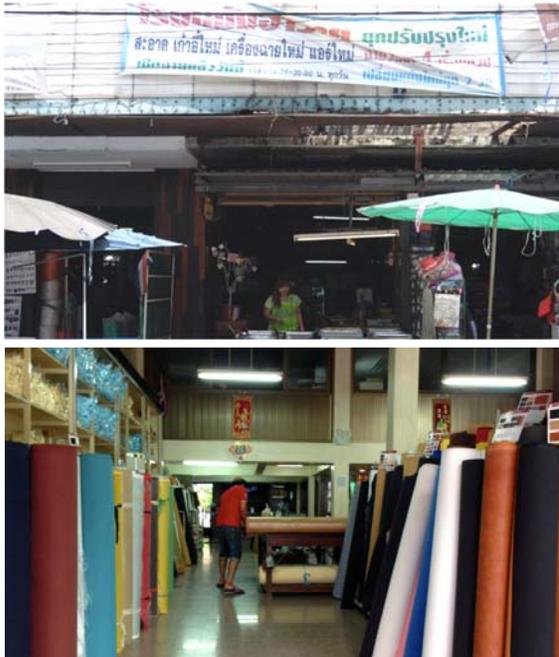


Fig 11. Hawaii Theatre and wholesale shop in the area (Karnchanaporn and Lumthaweepaisal, 2016)



Fig 12. Leather cladding façade of 'Leathers Space Charoenrat' (Na Chart, 2016)



Fig 13. Three loop circulations for different users and interior design proposal of 'Leathers Space Charoenrat' (Na Chart, 2016)

Another design proposal from studio 'Leather/Cinema' is project called 'Book/Factory' by Natnicha Sirijariyaporn. The project selected Suriya Theatre as site location. Suriya Theatre now has been converted to a tutorial hub for middle school and high school students. Natnicha's short film represented nostalgic sense of the theatre as the conversion still leaves some traces of old cinema elements (Fig 14). Natnicha proposed to sustain the programme of tutorial schools as main programming in her design proposal. However, the existing programmes still not serve the area as innovative programming. In order to attract new group of people and prolong them in the site, she proposed to create a new gigantic staircase that connects all floor together. The new staircase act as a main feature in the building and offer new contemporary programming which composed of co-working space, activity space, reading area, food for brain café, and customer service (Fig 15).



Fig 14. Suriya Theatre now serves as tutorial schools hub for students both weekdays and weekends (Karnchanaporn, 2016)



Fig 15. Design proposal of the new staircase of 'Book/Factory' (Sirijariyaporn, 2016)

Studio 'Urban en Route' focuses on creating public spaces that help reconnecting neighbourhoods, reinventing blighted spaces, and/or reoccupying vacant buildings. Students were challenged to propose design proposals of alternative transitional programme(s) that situate inside/in-between/aside/along existing architectures of their Dérive routes. The new civic programmes should serve both locals and outsiders. Students started with the question: how to create a transitional programme(s) for the neighbourhood?

Kan Trichan produced a Dérive drawing about his loop perception through the drifting route around San Chao A-Naio community (Fig 16). Along his route, he found lots of illegal activities (Fig 17) and questioning how the area can develop to be an Innovation District if there are illegal activities happening? He proposed a project called 'RE-Public' which means reclaiming public space. The project offered superimpose-programmes of running track and sport facilities for people in San Chao A-Naio community and passer-by (Fig 18). The new combination of parasitic programmes to the existing activities is a way to monitor illegal activities in the neighbourhood and they will be gradually withdrawn.

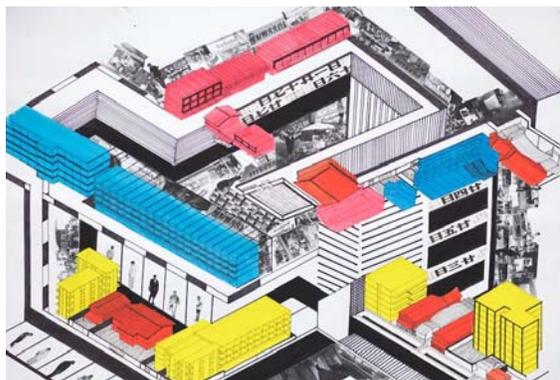


Fig 16. Dérive drawing of 'RE-Public' (Trichan, 2016)

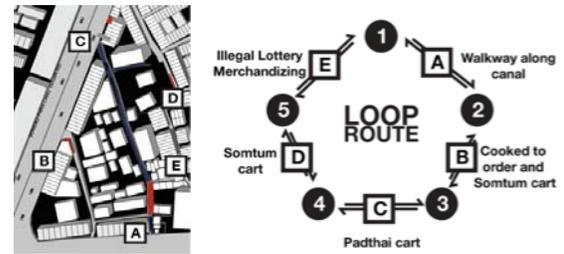


Fig 17. Illegal activities along the Dérive route as nodes for design interventions of 'RE-Public' (Trichan, 2016)

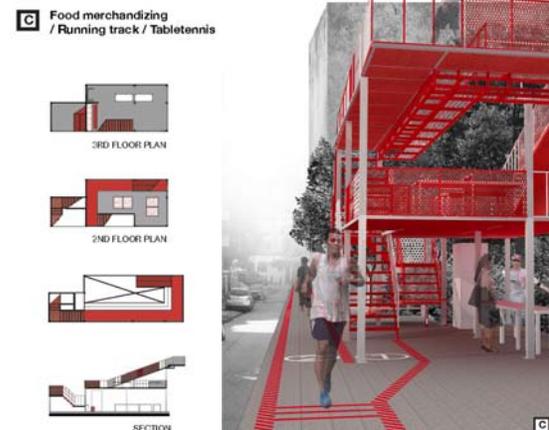
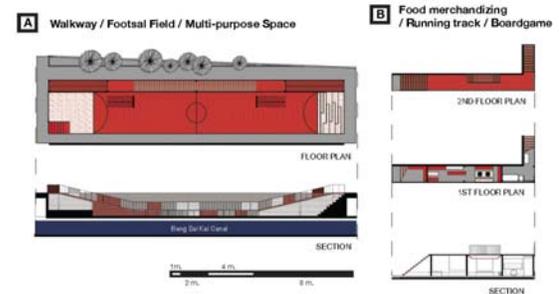


Fig 18. Example of parasitic programmes of 'RE-Public' (Trichan, 2016)

Satinee Udomsilapasap interested in everyday programmes found along her Dérive route between Somdet Phra Chao Taksin 7 alley and Krung Thonburi 1 alley. She constructed a Dérive drawing through a composition of buildings that host everyday programmes – salon, grocery, mom-and-pop shop and other services, she drew layers of building's elevation and their materiality to find possible design language

and programme configuration (Fig 19). From the drifting process, she noticed that people in the community is lacked of gathering space. The only potential space she found is a rental parking lot. This car park is blocked the community from the main road. Satinee then proposed a programme of community space positioned above the existing car park and named the project ‘Park Pak (Car & Vegetable Park)’ (Fig 20). The new combination of programme composed of community garden and leisure space on top of existing parking lot. ‘Park Pak’ not only aims to improve community’s living quality but also act as an alternative shortcut from community to the main road (Fig 21).

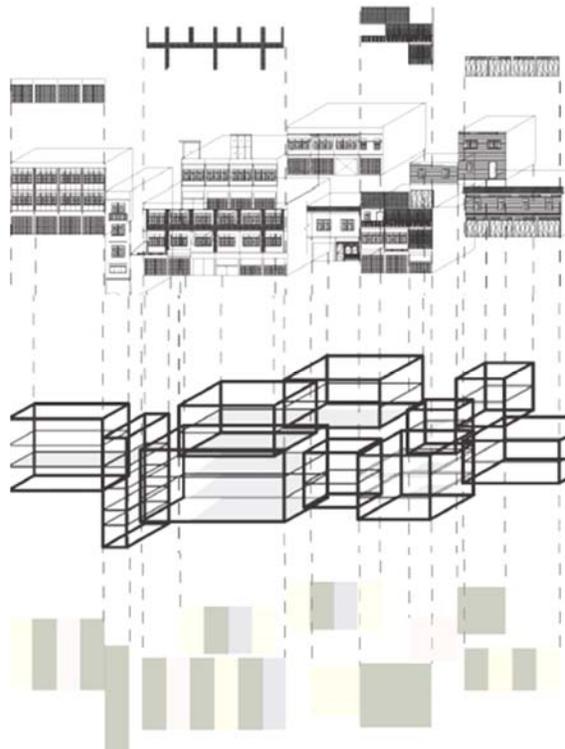


Fig 19. Dérive drawing of ‘Park Pak’ (Udomsilapasap, 2016)



Fig 20. Design proposal of ‘Park Pak’ (Udomsilapasap, 2016)



Fig 21. Design proposal of ‘Park Pak’ (Udomsilapasap, 2016)

Ramida Tandhapongse was intrigued by hidden space and dark alley of one particular building in Tha Din Daeng alley. Ramida’s Dérive drawing represent level of fear as she walk into the building (Fig 22). The location of the building has potential to be a short cut, since it situated among three sub-roads that lead to two main roads – Tha Din Daeng road and Somdet Chao Phraya road. Ramida found that the building is a rental apartment for illegal workers, and family of those immigrants who live illegally cannot come out during daytime. She proposed a space that offering them jobs called ‘Spot-Light’ (Fig 23). It was designed as transitional space and short cut with daily domestic services and rooftop bar for people in community and passer-by. It is a modification of existing building, to serve locals with addition of tourist attraction.

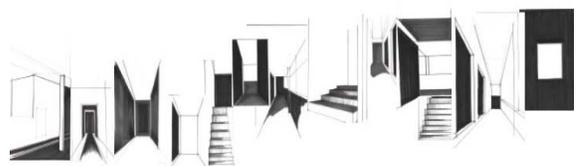


Fig 22. Dérive drawing of ‘Spot-Light’, the black colour represents level of fear as walking into the building (Tandhapongse, 2016)



Fig 23. Design proposal of 'Spot-Light'
(Tandhapongse, 2016)

The goal of **studio 'disPLAY/DISplay'** is to change the (conceal) DISplay of existing skills and crafts in the area into (reveal) disPLAY. Studio asks students to proposed space for working, production, collaboration, and sharing by rearrangement of current programming of the chosen site. It aims to promote knowledge and skills exchange for the locals and entrepreneurs by creating network of skill clusters.

Nut Assvasoth investigated area behind the high-rise residential of Krung Thonburi road and found many local businesses and factories (Fig 24). Nut was interested in a Pajamas factory, and proposed to combine current fashion culture and this local business together (Fig 25). He proposed a project that opens up the hidden business to wider audiences. 'Tam-Nue-Pha' which means traditionally, is the name of his proposal. Users of this project are local factory workers, local residents, designers, design students, and small enterprises. 'Tam-Nue-Pha' offered community space, retail garment shop, exhibition gallery, and factory studio (Fig 26 and 27).

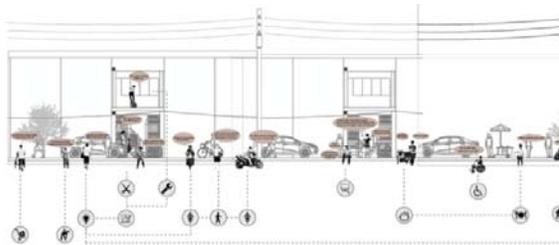


Fig 24. Elevation drawing shows diversity of local business activities in the area (Assavasoth, 2016)

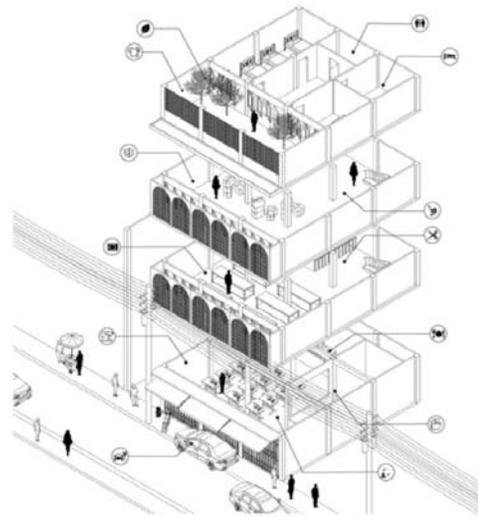


Fig 25. Isometric drawing of pajama factory, local business activities in the area (Assavasoth, 2016)

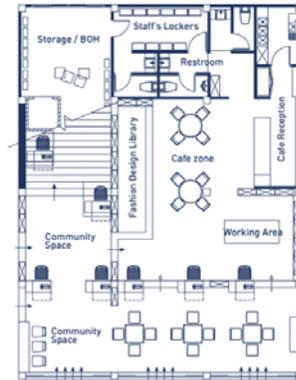


Fig 26. Design proposal of 'Tam Nue-Pha'
(Assavasoth, 2016)



Fig 27. Design proposal of 'Tam Nue-Pha'
(Assavasoth, 2016)

5. CONCLUSION

Klongsan and Wongwien Yai area is a district that prompts for adaptation, it has sufficient combination of innovation district components – technology, education, business, factory, mass transportation, and people. After spent one semester explores the issue of innovation, three studios found co-existing strategy is suitable for this area. The new innovative city interfaces and services can be created through the reinvention of civic programming by bridging existing programmes to new group of people, and/or creating new programmes to support the locals. This co-existing design strategy can extends life of the old neighbourhood, increases chance of new economy, and open up the area to wider audiences. The new architecture of *Klongsan and Wongwien Yai Innovation District* may not be an icon but a creative one, and it should be part of the neighbourhood.

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