Abstract

Mixed-use design is the design integration on urban development which provides flexibility program and manages diversity usage. By location based learning, mixed-use design feature is to converge physical design with fostering social on specific location. The aim of this article is to characterize mixed-use design on Thai urban context and summarize as the new design feature. On the area of study, researcher chooses Changphuak and Lamchang communities where both connect with Changphuak rd., Phrapokkloa rd. and Moonmuang soi 7. These areas belong to main North-south axis of the old city and have appeared diversity contemporary lifestyle on Chiang Mai public area. Besides, there have adjusted many conflicts between old communities, business-purpose activities and also local government by individual adjustments and community network. With these potentials, this research is set to reclaim the new understanding of public area design with the concept of mixed-use design. Furthermore, research finding is to analyze mixed-use design as new feature on public area in Chiang Mai. Research methodology is created by referring to spatial practice and neighborhood network concept theories. Each area usage reflects as spatial practicing which represents the relationship between government strategy and locals’ tactic. Towards situation based design, researcher has to understand on-site situations and analyzes through conditions of physical design and social relations. The study process provides with 3 sessions; (A) Case study selection is to select potential areas where appear shared space characteristic by street photograph, (B) Flexible use is on-site observation to understand organizing public area usages by interviewing and data collecting, (C) Mixed-use characteristic, this session sets to record street films to characterize mixed-use design feature on those area usages. Towards analysis session, researcher finalized architectural design feature by finalizing isometric section drawing to understand relations of physical design and social relations. These features aim to compromise conflicts and also improve functional programming on Chiang Mai public area.

Keywords

Public Space
Mixed-use Design
Spatial Practice
Neighborhood Network
Community Based Design

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บทนำ

การออกแบบอย่างผสมผสาน (Mix-use Design) เป็นการรวบรวมการออกแบบเพื่อการพัฒนามือ ซึ่งเป็นแนวคิดการสร้างพื้นที่สาธารณะที่สามารถรองรับกิจกรรมของเมืองที่หลากหลายและมีคุณลักษณะการใช้พื้นที่ยืดหยุ่น ต่อผู้ใช้งานตามโดยมีวิธีการศึกษาที่มีความพื้นที่เพื่อศึกษา เพื่อให้ได้คุณสมบัติการออกแบบเพื่อใช้งานอย่างหลากหลายที่เป็นความสิ่งพื้นที่อุตสาหกรรมของการออกแบบทางกายภาพและปฏิสัมพันธ์ทางสังคม จุดประสงค์ของบทความนี้คือ การนำเสนอแนวทางการออกแบบพื้นที่สาธารณะอย่างผสมผสานในบริบทของเมืองไทย โดยวิเคราะห์คุณลักษณะของการใช้พื้นที่และนำไปสู่การสร้างข้อเสนอใหม่ของการออกแบบพื้นที่สาธารณะของเมือง ผู้วิจัยเลือกชุมชนช้างเผือกและลำช้างเป็นพื้นที่ศึกษาด้วยเหตุผลของความเชื่อมโยงทางพื้นที่ ซึ่งมีการตั้งต่อเนื่องกันเนื่องจากพื้นที่เมืองเก่าที่มีการเป็นการเมืองมีความสำคัญทางประวัติศาสตร์ ฐานและเป็นแหล่งหลักหน้าถึงของเมืองเก่า และมีเหตุผลที่มีการเรียนรู้และมีการใช้ประโยชน์ของพื้นที่ที่หลากหลายในลักษณะเชิงนโยบาย ที่ในปัจจุบันเกิดความขัดแย้งของการใช้พื้นที่สาธารณะของรัฐระหว่างคนในชุมชนและผู้ประกอบการธุรกิจ ซึ่งส่งผลทำให้เกิดการปรับตัวของชุมชนและปรากฏคุณลักษณะการสัมผัสในรูปแบบเครือข่ายชุมชนใหม่ๆ ด้วยความหลากหลายและศักยภาพที่หลากหลาย งานวิจัยนี้มี цельเพื่อการนำเสนอแนวคิดและกระบวนการออกแบบพื้นที่สาธารณะที่ใหม่ เท่าที่เห็นในปัจจุบันที่สามารถตอบสนองได้ ที่ตามแนวคิดการออกแบบพื้นที่สาธารณะในบริบทของเมืองไทย วิธีวิจัยของงานนี้สิ่งที่เน้นมาจากการศึกษาการร่วมกันของคนในพื้นที่ที่ตามแนวคิดการออกแบบพื้นที่สาธารณะที่ใหม่ การอ้างถึงการปฏิบัติการของคนในพื้นที่ (spatial practice) และโครงข่ายเพื่อนบ้าน (neighborhood network) เพื่อใช้เข้าใจได้ให้เกิดปฏิบัติการที่เกิดขึ้นในพื้นที่ที่เป็นการจัดการพื้นที่ที่มีการนำพาจากแนวคิดการออกแบบพื้นที่สาธารณะที่ใหม่ การศึกษาของกรณีศึกษาประกอบด้วยขั้นตอน A) การเลือกกรณีศึกษา ด้วยการเลือกพื้นที่ที่มีคุณค่าทางศิลปะ โดยใช้เครื่องมือเป็นภาพถ่ายท้องถนน (street photograph) เพื่อดูคุณค่าทางศิลปะที่ปรากฏอยู่ในพื้นที่ที่ใช้ร่วมกัน (shared space) เชิงกิจกรรมหลักของการออกแบบอย่างผสมผสาน ที่ส่งผลสร้างคุณลักษณะของพื้นที่สาธารณะอย่างผสมผสาน (shared space) ซึ่งเป็นคุณลักษณะของการออกแบบอย่างผสมผสาน (shared space) ที่ส่งผลสร้างคุณลักษณะของพื้นที่สาธารณะอย่างผสมผสาน (shared space)

คำสำคัญ
พื้นที่สาธารณะ
การออกแบบอย่างผสมผสาน
ปฏิบัติการเชิงพื้นที่
โครงข่ายเพื่อนบ้าน
การออกแบบเพื่อชุมชน
1. Introduction

This article is a study of mixed-use architectural design which existed on urban area in Asian cities. Since Modern city planning have been strategically used on urban development during the 1970s, many cities was managed without community based study. Local had to adapt their lifestyle into Modern city planning and real-estate where are organized by government and business purpose (Baum & Valin, 1978). To understand the contradiction and complexity between Government strategy and local’s tactic on those areas, this study posits to understand people centered design where be seen as mixed-use area usages on urban public area through the city. Mixed-use design is urban development strategy for living spaces where blends diversity purposes with multipurpose uses. The development provides flexibility and combines various functions more than just single function; residential, commercial, cultural, institutional or entertainment. The design is to be physically and functionally integrated with urban connections. This development efforts idea of shared space which provides and fosters for 3 purposes; economic vitality, social equity, and environmental quality. (Grant, 2002) Even more, researcher referred to social-science analysis with “Neighborhood network” conceptual design. A method is to analyze area usage and improve community by physical designing and supporting social relations between urban community and residential building. This community network concerns with 2 theories; Spatial Practice and Neighborhood network.

Spatial Practice, is alternative social-science conceptual method to analyze politically social scape by the relationship between social structure and agency. De Certeau describes as 2 types of spatial practicing on specific area, which are strategic and tactic. “Strategy” which is a practice to strict main function on an area as a place by government or investigator organizing. And, “Tactic” which is a practice to negotiate with strategy and foster to
Terminology

Since wording in this research is based on Thai context and also socio-science theories. There is definition of specific words in this research:

Mixed-use design: An integrated design to effort urban development toward an idea of Shared space which supports 3 purposes; economic vitality, social equity, and environmental quality.

Neighborhood network: A network which converged social relationship types into community. This network connects between tangible urban community and reformatory social interaction. The network combines with 2 integrations; physical design and social relations.

Spatial practice: Socio-science theory is to analyze area usage from Michel De Certeau (1992) which explains type of practices for 2 kinds; strategy and tactic.

Strategy: Spatial practice is to assent and grant area usages for subjectivity structure. A person who is in this area is controlled by subjectivity which appears as rules, conditions and norms. Strategy practices an area to be strict as place.

Tactic: Spatial practice is a flexible way to have another activities and attentions from subjectivity structure. Then, character of area usage belongs to space which is flexible and multipurpose function by users’ perceptions.

Area usage: A specific way of using or activity on particular area.

Community grouping: An existing community by several social relations such as commercial purpose, coffee shop group, single house village etc.

Physical design: An architectural design on geography and residential area which relates to human behavior.

Social interaction: Interactions between residents inside residential building and also connect to community.

Figure 1. Theories relations diagram Source: Kitika 2019

Figure 2. Area of Study, a route from Chang phuak rd. to Moonmuang Soi 7, is on North-western area in Old city (Source: Kitika 2018)
center for present activities such as election, funeral ceremony and Buddhist events. Nowadays these street networks are provided for even and odd numbers on soi system which related to grid system for modern urban management. (Soi in Thai means a narrow street which connected to the main one).

Many developing cities around Asian countries, most controversies between residential and commercials cause by the contrast of old inflexible strategy and existing communities. Preciously top down styled methodology, which be used for urban area management by government or investigators, this constructs single area usages and never adapts into communities’ change. Then locals have to adapt their own buildings through governments’ constructed environment. And, they also settle and manage new kind of community grouping which is not certainly related to grid system from the influence of modern city planning. Following to Chiang Mai creative city concept, collaborative design is to develop the creative economy on the strengths of communities in Chiang Mai. (US Consulate General in Chiang Mai, 2013). Therefore research objection is to understand new feature of mixed-use design towards the better urban development.

2. Methodology

This article summarizes new feature for mixed-use design where compromises local area usages and negotiates existing modernity constructed environment towards Livable city. To understand how existing mixed-use design which adapted urban public area, researcher provides 8-weeks working process which follows to methodology, this process is set from understand raw area usages which appears on street scene in Chiang Mai city to analyze mixed-use architectural design for Chiang Mai public area.

2.1 Research tools

Researcher provides 3 research tools: First, street photography is taken from daily-life street scenes along the site. These photographs are selected for case studies as selective shared-spaces. Second, street film is to record raw physical and social relations on urban area. And third, isometric sketching is an analyzed graphic to describe environmental design. From analysis session, these pavement area usages have appeared characteristic of mixed-use design feature which exclusively support the community network.

2.2 Methodology sessions

To specify the term of mixed-use design on this study, researcher refers The understand of Space by the learning process which have to mediate through each experience due to time and space and also a phenomenological interrogation into the meaning of spaces which preoccupy poetry, intimate spaces (Bachelard, 1964) Regarding to urban phenomenon, The measurement of urban area is very challenge and hardly to characterize any area with the following of existing physical design. The study of urban area is meaningfully to explode environmental design and on-site reality data with diversity perspectives such as visual methods, image ability, environmental mapping (Sanoff, 1991)

2.2.1 Session (A) Case study selection

Researcher has provided site surveying and collecting on-site data with smartphones which can capture the moment of phenomenological study as street photograph. These photograph set no compositions and took from raw situations which appears Shared space characteristic following mixed-use design theory. This process, as called as Session (A) Case study selection is to select potential areas with street photograph. Street Photograph sets as research tool to select potential urban area for settling case studies.

2.2.2 Session (B) Flexible use (on-site observation)

Forwarding to a process to mediate through each experience due to time and space, Session (B) flexible use is a study with on-site observation to understand area usages organizing by interviews and
data collecting, these collective data is to be arranged for categorizing common issues; main Activity, mixed-use activity, type of area usage, mixed-use activity, and time duration.

2.2.3 Session (C) Mixed-use characteristic

Street film to understand flexibility on area usage. Street film, is another research tool to observe on-site data and describe the condition of multiple activities, activities duration, date & time. Following spatial practice theory, relative data from session (B) and (C) leads us to understand spatial practice as tactic from local and also relationship between existing physical and social contexts.

2.2.4 Mixed-use conceptual design - analysis session

Final session, this session is to summarize these collective data and analyzed for Features of mixed-use conceptual design. Street film is a session to present the raw collective data for mediated experience and also mixed-use self-practicing on each case.

To conceptualize mixed-use design, each case study is selected with shared space characteristic (Grant, 2002) and explained each area usage to flexible use operation (Kronenburg, 2004) by on-site observation. Then each case study’s operation is analyzed to mixed-use conceptual design by street film (See figure 3)

The research findings is an analysis of neighborhood network which appears on the relations between physical design and social interaction. (Figure 4) (Kitika, 2018) Researcher analyzed design feature which based on urban phenomenon. Each case have each own community network which are fostering mixed-use design for many purposes. Expectation is to learn mixed-use design which represents the integration vision and action lead to the resolution of urban problems and bring about a lasting improvement in the economic, physical and environmental condition of an area. (SOSNA, 2014)

3. Field work & Analysis

3.1 Session (A) Case study selection

Researcher scopes on “Shared space” which is an ideal space referring mixed-use conceptual design. By studying from actual local’s spatial practicing on streets and alleys inside those community groupings (Figure 5), this study firstly started from surveying on public area and collect street photographs to analyze spatial practice on each. From street photographs, this move forward to describe mixed-use design efforts on each cases which supports 3 purposes; economic vitality, social equity, and environmental quality. After a week of site surveying, researcher selects 10 street photographs with condition of shared-space characteristic which an area is flexibly used and adjusted to change situations in their use, operation, or location (Kronenburg, 2004). 10 selective street photographs have represented mixed-use characters which are spatial practicing on the site. Following on shared space, researcher chose them as 10 case studies;

Case 1: Chang Phuak bus station
Case 2: Front area on Bangkok bank Chang Phuak branch
Case 3: Umbrella morning market next to Chang Phuak market
Case 4: Local transit node in the corner of Chang Phuak market
Case 5: Pedestrian area on jazz bar
Case 6: Pedestrian area on noodle shop, Phrapokploa road
Case 7: Parasite shop on Phrapokploa soi 13
Case 8: Lam Chang temple community
Case 9: Community area in salon, Moonmuang soi 7
Case 10: Night district inside Chiang Mai old city
These 10 selective street photographers appear the diversity of shared spaces. Researcher notices common issue that these shared spaces are caused the relations between urban space and local activities which are not just various activities but flexible uses. Then researcher continues to understand tactics on each area with on-site observation in the next session.

3.2 Session (B) Flexible use (on-site observation)
From 10 street photographs, researcher scoped on each area usage and learn their physical design by area observation. The data has shown that 10 case studies have appeared mixed-use activities which combine with both main and flexible activities. These mixed-use characters are related to physical design and social interaction following to Types of area usages on Table 1.
Table 1. Mixed-use activity on 10 case studies observation

<table>
<thead>
<tr>
<th>Case study</th>
<th>Strategy</th>
<th>Tactic on flexible use analysis</th>
<th>Type of area usage</th>
<th>Mixed-use Activity Time</th>
<th>Duration (Avg.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Chang Phuak bus station</td>
<td>Bus terminal</td>
<td>Red truck &amp; tourist node</td>
<td>Flexible activity with regulation</td>
<td>07:00-20:00</td>
<td>13 hours</td>
</tr>
<tr>
<td>(2) Front area on Bangkok Bank</td>
<td>Parking</td>
<td>waiting area for students after school</td>
<td>Flexible activity with regulation</td>
<td>15:30-18:30</td>
<td>3 hours</td>
</tr>
<tr>
<td>(3) Umbrella morning market next to Chang Phuak market</td>
<td>Pedestrian</td>
<td>Morning fresh market</td>
<td>Umbrella covered selling unit</td>
<td>06:00-11:00</td>
<td>5 hours</td>
</tr>
<tr>
<td>(4) Local transit node in the corner of Chang Phuak market</td>
<td>No land use</td>
<td>Red truck stop</td>
<td>Chair and Panel Instauration</td>
<td>08:30-16:00</td>
<td>7.5 hours</td>
</tr>
<tr>
<td>(5) Pedestrian area on jazz bar</td>
<td>Pedestrian</td>
<td>Hanging out and extending shop area</td>
<td>Dual/complex activities in an area</td>
<td>19:30-00:30</td>
<td>5 hours</td>
</tr>
<tr>
<td>(6) Pedestrian area on noodle shop, Phrapokploa road</td>
<td>Pedestrian</td>
<td>Extending shop area</td>
<td>Dual/complex activities in an area</td>
<td>17:30-04:30</td>
<td>11 hours</td>
</tr>
<tr>
<td>(7) Parasite shop on Phrapokploa soi 13</td>
<td>Pedestrian</td>
<td>Shop area (Sewing shop)</td>
<td>Hanging structure &amp; mobile unit</td>
<td>08:30-16:30</td>
<td>8 hours</td>
</tr>
<tr>
<td>(8) Lam Chang temple Community</td>
<td>Temple centered Community</td>
<td>Local and foreigner residential commitment</td>
<td>Flexible activities with regulation</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(9) Community area in salon, Moonmuang soi 7</td>
<td>Front area from setback regulation</td>
<td>Meeting area</td>
<td>Dual/complex activities in an area</td>
<td>17:30-23:30</td>
<td>5 hours</td>
</tr>
<tr>
<td>(10) Night district inside Chiang Mai old city</td>
<td>Private street</td>
<td>Extending shop area</td>
<td>Dual/complex activities in an area</td>
<td>20:00-01:00</td>
<td>5 hours</td>
</tr>
</tbody>
</table>
From this analysis, researcher found out that each case has its own operation to adjust and foster diverse agendas. These 10 flexible uses appear as extra activities which are operated with types of area usage, time and duration. Researcher analyzes these 10 case studies and found that these cases provides 3 common characters; special regulations, specific unit design, and various activities organizing. Then research needs to understand these operations by recording the transformation of each area. And, recording film is a tool to show how mixed-use characteristic appears and also flexible use operation.

3.3 Session (C) Mixed-use characteristic

Regarding to research objection, Street film has reflective explain mixed-use characteristic through area adjusting and activating on everyday life scene. Each film collected raw activities on each site and is analyzed to explain tactics which appears on street film. These 10 street films are made by on-site observations which includes;

Street film 01: time travel, this film is recorded at Chang Phuak bus station and presented particular routes for red truck, yellow trucks and also Tuk tuk between 3-4 pm during the weekdays. (Figure 6)

Street film 02: After hour, this film is recorded at front area on Bangkok Bank Chang Phuak Branch and presented adjective activities from parking lot to students’ waiting area between 3-5 pm during the weekdays. (Figure 7)

Street film 03: under umbrella, this film is recorded at umbrella morning market where located next to Chang phuak market between 5-11 am daily. (Figure 8)

Street film 04: waiting point, this film is recorded at Local transit node in the corner of Chang phuak market during the daytime. (Figure 9)

Street film 05: crescendo, this film is recorded at jazz bar called “North gate” and focused on customers’ activities between jazz bar and pedestrian area. (Figure 10)

Street film 06: walk-through, this film is recorded at pedestrian area on noodle shop, Phrapokploa road which presented the contradiction between day and night activates. (Figure 11)

Street film 07: parasite, this film is recorded at parasite shop on Phrapokploa soi 13. The shop is an adjustable sewing shop by hanging with urban landscape during the day. (Figure 12)

Street film 08: agreement, this film is recorded from Lam Chang temple Community and collected data by interviewing community leader and urban architect about informal urban management with an idea of temple centered community. (Figure 13)

Street film 09: possession, this film is recorded from the front area of salon on Moonmuang soi 7. There appeared raw community area where daily uses for gathering people and neighbors during the evening. (Figure 14)

Street film 10: zoe in/out yellow, this film is recorded from night district inside Chiang Mai old city. There appeared extended activities between buildings in the nighttime. (Figure 15)

These 10 street films explain various activities which appears on one area. 150 cases explain flexible activities and also appear temporary uses which depend on difference environment, time and users. Researcher analyzed those 10 cases to divide to 3 common area usages by tactic on design features:

(Table 2)

- First feature, Adjustable unit design, is an additional design to adjust multiple uses which are including with case 3, 4, and 7.
- Second feature is re-managing urban area, is urban management to compromise multiple activities which is including with case 1, 2 and 8.
- Third feature, flexible area usage, is an organizing of multiple functions as an area, which is including with case 5, 6, 9, 10.
Figure 6. Screenshots from Time travel - street film
(Source: Kitika 2018)

Figure 7. Screenshots from After hour - street film
(Source: Kitika 2018)

Figure 8. Screenshots from Under umbrella - street film
(Source: Kitika 2018)

Figure 9. Screenshots from Waiting point - street film
(Source: Kitika 2018)

Figure 10. Screenshots from crescendo - street film
(Source: Kitika 2018)
Figure 11. Screenshots from Walk through Street film
(Source: Kitika 2018)

Figure 12. Screenshots from Parasite - street film
(Source: Kitika 2018)

Figure 13. Screenshots from Agreement - street film
(Source: Kitika 2018)

Figure 14. Screenshots from Possession - street film
(Source: Kitika 2018)

Figure 15. Screenshots from Zoe in/out yellow - street film
(Source: Kitika 2018)
From this analysis, 10 case studies has commonly got mixed-use characteristic as shared-space which elevates area usage to gain various economic vitality, social equity and also environmental quality. Interestingly, this analysis has shown 3 tactics on design features which include; adjustable unit design, flexible area usage and re-managing urban area. These 3 tactics is to analyze in terms of architectural design on next session with isometric studying.

### Table 2: Analysis on mixed-use characteristic

<table>
<thead>
<tr>
<th>Case Study</th>
<th>Tactic on design features</th>
<th>Mixed-use characteristic – shared space</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>economic vitality</td>
</tr>
<tr>
<td>Case 1: Chang Phuak bus station</td>
<td>Re-managing urban area</td>
<td>City &amp; suburban public transportation</td>
</tr>
<tr>
<td>Case 2: Front area on Chang Phuak bank</td>
<td>Re-managing urban area</td>
<td>Private parking &amp; public school bus</td>
</tr>
<tr>
<td>Case 3: Umbrella morning market</td>
<td>Adjustable unit design</td>
<td>Adding value on area as morning market</td>
</tr>
<tr>
<td>Case 4: Local transit node</td>
<td>Adjustable unit design</td>
<td>Adding value on area as day-time transit node</td>
</tr>
<tr>
<td>Case 5: Pedestrian area on jazz bar</td>
<td>Flexible area usage</td>
<td>Extending business area and support tourism</td>
</tr>
<tr>
<td>Case 6: Pedestrian area on noodle shop</td>
<td>Flexible area usage</td>
<td>Extending business area and support tourism</td>
</tr>
<tr>
<td>Case 7: Parasite shop</td>
<td>Adjustable unit design</td>
<td>Adding value on area as daytime shops</td>
</tr>
<tr>
<td>Case 8: Lam Chang temple</td>
<td>Re-managing urban area</td>
<td>Cultural tourism (Community &amp; investigators)</td>
</tr>
<tr>
<td>Case 9: Community area in salon</td>
<td>Flexible area usage</td>
<td>Extending business area and support community</td>
</tr>
<tr>
<td>Case 10: Night district inside old city</td>
<td>Flexible area usage</td>
<td>Extending business area and support tourism</td>
</tr>
</tbody>
</table>

#### 3.4 Analysis Session: New features for mixed-use design

To understand architectural design on each case, researcher analyzed 10 case studies on mixed-use characteristic with isometric study. Isometric drawing is to represent how architectural design operates to mixed use characteristics. After understanding architectural design by isometric study, these common designs are developed to new features. Researcher provides 3 new features for design following 3 kinds of isometric studying and they provide as adjustable unit design, flexible schematic and overlapped area.
3.4.1 **Adjustable unit design** is a mixed-use design feature to not only create its own unit but also, the design can adjustable while other public uses happen. This unit design locates on potential urban area and adjusts environment for private and public purposes. This feature includes; Case 3: Umbrella market, Case 4: Local transit node and Case 7: Parasite shop. (Figure 16)

On case 7: Parasite shop, this sewing shop hang itself on School wall and tree. Besides, its area is within drainage pathway. This unit design is represented mixed-use activities which adapted into urban scape. From understanding these mixed-use area usages on urban area. (Figure 17)

On Case 4: Local transit node, this case study appears activities adjustment on urban gap. This area is originally set-back area for intersection. This gap area is covered with big tree and located behind police booth. With these existing environment, this area have managed for red truck waiting node and attract to tourists. (Figure 18)

On case 3: Umbrella morning market, an important element is locating umbrella for setting shop in Changphuak morning fresh market. Bending umbrella is related to sun shading during morning time. Those shading has covered selling area and making localness atmosphere. But residents who live in opposite shophouses cannot use front area of their own house until market is over around 11 am. (Figure 19)

![Figure 16. Adjustable unit design - isometric drawin](Source: Kitika 2018)
3.4.2 Flexible schematic is a mixed-use design feature to re-management urban area for organizing multiple purposes on an area. This schematic has been diverse organized due time and users. This feature includes; Case 1: Chang Phuak bus station, Front area on Bangkok bank Chang Phuak branch and, Case 8: Lam Chang temple Community. (Figure 20)

On case 1: Chang Phuak bus station, main public transportation in Chiang Mai is red truck which is organized by local organization. Red truck transportation system has organized with 2 main routes; city route and suburb area route. Both routes have uncertain time schedule and unidentifiable stop. Besides, local has to wait and spend waiting time on commercial shops where spread following to red truck waiting node. (Figure 21)
Figure 20. Flexible schematic - isometric drawing

Figure 21. Flexible schematic on case 1
On case 2: Front area on Bangkok bank Chang Phuak branch, there are surrounding with universities and schools. Mixed-use activities on the site are seen as various students waiting area after school hour. Students always select and wait on public area where closed and easy to pick-up. (Figure 22)

On case 8: Lam Chang community, temple centered community is main idea for local community origin. Since many areas in old city were developed with modern city planning thought. Temple centered community has appears on social network which controls residents and new business owners. On architectural design, there has been lacking of temple centered community characters visually. (Figure 23)

3.4.3 Overlapped area is a mixed-use design feature to organize complexity functions which are overlapped on one specific area. Each function has its own area usage and allow other functions to happen. Most of functions are fostering each other, this feature includes; Case 5: Pedestrian area on jazz bar, Case 6: Pedestrian area on noodle shop, Case 9: Community area in salon, and Case 10: Night district inside Chiang Mai old city. (Figure 24)

On case 06: Pedestrian area on noodle shop, this feature provides an extending business area to public pavement, this shop area has covered pedestrian area and but also has managed visible walking through area for people. This mixed-use area has always been seen around Thailand. (Figure 25)

On case 9 Community area in salon, this feature provides a gathering area, where is publicity area and concerns to physical design and also social interaction. This case study represents mixed-use area where naturally gathers group of people and connects publicity to privacy area usages. (Figure 26)

On Case 5: Pedestrian area on jazz bar, this feature design provides diversity extending areas for commercial purpose is appeared on public pavement around Chiang Mai old city. This case has shown the relationship between activity and extending areas. Sounds from music/art performance has controlled people direction and area usages. (Figure 27)
CASE (5) Extended area on North gate jazz co-op

CASE (9) Community area in Salon, Moonmuang soi 7

CASE (6) Pathway on Noodle shop, Phrapokploa road

CASE (10) Night district inside Chiang Mai old city

Figure 24. Overlapped area - isometric drawing

Figure 25. Overlapped area analysis on case 6
4. Conclusion

Researchers scopes on understanding of mixed-use design feature which is a study from actual local's spatial practicing as bottom-up studying. These tactics represent mixed-use characteristic among Chiang Mai old city context. This statement contrasts to modern
city planning and determines new mixed-use design feature from people centered design through Asian developing city. The findings in this studying provide for 2 stages; mixed-use design feature and academic contribution.

First stage, mixed-use design feature which has studies on case studies in Chiang Mai old city. This study has appeared the narration of new mixed-use design feature s which Government’s top-down strategy doesn’t related to the diversity of local purposes. Without on-site studying, these areas couldn’t belong to Chiang Mai’s Creative city urban development plan which mainly forces with understanding community network as Community based design (Climate change and infrastructure research unit of Chiang Mai University, 2014). This study gives an alternative way to re-design public area usages by following with the definition of mixed-use design. The outcome is a proposal of re-design urban area usage following the diversity purposes which related to community network on each case. And finally this study has found the determinations of mixed-use design for 3 kind of new design features; I.) Adjustable unit design, this feature is a unit design which can adaptive adjust into urban surroundings. II.)Flexible schematic, this feature is schematic design for organizing diversity urban area usages with community network and urban scape. III.) Overlapped area, this feature is a design for providing the mixture of multiply functions on potential urban area.

Second stage: Academic Contribution, this study is also to reinforce the conceptual idea of Spatial Practice and Neighborhood network. Spatial practice is a socio-cultural approached learning in on-site phenomenon which is existed and negotiates to main strategy. Then analysis for 2 Spatial practices, strategy which is strictly main function by government or investigators and, tactics which is flexible and negotiate with strategy. Those tactics are naturally developed by residents and users in those areas. So, the understanding of publicity architectural design on difference context is a study on focusing in Local tactics because those tactic are potential relations and appear as spatial practice between the combination of physical design and social relations. The relation between Physical design and Social interaction, considering to Neighborhood network concept, there provides 2 components to maintain and improve the relations between residents inside community; Physical design and Social relation. Physical design is to consider on architectural elements and planning where appear flexible tactics. And social relation is to have observation on local’s behaviors. Those components are suitable environments for maintaining those tactics. From those fostering, the relation is assumed as neighborhood network in Thai context.

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