CREATING PLAYFUL URBAN INTERIORS THROUGH COMMUNITY-BASED TRADITIONAL GAMES

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Abstract

This paper explores the design process of the 'magic circle' as a form of a playful urban interior, inspired by traditional games as a form of ludic or play activity. Traditional games reflect the intersection of culture and social activities, offering elements and rules adaptable to create an inclusive and creative public interior. The research analyses the process and spatialities of traditional games, mapping common play areas, frequently encountered games, and how communities preserve these traditions in an urban context. This paper explores such spatialities in the play-event conducted by the Hong community, an urban community focusing on the preservation of traditional games in Bandung, West Java. The study investigates how traditional games in this event enable the creation of a playful space as a form of urban interior interventions. Based on such reading, the study proposes a playful interior system, consisting of ludic, crafting, and immersive space types. This system expands the design methodologies of the public interior, allowing user participation and flexibility in the playful inhabitation of the urban context.

Keywords: *play space, playful urban interior, traditional games, magic circle*

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Introduction

This paper focuses on the practice of playing traditional games and how it influences the presence of the 'magic circle' or a framed space where actors play in separation from the external reality (Walz, 2010). Traditional games are a form of ludic or play activities that create distinct qualities of space from similar or repetitive acts, resulting in a space of magic circles, generating an opportunity for playful space-making in urban settings. Playful space is constructed through the dissection of game elements that define the essence of play, which "takes place within precise boundaries of space and time according to fixed rules and in an orderly manner" (Huizinga, 1980, p. 13).

The rules created by playing activities arise from existing cultural and social practices. Traditional games have been a part of human culture for centuries, and they often involve specific spatial practices and social interactions. This paper discusses how traditional cultures have shaped the built environment by studying these games. For example, traditional games that involve territorial disputes or resource management can provide valuable lessons for the occupation of urban space. By understanding how communities have culturally negotiated and resolved conflicts over space, urban practitioners can develop strategies for promoting sustainable and equitable urban development. Traditional games that involve social gatherings and community building can offer insights into the importance of public spaces in urban life, to create social interaction and cultural exchange (Honggare & Evanindya, 2021; Susanti & Nurtania, 2017; Warang et al., 2021). Traditional games may thus inform the design of urban environments that promote a sense of belonging and community (Susanti & Nurtania, 2017).

The study employs traditional games as the basis of a playful public interior program proposition where the playspace intersects with existing public space. Tschumi (1987) explores such intersections in his understanding of disjunctions, an architecture programming that lends itself to dynamic and nonautonomous qualities of space. During an activity of play, the occupied urban areas create boundaries of the magic circles, which intersect with public spaces in urban areas such as fields, public buildings, mosques, courtyards, and the public landscape (Basyazici & Baba, 2022; De Souza E Silva & Hjorth, 2009). This playful space proposition is the result of a further interior disjunction based on socio-cultural practices in urban space (Attiwill et al., 2024). This study explores the disjunction process through exploring live events of play by the Hong community in urban spaces of Bandung, proposing a scenario of a playful public interior.

Space of the magic circle as a form of urban interior

The concept of the magic circle, introduced by Johan Huizinga (1980), provides a valuable lens for analysing the unique spatial qualities of games and how they occupy space in an urban context. Salen and Zimmerman (2004) adapted this concept to describe the temporary, rule-bound world created

within a game. The magic circle serves as a boundary between the ordinary world and the game world, allowing players to engage in activities and experiences that might not be possible in everyday life. Following Lefebvre's (1997) understanding of the relationship between social practices and the built environment, space is a product of human activity, created from spatial practices, representations of space, and representational spaces. This paper explores how traditional games create activities and interactions that shape the built environment and create subjective experiences of space that are shaped by individual perceptions and cultural identities. By applying Lefebvre's (1997) theory to the context of traditional games, this paper can explore how these traditional games contribute to the production of the space of the magic circle, examining the ways in which games create social spaces, influence urban planning decisions, and shape the cultural identity of communities.

The space of the magic circle created from play activities perceives architecture beyond a particular structure, palace, or monument, but as an embedded project within a spatial context (Huizinga, 1980). When the magic circle occupies an urban space, it can be concluded that the space is in a state of disjunction, where the space is separated from its activity (Tschumi, 1987). Traditional games are a cultural practice that can be presented anywhere, giving rise to a phenomenon known as decontextualisation (Gal, 2006; Tschumi, 1987). This study argues that the magic circle reflects a form of public interior, where its spatiality is created through encounters and occupations instead of being bound to a specific typology (Hinkel, 2011). The magic circle as a playful urban space creates understanding and observation of urban settings at the micro level, generating different representations of space depending on the play intervention (Wan & Martín Blas, 2022). The play intervention constructs representations of interior space outside its existing typology. The play activities convey an immaterial story of social practices, existing alongside the immaterial experience of the space, such as light and sound (Atmodiwirjo & Yatmo, 2021). The representations of the magic circle as the playful urban interior are constructed from the immaterial rules, stories of play, and the invisible boundaries in space at the urban settings (Lave & Gomes, 2019).

Occupation of spaces such as roads and alleys for children's play areas can be found in many urban settlements. These areas are converted into play areas through regular occupation of the space. Tantarto and Hertoery (2020) highlight how children attending school often play on the road while going to school and coming back home. The use of roads and other non-permanent places happened in many unplanned settlements. In contrast, planned settlements may have a designated open space for traditional games or other contemporary games such as basketball or soccer. Open space is a type of space that can be created anywhere and stimulates play activities in residential urban settings with different characteristics. Open spaces stimulate urban actors around them by allowing them to move freely without obstacles (De Souza E Silva & Hjorth,

2009; Lindawati, 2019). Open space can be directly used to play certain games without changing its surrounding environment (De Souza E Silva & Hjorth, 2009). However, some open space requires adjustment to the play environment by marking the playground boundaries using chalk or stones. Figure 1 highlights the different aspects of play space in an urban context, where the player activates the playing area, occupying open space or other forms of space through routine play. The figure also demonstrates how roads and alleys are used for plays, creating shared space for daily activities.

Games	Space		Social Interaction		Tools		Gender	
	1	2	3	4	5	6	7	8
Congklak	✓			✓	✓			✓
Egrang	✓	✓		✓	✓			
Gangsing	✓	✓	✓	✓	✓		✓	
Kelereng		✓		✓	✓		✓	
Petak Umpet	✓	✓		✓		✓	✓	✓
Sapintrong (Lompat Tali)	✓	✓		✓	✓			✓
Beklen	✓			✓	✓	✓		✓
Pletokan (Senapan Bambu)	✓	✓	✓	✓		✓		
Lodong (Meriam Bambu)	✓	✓	✓	✓		✓		
Gobak Sodor		✓		✓		✓	✓	✓
Engklek		✓		✓		✓		✓
Oray-orayan		✓		✓		✓	✓	✓

Legend:
- 1 Player
- 2 Playing area
- 3 Local People
- 4 Road/alley

- 1 Indoor
- 2 Outdoor
- 3 Individual
- 4 Group
- 5 Need a tool/toy
- 6 Doesn't need a tool/toy
- 7 Commonly Played by male
- 8 Commonly Played by female

Figure 1. Aspects of play in urban space and traditional games and their play characteristics (Images by authors)
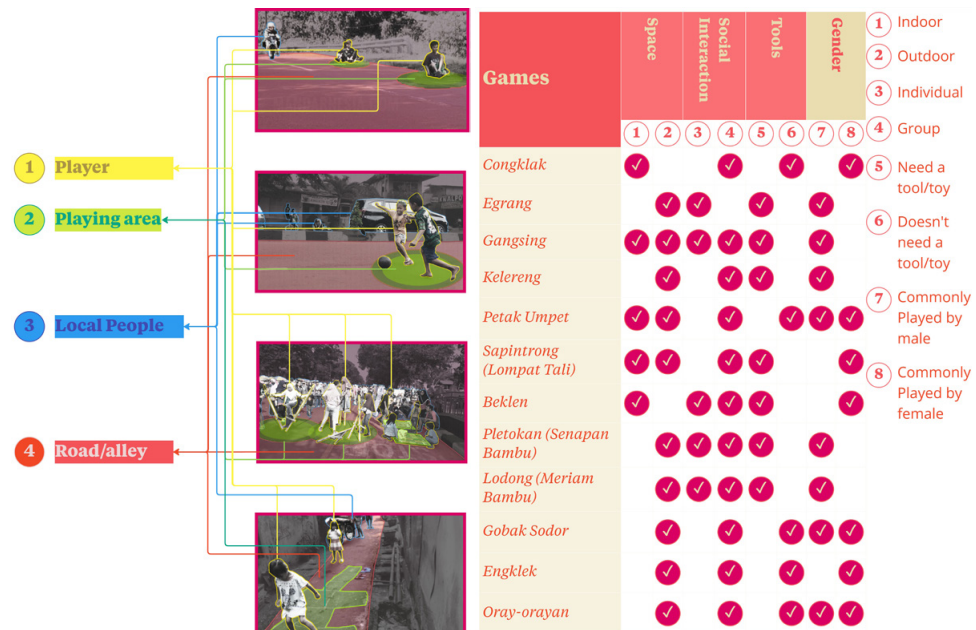
Figure 1 (right) highlights 12 traditional games that are often played in urban spaces and explores their play characteristics. Some games are done outdoors and some indoors; some are played individually and in groups. Some games are played without additional tools, such as *petak umpet* and *gobak sodor*, while some require play equipment, such as *congklak* and *egrang*. The study also highlights how some games are often played by males, while females play others. These characteristics define the play area that emerged in the urban space and its dynamics, which will be studied in the following sections.

Methodology

This paper will explore how games create the public interior by examining the spatiality of the magic circle occupying urban space. It explores the physical layout of game spaces, the rules and constraints that govern player behaviour, and the social interactions that occur within the game world. This study is divided into two parts; the first part is the mapping process of the spatiality of play as social and cultural practices. The study investigates the play-event of urban space conducted by the Hong community in Bandung, West Java, through the live-broadcast recordings of such an event. The Hong community is a local community that focuses on traditional game

preservation activities. The community have researched over 2,600 games and regularly conducts workshops for making toys, visiting various places across different contexts to create play exhibitions. In addition, the community also regularly holds play-events, creating temporary play areas in urban spaces. The analysis aims to discover the magic circle elements that support the idea of playful space, producing spatial mechanisms of a playful public interior.
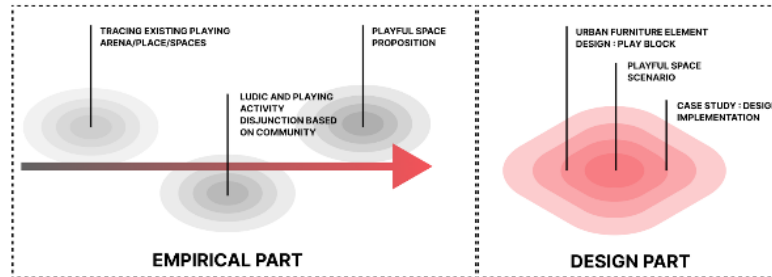

Figure 2. Examinations of traditional games exploration and the proposition of a playful urban interior structure (Image by authors)

The first step of analysing the magic circle involves destructuring or separating the elements of traditional games that occur in urban communities. This process involves identifying the key components of these games, such as their spatial elements, repetitive patterns, and social practices. Traditional games often involve specific spatial elements, such as playgrounds, streets, or open fields. These elements can be analysed regarding their geometric properties, scale, and relationship to the surrounding environment. Additionally, many traditional games incorporate repetitive patterns or sequences of actions. These patterns can be identified and extracted to inform the design of playful spaces.

The second part of the study is the design process that develops a program of a playful urban interior based on the analysis output from the first step. Once the elements of traditional games have been de-structured, they can be juxtaposed or combined in new and unexpected ways. This process involves intentionally placing disparate elements together to create a sense of tension, surprise, and intrigue. By overlapping or intersecting these elements, we can generate dynamic and visually engaging spatial configurations. The programming of the urban interior focuses on creating a system of interrelated play elements that encourage exploration, interaction, and play. By carefully considering the relationships between the various components of the playful space, we can create a cohesive and engaging urban environment.

Analysing the traditional games of the Hong community and its spatialities

This paper discusses the results of the traditional game-playing events of the Hong community. The Hong community has two phases of playing together in their place. First, the community will play in a radial or circular pattern, centred on the presenter, and accompanied by music. Afterwards, the players will split

up to play on the playground, provided by their respective instructors. Figure 3 identifies the play characteristics of the 14 traditional games of the Hong community, demonstrating how most games are done in outdoor locations, conducted between groups and require additional tools. As can be seen in the figure 3, there are three major elements that are common to all of the 14 traditional games played in Hong Kong: tools, social interaction, and space. Observations about the main aspects of each game activity are different from game to game, depending on the type of game. These are usually games that are played outdoors, in groups, and require tools to be used in order to play.

Games	Space		Social Interaction			Tools		
	1	2	3	4	5	6	7	
Hompimpa		✓		✓		✓		
Salam Sabrang	✓	✓		✓		✓		
Sur-ser	✓	✓	✓	✓		✓		
Perepet Jengkol		✓		✓		✓		
Papancakan Pancasila		✓		✓			✓	
Bobonekaan	✓	✓	✓		✓		✓	
Momonyetan		✓		✓			✓	
Keris-kerisan	✓	✓		✓			✓	
Ban-banan		✓			✓	✓	✓	
Bobolongan Sarung	✓	✓			✓	✓		
Estafet Gasing		✓		✓		✓		
Bedil Jepret	✓	✓			✓	✓		
Rorodaan		✓			✓	✓	✓	
Papancakan		✓			✓	✓	✓	

Legend: 1 Indoor, 2 Outdoor, 3 Individual, 4 Group, 5 Both Individual/Group, 6 Need a tool/toy, 7 Doesn't need a tool/toy

Figure 3. Instagram live documentation of the play-event by the Hong community and the emerging play characteristics (Image and photographs by authors)

Figure 4 illustrates the pattern formed by the Hong community when playing traditional games. In this illustration, the pattern is redrawn to show how the game affects the shape of the space according to the activity of the game. Among the traditional games played by the Hong community, there are two that form patterns in the play space, namely the line game and the circular game. This indicates that traditional games allow the formation of urban spaces based on the actors involved, the type of games being played, and the number of actors involved.
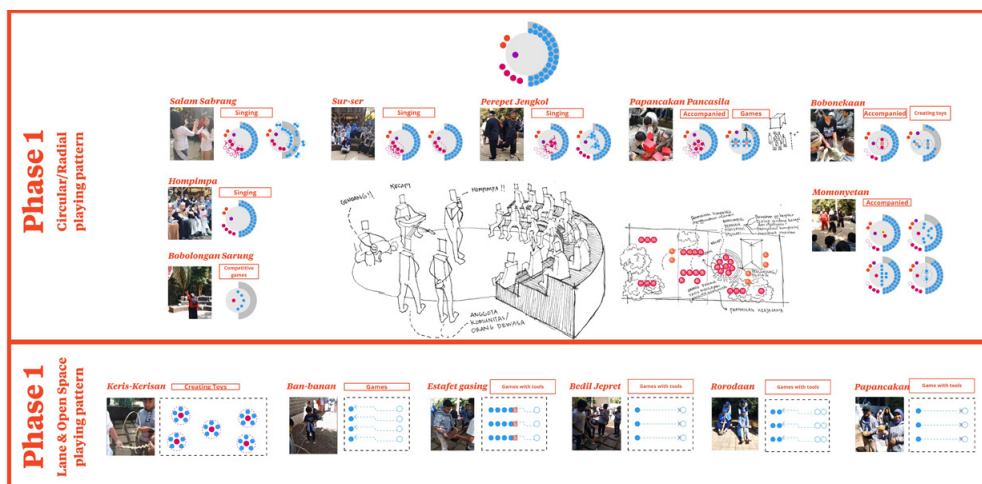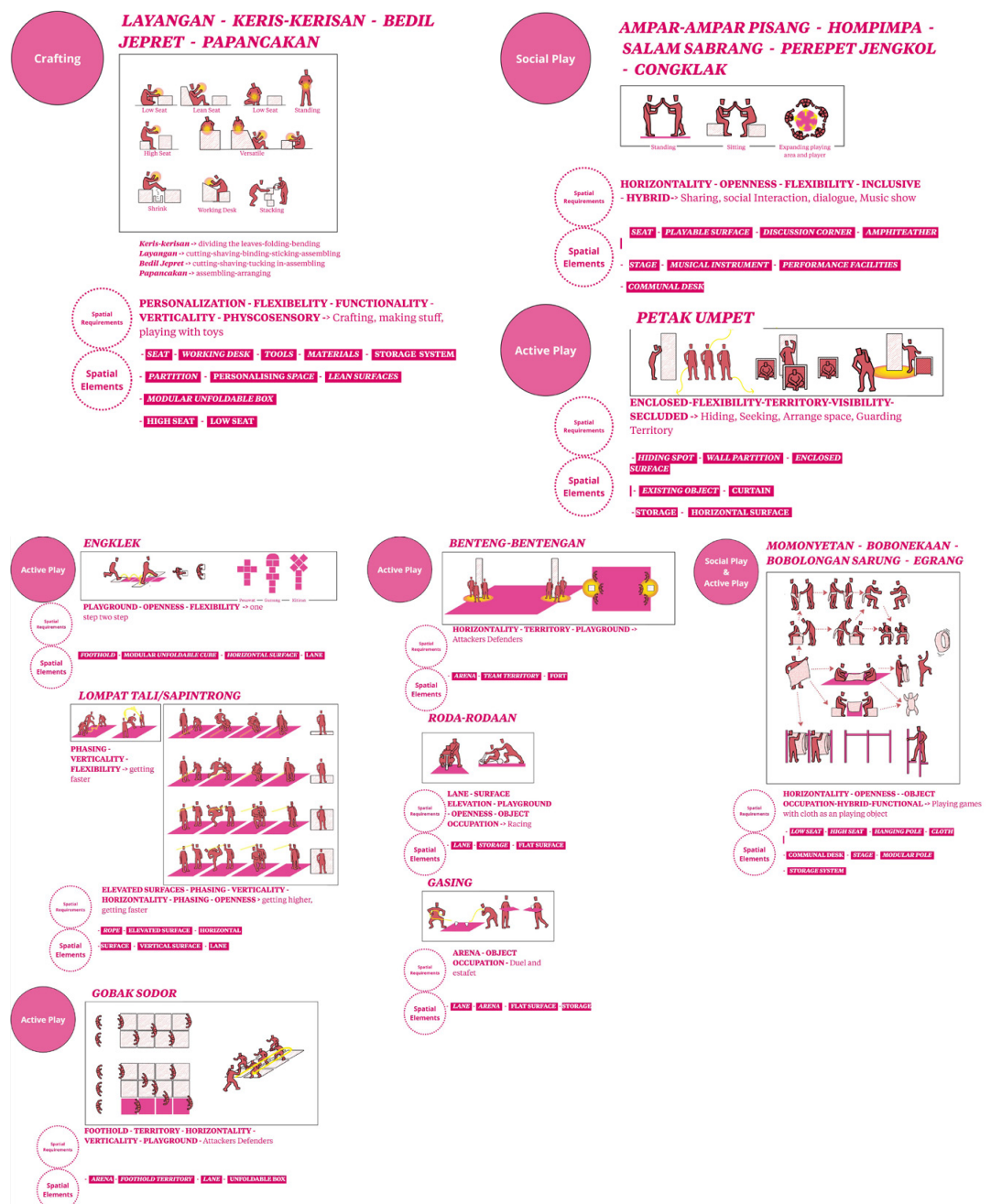

*Figure 4. The Hong community play space patterns (Image by authors)*

The study shows that traditional games can be divided into three kinds of ludic activities: social, crafting, and active play. Figure 5 addresses the spatial qualities of each type of game and the spatial elements used. The study dismantles these elements through reading body movements, the medium used to carry out the activity, and the sequence of activities performed. Figure 5 show the crafting play activities consist of making toys or crafts that are used to play the game, requiring a medium such as a table to sit on, and storing materials for making toys. In the social play activities, the game is played in groups and done while standing or sitting. The space of play needs to accommodate the dynamic number of players, which may be added alongside the increasing difficulty of the games.

Figure 5. Reading the spatial qualities and requirements of the craft, social, and active play activities of the Hong community (Images by authors)

Crafting

LAYANGAN - KERIS-KERISAN - BEDIL JEPRET - PAPANCAKAN

Low Seat | Lean Seat | Low Seat | Standing
High Seat | Versatile
Shrink | Working Desk | Stacking

Keris-kerisan -> dividing the leaves-folding-bending
Layangan -> cutting-shaving-binding-sticking-assembling
Bedil Jepret -> cutting-shaving-tucking in-assembling
Papancakan -> assembling-arranging

Spatial Requirements
PERSONALIZATION - FLEXIBELITY - FUNCTIONALITY - VERTICALITY - PHYSCOSENSORY -> Crafting, making stuff, playing with toys

Spatial Elements
- SEAT - WORKING DESK - TOOLS - MATERIALS - STORAGE SYSTEM
- PARTITION - PERSONALISING SPACE - LEAN SURFACES
- MODULAR UNFOLDABLE BOX
- HIGH SEAT - LOW SEAT

Social Play

AMPAR-AMPAR PISANG - HOMPIMPA - SALAM SABRANG - PEREPET JENGKOL - CONGKLAK

Standing | Sitting | Expanding playing area and player

Spatial Requirements
HORIZONTALITY - OPENNESS - FLEXIBILITY - INCLUSIVE - HYBRID-> Sharing, social Interaction, dialogue, Music show

Spatial Elements
- SEAT - PLAYABLE SURFACE - DISCUSSION CORNER - AMPHITEATHER
- STAGE - MUSICAL INSTRUMENT - PERFORMANCE FACILITIES
- COMMUNAL DESK

Active Play

PETAK UMPET

ENCLOSED-FLEXIBILITY-TERRITORY-VISIBILITY-SECLUDED -> Hiding, Seeking, Arrange space, Guarding Territory

Spatial Requirements

Spatial Elements
- HIDING SPOT - WALL PARTITION - ENCLOSED SURFACE
- EXISTING OBJECT - CURTAIN
- STORAGE - HORIZONTAL SURFACE

Active Play

ENGKLEK

PLAYGROUND - OPENNESS - FLEXIBILITY -> one step two step

Spatial Requirements

Spatial Elements
- FOOTHOLD - MODULAR UNFOLDABLE CUBE - HORIZONTAL SURFACE - LANE

LOMPAT TALI/SAPINTRONG

PHASING - VERTICALITY - FLEXIBILITY -> getting faster

Spatial Requirements

Spatial Elements
ELEVATED SURFACES - PHASING - VERTICALITY - HORIZONTALITY - PHASING - OPENNESS -> getting higher, getting faster
- ROPE - ELEVATED SURFACE - HORIZONTAL SURFACE - VERTICAL SURFACE - LANE

Active Play

GOBAK SODOR

FOOTHOLD - TERRITORY - HORIZONTALITY - VERTICALITY - PLAYGROUND - Attackers Defenders

Spatial Requirements

Spatial Elements
- ARENA - FOOTHOLD TERRITORY - LANE - UNFOLDABLE BOX

Active Play

BENTENG-BENTENGAN

HORIZONTALITY - TERRITORY - PLAYGROUND -> Attackers Defenders

Spatial Requirements

Spatial Elements
- ARENA - TEAM TERRITORY - FORT

RODA-RODAAN

LANE - SURFACE ELEVATION - PLAYGROUND - OPENNESS - OBJECT OCCUPATION -> Racing

Spatial Requirements

Spatial Elements
- LANE - STORAGE - FLAT SURFACE

GASING

ARENA - OBJECT OCCUPATION - Duel and estafet

Spatial Requirements

Spatial Elements
- LANE - ARENA - FLAT SURFACE - STORAGE

Social Play & Active Play

MOMONYETAN - BOBONEKAAN - BOBOLONGAN SARUNG - EGRANG

HORIZONTALITY - OPENNESS - OBJECT OCCUPATION-HYBRID-FUNCTIONAL -> Playing games with cloth as an playing object

Spatial Requirements

Spatial Elements
- LOW SEAT - HIGH SEAT - HANGING POLE - CLOTH
- COMMUNAL DESK - STAGE - MODULAR POLE
- STORAGE SYSTEM

Muhammad Amir Akram, Arnis Rochma Harani, Syahrul Nizam Kamaruzzaman

Active play activities require active body movement in an open arena marked by chalk, poles, stones, or objects such as tires or wheels that are agreed upon as boundaries. Of these three types of ludic activities, the study highlights that basic spatial elements are repeated in each game and ludic activity. The play process activates the surface both vertically and horizontally, while various objects are used to accommodate the play activity, comprising the cloth, pole, rope, and volumetric surface such as a seat or a desk. These objects and surfaces exist repetitively in the play process, activating the magic circle as the interiority of a playful space (Figure 6).
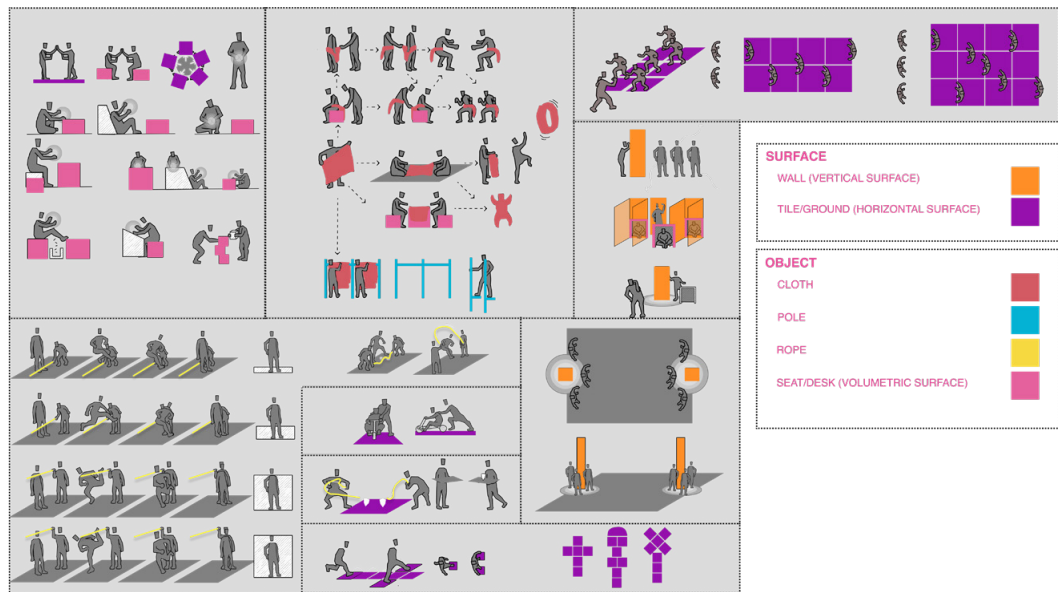
Programming the magic circle: A playful urban interior design scenario

The previous section has demonstrated how traditional games create a representation of space that changes the urban space from a space for people doing their ordinary daily activities into an escape for fun. The traditional games produce space from cultural practice and social practices, which recreate the urban space (Figure 7). To achieve this idea of playful space, in designing, this study proposes three separate spaces: the ludic space, the crafting space, and the immersive preservation space.
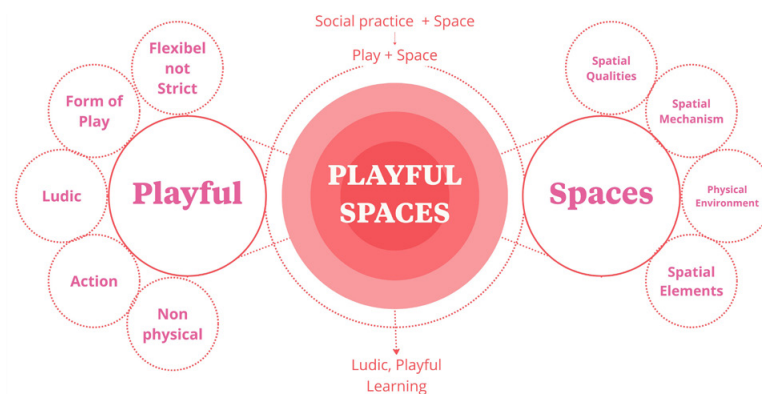
Figure 7. Assembling the playful interior space (Image by authors)

Each space has the specific spatial quality of a playful space, obtained from the basis of reading, the repetitive traditional game elements. These spatial qualities are constructed from eight forms of spatialities, from Collective, Seclusive, Encounters, Fluidity, Playground, Arrangement, Visual Cue, and Kinesthetic (Figure 8). Figure 8 also highlights how this spatiality is created from multiple spatial elements in the play-event observation. Figure 9 further explains how each playful space type is created by superpositioning these spatialities.
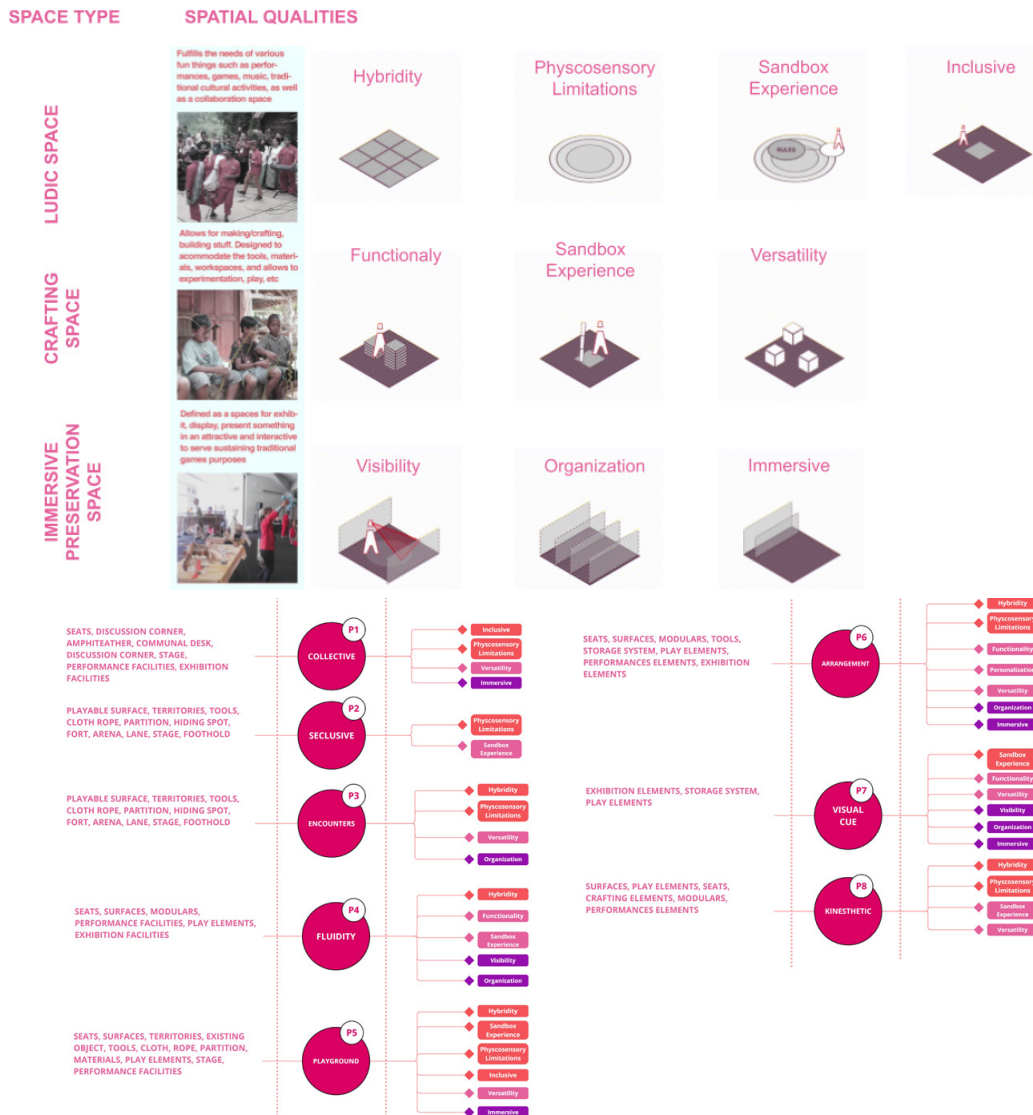
Figure 8. Playful space qualities and their superpositions (Images by authors)

The study further applies the playful space magic circle program through urban furniture intervention, dissecting the traditional games' spatial elements, and proposing new interior elements. The interior elements consist of play blocks and tiles, poles and ropes, as well as wall partitions (Figure 10). The form and the arrangements of these elements are based on the immaterial reading of the play process, the spatial boundaries and the body movements when playing. The study is followed by programming the interior system that integrates multiple playful space types of the magic circle (Figure 11).
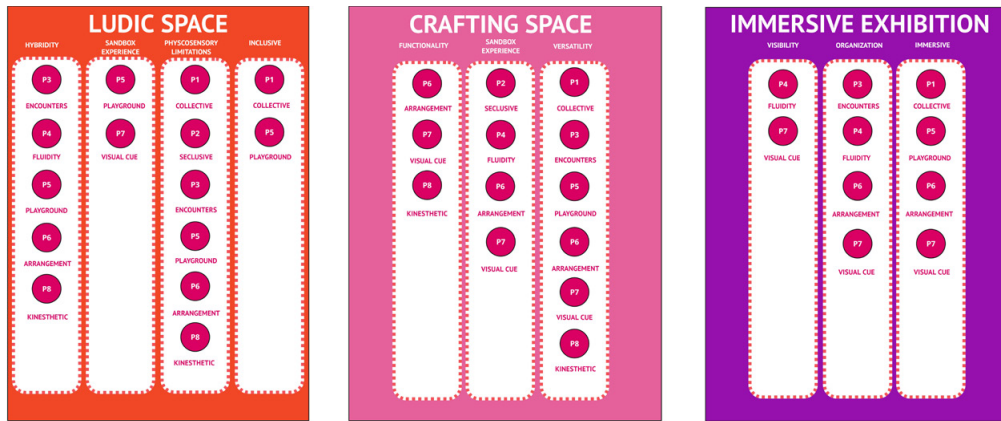
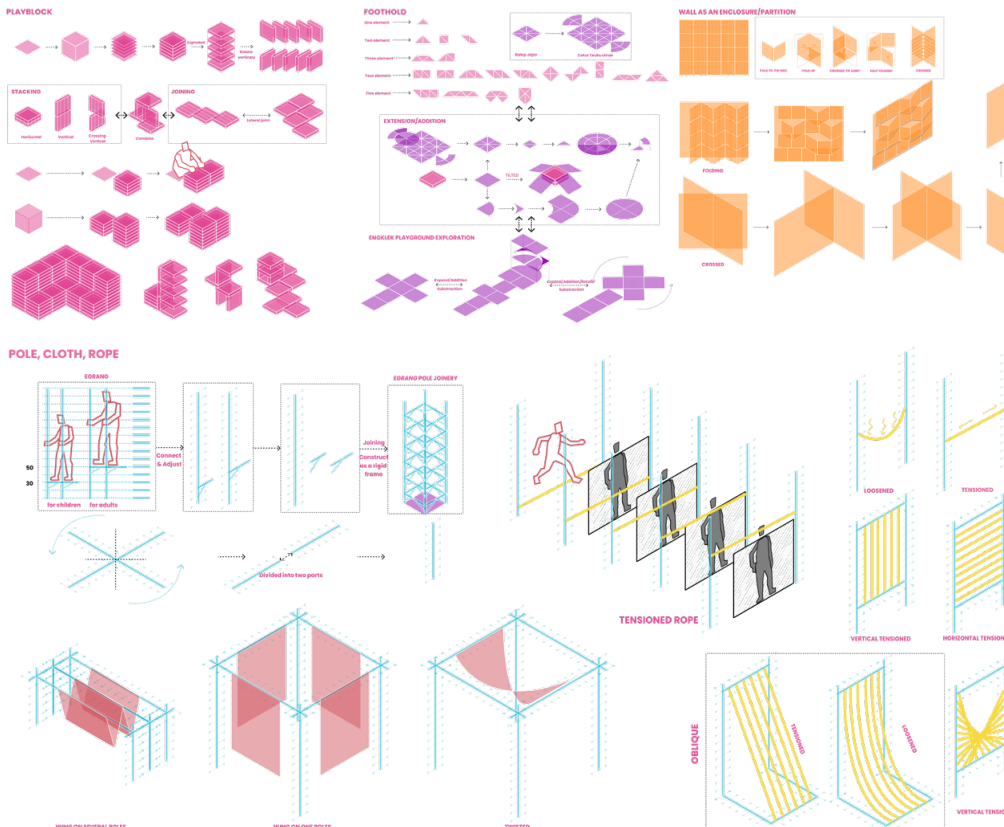*Figure 9. Playful space types and the superpositions of its qualities (Image by authors)*

Figure 10. Interior elements of the magic circle (Images by authors)

Figure 11 illustrates how objects have been explored using rules from traditional games. The form of elements involved in traditional games can be traced through shapes, dimensions, and materials inherent in each game. A catalog of these elements is compiled and arranged according to the arrangement of space and the formation of space during the game. Boundaries, obstacles, footholds, and play tools are some of the elements that are involved. There are various forms of play tools and tangible and intangible boundaries depicted in the picture, as well as soft and hard obstacles. The results of the exploration are then used to program the playspace by the rules and elements involved. Urban interior programming involves the arrangement of interior elements that create tangible as well as intangible boundaries. Furthermore, the programming of play space in urban areas allows the inclusion of elements that are insideness,

namely materiality. Playspace programming, for example, uses soft materials to construct walls that are usually rigid, solid, and permanent in the interior of an urban space. As shown in Figure 11, these walls can be disassembled and permanently installed.
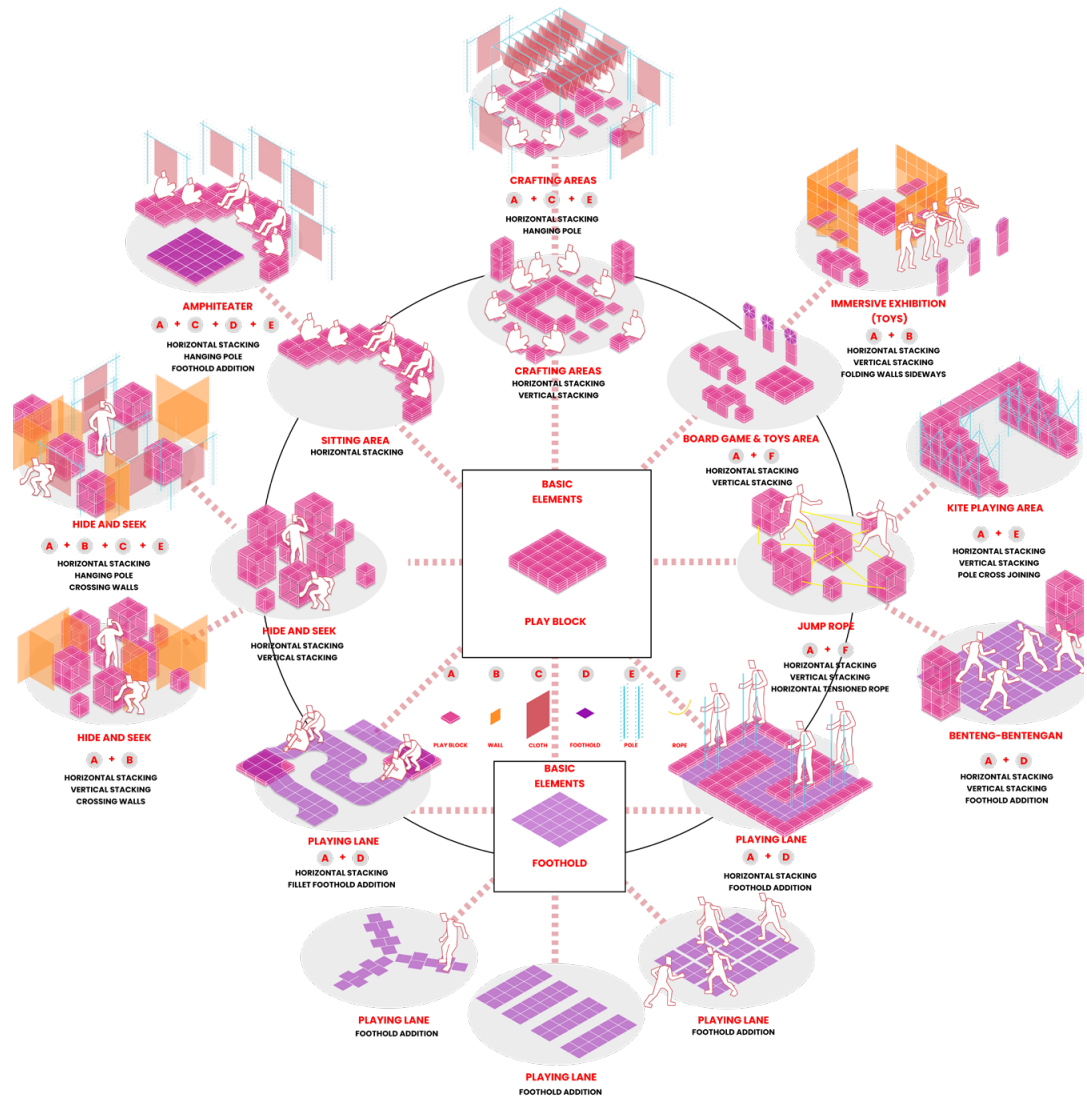
The study is followed by implementing urban playful spaces with their interior elements at the Pekunden Park in Semarang (Figure 12). The study shows potential appropriation of existing urban playgrounds that incorporate disjunct spatialities of traditional play, developing the playful public interior. Figure 12 (left) shows the programmatic arrangement of ludic space, crafting space, and space for immersive exhibition. The design of a city play space can be arranged through the playbook of play objects with stacking and adding mechanisms. This is according to human movement needs when playing games. The stacking mechanism is carried out horizontally and vertically depending on the composition of the space scenarioed for play in urban space. The presence of a playbook allows a play space in urban space to be flexible depending on the available space and the game taking place. Playbooks can be moved to another location,

Figure 11. Programming the interior system of the magic circle within ludic, craft, and immersive playful space (Image by authors)

Muhammad Amir Akram, Arnis Rochma Harani, Syahrul Nizam Kamaruzzaman

and rearranged in another location. This opens up opportunities for more adaptive play spaces in urban spaces.

Meanwhile, the adding mechanism allows play space to be inserted into urban spaces at a limited number of locations. This addition to the urban environment illustrates the existence of a play space program. Adding playbooks to an urban space is based on the essence of the presence of playbooks and is arranged to fill the urban space to present a play area. By arranging playbooks according to context, urban spaces can be improved in terms of environmental quality to be more enjoyable.
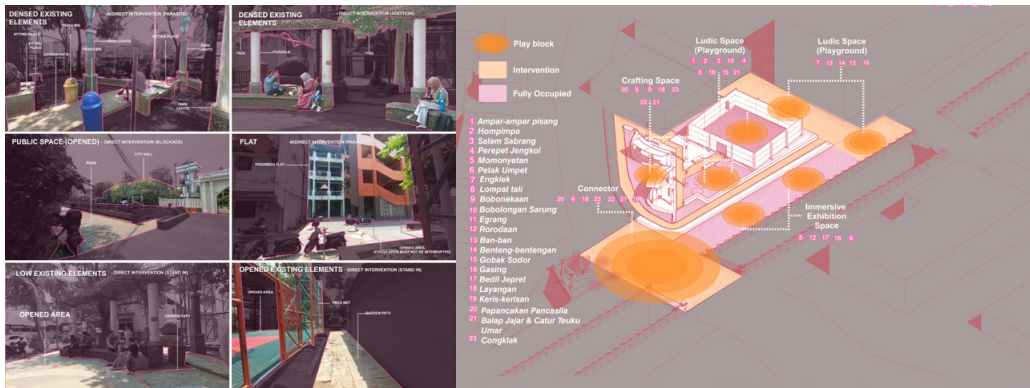
Figure 12. Context analysis and scenario implementation of the playful urban space at Pekunden Park, Semarang (Image by authors)

Conclusion

This design study proposes the magic circle concept as the basis for developing a playful urban interior that accommodates ludic activities (activities involving play). The playful urban interior exists as interventions in existing urban environments that encourage interactions and social connections. The study is informed by how traditional games as social practices occupy and appropriate urban space. By dissecting traditional games' rules, aspects and characteristics, the research identifies immaterial and repetitive elements that can be reinterpreted and reapplied in urban space. The study creates three types of playful space: ludic space, crafting space, and immersive space, with their spatial qualities. The study is followed by creating interior elements of a playful urban interior system, using play blocks and tiles, poles and ropes, as well as wall partitions. This system allows for user participation and flexibility, adapting to the specific needs and desires of the urban actors inhabiting the space. The study facilitates the investigation of traditional games as the basis of developing playful urban interior spaces that are decontextualised and are applicable in multiple locations. This study contributes to the design methodologies of urban interiors by proposing the interior systems of playful urban environments. Such systems foster a more dynamic and interactive urban experience, encouraging social interaction and a sense of community.

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17

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